



UNIVERSITY OF KERALA
കേരള സർവകലാശാല
www.keralauniversity.ac.in

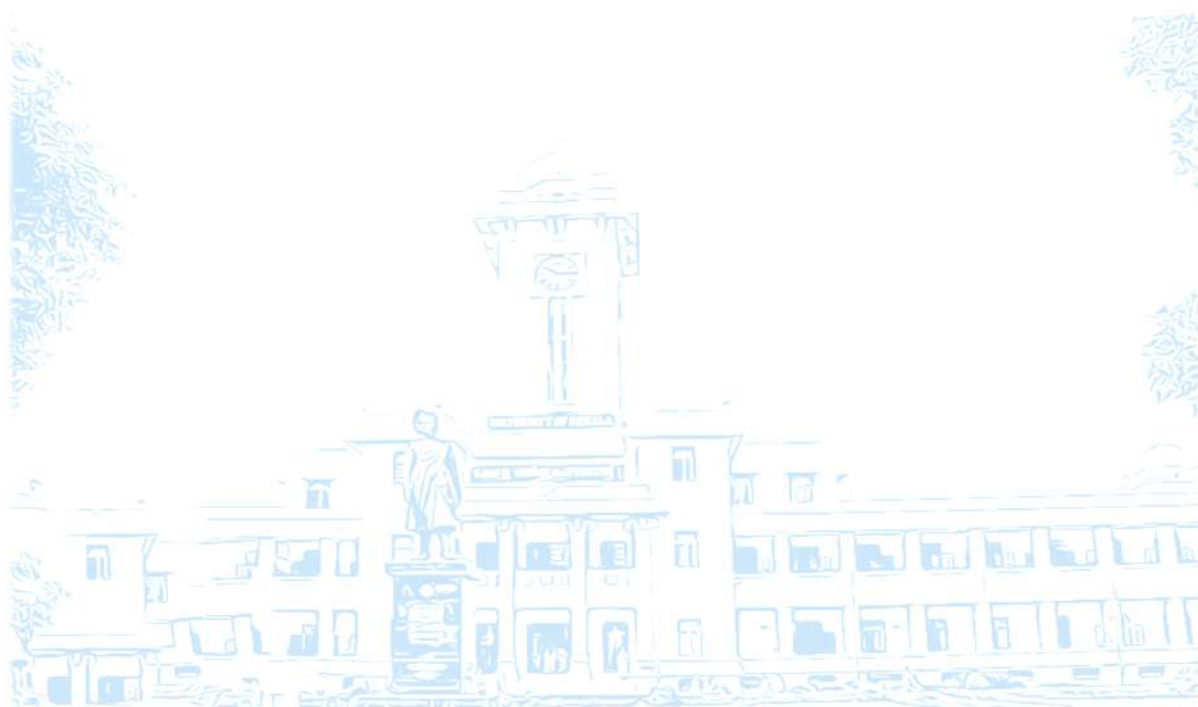
ACADEMIC HANDBOOK FOR POST-GRADUATE STUDENTS

2020



Published by
Internal Quality Assurance Cell (IQAC)
University of Kerala

**ACADEMIC HANDBOOK
FOR POST-GRADUATE STUDENTS
2020**



Published by
INTERNAL QUALITY ASSURANCE CELL (IQAC)
UNIVERSITY OF KERALA

Academic Handbook for Post-Graduate Students 2020

Compiled and Edited by:

Prof. Gabriel Simon Thattil

(Director, IQAC)

Prof A. Biju Kumar

(Vice-Chairman, CSS; Convenor, Publication Committee)

© University of Kerala, 2020

(except for material adopted from public domain).

Publication Committee

Dr. Sony George

Dr. Sindhu Thulaseedharan

Dr. Hepsy Rose Mary A

Dr. Shifa S.

Dr. Bindu R. L.

Dr. Sameer Babu

Published by

Internal Quality Assurance Cell (IQAC),

University of Kerala

Senate House Campus, Palayam

Thiruvananthapuram, Kerala – 695 034

team.iqac@gmail.com | +91 471 2303013 | <http://iqac.keralauniversity.ac.in/>

For Private circulations only

Cover design: Arunkumar V.S., Layout: Biju Kumar

Disclaimer

This is a helpful documentation of information and motivational reading that may be use to students newly admitted to the University of Kerala. While effort has been taken to provide accurate and authentic information, it may be noted that this is not a document which should be relied on as legally undertaken by the University of Kerala. Remarks made are not that of the University of Kerala. The University's stances on all matters are as duly debated and adopted by the University authorities (the Senate, the Academic Council and the Syndicate). For any final confirmation, a formal communication from the University of Kerala may only be relied on.



തിരുവാഴ്ത്ത്

(ഓ.എൻ.വി. കുറുപ്പ്, 1987)

ആരുടെ തിരുമുമ്പിൽ സ്വാതന്ത്ര്യമന്ത്രം ചൊല്ലി
പാരിനെയുണർത്തിയ കവിതൻ പ്രതിരൂപം
'മാറ്റുവിൻ ചട്ടങ്ങളെ'യെന്ന നിർഘോഷത്തിന്റെ
മാറ്റൊലിയെന്നും മൗനഗംഭീരമുണർത്തുന്നു.
ആരുടെ മതിലകം പൂകുന്നു നാടിൻ തരു-
ണാരുണ പ്രതീക്ഷകളാത്മസാഫല്യം തേടി,
ആരുടെ നിത്യാസ്വാസ്ഥ്യം പ്രജയെ നിജകർമ്മ
സാരമിയാക്കി പുത്തൻ രഥ്യകളമ്പേഷിപ്പൂ,
നിത്യയൗവനയാകുമാ വിശ്വകലാശാലാ-
മുത്തശ്ശിക്കൊരു തിരുവാഴ്ത്ത് പാടുക നമ്മൾ!
മലയാൺമ തൻ മാറ് ചുരന്നൊരമൃതവും,
മധുരാക്ഷരമോലുമന്യമാം മൊഴികളും,
മൺതരിയിലെ മഹാകാശവും താരാപഥം
തന്നിലെ സ്വപ്നങ്ങളും തിരയും ശാസ്ത്രങ്ങളും,
ചിന്തകളുരസി നൽകണലായ് പാറും തിരയും
അന്തരംഗത്തിൽ പേറും അമ്മയ്ക്കീ തിരുവാഴ്ത്ത്!

സർവ്വകലാശാല ഗാനം*

(വി. മധുസൂദനൻ നായർ, 1997)

വന്നു തൊഴും മനസുകളിൽ നിന്നെരിയും പൊൻ തിരിയായ്
കർമ്മമെഴും പ്രജകളിൽ നിർമ്മലമാം താമരയായ്
തലമുറയായ് ഒഴുകിവരും മലയാള തെളിനദിയായ്
വജ്ര മണി കതിരണിയും വിജ്ഞാന ശ്രീപദമേ
വാഴുക നീ വാഴുക നീ വിശ്വകലാ നിലയനമേ
വളരുക നീ വളരുക നീ വിശ്വ മഹാഭീപകമേ

*സർവ്വകലാശാല സംഗീത വിഭാഗം 'സരസ്വതി രാഗത്തിൽ ചിട്ടപ്പെടുത്തിയത്.





Vice-Chancellor's Message

The University of Kerala, deemed the mother of all Universities in the state, was founded in 1937. The University of Travancore, later renamed as the University of Kerala, has always striven to be on the right path towards academic excellence and inclusivity. The University of Kerala could establish itself as an institution of repute securing NIRF ranking which placed the University in the 23rd position among Universities in India in 2020. Apart from the legacy that it bears, its contribution towards higher education sector of the state makes this University distinct and significant.

Of late, the University has initiated several novel ventures to improve academic research and infuse social responsibility among students. The CLIF, a central laboratory at the Kariavattom campus, is a unique experiment in this regard. The Harithalayam project spearheaded by the University aims to increase the green cover on campuses, inculcate practical knowledge of agriculture and self-sufficiency among students, and promote paddy cultivation, coconut and vegetable farming, and gardening of trees and rare plant species in the campus. In the wake of COVID-19, the university's expert committee for formulating adequate measures to revamp the education sector has submitted the report. The University has also launched two unique programmes this year, Meet the Scholar and Travel through Nobel Winners.

The University of Kerala, Mother University of the state, is crossing yet another landmark. It will turn 83 years old this year, on 1st November 2020. The University, under the auspices of Internal Quality Assurance Cell (IQAC) and Credit and Semester System (CSS), is bringing out a new edition of "Academic Handbook", in line with the motto "Quality through continuous improvement". I wish that this handbook will help the prospective students, researchers and other stakeholders of the University who will make the best use of the same.

Warm wishes for a productive academic year ahead.

01.11.2020

Prof (Dr.) V.P. Mahadevan Pillai



Contents

A	THE UNIVERSITY SYSTEM	1
A1	Coat of Arms	2
A2	Vision and Mission of University of Kerala	3
A3	Accreditation and Ranking	4
A4	A Profile of the University	5
A5	University Fact Sheet	13
A6	University Authorities and Officers	22
B	DEPARTMENTS OF THE UNIVERSITY	26
B1	List of Departments under various schools	27
B2	Profiles of Departments	28
	SCHOOL OF BUSINESS MANAGEMENT AND LEGAL STUDIES	
1	Department of Commerce	28
2	Department of Law	33
3	Institute of Management in Kerala	36
	SCHOOL OF COMMUNICATION & INFORMATION SCIENCE	
4	Department of Communication & Journalism	40
5	Department of Library and Information Science	43
	SCHOOL OF DISTANCE EDUCATION	47
	SCHOOL OF EARTH SYSTEM SCIENCES	
6	Department of Geology	49
7	Department of Environmental Sciences	52
	SCHOOL OF ENGLISH & FOREIGN LANGUAGES	
8	Department of Arabic	55
9	Department of English	59
10	Department of German	61
11	Department of Russian	64
	SCHOOL OF FINE ARTS	
12	Department of Music	66
	SCHOOL OF INDIAN LANGUAGES	
13	Department of Kerala Studies	69
14	Department of Linguistics	71
15	Department of Hindi	75
16	Department of Malayalam	79
17	Department of Sanskrit	83
18	Department of Tamil	86
19	Oriental Research Institute and Manuscripts Library	90
	SCHOOL OF LIFE SCIENCES	
20	Department of Aquatic Biology & Fisheries	92
21	Department of Biochemistry	96
22	Department of Biotechnology	101
23	Department of Botany	105
24	Department of Zoology	111
	SCHOOL OF PHYSICAL AND MATHEMATICAL SCIENCES	
25	Department of Chemistry	116
26	Department of Demography	120
27	Department of Mathematics	123
28	Department of Physics	127
29	Department of Statistics	133
	SCHOOL OF SOCIAL SCIENCES	
30	Department of Archaeology	136
31	Department of Economics	139

32	Department of Education	141
33	Department of History	144
34	Department of Islamic Studies	147
35	Department of Philosophy	150
36	Department of Political Science	153
37	Department of Psychology	157
38	Department of Sociology	161
	SCHOOL OF TECHNOLOGY	
39	Department of Computer Science	165
40	Department of Computational Biology & Bioinformatics	172
41	Department of Futures Studies	175
42	Department of Nanoscience and Nanotechnology	179
43	Department of Optoelectronics	181
C	RULES AND REGULATIONS	184
C1	About Credit and Semester System	185
C2	CSS Regulations - 2020	191
C3	Fee Schedule	226
C4	Anti-Plagiarism Statement	228
C5	Anti-Ragging Regulations	231
C6	Green Charter	232
D	LEARNING RESOURCES & CENTRAL FACILITIES	233
D1	Kerala University Library System	234
D2	Central Laboratory for Instrumentation and Facilitation (CLIF)	245
E	LEARNING TO LEARN	262
E1	Learning Outcomes-based Curriculum Framework (LOCF)	263
E2	Graduate Attributes of University of Kerala	270
E3	Learning in Higher Education	271
E4	Disciplinary boundaries and beyond...	275
E5	Student Start-up scheme of University of Kerala	278
E6	The University Finishing School	280
E7	University Consultancy Cell (UCC)	282
E8	University Placement Cell	284
E9	Centre for Adult and Continuing Education & Extension	285
E10	MOOC and SWAYAM	286
E11	Internal Quality Assurance Cell (IQAC)	288
F	UNION, WELFARE, SPORTS, ARTS & SERVICE	292
F1	Students Union	293
F2	Kerala University Youth Festival	294
4F3	Physical Education	299
F4	National Service Scheme (NSS)	314
F5	Student Welfare: Insurance	319
F6	Student Welfare: Medical Service	323
F7	University Merit Scholarships for Masters Students	324
F8	Hostel Facility	326
G	OUR CAMPUS	327
G1	Snapshots of history of our Campus Locality	328
G2	Geology of our Kariavattom Campus	333
G3	Harithalayam Project	341
G4	Faunal Diversity of Kerala University Campus, Kariavattom	345
H	APPENDIX	349
H1	Academic Calendar	350
H2	Special Information for Non-Kerala/Foreign Students	359





PART A: THE UNIVERSITY SYSTEM

Coat of Arms

Vision and Mission

Accreditation & Ranking

Profile of the University

University Fact Sheet

University Authorities and Officers

“The end-product of education should be a free creative man, who can battle against historical circumstances and adversities of nature”.

– Sarvepalli Radhakrishnan

A1. Coat of Arms



The conch shell was the national emblem of erstwhile state of Travancore. The traditional book stand with palm leaf manuscript on it, symbolizes scholarship. Both are portrayed inside a lotus.

The motto drawn from ‘Panchathantra’ (a Buddhist work) reads “Karmani Vyajyathe Prajna” which roughly translates to “Wisdom manifests in action”.

The stanza is

***“Manthrinaam Bhinna Sandhaane,
Bhishajaam Saannipaathike,
Karmani Vyajyathe Prajna,
Swasthe Ko Va Na Panditha”***



A2. Vision and Mission of University of Kerala

Vision

The University of Kerala aims at fostering scholarship which is independent, critical, innovative, inclusive and emancipatory in a manner that it contributes to the intellectual, cultural, social and economic development of the individual and the society.

Mission

Towards achieving the vision, the University shall continuously:

- Design, implement, and review and revise schemes for promoting innovation
- Strengthen its policies for ensuring inclusiveness to ensure equity and access to education for all
- Focus teaching and research in inter-disciplinary and multi-disciplinary areas with a view to promote economic vitality, environmental sustainability, and quality of life in Kerala and beyond
- Adopt, promote and disseminate eco-friendly practices
- Ensure world class infrastructure, equipped with latest technologies
- Promote transparency, social accountability and democratic practices in its functioning
- Bestow its attention on cutting edge sciences, technologies and humanities
- Strengthen its social relevance by tuning teaching and research to suit local and global social needs
- Initiate pedagogic reforms in tune with technology and times
- Develop human potential to its extreme extent for the creation of intellectually talented and imaginatively gifted leaders, who are locally oriented and globally competent
- Promote reciprocal linkages with local and global industries and also with the rest of the world
- Facilitate transformation of the University as a favourite destination for niche areas of its focus
- Facilitate, promote and disseminate critical reason in all disciplines for the rationalization and emancipation of humanity
- Define and refine working definitions of quality, excellence and access based on universal principles
- Re-engineer its administrative system and practice to suit the vision
- Encourage all stakeholders of the University to constantly evolve a code of conduct to achieve the vision
- Facilitate measures to ensure that knowledge leads to practice, thus realizing the motto of the University, 'Karmani Vyajyate Prajna' (Wisdom emerges through action).



A3. Accreditation and Ranking

The University of Kerala presently exists under The Kerala University Act (Act 17 of 1974).

The University of Kerala is recognised by U.G.C. under Sections 2(f) and 12(b).

The University of Kerala is Re-accredited by NAAC in 2015 with 'A' Grade (highest grade) with G.P.A of 3.03, up to 02.03.2020.

The University of Kerala is ranked 23rd among Indian Universities by the National Institutional Ranking Framework (NIRF) of MHRD, Govt. of India, 2020, this is the highest rank of any University in Kerala. Also ranked 22nd in 2019, 30th in 2018 and 29th in 2017.

The University of Kerala was ranked first (in 2015) and second (in 2016) in the Chancellor's Award for best University in the State of Kerala.

The University of Kerala was included in the "Top 25 Universities in India Survey 2019" conducted by the Higher Education Review Magazine.

The University of Kerala was ranked at 49th position among Universities in the country by QS India Ranking 2020.



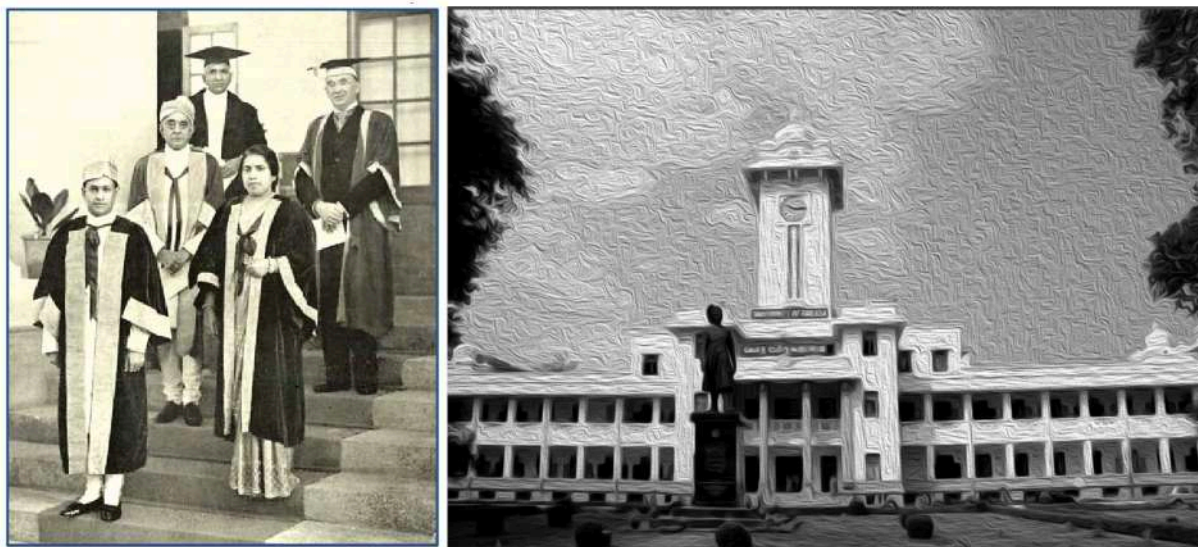
A4. A Profile of the University

1. Genesis

One of the first 16 Universities in India, the University of Kerala was founded as the University of Travancore in the erstwhile princely state of Travancore (now southern part of Kerala) in 1937. Dr. C. P Ramaswamy Iyer was the founder Vice-chancellor. Since then, the University of Kerala has transformed itself in many ways. The earliest origins of the University may be traced back to two institutions of modern learning in Kerala, the University College Thiruvananthapuram and the Trivandrum Observatory. The University was modelled after the best Universities of the United Kingdom, and even today retains some of these features. The affiliating system of the University, however, evolved to be different from the college system in British Universities. The objective of the University was to effect re-organization of the system of education in the state so as to develop technical, technological education and research in applied science, in addition to promoting Kerala Art and Culture. The Logo of the University depicts a lotus with a conch shell (a symbol of erstwhile state of Travancore) and a traditional book stand with palm leaf manuscript on it, symbolizing scholarship.

In 1956, the unified state of Kerala came into being. The Kerala University Act was brought into force in 1957 and the University of Travancore was renamed University of Kerala (a name which was considered even in 1937) with jurisdiction all over the state of Kerala. The 1957 Act conferred a large measure of autonomy to the University and made its administrative bodies more broad-based. In 1974, the University Act was modified again and presently the University exists under this act.

University of Kerala is today known as the “Mother University” of the state, as almost all the other Universities in the state were created by either bifurcating it or re-affiliating its affiliated colleges. These developments have shrunk the jurisdiction of the University of Kerala to Thiruvananthapuram, Kollam, Alappuzha districts and some parts of Pathanamthitta district.

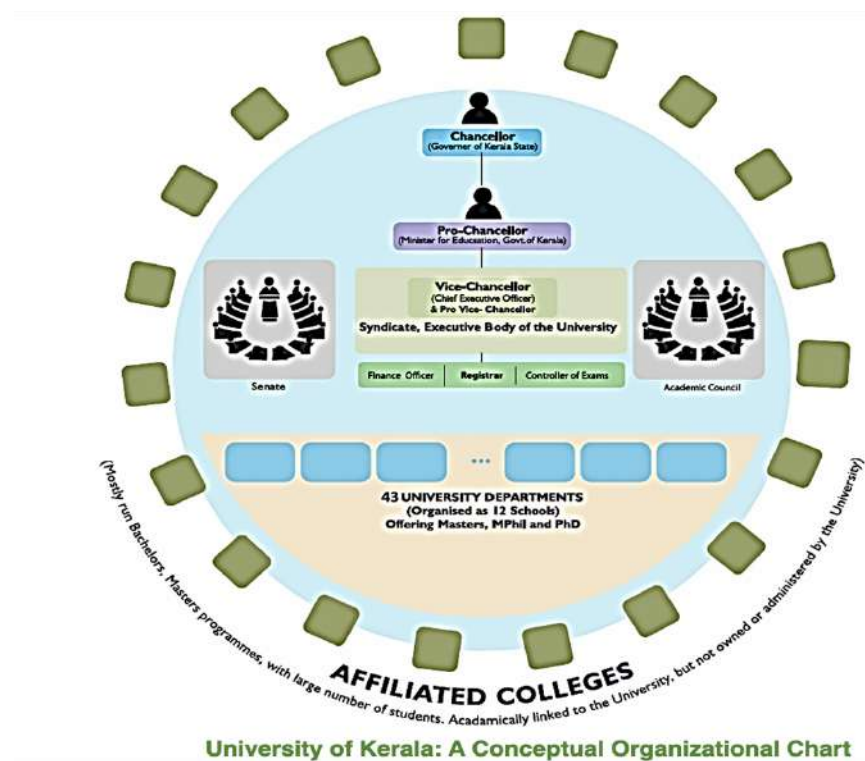


The Founder Chancellor along with Pro-Chancellor, VC, PVC and Registrar (in 1937)



2. Administration

The Vice-Chancellor, appointed by the Governor of Kerala, is the Chief Executive Officer of the University. The Pro-Vice-Chancellor assists the Vice-Chancellor. The Registrar is the administrative head of the University. The University has three important representative bodies. The **Senate** and the **Academic Council**, two large bodies with wide-based representation, are the supreme bodies on general policy matters and academic matters respectively. The Senate, “the Supreme Authority of the University”, which is reconstituted every four years, has 117 members (24 ex-officio, 78 elected and 15 nominated). It



represents a cross section of the society, with its members drawn from different walks of social life. The Academic Council is the supreme academic body of the University. It is also a large body like the Senate, with its members drawn from different spheres of academic spectrum. The Academic Council has the power to make regulations and to advise the

Senate and the Syndicate on all academic matters, to prescribe programmes of studies in the University, to prescribe the qualifications of teachers, to make provision for the

admission of students to the various programmes etc. The **Syndicate**, the chief executive body of the University, has a strength of 25 (including the Vice-Chancellor, the Pro-Vice-Chancellor, the Secretary to Govt. (Higher Education), the Secretary to Govt. (IT Dept.), the Director of Public Instruction, the Director of Collegiate Education, twelve elected members, one elected student member, six nominated members, including one nominated by KSHEC). The Syndicate, which meets ordinarily once in a month, has executive powers including the general superintendence and control over the institutions of the University. See Appendix for a maximum detailed description of the Legal Framework of the University.

Teaching and Research

The University of Kerala has its own departments of teaching and research (housed in University campuses) and also affiliates a number of colleges, spread over four southern districts of the state. The **forty-three departments** of teaching and research are organized as nine schools, and most of them are housed in the Karyavattom campus. Teaching, research and knowledge extension are the mandates of the departments. They primarily focus on **post-graduate (masters) programmes**, **MPhil programmes** (1-year research degree started in 1973) and **doctoral (PhD) programmes** and **post-doctoral programmes**. Affiliated colleges run large number of bachelor's programmes and lesser number of masters and doctoral programmes. University's research activities are also going on in select affiliated colleges and other recognized research centres. The total number of fulltime students in the University departments is about 2785, including research students.

The University has also established 10 University Colleges of Teacher Education (KUCTE) and 17 University Institute of Technology (UIT), both of which offer undergraduate programmes (B.Ed. in UTECs and BSc (Computer Science/IT/Electronics) and BBA in UITs), although masters programmes are available in select UITs. The University College of Engineering at Karyavattom offers Engineering education at Undergraduate level. These institutions together have student strength of more than 6000. The Institute of Distance Education has student strength of approximately 30,000, which is spread across the country.

The University has over 150 affiliated colleges with an enrolment of over 1,30,000. Thirty-two colleges offer Post Graduate teaching programmes. Only one of the affiliated colleges offer M.Phil programmes and some have been recognized as research centres.

In addition to the departments of teaching, the University also has several centres for studies and research in specialized areas. Some of these centres have taught programmes (Certificate/Diploma/Masters/MPhil). The University has also instituted three chairs: Dr. B. R. Ambedkar Chair, Mahathma Ayyankali Chair and V. K. Sukumaran Nair Chair.

3. Campuses

The University of Kerala has two major campuses, the largest being the Kariavattom Campus, 12km from the city Centre. The Palayam/Senate Hall Campus is right in the middle of the city. Depts. of Music and Education, the University Stadium, the Student Centre, International Youth hostel, the Centre for Continuing Education, and



Aakkulam campus are in separate locations in the city, all quite close to the Palayam Campus. The Palayam Campus (housing the heritage building of the Travancore University) has mainly the administrative office of the University, including the Vice-Chancellor's, Pro-Vice-Chancellor's and Registrar's office. The majestic Senate Hall with a seating capacity of 1352 seats in ground floor and 300 seats in balcony is housed in the middle of the campus. In addition to the office of the Controller of Examinations and Computer Centre, the Palayam Campus also houses the departments of English, German & Russian, and the School of Distance Education and Student Amenities Centre.

Thirty-eight departments are situated in the Karyavattom Campus. This sprawling green campus (359 acres) is close to Kazhakuttom, on the National Highway 47, towards north.

The famous Trivandrum Technopark is adjacent to the University Campus.

4. Student Empowerment

The University of Kerala is well known for empowering its students. The University Union is an active presence in the University life since 1939. The **University Union**, **Department's Union**, and **Researcher's Union** are all forums that are established through democratic process and positions in these forums are fiercely competed for. Elected student representatives have membership in supreme bodies of the University such as Senate, Academic Council and also Syndicate, the executive committee of the University (Student representation in Syndicate was given for the first time in India, by University of Kerala, in 1977). The Co-ordinator of the **National Service Scheme (NSS)** Programme and the Director of the Student Services organize youth welfare activities with the active co-operation of the Unions. The graduate attributes envisaged by University of Kerala is articulated visually through a creative video.

The **gender profile** of the students in the University reveals a unique picture: 77% of post graduate and 78% of MPhil students in University departments are women. 64% of research scholars are women. UG students in affiliated colleges also have 56% of women. Out of 477 PhDs awarded in 2019, 67% were awarded to women.

5. Institutions

(i) **Oriental Research Institute and Manuscript Library, Karyavattom:** Established in 1904, is a treasure trove of Indian culture. The library has over 65,000 works in 30,000 copies mainly of palm leaf manuscripts, in addition to paper manuscripts, copper plates, birch bark and textiles. The manuscript collection also includes those belonging to Burma, Malaysia, Indonesia, Nepal etc. This can be rated as one of the "must see" libraries of the world.

(ii) **Kerala University Library System:** The University library system has over 8 lakhs books. The University has a Central Library (Kerala University Library-KUL) near its city campus and caters to the knowledge quest of all students, staff and public. In addition to KUL (3,30,000 books) Karyavattom campus has a Campus Library. Department libraries (above 5,00,000 books) and College libraries (each with 20,000 – 1,00,000 books) provide information service to students. It has rare books and bibliographies in its collection.



(iii) **The University Computer Centre:** The centre has a history of over half a century (dating back to the use of a Czech made electro-mechanical computer “Arithma” in 1950s and Core-Memory based IBM-1620 computer and Indian made TDC 316 in 1970s) and, today spearheads the University's e-Governance initiatives. Computing support for research is no longer centralized, thanks to the advent of affordable desk-top computing power. The University's Academic campus in Karyavattom is firmly connected to the cyber highway with broad-band connection flowing into over 2000 computers. The entire campus network is being upgraded to 10 GBPS optical fibre connection. State of the art digital studio is coming up in the campus for recording/developing video lectures, with sound proof lecture hall, video editing, speech to text conversion etc.

The University web site has also evolved since 2000 to become an indispensable cyber forum that connects the university community and serves information to all stake holders. The web site offers on-line admission portal and PhD portal and is one of the most visited sites of the state, in public domain. University also has an official email system.



The University also judiciously uses technology in many ways to serve academics & governance including systems such as 24-hour digital camera surveillance, over 100 digital security features in Hologram affixed degree certificates, digitization of archival records, online admission for both University teaching Departments and affiliated colleges, online grievance redressal system etc.

(iv) The Department of Publications: One of the oldest departments of the University, has brought out several noteworthy publications including *Saraswathi Kantabharanam*, a treatise on Sanskrit Grammar, the five volumes of *Kerala Sahitya Charithram* by Mahakavi Ulloor S. Parameswara Ayyar and *Sahitya Nayakanmar* (Men of Letters) Series, *Chitra Ramayana*, based on palm-leaf manuscripts. The University has also published the first ever complete English and Malayalam translation of *Hortus Malabaricus*, the classical treatise on the plant wealth of Kerala (which have been inspiration to world renowned Botanist Carl Linnaeus). The first e-Book, *Swathi Thirunal's 'Bhakthi Manajari'* was published in 2013. The department publishes around 20 books per year.

(v) The UGC-Human Resource Development Centre: The centre of University of Kerala (formerly Academic Staff College) was set up with the aid of UGC in 1987, offers specially designed in-service courses like orientation programmes, refresher courses and short-term courses for teachers of universities and colleges across the country for capacity enhancement and knowledge upgradation. So far 660 courses have been conducted and 23,767 teachers have been trained through these programmes. This HRDC is adjudged as the top-ranking institution in the country for the last ten years in the matter of largest number of courses conducted and high number of candidates participated.

(vi) The Centre for Adult & Continuing Education (CACEE) aims at “further education” of the educated for which it received UNESCO – NLM Award. The centre offers a wide variety of courses in collaboration with other agencies to further continuing education.

(vii) Malayalam Lexicon is one of the largest and greatest dictionaries in modern Indian languages. The Lexicon department of the University has published nine volumes of the Lexicon by 2015, running to nearly 9000 pages, in an effort spanning half a century.

(viii) Central Laboratory for Instrumentation and Facilitation (CLIF) is a state-of-the-art scientific instrumentation centre and computation facility which has been set up in the Karyavattom campus in 2015-2016. Currently the centre hosts major instruments to carry out research in science, applied science and technology.

(ix) Kerala University Teaching and Business Start-Up Centre (KU-TBSC): It promotes student's startups in campus. Started in 2006 as Industry Incubation Centre, one company was started in the same year in the campus. Presently, many start-ups have been sanctioned.

6. Academic System

The University has a 3-tier academic system. Each subject of study has a Board of Studies to design syllabus and propose action on all academic matters. Group of related subjects are grouped together and defined as a faculty. The University has **16 faculties**. Finally, Academic Council is the supreme academic body. The University follows the Choice based credit and semester system for all post-graduate (masters) programmes and under-graduate (bachelors) level. Semesters typically fall during the months of August-January and February-July. Masters programmes are typically of two-year duration and



have four semesters with 5 to 6 courses offered each semester. The final semester has a project and thesis requirement. MPhil programmes are post-masters research degree, offered under credit and semester system since 2016.

7. Programmes Offered

Post-Graduate Programmes

M.A.: Arabic Language and Literature, Archaeology; Economics; English Language and Literature; German Language and Literature; Hindi Language and Literature; History; Islamic History; Linguistics; Malayalam Language and Literature; Malayalam Literature, Kerala Studies and Media Studies; Music; Philosophy; Political Science; Politics, International Relations & Diplomacy; Russian Language and Literature; Public Administration; Sanskrit General Language and Literature; Sociology; Tamil; West Asian Studies.

M.Sc.: Actuarial Science; Applied Psychology; Applied Statistics and Data Analytics; Aquatic Biology and Fisheries; Biochemistry; Biodiversity Conservation; Biotechnology; Computational Biology; Chemistry; Chemistry (Specialization in Renewable Energy); Computer Science; Computer Science with specialization in Artificial Intelligence; Demography and Biostatistics; Environmental Sciences; Genetics & Plant Breeding; Geology; Integrative Biology (Zoology); Mathematics; Mathematics with specialisation in Finance and Computation; Physics (Specialization in Electronics), Physics (Specialization in Renewable Energy), Physics (Specialization in Space Physics); Psychology; Statistics, Zoology (Pure & Applied).

LLM: Law

M.C.J.

M.Com: Finance and Accounting; Global Business Operations; Rural Management

M.Ed.

MLISc.: Library and Information Science

M.Tech.: Computer Science (with Specialization in Digital Image Computing); Technology Management (Futures Studies); Electronics and Communication (Optoelectronics and Optical Communication):

MBA: General; Travel and Tourism

MSW: Sociology

PhD: All Departments

Certificate & Diploma Programmes

Dept. of Law: Certificate in Human Rights and Duty Education; P.G. Diploma in Human Rights; P.G. Diploma in medical law ethics & Human Rights. **Dept. of German:** Certificate course in German; Diploma in German **Dept. of Russian:** Certificate course in Russian; Diploma in German; Integrated diploma in Russian; Advanced Diploma in Russian translation. **Dept. of Arabic:** Certificate Course in Communicative Arabic (Offline & Online), Diploma in Communicative Arabic (Offline & Online), Certificate Course in Arabic Typing. **Dept. of Biotechnology:** P.G.



Diploma in Molecular Diagnostics **Dept. of Future Studies:** P.G. Diploma in Knowledge Management. **Dept. of Psychology:** P.G. Diploma in Psychological Counselling. **IU- CGIST:** P.G. Diploma in Geo- Information Science & Technology; **IUCGGT, Dept of Biotechnology:** PG Diploma Course in 'Molecular diagnostics; **CACEE:** Certificate Course in Library and Information Science; Diploma in Computer Application; Certificate Course in Computerized Accounting; Certificate Course in Yoga and Meditation; P.G. Certificate in Counselling; P.G. Diploma in Yoga Therapy; Certificate Course in Health and Sanitation; Certificate Course in TV News Reading and Compering; P.G. Diploma in Counselling Psychology; Certificate Course in Communicative English and Public Speaking.

Distance Education Programmes

Humanities, Science and Commerce Programmes: **MA:** Economics, History, Political Science, Public Administration, Sociology; **M.Com:** Commerce; **M. Sc:** Mathematics; **BA:** Economics, History, Mathematics, Political Science, Sociology; **B.Com:** B.Com, co-operation **Language and Literature Programmes:** **MA:** English, Hindi, Malayalam; **BA:** English, Malayalam **Library Science Programmes:** Bachelor of Library and Information Science (BLISc). Master of Library and Information Science (BLISc) **IT Programmes:** **M.Sc.:** Computer Science; **B.Sc.:** Computer Science; BCA; B.Com with Computer Applications

8. Miscellaneous

University has had among its faculty's eminent scholars who were trained under legendary figures: Sir C. V. Raman's student in Department of Physics, Hans J. Eysenk's (German Psychologist) student in Psychology, Prof. S. R. Ranganathan's student in Library Science, Pearson's student in Statistics and Prof Benjamin Bloom's student in Education. Some of the faculty members themselves were legends, such as famous poet K. Ayyappa Panicker, Oriental scholar T. Ganapathi Sasthri and Padmasree N. Balakrishnan Nair, among others. Many eminent scholars led this University as Vice Chancellors: Sir. C. P. Ramaswamy Iyer, Sir Harold Papworth, Prof. A. Aiyyappan, Prof. R. S. Krishnan, Prof. J. V. Vilanilam, Dr. B. Ekbal and Prof. A. Jayakrishnan, among others.

The University of Kerala celebrated its silver jubilee in 1962, golden jubilee in 1987, diamond jubilee in 1997, and Platinum Jubilee, in 2012.

The University has an active **Internal Quality Assurance Cell (IQAC)** that continuously monitors and analyses quality aspects and designs microscopic initiatives to enhance quality. The University has Start-up scheme since 2006 and presently the "**Kerala University Technology and Business Start-up Centre**" nurtures student Start-ups.

The **University Consultancy Cell** coordinates the consultancy services offered by various University Departments. Services include routine ones such as water quality testing, Arabic Translation etc to testing using sophisticated instruments and development of software. University has an Innovation Council to promote innovation and it conducts activities such as 'innovation contests, ideathons, grand challenges etc.



University has a **Research Council** and a Director of Research. The research contributions of University of Kerala is one of the top among the other universities in the state. Over the last five years, the researchers in University of Kerala published over 1,400 research papers in SCOPUS indexed journals, with an average h-index of 31.

The University regularly honours scholars and eminent personalities by conferring honorary degrees. In the past it had conferred honorary degrees on Thakazhi Sivasankara Pillai, Chemmangudi SreenivasaIyer, Prof. Ilya Progogine, Sri. M.P. Appan, Sri. Suranad Kunjan Pillai, Nobel laureate Prof. Amartya Sen (2000), Sri. K. J. Yesudas (2003), Mr. Laurie Baker (2003), Sri. O.N.V Kurup (2007), Sri. G. Madhavan Nair (2007), Justice K.G. Balakrishnan (2008), Sri. Adoor Gopalakrishnan (2010), Sri. Mammootty (2010) and Sri. Umayalpuram K. Sivaraman (2010). The recent awardees include Dr Jayant Narlikar (2019), Shri Kris Gopalakrishnan (2019) and Dr. C.N.R. Rao (2019).

The University bagged the Indira Gandhi National Award for the best NSS activities in 2005, and the UNESCO-NLM award for literacy in 2005, State Govt's award for Governance in 2010 and the first Chancellor's Award for the best University in the State of Kerala, in 2015. It is re-accredited with 'A' grade by NAAC in 2015 and ranked the 23rd Best University in India by National Institutional Ranking Framework (NIRF) 2020, MHRD of Govt. of India.

The University had the privilege of hosting Indian Science Congress during 2010 and the Indian History Congress in 2016, and . The University also regularly invites eminent scholars to the campus including Nobel Laureates. Prof. Dr. Johann Deisenhofer (Nobel Prize in Chemistry, 1988), Prof. Martin Chalfie (Nobel Prize in Chemistry, 2008), Dr. Anders Liljas (Nobel Prize Committee Member), Prof. Ada E. Yonath (Noble Prize in Chemistry, 2009), Professor Michael Levitt (Noble Prize in Chemistry 2013) and eminent Professors such as Dr. Robin Jeffry.

A5. University Fact Sheet

1	Name of University	University of Kerala
2	Year of Establishment	01-11-1937 (16 th University in India)
3	Chancellor	Governor of Kerala
4	Pro-Chancellor	Minister for Education, Govt. of Kerala
5	Vice-Chancellor	Prof. V. P. Mahadevan Pillai
6	Statutory Bodies	Syndicate (25 members), Senate (117), Academic Council (119)
7	Charter	Kerala University Act of 1974 (Act 17 of 1974). Earlier governed by Travancore University Act of 1937 and Kerala University Act of 1957.
8	UGC Recognition	Recognized under section 2(f) and 12 (b)
9	Type	Multi-disciplinary University
10	Source of funding	Govt. of Kerala Grants, UGC Grants, Internal Revenue
11	Motto	Karmani Vyajyate Prajna (Wisdom manifests in action)
12	Website	www.keralauniversity.ac.in



13	e-mail	registrar@keralauniversity.ac.in; regrku@gmail.com
14	Telephone	0471-2305631 (Registrar)
15	NAAC Accreditation	'A' Grade with GPA of 3.03, up to 02-03-2020
16	Address	The Registrar, University of Kerala, Senate House Campus Palayam, Thiruvananthapuram - 695 034, Kerala, India
17	No. of Schools	11
18	No. of Departments	43 (Science and Technology: 18; Social Sciences: 11; Arts and Humanities: 14)
19	No. of Faculties (Subject Groups)	16 Applied Sciences & Technology, Arts, Commerce, Education, Fine Arts, Law, Management Studies, Oriental Studies, Physical Education, Science, Social Sciences, Ayurveda & Siddha, Homeopathy, Medicine, Dentistry, Engineering & Technology
20	Administrative Branches	General Administration, Examination, Finance, Planning & Development, College Development Council, Engineering, Public Relations
21	Administrative Staff	Registrar (1), Controller of Examinations (1), Finance Officer(1), Other Officers (10), Joint Registrar (7), Deputy Registrar (20), Asst. Registrar (53), Section Officer (265), Others (Asst., Technical, Security etc. + Contract = 466 + 670, Non-teaching Vacant Positions: 730)
22	e-Governance	e-tendering, e-Certificate verification, Online Admission, Digital signature, Office Automation
23	Power Station (Karyavattom)	Two 11kv/415V OLTC Transformer (KEL) One 500KVA dry type (Uni Power) installed
24	Non-Conventional Energy use	100KW solar energy plant at Karyavattom (on the roof of Golden Jubilee building)
25	Budget for 2020-21	671.08 crores
26	Project Funding	Over 50 crores from various agencies, including Govt. of Kerala (State Plan); DST; UGC; ICSSR; AICTE; CSIR; MHRD; KSCSTE; Science and Engineering Research Board (SERB); PURSE Grant from Govt. of India; FIST grant from Dept of Science and Technology, Government of India; Dept. of Biotechnology (DBT); Kerala State Bio-diversity Board (KSBB); Dept. of Environment & Climate Change (DoE & CC); Dept. of Atomic Energy (DAE); ICMR; NBHM; M/o Economics & Statistics; KSHEC and others.



27	Campus Area in Acres	1.Karyavattom Campus: 359.26 acres: (a) North Campus 64.79 acres (+37 acres on lease to National Games Secretariat + 1.5 acres on lease to KHRI) (b) South Campus: 253.97 acres 2. University Office (SH) Campus: 17.00 Acres; 3. University Stadium: 8.10 Acres + Parking Area: 0.33 Acres; 4. University Student Centre: 1.62 Acres; 5. Observatory: 0.89 Acres; 6. Women's Hostel, Thycaud: 4.97 Acres; 7. University Library: 1.69 Acres; 8. Dept. of Education, Thycaud: 0.24 Acres; 9. Akkulam Marine Museum: 1.20 Acres; 10. Alappuzha Study Centre: 0.28 Acres; 11. Pandalam Study Centre: 0.30 Acres; 12. Ezhamkulam Village, Adoor: 0.50 Acres; 13. Raja Ravi Varma College for Fine Arts: 0.15 Acres. Grand Total = 396.26 Acres
28	Built up Area in square meters	Senate House Campus, Palayam: 36,548; Kariavattom Campus: 1,07,606; Thycaud Campus (Women's Hostel): 6,911; University Library Campus: 2,727; University Stadium: 10,000; Department of Education, Thycaud: 1,067; Students' Centre: 3,498; Kerala University Observatory & Planetarium: 150.
29	Staff Quarters	162 (A,B, C, D, E & F Types)
30	ICT Facility	Tier 3 Data Centre, About 2000 Computers, WiFi enabled Campus, IGBPS Fiber Network Connectivity, High Performance Computing Facility into 10 nodes, 38 Smart Class rooms, Bio-metric attendance system, Campus wide CCTV surveillance.
33	Physical Education Infrastructure	The University stadium along with G. V. Raja Pavilion has seating capacity of 10,000. Since 2015, an international stadium (Green Field Stadium) has been housed in Karyavattom campus. The university stadium has 400 meters internal standard synthetic track, football field, and courts for Kabadi/Kho-Kho, Basketball, Volley ball and Hand ball. Multipurpose indoor facility for basketball and Badminton are available in Senate Hall Campus and minimal facilities are available in Karyavattom.
34	Instruments	Inductively Coupled Plasma Mass Spectrometry [ICP-MS], Laser Scanning Spectral Confocal Microscope, Scanning Probe Microscopy [SPM], X-Ray Diffractometer includes Powder X-ray Diffraction (Powder XRD), Grazing Incidence X-Ray Diffraction (GI XRD), Scanning Electron Microscopy [SEM] includes Energy Dispersive X-Ray Analyser [EDX], Fourier Transform Infra-Red Spectrophotometer [FT-IR], Ultra Violet-Visible Spectrophotometer [UV-Vis], Nuclear Magnetic Resonance Spectrometer [NMR including ¹ H and ¹³ C NMR], CHN(S)/O Analyser, Liquid Chromatography-Mass Spectrometry (LC MS/MS), High-Performance Thin-Layer Chromatography (HPTLC), Simultaneous Thermal Analyzer (TGDTA/DSC), X-Ray Photoelectron Spectrometer (XPS), Genetic Analyser (DNA Sequencer),



		Sophisticated Fluorescence Spectrometer (SFS), PCR; RT-PCR Atomic Absorption Spectrophotometer; Electrophoresis; Bioreactor; ELISA reader; Speed Vac Concentrator; Drug Docking Station, Muffle furnaces; Source meter; Electrom, etc. In addition, there is Liquid Nitrogen Facility (LN ₂), High Performance Computing (HPC) and online learning management systems and other learning platforms are available.
35	Libraries Stock	Total No. of libraries: Over 50; University Library System consists of the Kerala University Library at Palayam, the Campus Library and the 42 Department Libraries at the Kariavattom Campus and many other libraries including that of Lexicon, ICKS, UITs, UIMs, KUTEC's, UCK and the three Study Centre Libraries at Alappuzha, Pandalam and Kollam. The Central Library has over 3 lakh text books. , The Kerala University Library Electronic Resource Centre, through UGC E-ShodhSindhu programme, provides access to more than 20,000 electronic journals and 6 other databases accessed through the Electronic Resource Centre. Library has a digital archival system under the name LIDAS, provides more than 14 lakh full text searchable digital pages of very rare and old books, and a digital repository of PhD theses.
36	Rare books in KUL	1. Samkshepa Vedartam (Compendiosa Legis Explanation Ominibus Christian's Seitu Necessaria) by Fr. Clement Pianius (First complete book printed in Malayalam printed in Rome in 1772 and published by the sacred Congregation of the Propagation of Faith. 2. Four Gospels (Bible New Testament), Malayalam book printed in 1811 by the Courier Press, Bombay.
37	ICT enabled class rooms	38
38	Auditoriums	1652 seater Senate hall and a dozen additional halls.
39	Students (University Departments)	Ph.D (656 – 64% female), M. Phil (191 – 78% female), PG (1226 – 77% female), Diploma/Certificate/ Others (1138)
40	Students (UITs/UIMs etc)	UITs: 3731; UIMs: 435; KUTECs: 394; UCK: 406
41	Students (Affiliated Colleges)	UG: 61075, PG: 8251, PhD: 411
42	Foreign Students in University Departments & Centres	59: Iran(30), Russia(1), Yemen(12), Nepal(1), Sri Lanka(2), Indonesia(2), Ethiopia(5), South Sudan(2), Kenya(3), Trinidad & Tabago (1) Lesotho (1) and Vietnam (2) + few Credit Transfer/short-visit students.
43	Student start-ups	15 start-ups registered
44	Students Union	1. Kerala University Union, 2. Department's Union, 3. Researcher's Union
45	Gender Profile of Students	Affiliated Colleges: Total UG students- 61075 69% Female, Total PG students - 8251- 80% Female, Total PhD



		students - 411- 75% Female. Uty Depts: Total PG students – 1284- 76% Female, Total MPhil students – 334 - 75% Female, Total PhD students – 878- 67% Female
46	Gender Profile of Students	Affiliated Colleges: Total UG students- 61075 69% Female, Total PG students - 8251- 80% Female, Total PhD students - 411- 75% Female. Uty Depts: Total PG students – 1284- 76% Female, Total MPhil students – 334 - 75% Female, Total PhD students – 878- 67% Female
47	Student Hostels	Men (2 Hostels – 84 PG students + 100 Researchers), Women (3 Hostels – 215 PG students + 107 Researchers), Women (Affiliated Colleges PG & UG) – 1 hostel (342 students)
48	Distance Education	Distance Education programmes of University of Kerala have been offered through School of Distance Education to thousands of students in the country since 1970s.
49	Centres, Other Institutions	Centres - 32; Lexicon Department – 1; University Institutes of Technology (UITs) - 17; University Institutes of Management (UIMs) - 7; Kerala University Teacher Education Centres (KUTEC) - 10; University College of Engineering - 1; UGC Human Resource Development Centre (Academic Staff College); Centre for Adult Continuing and Education & Extension (CACEE)
50	Support Service Centres & Other Departments	Kerala University Computer Centre, Central Laboratory for Instrumentation and Facilitation; Kerala University Library; University Press; University Service & Instrumentation Centre (USIC); Engineering Unit; Health Centre – 2; Dept. of Student Services; Dept. Physical Education; Dept. of Publication; Employment Information & Guidance Bureau; Placement Cell; Finishing School.
51	Affiliated Institutions	Arts & Science Colleges – 84; Hotel Management – 4; Special Education – 1; Physical Education – 1; Music and Fine Arts – 3; Teacher Education – 46; MCA/MBA – 24; Engineering & Architecture – 44; Law – 7; Medical & Dental – 12; Homeopathy & Ayurveda – 6; Nursing & Pharmacy – 26; Siddha; Medical – 1 (Total: 270)
51	Research Centres	82 (R&D institutions, affiliated colleges with PG programmes)
52	Programmes offered by University Departments & Centres	PG – 49; M. Phil. – 45 (Innovative M. Phil Programmes – 9); Ph. D. – 42; Certificate – 11; PG Diploma – 12
53	No. of exams conducted per year	Around 15,000
54	Faculty Positions	Permanent Faculty: 201 (Professor - 11; Associate Prof. - 26 ; Assistant Prof. – 164); Vacant Positions: 97; Faculty on Contract – 84; Adjunct, Visiting, Emeritus Professors- 25



55	Qualification of Permanent Faculty	Ph.D. (94%), M. Phil (6%)	
56	Teacher, Student Ratio	1: 10 (in University Depts.)	
57	Fee range for Teaching Departments (Master Programme)	Rs. 500-2000/- per Semester	
58	University Terms/Semesters	Semester 1,3 (Odd): September to February (Fall) Semester 2,4 (Even): February to August (Spring)	
59	Grading system for Masters	Grade	Grade Point
		O (Outstanding)	10
		A+ (Excellent)	9
		A (Very good)	8.5
		B+ (Good)	8
		B (Above Average)	7
		C (Average)	6
		D (Pass)	5
		F (Fail)	0
		Ab (Absent)	0
		CI (Course Incomplete)	0
60	PhDs awarded (2020)	366 (Total awarded till date: over 5000)	
61	Recent Honorary Doctorates	Prof. Amartya Sen (2000), K. J. Yesudas (2003), Laurie Baker (2003), O.N.V Kurup (2007), G. Madhavan Nair (2007), Justice K.G. Balakrishnan (2008), Shri. Adoor Gopalakrishnan (2010), Mammootty (2010), Umayalpuram K. Sivaraman (2010), Dr Jayant Narlikar (2019), Shri Kris Gopalakrishnan (2019) and Dr. C.N.R. Rao (2019).	
62	Research Publications in 2020 (incomplete)	c. 300; Average Impact Factor: 1.87	
63	Patents in 2020	Filed: 06; Granted: 01	
64	Journals	One of the oldest journals in history, Journal of Indian History is published by University of Kerala since 1946. Other Departments publish around 20 journals	
65	Premier Publications	<ul style="list-style-type: none"> 10 volumes Hortus Malabaricus on plant wealth of Kerala (English and Malayalam) 9 Volumes of Malayalam Lexicon (nearly 9000 pages), the largest dictionary in any modern Indian Language, which has taken half a century so far Sahithya Charithram by Ulloor Dept. of Publications Output: around 20 books per year. 	



66	Manuscript Collection	The Kerala University Oriental Manuscripts Library has over 65,000 works in 30,000 copies mainly of palm leaf, paper, copper plates, birch bark and textiles. The collection also covers Burma, Malaysia, Indonesia and Nepal.
67	Oldest Institutions	1. Observatory (1838) 2. Oriental Research Institute of Manuscript Library – ORIML (1904)
68	Awards	1. UNESCO - NLM Award (2005) 2. Indira Gandhi National Award for NSS (2005) 3. Chancellors Award for Best University in Kerala (2015)
69	GPS (respective Campus gates)	Palayam - 8° 30' 8.27", 76° 56' 51.5"; Karyavattom - 8° 33' 57.14", 76° 52' 37.18"
70	Distances	Karyavattom to Palayam: 12Km, Karyavattom to Thampanoor Railway Station: 14Km, Palayam to Airport: 8Km, Palayam to Thampanoor Railway Station: 2Km, Karyavattom to Airport: 13Km



Details of University Departments, Programmes and Seats

Department	Subject	No of Seats
Aquatic Biology & Fisheries	M.Sc. Aquatic Biology & Fisheries	16
Arabic	M.A. Arabic Language & Literature	20
Archaeology	M.A. Archaeology	15
Biochemistry	M.Sc. Biochemistry	16
Biotechnology	M.Sc. Biotechnology	12
Botany	M.Sc. Genetics & Plant Breeding	16
Botany	M.Sc. Biodiversity Conservation	10
Chemistry	M.Sc. Chemistry	18
Chemistry	Chemistry (Specialization in Renewable Energy)	12
Commerce	M.Com	30
Commerce	M.Com Global Business Operations; M.Com Rural Management	20
Communication & Journalism	MCJ	22
Computer Science	M.Sc. Computer Science	30
	M.Sc. Computer Science (with specialization in Artificial Intelligence)	20
	M.Tech. Computer Science	18
Computational Biology & Bioinformatics	M.Sc. Computational Biology	10
Demography	Demography and Biostatistics	15
	M.Sc. Actuarial Science	12
Economics	M.A. Economics	30
Education	M.Ed.	50
Environmental Sciences	M.Sc. Environmental Sciences	10
Futures Studies	M.Sc. Data Science	18
	M.Tech. Technology Management	15
Geology	M.Sc. Geology	12
German	M.A. German Language & Literature	13
Hindi	M.A. Hindi Language & Literature	24










History	M.A. History	24
Institute of English	M.A. English Language & Literature	30
Islamic Studies	M.A. Islamic History	12
Islamic Studies	M.A. West Asian Studies	10
Kerala Studies	M.A. Malayalam Literature, Kerala Studies and Media Studies	15
Library Science	MLISc. Library & Information Science	20
Linguistics	M.A. Linguistics	20
Law	LLM	24
Malayalam	M.A. Malayalam Language & Literature	18
Mathematics	M.Sc. Mathematics	30
Mathematics	M.Sc. Mathematics with Finance and Computation	15
Music	M.A. Music	10
Optoelectronics	M.Tech Electronics and Communication (Optoelectronics and Optical Communication)	18
Philosophy	M.A. Philosophy	24
Physics	M.Sc. Physics (Specialization in Electronics)	22
	M.Sc. Physics (Specialization in Renewable Energy)	5
	Physics (Specialization in Space Physics)	10
Political Science	M.A. Political Science	30
Political Science	Politics, International Relations & Diplomacy	18
Political Science	M.A. Public Administration	10
Psychology	M.Sc. Psychology	22
Russian	M.A. Russian Language & Literature	10
Sanskrit	M.A. Sanskrit General Language & Literature	18
Sociology	M.A. Sociology	24
	MSW	30
Statistics	M.Sc. Statistics	18
Statistics	M.Sc. Applied Statistics and Data Analytics	12
Tamil	M.A. Tamil Language & Literature	24
Zoology	M.Sc. Zoology (Pure & Applied)	15
	M.Sc. Integrative Biology (Zoology)	10



A6. University Authorities and Officers

Syndicate Members

	Prof. (Dr.) V. P. Mahadevan Pillai Vice Chancellor University of Kerala Senate House Campus, Palayam Thiruvananthapuram-695 034 Tele : +91-471-2306634 (O) Fax: 0471-2302898 Email: vc@keralauniversity.ac.in		Prof. (Dr) P. P. Ajayakumar Pro-Vice Chancellor University of Kerala Senate House Campus, Palayam Thiruvananthapuram-695 034 Tele : 0471-2308532 (O); Email: pvcku1822@gmail.com
	Usha Titus IAS The Secretary to Government Higher Education Department, Government Secretariat, Thiruvananthapuram Tele : 0471 2331509 (O)		Jeevan Babu K. IAS The Director of Public Instruction Government of Kerala, Jagathi, Thiruvananthapuram Tele : 0471 2325106 (O) Email: dpi@education.kerala.gov.in
	V. Vigneshwari IAS The Director of Collegiate Education Government of Kerala, Vikas Bhavan, Thiruvananthapuram Tele : 0471 2303548 (O) Email: dcedirectorate@gmail.com		Dr. Vishwas Mehta IAS Chief Secretary Government Secretariat, Thiruvananthapuram Tele: 0471-2333147, 2518181 (O)
	Dr. S. Nazeeb Assistant Professor School of Distance Education, University of Kerala Ph: 9447722346(M) Email: drnazeeb@gmail.com		Jairaj J. Assistant Professor, Physical Education Govt. College Attingal, Thiruvananthapuram. 9446966326(M) Email: jairaj.sree@gmail.com
	Dr. B. Unnikrishnan Nair Principal, University College, Thiruvananthapuram Thiruvananthapuram - 695 581, 8281796263(M) Email: bukphys@gmail.com		Dr. Mathew V. Principal, St. Michael's College, Cherthala, Alappuzha- 688539 9349317519(M) Email: mathewcheepinkal@gmail.com
	Dr. M. Vijayan Pillai Associate Professor, Malayalam NSS College, Nilamel 9447090326(M) Email: vijaymannoor@gmail.com		R. Arunkumar Associate Professor, Physical Education K. S. M. D. B. College, Sasthamcottah 9447591718(M) Email: aruncoach@yahoo.com

	R. Rajesh Member, Legislative Assembly Nalloorkulathil, Kollakadavu P. O. Chenganoor, Alappuzha - 690 509 9605838180(M) Email: rajeshmvkmla@gmail.com		B. P. Murali Member, District Panchayath, Thiruvananthapuram Mampazhikathu Veedu, Pullayil P. O., Kilimannoor, Thiruvananthapuram Dist. 9446614044(M) Email: bpmurali2261@gmail.com
	Viswan Padanilam Alappuzha District Panchayath, Noorukodipadeetathil, Padanilam. P.O, Alappuzha Dist. 9447231610(M) Email: viswanpadanilam@gmail.com		Bijukumar G. Assistant Registrar University Office, Thiruvananthapuram 9446178670(M) Email: bijualappuzha@gmail.com
	Adv. Muralidharan Pillai G. Kizhakkumbhagathu Koivila, Koivila P.O., Kollam - 691 590 9895673352(M) Email: gmuraleedharan2012@gmail.com		Adv. B. Balachandran Parayattukonam, Pirappancode, Venjaramoodu, Thiruvananthapuram 9496254880(M) Email: adv.bbalachadran@gmail.com
	Adv. K. H. Babujan Abhayam, Evoor South, Keerikkad P. O., Alappuzha 690 508 9495477452(M)		Dr. K. B. Manoj Mukthi, Maru South, Alumkadavu.p.o, Karunagapally, Kollam 9447106774(M) Email: drkbmanoj@gmail.com
	Adv. A. Ajikumar Kollasseril, Kannampally Bhagam, Kayamkulam P. O., Alappuzha 690 502 9847468778(M) Email: advajikyilm@gmail.com		Renju Suresh Puthenvila Veedu Vakkammukku, Alayamon P. O., Anchal, Kollam - 691306 9495215305(M) Email: renjusuresh17@gmail.com
	Prof. K. Lalitha TC 18/514-1, PRA 331-B Aramada P.O, Punnackamughal, TVPM- 695032 9497877992(M) Email: lalitha.k.rajeevan@gmail.com		Dr. Gopchandran K. G. Professor, Department of Optoelectronics University of Kerala, Thiruvananthapuram 695 581 8129914751(M) Email: kggopchandran@gmail.com

Statutory Officers (Other than Vice Chancellor and Pro-Vice Chancellor)

	Prof. (Dr.) C. R. Prasad Registrar (in-charge) University of Kerala Senate House Campus, Palayam Thiruvananthapuram-695534 Tele : +91-471-2305631 (O) Fax: +91-471-2307158 Email: registrar@keralauniversity.ac.in		Dr. N. Gopakumar Controller of Examinations University of Kerala Palayam Thiruvananthapuram 695034 Tele : +91 471 2305946 (O), Email:ku.controller@keralauniversity.ac.in
	R. Mahadevan Finance Officer University of Kerala Thiruvananthapuram-695034 Tele : +91-471-2300750 (O); Email: financeofficer@keralauniversity.ac.in		

Directors

	Dr. Mini Dejo Kappen Planning & Development University of Kerala Senate House Campus, Palayam Thiruvananthapuram-695034 Tele : +91-471-2302615 (O); dpd@keralauniversity.ac.in		Prof. Gabriel Simon Thattil Director, IQAC University of Kerala Palayam, Thiruvananthapuram, 695 034; team.iqac@gmail.com ; 0471 2303013
	Dr. Vinod Chandra S. S. Computer Centre (I/C) Palayam, Thiruvananthapuram- 695034; 0471-2305801 vinod@keralauniversity.ac.in		Dr. A. K. Ampotti College Development Council (i/c) Senate House Campus Thiruvananthapuram-695 034 Tele : 0471 2386236, 2306514; dcde@keralauniversity.ac.in
	Dr. Jayarajan David D. Department of Physical Education (Asst. Director (i/c of Director)) G. V. Raja Pavilion, PMG Junction, Trivandrum; 0471 2306485; 9447133001(M) Email: dpekeralauniversityvm@gmail.com		Dr. K. S. Chandrasekar Campus Director Professor and Head of the Department Institute of Management in Kerala; 0471-2301145 (O); 9447268840(M) Email: kscnair@keralauniversity.ac.in
	Siddik R. Director - Department of Student Services (Assistant Professor, Dept. of Economics) i/c Students' Centre, University of Kerala, PMG Junction, Thiruvananthapuram; , 811989221(M) Email: siddikrabiya@gmail.com		Prof. (Dr.) R. B. Binoj Kumar Research Director Research Directorate University of Kerala Tele : +91-471-2308403 (O), +91- 9447101220(M) Email: binojrb@gmail.com

Other officers in Karyavattom Campus

	Dr A Biju Kumar Vice-Chairman, CSS Professor and Head, Dept. of Aquatic Biology & Fisheries University of Kerala, Karyavattom Thiruvananthapuram 695 581; 0471 2308131 (Office); 9447216157; vc.css@keralauniversity.ac.in		Dr Sabu Joseph Director, Centre for Global Academics, Director of Consultancy Cell and Finishing School, Professor, Dept of Environmental Sciences, Univ. of Kerala. Ph: 9447453063 Email : jsabu2000@gmail.com
	Prof. (Dr). G. M. Nair Director, Central Laboratory for Instrumentation and Facilitation (CLIF), University of Kerala, Karyavattom, Trivandrum Phone: 0471 -2308566 Email: siccuok@gmail.com		Dr. Shaji A. Programme Co-Ordinator (NSS), University of Kerala Thiruvananthapuram - 695034 Tele : 0471-2386309 (O), 9447324831(M) Email:
	Sobha K. University Engineer Engineering Unit, Kariavattom Campus, Thiruvananthapuram-695581; Tele : +91-471-2308302 (O);ue_kariavattom@rediffmail.com		Dr. Sreela Raj N.R., Joint Registrar, Karyavattom Campus, University of Kerala, Thiruvananthapuram-695581 Ph: 04712308614 jr.ca.uok@gmail.com

Other contacts

Sri P. Harikumar

PS to Vice Chancellor, University of Kerala; Tele : +91-471-2306634 (O), 9446179341(M) Email: pstovc@keralauniversity.ac.in

Smt Resmi R.

PS to Pro-Vice Chancellor, University of Kerala, Tele : 0471-2386234 (O), 9495193020(M) Email: pstopvc@keralauniversity.ac.in

Smt Priya Surendran

PA to Registrar, Main Building, University of Kerala, Tele : 0471-2305631 / 0471-23862 (O), +91-9495541121(M)

Smt R. Devika Nath

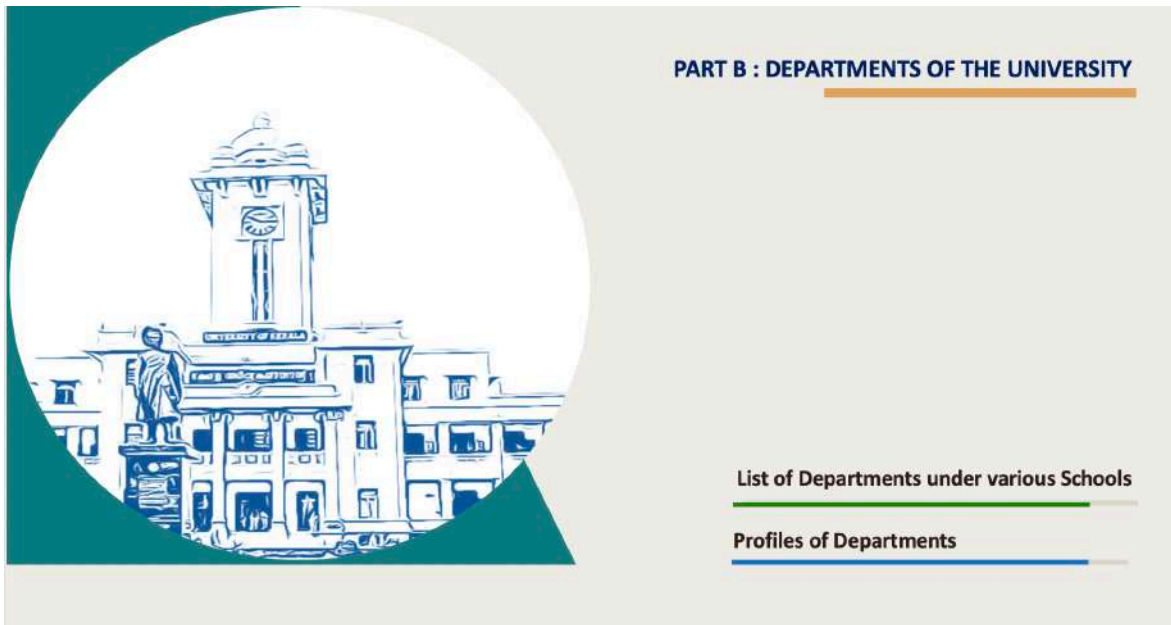
PA to Finance Officer, University of Kerala; Tele : +91-471-2307176 (O) Email: patofo@keralauniversity.ac.in

Sri S.K. Shine

PA to Controller of Examination, University of Kerala; Tele : 0471-2305946 (O), 9447111058 (M) Email: patoce@keralauniversity.ac.in

Sri Sam S.

Public Relations Officer, University of Kerala; Tele : +91-471-2305738 (O), 9895510181(M) Fax: +91-471-2305185 Email: ku.release@gmail.com



“Wisdom is not a product of schooling but of the lifelong attempt to acquire it.”
— Albert Einstein

B2. Profiles of Departments

SCHOOL OF BUSINESS MANAGEMENT AND LEGAL STUDIES
Department of Commerce
Department of Law
Institute of Management in Kerala
SCHOOL OF COMMUNICATION & INFORMATION SCIENCE
Department of Communication & Journalism
Department of Library and Information Science
SCHOOL OF DISTANCE EDUCATION
SCHOOL OF EARTH SYSTEM SCIENCES
Department of Geology
Department of Environmental Sciences
SCHOOL OF ENGLISH & FOREIGN LANGUAGES
Department of Arabic
Department of English
Department of German
Department of Russian
SCHOOL OF FINE ARTS
Department of Music
SCHOOL OF INDIAN LANGUAGES
Department of Kerala Studies
Department of Linguistics
Department of Hindi
Department of Malayalam
Department of Sanskrit
Department of Tamil
Oriental Research Institute and Manuscripts Library

SCHOOL OF LIFE SCIENCES
Department of Aquatic Biology & Fisheries
Department of Biochemistry
Department of Biotechnology
Department of Botany
Department of Zoology
SCHOOL OF PHYSICAL AND MATHEMATICAL SCIENCES
Department of Chemistry
Department of Demography
Department of Mathematics
Department of Physics
Department of Statistics
SCHOOL OF SOCIAL SCIENCES
Department of Archaeology
Department of Economics
Department of Education
Department of History
Department of Islamic Studies
Department of Philosophy
Department of Political Science
Department of Psychology
Department of Sociology
SCHOOL OF TECHNOLOGY
Department of Computer Science
Department of Futures Studies
Department of Optoelectronics
Department of Computational Biology & Bioinformatics
Department of Nanoscience and Nanotechnology



B2. List of Departments under various schools



Department of Commerce (Estd. 1985)

Phone: 0471 2412179; Email: docuok@gmail.com

Faculty

Prof.(Dr.)G. Raju, Professor and Head (Email: rajmukal@yahoo.co.uk; Ph: 9496254542)

Prof.(Dr.) Resia Beegam S, Professor and Dean (Email: drresia@gmail.com; Ph: 8547292598)

Prof.(Dr.) Gabriel Simon Thattil, Professor and Director, School of Business Management and Legal Studies (Email: simon.thattil@gmail.com; Ph: 9496275305)

Prof.(Dr.)Harikumar P N, Professor (Email: sushahari@gmail.com; Ph: 9447304912)

Dr. Biju T, Associate Professor (Email: drbijuterrence@gmail.com; Ph: 9895636874)

Dr. Biju A V, Assistant Professor (Email: biju.avnair@gmail.com; Ph: 9846243990)

Sri. Vinu Ashok, Lecturer on Contract (Email:vinuashok558@gmail.com; Ph: 9567170858)

Smt. Lekshmi S, Lecturer on Contract (Email: lekshmi@keralauniversity.ac.in; Ph: 8281670612)

Brief Profile

The Department of Commerce was established in 1985 as a teaching and research department of the University of Kerala. Within a span of 35 years the Department could establish itself as a centre of excellence with focus on education , research, consultancy and extension services. The Department has completed various milestones in its academic endeavour making it unique of its kind . Currently the Department offers post graduate level programmes in commerce viz, M.Com Finance & Accounting, M.Com. Global Business Operations, M.Phil., Ph.D. and PDF Programs. Completion of UGC SAP Project in 2014, GIAN ACADEMIC workshop with global resources in 2017, major consultancy work for the industry, innovative project on financial literacy and social sector projects are some of the recent initiatives of the Department. The faculty continues to support the university in

several capacities and does undertake workshops and seminars on an annual basis. The extension services have been well taken by the society specially those related to career development viz. My Career My Dream. Joint research projects and programs with institutes like Indian Institute of Information Technology Management, Gulati Institute of Finance and Taxation, Indian Accounting Association are achievements of the Department. The Department has its own Research Forum, an academic body of researchers. The forum brings out the journal entitled Commerce and Business Researcher. The Alumni Association of the Department is active with a series of extension programs.

PROGRAMMES OFFERED

M.Com. Finance and Accounting; M.Com. Global Business Operations; M.Com Rural Management; M.Phil., Ph.D. and PDF.

M.com. Finance and Accounting

Semester I: COM-CC-411- Research Methodology; COM-CC-412- Corporate Financial Reporting Standards; COM-CC-413- Business Environment and Regulatory Framework; COM-DS-414- Quantitative Methods and Econometrics; COM-DS-415- Business Analytics.

Semester II: COM-CC-421- Security Analysis and Portfolio Management; COM-CC-22 Tax Planning and Management; COM-CC-423-Marketing of Financial Services; COM-CC- 424- Operations Research

Semester III: COM-CC-431- Business; COM-CC-432- Strategic Cost management; COM-CC-433- GST Act and Customs Act; COM-CC-434- Financial Derivatives; COM-CC-435- Internship

Semester IV: COM-CC-441- International Financial Management; COM-CC-442- Behavioural Finance and Wealth Management; COM-CC-443- Strategic Financial Management; COM-CC-444- Corporate Accounting; COM-CC-445- Dissertation

Generic Courses: COM-GC-4A1- Stock Market Operations; COM-GC-4A2 Corporate Social Responsibility and Business Ethics

Skill Enhancement Electives: COM-SEE-4B1-Business Analytics Services; COM-SEE-4B2- Tax Consultancy Services; COM-SEE-4B3- Entrepreneurship Development Programmes; COM-SEE-4B4-Financial Market Services

Programme Specific Outcomes (PSO)

- Acquire Knowledge and Skill required to carry out research work
- Apply Indian Accounting Standards in selected areas of financial reporting
- Acquire competencies in scanning the Business Environment and its Regulatory Framework.
- Comprehend the statistical concepts of probability theory, probability distributions, sampling, statistical inference and hypothesis testing
- Understand the econometric concepts of time series analysis
- Acquire Knowledge and Skill in using Business Analytic tools for data collection and analysis
- Apply Knowledge and Skill in analyzing securities and constructing portfolios for optimal investment



- Acquire Knowledge in interpreting provisions of Income Tax Law and skill in practicing the Income Tax Law
- Acquire Knowledge of different aspects of Financial services
- Apply Knowledge and Skill in using important quantitative tools for decision making in the business context
- Comprehend the different aspects of doing International Business
- Acquire Knowledge of basic concepts of Strategic cost management and Skill in using the techniques of Strategic cost management
- Acquire Knowledge of the provisions of GST Act and Customs Act and skill in practicing these indirect tax laws
- Comprehend the concepts and pricing of different types of derivatives and their application in risk management
- Explain the Fundamentals of foreign exchange rates, markets and risks and the instruments and procedures used in international financial markets
- Recognize the fundamental aspects of Behavioural Finance.
- Assess and evaluate means of strategic access and use of funds.
- Analyze and interpret financial statements of corporate entities.

M.com Global Business Operations

Semester I: GBO-CC-411-International Economics; GBO-CC-412- Global Business Environment; GBO-CC-413-Management Concepts and Business Communication; GBO-DSE-414- Quantitative Methods; GBO-DSE-415- Organizational Behaviour

Semester II: GBO-CC-421-Business Research Methods; GBO-CC-422-Accounting for Managers; GBO-CC-423-Foreign Trade Procedures and Documentation; GBO-DSE-424- Operations Research; GBO-DSE-425-Foreign Language

Semester III: GBO-CC-431-International Marketing; GBO-CC-432-Global Human Resource Management; GBO-CC-433-Global Financial Markets and FOREX Management; GBO-CC-434-Global Logistics and Supply Chain Management; GBO-CC-435-Internship

Semester IV: GBO-CC-441-E-Business and Cyber Laws; GBO-CC-442-International Strategic Management; GBO-CC-443-International Project Management; GBO-CC-444- Legal Environment of International Business; GBO-CC-445-Dissertation

Generic Courses: GBO-GC-4A1-Stock Market Operations; GBO-GC-4A2- Corporate Social Responsibility and Business Ethics

Skill Enhancement Elective: COM-SEE-4B1-Business Analytics Services; COM-SEE-4B2- Tax Consultancy Services; COM-SEE-4B3-Entrepreneurship Development Programmes; COM-SEE-4B4-Financial Market Services

Programme Specific Outcomes (PSO)

- Understand the procedures of international trade and evaluate the implications of international trade
- Understand the different aspects of global business environment
- Understand the principles and theories of Management and recognize the importance of Business communication in the management process
- Acquire Knowledge of statistical concepts of probability and Skill in the application of procedures for statistical inference
- Acquire Knowledge of basic concepts of organizational behavior and skill in applying individual's personalities, learning & motivational models, change models, and organizational developmental model



- Acquire Knowledge and Skill required to carry out research in business
- Understand and apply the concepts of management accounting
- Explain India's Foreign Trade Policy, export and import procedure, export promotion schemes, export finance, and role of special institutions in export promotion
- Apply Knowledge and Skill in using important quantitative tools for decision making in the business context
- Understand and explain the basic principles and practices of global marketing
- Understand and explain the basic principles and practices of global human resources management
- Acquire knowledge of global financial markets, global investments, foreign exchange risk and its management using currency derivatives
- Gain the qualities, knowledge and experience needed to run global supply chain today
- Understand and apply the basic concepts and models of e-business within the framework of cyber laws.
- Understand the concepts of International Strategic Management and its application in the different functional areas of management
- Apply project management techniques to international projects
- Acquire Knowledge in interpreting legal obligations involved in the conduct of international business.

M.Phil. Commerce

Programme Objectives

- To acquaint scholars with the research process, including research methods and design.
- To enable scholars in pursuing quality research in Commerce and Management.
- Convey advanced learning in finance.

Semester 1: Paper I – COM 711 - Research Methodology I (4 Cr), Paper II - COM 712 - Research Methodology II (4 Cr); Paper III - COM 713- Financial Management (4 Cr).

Semester 2: COM 721 - Dissertation (20 Cr)

Research

The Department of Commerce, University of Kerala focuses on the promotion of commerce education and research in Kerala. The approach and pedagogy of the Department purely focused on research and extension activities which combine fieldwork, case studies and instrumented feedback with a strong emphasis on concepts and theory. The intent is to encourage intellectual curiosity and open minds to the adventure of ideas which is generated during the process of the curriculum transactions. Our collaborative approach involves inputs from various sectors and disciplines which give the benefit of a much wider view and deeper understanding. The specific areas of Ph.D research in the Department include Finance, Accounting, Human Resource Management, Marketing, Rural Studies, Tourism, Banking, Project Evaluation Studies etc.

Post-Doctoral Fellowship (PDF) in Commerce

Those who have completed Ph.D. in Commerce are eligible to apply for PDF with a detailed project proposal. The Department had 4 Post-Doctoral Fellows in 2019 and presently there are 8 Post-Doctoral Fellows.



Research Infrastructure

Smart Class room, Computer lab, Library

The Researchers' Forum (Website: <http://commerceresearcher.org/>)

The Researchers' Forum was established in 2011 with the objective to promote quality research and support research interventions in the form of workshops, webinars and seminars as well as training session on use of software in research. The forum also provides regular training sessions on support for aspiring research for candidates in designing a right Proposal. The Forum is actively involved in organizing invited talks and interactive sessions on topics of contemporary relevance in research. The Forum also brings out biannual, peer reviewed Journal by the name "Commerce and Business Researcher".

Commerce Club

Commerce club organize quiz programmes. The club is maintaining a display board giving key business indicators and business news on a daily basis. The Club organizes UGC NET coaching classes for students within and outside the department and also keeps a diary of its activities.

My Career My Dream

Conducted awareness programmes at:

- St Joseph's School :Plus two students (22nd August,2019)
- St. John's College, Anchal (16th February,2018)
- Govt. HSS Vellanad: Plus two students (18th January,2017)
- Career guidance for high school students at Bharatiya Vidyabhavan. A Session on Time Management (November 22,2016)
- UIT Alappuzha (March 3,2015)

This ongoing program helps the students to identify their potential career traits and choose a career path. The program creates awareness on various career options unfolding in the commerce domain and it also helps in conveying a feel of higher education and research in business education.

Alumni Association

Alumni Association, Department of Commerce, University of Kerala is a registered organization established in the year 1999 to encourage, foster and promote close relations among the alumni and to promote a sustained sense of belonging to the Alma Mater among the Alumni by being in regular contact with them. The Association provide a forum for the Alumni for exchange of ideas on academic, cultural and social issues by organizing and coordinating annual reunion activities. The Association organizes Annual Merit Day every year where the meritorious performance of members are recognized and appreciated through presentation of awards including Pradeep Thevanoor Memorial Award for the best outgoing M.Com. student each year. The association frequently conducts orientation programs for Kerala Collegiate Education examinations for selection of Assistant Professor in Commerce. At present, Dr.Gabriel Simon Thattil is the Secretary of the Alumni Association (Email: simon.thattil@gmail.com; contact number: 9496275305).





Department of Law (Estd. 1988)

Phone: 0471-2308936; Email: officekulaw@gmail.com

Faculty

Dr. Sindhu Thulaseedharan, Associate Professor and Head
(Email: sindhu.thulaseedharan@gmail.com; Ph: 9495719860)

Dr. Rakendu C.K., Assistant Professor (Email: rakendu.dhanya@gmail.com, Ph: 9497850014)

Lecturers on contract

Dr. Rakhy R.S. (Email: rakhyrs@gmail.com, Ph: 9995715604)

Aswathy G. Krishnan (Email: aswathygkrishnann@gmail.com, Ph: 8301864713).

Hashim M Kabeer (Email: hashimmkabeer@gmail.com, Ph: 9947841574)

Parvathi S Shaji (Email: parvathishaji11@gmail.com; Ph: 9495118830)

Brief Profile

Department of Law, University of Kerala, located at Karyavattom, is one of the prestigious institutions of legal education and legal research in India. It has a long and distinguished history of excellence in legal education since 1988. To start with, Department offered LL.M Programme in Constitutional Law and Administrative Law. In 2009 LL.M curriculum was restructured and department introduced 2 new LL.M Programmes, such as Public Law and Intellectual Property Rights, Human Rights and Law. In 2011, the department switched over to another new LL.M Programme titled LL.M Programme in Constitutional Law, Intellectual Property Rights and Cyber Law. Since 2016, the department has introduced the One-Year LL.M Programme in Public Law and Intellectual Property Rights, in consistent with the UGC Guidelines on One-Year LL M Programme, 2016. In each year 80%-90% of students from the department qualify UGC-NET. The careers of members of alumni also speak eloquently about the strength of the Department of Law; our graduates are leaders serving with distinction in the public, private, and academic sectors within and outside Kerala.

At present, it is a Research Department with two permanent faculty members and four lecturers on contract basis. The department has a high research profile with significant works done in Election laws, Judicial Process, Human Rights, Health care Law, Women and

Law and Intellectual Property Rights. The department also offers electives in emerging areas of law such as Biotechnology Patents, Patents for Life Sciences, Intellectual Property and Medicine, International Conflict Resolution, Human Rights, Science, Technology and Law, Biotechnology and Legal Regulations, Intellectual Property Law, Cyber Law, Democratic Decentralization, Environmental Law, Women and Law, etc. with an interdisciplinary perspective.

The Department of Law strives to foster academic excellence, moral integrity and social commitment among the students of law and also the society. The Department has always believed in the free quest for knowledge and has consistently refused to live under anything like an inbred orthodoxy.

PROGRAMMES OFFERED

LLM (One Year): Public Law and Intellectual Property Rights

Semester I: LAW- CC- 511: Research Methods and Legal Writing (3 credits), LAW- CC- 512: Comparative Public Laws/Systems of Governance (3 credits), LAW- CC- 513: Law and Justice in a Globalizing World (Credits 3), LAW –CC-514: Basic Principles of Intellectual Property Rights (Credits 2), LAW-CC- 515: Law Relating to Copyrights and Design (Credits 2)

Semester II: LAW-CC- 521: Law Relating to patents Law Relating to Geographical Indication (Credits -2), and Traditional Knowledge (Credits-2), LAW-CC- 522: Law Relating to Trademarks, Passing Off and Trade Secrets (Credits-2), LAW-CC- 523: Administrative Law Principles for Protecting Citizens from unlawful government interference (Credits-2), LAW-CC- 524: Constitutional System of Governance in India and Social Justice, LAW- DE- 525: Environmental Law (Credits), LAW- DE- 526: Law and International Conflict Resolution (Credits-2), LAW- CC- 527: Dissertation (Credits-5)

Programme Specific Outcomes (PSO)

- Understand the characteristics and significance of Intellectual Property Right and Public Law
- Develop a thorough analytical understanding with respect to constitutional principles and structure, the nature of civil and political rights by making a comparative study with different jurisdictions, to make aware the students the importance of governmental organisation, the nature of its functioning, it's affairs and their relationship with the individuals
- Create an in-depth understanding among the students about the importance of intellectual creations and the respective rights that follows which is a requisite in the contemporary world involved with knowledge creation.
- Internalize among the students about the need and importance of research, and involve them in a practical training process to make them knowledgeable as how to make an effective research design to carry out a research process that can result in legal materials of excellent research value

M. Phil in Human Rights

Semester I: Law 711- Research Methodology (Credits-4); Law 712- Human Rights – Theories, Practices and Challenges (Credits-4), Law 713- Human Rights In India-Historical, Social and Political Perspectives (Credits-4); **Semester II:** Dissertation (Credits 20)



Research

The Department offers PhD in Law. Department is one of the pioneers in legal research institution to sort out legal documents that will aid in finding a solution to a legal problem. So far Department had produced 39 PhDs. Department mainly focuses on legal research related activities

Special Facilities in Department: PG Diploma in Human Rights; Certificate Course in Human Rights and Duty Education; Legal Aid Clinic; Dr. B.R Ambedkar Chair (Centre for Human Rights and Social Justice).



"There is no better way to exercise the imagination
than the study of the law."

-Ralph Waldo Emerson





Institute of Management in Kerala (Est. 1991)

Phone: 0471 2301145; Email: imkkariavattom2012@gmail.com

Faculty

Dr. K S Chandrasekar, Professor & Head (Email: kscnair@keralauniversity.ac.in; Ph: 9447268840)

Dr. Ambeeshmon S., Assistant Professor (Email: ambeeshs@gmail.com; Ph: 9846116600)

Dr. Simi S.V., Contract Lecturer (Email: simirakhi@gmail.com; Ph: 9846215447)

Dr. Retty R Nath, Contract Lecturer (Email: rettysudhir@gmail.com; Ph: 9447501616)

Dr Dileepa S Hari, Contract Lecturer (Email: dileepashari@gmail.com; Ph: 9446824546)

Dr. Sumi K.V, Contract Lecturer (Email: kvsumioo1@gmail.com; Ph: 8907209453)

Vishnu K.P, Contract Lecturer (Email: vishnukp7@gmail.com; Ph: 9809909056)

Mahesh R, Contract Lecturer (Email: maheshraveendrann@gmail.com; Ph: 9526480898)

Akhil P. Contract Lecturer (Email: akhilpadmarajan@gmail.com; Ph: 8137040422)

Brief Profile

The Institute of Management in Kerala was established under the tutelage of the University of Kerala in the year 1991. The Institute is located near the international business hub of Kerala, the techno park, along the national highway-47, amidst the lush green Karyavattom University Campus. The institute is part of the newly formed School of Business Management and Legal studies, University of Kerala, Karyavattom, which literally translates to “The circle of debates and discussions”, used to be the strategic planning centre of the erstwhile Travancore royal administration around its inception. It is indeed a meaningful co-incidence that the once centre of thoughts of a kingdom is now the centre of discussions and debates of emerging managers.

The MBA course curriculum is designed to give students an extensive understanding of the nuances of various management disciplines. Spread over 2 years (4 semesters), the programme specifically aims at imparting the students the state-of-the-art knowledge of the concepts and techniques of management, developing the ability to comprehend the

environment and acquire analytical decision-making and fostering a novel approach to work.

Emphasis is laid on self-development through various personality development programmes like simulation exercises, role-plays, case analysis, group works etc. The students are also equipped with a holistic outlook towards life based on ethical values and social responsibilities. The institute offers M.Phil and Ph.D., Post-Doctoral programmes in the various disciplines of Management. Selection is on the basis of an entrance exam conducted by the University of Kerala followed by an interview with the Doctoral Committee.
Vision: To create a generation of powerful, value driven individuals who could take humanity to the most glorious of civilizations.

Mission: To provide projects, organizations and people smart and intelligent managers and thought leaders who can work in any team, create, communicate and execute effective value addition strategies and plans, using most modern tools and techniques, assuring the best of results and an increased net worth.

Values: The institute aims through its curriculum and pedagogy to create a manager comprising Knowledge, Skills, Attitude, Responsibility, Creativity, and Integrity.

PROGRAMMES OFFERED

MBA (CSS - General); MBA (CSS - Travel and Tourism); MBA (CSS - Evening-Regular); M.Phil (CSS-Management studies); Ph.D. (Management studies); Post Doctorate Fellow in Management studies

MBA

Semester 1: MGT-CC-511 Principles of Management and Organisational Behaviour; MGT-CC-512 Managerial Economics; MGT-CC-513 Accounting For Managers; MGT-CC-514 Quantitative Techniques; MGT-CC-515 Operations Management; MGT-CC-516 Business Environment and Corporate Ethics; MGT-CC-517 Environmental Management

Semester 2: MGT-CC-521 Laws for Business; MGT-CC-522- Research Methods For Management; MGT-CC-523 Human Resource Management; MGT-CC-524 Marketing Management; MGT-CC-525 Financial Management; MGT-CC-526 Communication Skills; MGT-CC-527 Business Planning And Entrepreneurship; MGT-CC-528 Operations Research

Semester 3: MGT-CC-531 Data Analytics MGT-CC-532 Cyber Security and Information Systems.

Electives

A. FINANCE: MGT-DE-533 Security Analysis and Portfolio Management MGT-DE-534 Project Financing MGT-DE-535 Investment Banking MGT-DE-536, Financial Services MGT-DE-537, Commodities and Financial Derivatives

B. HUMAN RESOURCE: MGT-DE-538 Human Resource Development; MGT-DE-539 Organisational Change and Development; MGT-DE-5310 Group Dynamics and Team Building; MGT-DE-5311 Career Management; MGT-DE-5312 Performance Management

C. MARKETING MANAGEMENT: MGT-DE-5313 Advertising and Sales Promotion; MGT-DE-5314 Consumer Behaviour; MGT-DE-5315 Product Management; MGT-DE-5316 Sales Management; MGT-DE-5317 Rural Marketing



D. OPERATIONS: MGT-DE-5318 Supply Chain Management; MGT-DE-5319 Quality Management; MGT-DE-5320 Materials Management; MGT-DE-5321 Service Operations Management

E. SYSTEMS: MGT-DE-5322 System Analysis and Design; MGT-DE-5323 Software Engineering; MGT-DE-5324 Object Oriented Programming; MGT-DE-5325 Software Project Management

F. TRAVEL AND TOURISM MANAGEMENT: MGT-DE-5326 Tourism Geography; MGT-DE-5327 Tourism Products Of India; MGT-DE-5328 Travel And Tour Operators Management; MGT-DE-5329 Event Management; MGT-DE-5330 Hospitality Management

Semester 4: MGT-CC-541 Strategic Management; MGT-CC-542 Dissertation

Electives

A. FINANCE: MGT-DE-543 Behavioural Finance; MGT-DE-544 Strategic Financial Management; MGT-DE-545 International Financial Management

B. HUMAN RESOURCE: MGT-DE-546 Personality and Managerial Performance; MGT-DE-547 Conflict Resolutions and Negotiations; MGT-DE-548 Event Management

C. MARKETING MANAGEMENT: MGT-DE-549 Retail Marketing; MGT-DE-5410 Digital Marketing; MGT-DE-5411 Services Marketing

D. OPERATIONS: MGT-DE-5412 World Class Manufacturing; MGT-DE-5413 Technology Management; MGT-DE-5414 Total Productive Maintenance

E. SYSTEMS: MGT-DE-5415 Knowledge Management; MGT-DE-5416 Internet Programming and Web Design; MGT-DE-5417 Business Intelligence and Data Warehousing

F. TRAVEL AND TOURISM MANAGEMENT: MGT-DE-5418 Airport and Cargo Management; MGT-DE-5419 International Tourism and Global Updates ; MGT-DE-5420 Eco Tourism

Generic Courses (GC): Semester No. I- MGT-GC-511 Team Building; MGT-GC-512 Managing Rural Markets; **Semester No. II-** MGT-GC-521 Career Management; MGT-GC-522 Managing Diversity in Workplace; **Semester No. III-** MGT-GC-531 Ecotourism; MGT-GC-532 Basics of Retailing; **Semester No. IV:** MGT-GC-541 Six Sigma; MGT-GC-542 Responsible Tourism

Programme Specific Outcomes (PSO)

- Apply the knowledge gained during the course of the program to identify, formulate and solve real life problems to meet the core competency with continuous up gradation.
- Apply the knowledge of ethical and management principles required to work in a team with stewardship of the society.
- Consolidate the acquired theoretical knowledge into practical skills and wisdom.
- Discharge his/her social responsibility to the community at large and participate in volatile and disaster situations.



M.Phil. Management

Semester 1: Paper I – MGT-711 - Research Methodology (4 Credits)I; Paper II – MGT-712 Research Methodology II (4 Credits); Paper III – MGT- 713- History of Management Thought (4 Credits); **Semester 2:** MGT- 721 - Dissertation (20 Credits)

Research

Ph.D. in Management studies

The institute offers Ph.D. programmes in the various disciplines of Management. Selection is on the basis of an entrance exam conducted by the University of Kerala followed by an interview with the Doctoral Committee.

Eligibility

Candidates who have obtained at least 55% for the post-graduation are eligible to apply for the entrance test. Applications for the entrance test will be called off during August-September every year. The Entrance test is conducted on December every year. On clearing the entrance test, a synopsis has to be prepared relating to the subject intended for research work and submitted along with the application form for registration. The Research Guide must also be identified before the submission of the application. Registration is possible for Full-time and Part-time research work.

Post-Doctoral Fellow in Management studies:

Those who have completed Ph.D. in Management are eligible for applying to the programme with a detailed proposal of their work.





Department of Communication and Journalism (Estd. 1976)

Phone: 0471 2308013 | e-mail: dcjkerala@gmail.com

Faculty

Dr. Lalmohan P., Asst Professor and Head (Email: plalmohan@gmail.com, Ph: 9745608518)

Dr. M.S. Harikumar, Asst Professor (Email: msharikumar@gmail.com; Ph: 9847126047)

Maggie J., Asst Professor (Email: jmaggie68@gmail.com, Ph: 9495511223)

Suresh K.S., Asst Professor (Email: sureshkshanmughan@gmail.com, Ph: 9895068140)

Dr. Rajesh Kumar B M - Assistant Professor (Email: rajeshkumarbm1@gmail.com; Ph: 75599 53134)

Brief Profile

The Department of Communication and Journalism, University of Kerala was established in the year 1976. The Department started offering a two year Master's Degree course in Journalism (MJ), the first of its kind in the state and admitted 25 students in the first batch, based on an entrance examination. Presently (2020) the MCJ students intake is 22, and has a 50: 50 reservation to Science and Non Science streams for admission. If there are no sufficient number of candidates in one category, such seats shall go to the other.

From the very first year of its inception, the Department had all the basic facilities to impart a meaningful training in mass communication. It also started subscribing to PTI news service. Under the able leadership of Prof. Maxwell Fernandez, a galaxy of senior media personalities also offered their service as visiting faculty. The Department started publishing two practice journals of the students- one in English called 'Univ Voice' and the other in Malayalam named 'Kalari'. This practice continues.

PROGRAMMES OFFERED

Master of Communication and Journalism

Semester I: COJ-CC-511- Introduction to Communication; COJ-CC-512 -News Reporting; COJ-CC-513- Media Ethics and Laws; COJ-CC-514 - Editing & Print Media Production; COJ-

SE-515 -Lab Journal Production (Kalari 1 +UnivVoice 1); COJ DE-516- Magazine Journalism; COJ-DE-517- Fundamentals of Data Journalism

Semester II: COJ-CC-521 - Television News Production; COJ-CC-522- Media History; COJ-CC-523- Advertising & Marketing Communication; COJ-CC-524- Development Communication; COJ-DE-525- Script Writing & Video Production Practice; COJ DE-526- Media Management

Semester III: COJ-CC-531- Communication Research; COJ-CC-532- Communication, Culture & Society; COJ-CC-533- Film Studies; COJ-CC-534- Technical Writing & Documentation; COJ-DE-535-Radio Production; COJ DE-536- Science Communication

Semester IV: COJ-CC-541-Digital Journalism; COJ-CC-542- Public Relations and Corporate Communication; COJ-CC-543- Dissertation; COJ-CC-544- Media Internship; COJ-DE-545- Public Communication Campaign

Generic Course (GC): COJ-GC-501- Understanding Media; COJ-GC-502 - Malayalam Journalism; COJ-GC-503- Media and Public Sphere

Programme Specific Outcomes (PSO)

- To operate the skills and practice in media with ethical consciousness and professional
- To engage in both public and policy discussions and debates with an academic perspective about the International/ National and Regional Media and Communication
- To initiate new research aptitude and approach towards media and Communication analysis
- To raise and defend arguments, concepts, theoretical understandings related to Media and Communication practices.
- To critique the past and history of Media/ Communication practices and formulate analytical descriptions
- To review policies, styles and politics of Media operations
- To Equip for creating content as well as forms of media that can significantly contribute to a better social condition
- To produce MOJO (Mobile Journalism) snippets and Digital News/ Programmes
- To report, edit and lay out Newspapers and other print media forms
- To prepare technical documents and work with technical documentation team
- To prepare Advertisements of wide variety of contents
- To script, plan, shoot and edit Audio Visual programmes and News
- To write reviews and critique the styles/ types/ genres/ social- political standpoints of Cinema narratives and Documentary.
- To cultivate perspectives of Media Experiences / Effects / Audience / Practitioners

Facilities

The Department has a digitalized media lab, dark room, video editing unit, preview theatre, digital cameras and other state of the art equipment. These facilities help to impart professional training to the students in audio-visual production and editing. The media lab of the department has acquired several new computer systems and latest editing software. Recently the Department switched over to online PTI service. The department is poised to strengthen further in terms of latest communication technology.



Library

The library of the Department has the largest collection of Indian and foreign books in Communication and Journalism in the state. Internet facility provided in the library helps the students to have access to e-journals and latest information in the area of Mass Communication. In addition, most of the internationally renowned media journals are subscribed to.



PhD Communication and Journalism: Communication Credibility Studies; Media Criticism; Media Uses and Gratifications; Media History; Advertising research; New Media Effects; Philosophy of Communication; Media Practice and Process; Media and Cultural Studies; Mediation and Communication Phenomenon

Alumni

So far, nearly Forty batches of students have passed out of this department with a Masters in Communication and Journalism. Of this, majority are working with reputed media organisations in the country and abroad. Our students have found placements in national and a host of other publications. Likewise, our alumni have succeeded in manning several national and regional television channels in news production and distribution. A few are working in Radio Broadcasting, Film industry, Public Relations, Advertising and Communication Research. In the present age of Information, marked by media growth and expansion, the Department provides high employment potential to aspiring young minds to take up rewarding and challenging media jobs.





Department of Library & Information Science (Estd. 1961)

Phone: 0471- 2577779; Email: dliskerala2@gmail.com

Faculty

Dr. B. Mini Devi, Assistant Professor and Head (Email: drminidevi1968@gmail.com, Ph: 944663070)

Dr. Sudhi S. Vijayan, Assistant Professor (Email: sudhivijayan@gmail.com; Ph: 9496812295)

Dr. P.M. Prakashan, Assistant Professor (Email: prakashsumi@gmail.com, Ph: 9495760886)

Sri. Abdulla A, Lecturer on Contract (Email: abdukaipady@gmail.com, 7293973530)

Smt. Anju S Nair, Lecturer on Contract (Email: anjuanoop91@gmail.com, Ph: 8547273748)

Smt. Amrutha Madhu V.V., Lecturer on Contract (Email: amruthamadhu1911@gmail.com, Ph: 7994410070)

Brief Profile

The department founded in 1961 on the initiative of the then University Librarian Professor K. A. Isaac is the premier school of librarianship and information science in Kerala and one of the early teaching and research departments in the University of Kerala. Located in the Kerala University Library Building, presently the department offers MLISc. and M. Phil. programmes. It also enrolls candidates for research leading to Ph. D degree. In addition, the department undertakes research projects, continuing education programmes, and extension activities and offers consultancy services. Initially, there was only the Bachelor of Library Science (B. Lib. Sc.) course, which was later renamed as Bachelor of Library and Information Science (BLISc). The Master of Library and Information Science (MLISc.) course was introduced in 1979, with six seats, out of which three were reserved for practicing librarians. The department subsequently enhanced number to 12, and a Part-time MLISc. course was introduced in 1998, as a self-financing course, in response to the demands from the practicing librarians for opportunities for their professional development. Since 1996 MLISc. is offered as semesterised course under the Credit and Semester System, consisting of two semesters, each of 5 months duration, with total credits of 38, out of which 32 are for core courses and 6 for electives. Subsequently, MLISc Integrated Programme of 4 Semester duration was introduced in tune with the national pattern. Since 1982 – 83 the department has been enrolling Scholars for Ph.D.

The Silver Jubilee of the Department was celebrated in 1986. The yearlong celebrations consisted of a National Seminar on Library and Information Science Education in India: New Perspectives 10 – 12 December 1986, a Regional Seminar on the Kerala Public Libraries Act, specialized lectures by stalwarts in various fields, Publication and a host of other programmes. Prof. K. A. Isaac has been heading the department, since its inception till his retirement on 31 July 1985. Initially, Prof. Isaac was heading both the University Library and the department, and this state of affairs continued till his retirement from the post of University Librarian on 31 July 1980. Then onwards headship of the University Library and the Department was bifurcated. Prof. M. N. Ramakrishnan, the then senior-most Faculty member, succeeded Prof. Isaac as Head of the Department in 1985. He continued in the position till 1990. Smt. K. K. Lalitha Bai, the Reader, was the successor of Prof. M. N. Ramakrishnan. She continued till she voluntarily relinquished the headship on 1 May 1994. Dr. G. Devarajan till 2007, Sri. M. Varghese (up to 2008), Dr. A. Gopikuttan (till 2012), Dr. Vijayakumar K. P. (till 2015), Dr. S. Humayoon Kabir (till 31 May 2017), held the position of H.O.D, Dr. B. Mini Devi is now the Head of the Department.

PROGRAMMES OFFERED

MLiSc. (Master of Library & Information Science)

Semester 1: LIS-CC-511: Foundations of Library and Information Science; LIS-CC-512: Principles of Management; LIS-CC-513: Knowledge Organization: Library Classification (Theory); LIS-CC-514: Knowledge Organization: Library Classification (Practical); LIS-CC-515: Fundamentals of Information Technology (Practical);

Discipline-Specific Elective (DE): LIS-DE-516: Knowledge Organization: Universal Decimal Classification (Practical)

Semester 2: LIS-CC-521: Information and Communication; LIS-CC-522: Information sources; LIS-CC-523: Information Products and Services; LIS-CC-524: Library and Information Centre Management; LIS-CC-525: Cataloguing and Metadata (Theory); LIS-CC-526: Cataloguing and Metadata (Practical)

Discipline-Specific Elective (DE): LIS-DE-527: Intellectual Property Rights

Semester 3: LIS-CC-531: Research Methodology; LIS-CC-532: Information Storage and Retrieval; LIS-CC-533: Information Technology Application in LIS (Theory); LIS-CC-534: Information Technology Applications in LIS (Practical); LIS-CC-535: Internship.

Discipline-Specific Elective (DE) LIS-DE-536: Statistical Methods.

Semester 4: LIS-CC-541: Technical Communication; LIS-CC-542: Informetrics; LIS-CC-543: Digital Libraries; LIS-CC-544: Dissertation & Viva voce

Skill Enhancement Elective (SE): LIS-SE-501: Web Technologies; LIS-SE-502: Information Literacy; LIS-SE-503: Competency Development

Generic Courses (GC): LIS-GC-501: Environment, Technical Writing; LIS-GC-502: Electronic Publishing; LIS-GC-503: Electronic Records Management; LIS-GC-504: Knowledge Management.



Programme Specific Outcomes (PSO)

Understand the basic concepts, principles, theories, and laws related to the broad field of Library and Information Science and its sub-fields such as types of libraries and information sources, library management, reference and information services.

Understanding the procedures of selection, acquisition, classification, cataloguing and physical processing of documents, using Information and Communication Technologies in Libraries and Information Centers, providing library and information services, and managing other library routine activities.

Apply skills in carrying out professional activities such as acquisition, accessioning, classification, cataloguing, and physical processing of documents, housekeeping operations using library management software and Information and Communication Technologies, maintaining library collection, and educating users.

Prove skills in providing various library services such as document circulation, reference and information services, Internet and database searching.

Develop skills that offer job opportunities as librarians in different environments.

Develop professional attitude and commitment will help to serve the user community by facilitating different sources and services to strengthen the Human Resource Development initiatives.

Develop core values by honoring diversity, insuring inclusion and displaying ethical integrity which involves honest behaviour.

M.Phil. (Library and Information Science)

Semester 1: Paper I - LIS 711 - Research Methodology (4 Cr), Paper II - LIS 712 Informetrics (4 Cr); Paper III - LIS 713- Digital Libraries (4 Cr); **Semester 2:** LIS 721 - Dissertation (20 Cr)

Research

The Department offers Ph. D. in Library and Information Science. The Department was recognized as a Research Centre of the University in 1979. The thrust areas of research are Historical aspects of Library and Information Science, Library Movements, Public Libraries, Academic Libraries, Special Libraries, Library Management, Information Behaviour, Information Retrieval, Social Media Studies, Informetrics, Digital Libraries etc.

Information Technology Lab

The department owns a well-equipped Information Technology Laboratory right from 1989. Around 25 computers are available here. Other equipments in the lab include an LCD projector, scanner, reprographic equipment and a host of printers. The systems are networked and there is also a high-speed Internet connection in the lab. Windows, CDS/ISIS, WINISIS, SOUL and KOHA are the major software packages available in the Department.

Department of Library and Information Science Association (DLISA)

The Department of Library & Information Science Association (DLISA) functioning in the Department since 1974 is a forum of the students, research scholars and faculty members. It is the body which organizes co- curricular and extracurricular activities aimed at integral development of information skills of the students.



Alumni Association of the Department of Library & Information Science (AADLIS)

The Alumni Association of the Department of Library & Information Science (AADLIS) formed in 2004 and at present functioning in the Department serves as a forum for fostering the professional development of its members and for harnessing their potentials for the development of the department.

The alumni of this Department are spread over the whole of India and a few are practicing abroad. A large majority of them are working in the various libraries and information centres in Kerala. Almost all the Professionals heading the prominent libraries and information centres in the state, such as the Kerala State Central Library, the University Libraries of almost all the Universities in Kerala, High Court Library, College libraries and the major research libraries in the state are the products of the Department.

Strengths of the Department

- One of the oldest Library and Information Science Departments in the Country
- Good infrastructural facilities
- Experienced faculty
- Strong alumni support
- Placement record
- Frequent revision and updating of syllabus





School of Distance Education (Est.1976)
[Recognised by Distance Education Bureau (DEB)-UGC]

Ph: 8129977026/ 9400449415/ 9400433559/ 9400040838
 www.ideku.net Email: director.ide@gmail.com

The School of Distance Education (SDE), started in 1976, as a teaching and research department of the University of Kerala, is one of the pioneering centers of distance learning in the State. The School was founded with the following objectives:

- Democratizing higher education to large segments of the population, in particular the disadvantaged groups like those living in remote and rural areas, working people, and women.
- Providing an innovative system of university-level education that is both flexible and open in terms of methods, the pace of learning, eligibility for enrolment, and age of entry.
- Providing an opportunity for up-gradation of skills and qualifications.
- Developing education as a lifelong activity to enable persons to update their knowledge or acquire knowledge in new areas.

The University of Kerala is one of the Universities in India having a permanent full time teaching faculty members for running the distance education programmes. In line with the efforts of the UGC to streamline the distance learning mode, the SDE also redefined its programmes and decided to offer programmes in those subjects/fields which are offered by the University through the regular mode from 2018 admission onwards. Accordingly, the School offers 26 programmes, 13 UG and 13 PG through distance mode of learning. The medium of instruction of all courses is English except for certain language courses. The School is located at the Kariavattom Campus, University of Kerala, Thiruvananthapuram. At present 28000-odd students are pursuing their UG and PG programmes in SDE. Similar to regular departments, SDE is conducting periodical seminars and workshops and career counselling and guidance to its students. The School has a reputed alumni association (IDEAA), which is providing financial support to the students from the lower socio-economic strata and also funding the academic and infrastructure development of the School.

Programmes of the School of Distance Education

Sl.No	UG Programmes (6 semesters)	Sl.No	PG programmes (4 semesters)
1	B.A. Economics	1	M.A. Economics
2	B.A. English	2	M.A. English
3	B.A. History	3	M.A. Hindi
4	B.A. Hindi	4	M.A. History
5	B.A. Malayalam	5	M.A. Malayalam
6	B.A. Political Science	6	M.A. Political Science
7	B.A. Sociology	7	M.A. Public Administration
8	B. Sc. Computer Science	8	MA Sociology
9	B. Sc. Mathematics	9	M. Sc. Computer Science
10	Bachelor of Computer Application	10	M. Sc. Mathematics
11	B. Com	11	M.Com - Finance
12	BLISc (2 Semesters)	12	MLI.Sc (2 Semesters)
13	BBA	13	MBA

Faculty Members of the School of Distance Education

Sl.No	Name	Designation	Subject
1	Dr.R. Vasanthagopal	Professor and Director	Commerce
2	Dr.A.M. Unnikrishnan	Professor	Malayalam
3	Dr Asha	Professor	Sociology
4	Dr Lal CA	Professor	English
5	Dr.Suresh Kumar K.S	Professor	Commerce
6	Dr Shaji A	Professor	History
7	Dr S Ajitha	Asst. Professor	Public Administration
8	Dr.S.Nazeeb	Asst. Professor	Malayalam
9	Dr.K.Mushtaq	Asst. Professor	Commerce
10	Dr Balu B.	Asst. Professor	Hindi
11	Dr.Indu.K.V	Asst. Professor	Hindi
12	Dr.Deepak K.R	Asst. Professor	Hindi
13	Dr Rajan TK	Asst. Professor	Political Science
14	Dr.Rose Mary George	Asst. Professor	Malayalam
15	Dr S Suja	Asst. Professor	History
16	Dr.S.Venumohan	Asst. Professor	Political Science
17	Renoj N.J	Asst. Professor	Political Science
18	Aby T. Suresh	Lecturer on contract	Management
19	Dr Shaji B.	Lecturer on contract	Computer Science
20	Krishna SS	Lecturer on contract	Computer Science
21	Ligi I.H.	Lecturer on contract	Sociology
22	Maya S.	Lecturer on contract	English
23	Asha Ashok	Lecturer on contract	Computer Science
24	Arya SV	Lecturer on contract	English
25	Aswathy Ramachandran	Lecturer on contract	Library Science
26	Salma MS	Lecturer on contract	Mathematics
27	Suchithra S.S.	Lecturer on contract	Economics
28	Dr.Vineetha T.	Lecturer on contract	





Department of Geology (Estd. 1963)

Ph: 2308403; Email: geologykeruty@gmail.com

Faculty

Dr. R.B. Binoj Kumar, Prof. & Head (Email: binojrb@gmail.com; Ph: 9447101220)

Dr. A.P. Pradeepkumar, Professor (Email: geo.pradeep@keralauniversity.ac.in; Ph: 9895245380)

Dr. Rajesh Reghunath, Professor (Email: rajeshgeologist@gmail.com; Ph: 9447103510)

Dr. Shaji E. Associate Professor (Email: shajigeology@gmail.com; Ph: 9447479798)

Dr. Sajin Kumar K.S., Assistant Professor (Email: sajinks@keralauniversity.ac.in; Ph: 9495832220)

Dr. Y. Anilkumar, Assistant Professor (Email: anilgeol@gmail.com; Ph: 9567692610)

Dr. S.G. Dhanil Dev, Assistant Professor (Email: ghanildev@keralauniversity.ac.in; Ph: 8281674056)

Emeritus fellow: Prof. V. Prasannakumar (Email: vprasan56@gmail.com; Ph: 9447134935)

Brief Profile

The unlimited scope of geology in the industrial and economic development of the state prompted the University of Kerala to start a post graduate department of study and research in Geology in 1963. The origin of this department can be traced back to 1947 when a division of Mineral Survey and Research functioned as part of the Council of Research in the University of Travancore under T.R.M. Lawrie, a Senior Geologist of the Geological Survey of Great Britain. In the beginning the department functioned in the Senate Hall Campus in the Thiruvananthapuram city, under the headship of Prof. K.K. Menon. In 1968 the department was shifted to the sprawling main campus at Kariavattom, situated about 15 km north of Thiruvananthapuram. The department was guided through its formative years and later on by eminent teachers like Prof.s R. Krishnanath, Dr. K.P.Rajendran Nair, Dr. Raju Philip, Dr. V. Narayanan Nair, Dr. S. Anirudhan, Dr. V. Prasannakumar, Dr. Roy Chacko and Dr. S.N. Kumar.

The department offers post-graduate, research programmes and trains students to be scientists, academics and professional geologists. This endeavour has greatly succeeded as

more than 80% of the alumni are working in the field of earth science and are occupying key positions in several geology-related organizations in different parts of the world. Presently the department offers M.Sc. (Geology), M.Phil. (Geology) and Ph.D. courses.

During the six decades of existence, the department has maintained very high standards amongst the earth science departments in the country and has produced several eminent earth scientists. It is presently equipped with state-of-the-art laboratories, smart class rooms and well-stocked library. Field studies, which form an integral part of the curriculum, make the postgraduate students conversant with the basics of geological mapping and arouse interest in research. Apart from the usual financial aid from the University, the department has been receiving copious funds from University Grants Commission, Department of Science and Technology and Kerala State Council for Science, Technology and Environment Committee.

The research carried out by the faculty of this department has resulted in the publication of several important papers in high impact journals of earth sciences. The Google Citations page of the department can be accessed here <https://bit.ly/36yphLM>

PROGRAMMES OFFERED

1. M.Sc. (Geology)

2 years (4 semesters) duration; B.Sc. in Geology with 55% marks as eligibility

Course titles in each semester:

I SEMESTER: Physical Geology and Geomorphology (Theory and Practicals), Igneous Petrology (Theory and Practicals), Remote Sensing and Geoinformatics. Survey Practical.

II SEMESTER: Sedimentology and Sedimentary Petrology (Theory and Practicals), Structural Geology (Theory and Practicals), Engineering Geology, Metamorphic Petrology (Theory and Practicals), Mineralogy, Optical Mineralogy and Crystallography Practical, Field Geology

III SEMESTER: Exploration Geology (Theory and Practicals), Ore Genesis, Stratigraphy, Palaeontology, Geochemistry, Precambrian Geology, Field Geology.

IV SEMESTER: Hydrogeology (Theory and Practicals), Economic Mineral Deposits (Theory and Practicals), Petroleum and Coal Geology, Dissertation

2. M.Phil. (Geology)

1 year (2 semesters) duration; M.Sc. in geology with 55% marks as eligibility

Course titles in each semester:

I SEMESTER: Paper I Research Methodology, Paper II Recent trends and tools in Geosciences and Paper III Elective Subjects

II SEMESTER: Dissertation and submission of thesis

3. Ph.D. (Geology), Projects, Research and Consultancy

The faculty at the department are specialized in various disciplines of geology. The thrust areas of research are: deciphering the evolution of the shear zones and crustal blocks of southern India, by studying petrology, fluid inclusions, geochemistry and tectonics; the mineral resource characterisation of Kerala in particular and the whole of India in general; the identification and characterisation of impact events in India; the assessment of the



quality and quantity of ground and surface waters of Kerala, groundwater contamination and remediation, augmentation and management of groundwater; the interactions between climate and terrain parameters in shaping landscape; the characterisation of natural disasters, especially floods and landslides, and developing predictive techniques, mitigation measures and post-event damage control; magnetic susceptibility of shear zone rocks; coastal cliff recession modelling; remote sensing and geoinformatics. This research is facilitated through the state of the art laboratory facilities like XRF, SEM, Laser Raman, Kappa Bridge Magnetic Susceptibility Testing Instrument, mini core drilling machine, UV Spectrophotometer, Binocular Petrologic Research model microscopes, ArcGIS Master Lab Kit software and ERDAS Imagine software which are available in the department. Most of the research culminate in producing PhDs and research papers which are published in leading earth science journals and also are presented in national and international seminars. Apart from the regular research activities, the department faculty has successfully completed a number of projects sponsored by organizations like Department of Science and Technology, Ministry of Earth Sciences, Ministry of Environment and Forest, University Grants Commission, Council for Scientific and Industrial Research and Indian Space Research Organization.

The department is fully equipped to offer consultancy in the areas of geological and hydrogeological investigations, remotely sensed data interpretation and terrain evaluation, disaster management etc.

Research output:

The department has an H-index of 31 and an i-10 index of 92, based on Google citations.

Research infrastructure

Labs: AAS (GBC), UVVIS Spectroscope (Systronics), Flame Photometer, AGICO AMS (Anisotropy of Magnetic Susceptibility), chemical lab with fume hood, 40-ton Insmart Pellet Press, Katanax Electric Fused Bead Machine, Fristch 2-chamber Pulverizer, GIS lab [QGIS, ArcGIS], Laboratory of Earth Resources Information System (LERIS: a joint ISRO-University of Kerala initiative), Petrography, Thin sectioning lab, Museum. Access to the Central Laboratory for Instrumentation and Facilitation (CLIF) of the University of Kerala gives added analytical support to the research in the department.

Museum

A full-fledged Geological Museum of the Department is being established in the Kariavattom campus, which will be unique in the state. This facility will be made available to the students of earth science, researchers and general public. This will be a systematic effort to showcase the geology of Kerala and India and inculcate understanding of Earth materials and processes among students and the general public, as well as being a centre for study of rare museum specimen.

Alumni: The department has a strong alumni association. The Dept of Geology values its alumni, and the alumni contribute a lot to the growth of the department. The alumni directory can be accessed here <https://bit.ly/3rMBiLK>

Consultancy: The Dept of Geology has seven faculty members and one Emeritus fellow. The specializations range from pure geology to hydrogeology to environmental sciences, disasters and climate change. The faculty offers consultancy services on demand.





Department of Environmental Sciences (Estd. 1995)

Phone: 0471- 2308146; Email: hodenvscience@gmail.com

Faculty

Dr. V. Salom Gnana Thanga, Professor and Head (Email: salom@keralauniversity.ac.in; Ph: 9447220009)

Dr. Jaya D.S., Professor (Email: jayvijayds@gmail.com; Ph: 9895822161)

Dr. Sabu Joseph, Professor (Email: jsabu2000@gmail.com ; Ph: 9447453063)

Dr. Sherly Williams. E, Associate Professor (Email: sherlyrobin@rediffmail.com; Ph: 9495036719)

Dr. Bindhya R., Lecturer on contract (Email: bindhya.envt@gmail.com; Ph: 9847043216)

Mrs. Navami S.S., Lecturer on contract (Email: navamirohini@gmail.com; ph.: 9633244563)

Brief Profile

The Department of Environmental Sciences under the Faculty of Applied Sciences & Technology was established in 1995 as a teaching-cum-research department. The department offers M.Sc., M.Phil., Ph.D and Post-doctoral programmes in Environmental Sciences. The department has facilities for undertaking research work in Environmental Biology, Environmental Microbiology, Environmental Chemistry, Environmental Toxicology and Environmental Geology. The department has Young Scientists/ Women Scientist program funded by DST/ KSCSTE/ UGC. The department has made significant contributions since its establishment through several major research projects funded by UGC, MoEF, DST, BRNS, DBT, KSCSTE, CPCB, Govt. of Kerala and DoECC. The department has collaborations with national and international institutions/ agencies in the form of joint research projects like Indo-Israel joint research programme and academic exchanges with many foreign universities.

The department has so far produced 55 Ph.D's in Environmental Sciences. To its credit, there are 250 publications in National and International journals. The department has organized three international seminars, several national and regional seminars, and three international workshops. The Students Skill Acquisition Club (SSAC) and Bhoomithrasena in the Department organizes several programmes in connection with environmentally and nationally significant days like Environment Day, National Science Day, Earth Day, Water

Day, Ozone Day, Wetland Day, Energy Day, Yoga Day etc. The Alumni Association (ENSAA) and the Parent-Teacher Association of the department were established in 2002 and 2014 respectively. The department has a Water Testing Laboratory approved and accredited by the Kerala State Pollution Control Board, and offers consultancy in water quality testing. The Department also has a Geographic Information System (GIS) Laboratory for learning and research.

PROGRAMMES OFFERED

M. Sc. Environmental Sciences

M. Sc Environmental Sciences programme consists of theory, practical, field work and project work. Students are exposed to field and laboratory experiences on environmental issues and solutions with adequate theoretical back up, creating awareness among them, and further preparing them to take up research or job related to environmental studies or environmental management. Eligibility is 55% marks at the B.Sc. level in the qualifying subjects such as Environmental Sciences/ Environmental Mgmt. / Botany/ Zoology/ Life Sciences/ Forestry/ Environmental Chemistry/ Biotechnology/ Biochemistry/ Chemistry/ Geology/ Industrial fish and Fisheries/ Marine Biology/ Microbiology.

Semester 1: ENS-CC-511: Ecology and Ecosystem Dynamics (4 Cr), ENS-CC-512: Environmental Toxicology (4 Cr), ENS-CC-513: Environmental Chemistry (4 Cr); ENS-CC-514 Environmental Geology (4 Cr); ENS-CC-515 Environmental Meteorology and Climate Change (3 Cr); **Discipline-Specific Elective (DE)** ENS-DE-516 Biochemistry and Nanobiology

Semester 2: ENS-CC-521: Environmental Techniques (3 Cr), ENS-CC-522: Environmental Microbiology (4 Cr), ENS-CC-523 Environmental Genetics and Biotechnology (4 Cr), ENS-CC-524 Remote Sensing and GIS (3 Cr); ENS-CC-525: Natural Resources and Energy Management (4 Cr)

Semester 3: ENS-CC-531: Environmental Engineering and Pollution Control (4 Cr), ENS-CC-532: Environmental Economics and Policies (4 Cr), ENS-CC-533 Environmental Impact Assessment and Disaster Management (3 Cr), ENS-CC-534: Field Study (2 Cr) **Discipline-Specific Elective (DE):** ENS-DE-535 Integrated Waste Management (2 Cr.)

Semester 4: ENS-CC-541 Internship (2 Cr); ENS-CC-542 Green Skill Programme (2Cr); ENS-CC-543 Dissertation (6 Cr.)

Generic Courses (GC): ENS-GC-501 Disaster Management, ENS-GC-502 Environmental Health Perspectives, ENS-GC-503 Human Health Management; ENS-GC-504 Waste Management Techniques

M. Phil. Environmental Sciences

M.Phil Environmental Sciences is meant for post graduates interested in pursuing research training in research methodology including project work and preparation of manuscripts. Students have to study three papers in the first semester and have to appear for the end semester examination. The second semester is purely research oriented. Students have to conduct project work based on the selected research topic under the guidance of a teacher. At the end of the semester they have to submit the dissertation and should attend the viva voce. Also they have to make a power point presentation. Those completing M. Phil. Degree become eligible to join for Ph.D. course in the university. Duration is 1 year (2 semesters).



Eligibility is (1). 55% marks at the M.Sc. in qualifying subjects (Environmental Sciences / Environmental Mgmt. / Botany / Zoology / Life Sciences / Biotechnology / Biochemistry / Chemistry / Geology / Marine Biology / Microbiology/Aquatic Biology) (2). Pass in M.Phil.. Entrance Examination conducted by University of Kerala.

Semester 1: ENS-711: Research Methodology (4 Cr), ENS-712: Advances in Environmental Sciences (4 Cr), ENS-713: Elective (4 Cr) - (Environmental Pollution and Control Technology, Environmental Biology, Environmental Geology and Geochemistry); **Semester 2:** Project work

Ph.D. Environmental Sciences

The supervising teachers of the department have been working on various environmental aspects and extending guidance to M.Sc., M.Phil and Ph.D scholars in working out projects. The research profile of the department is very ambitious and has a special focus on the local and global environmental problems and solutions.

Areas of Research: Biomonitoring and Bioremediation; Microbial Biogeochemistry; Anaerobic bioremediation of organic pollutants; Phytoremediation of industrial effluents by constructed wetland technology; Studies on Environmental pollution and its impacts; Abiotic stress related studies and its management; Soil pollution, Water pollution and Air pollution aspects; Environmental Toxicology and Health; Sedimentology and Environmental Geology; Remote Sensing & GIS; Environmental Impact Assessment; Hydrogeochemistry

Special Instrument Facility



BOD Incubator, Flame Photometer, High Performance Liquid Chromatography (HPLC), Gas Chromatography, AAS, RAD7 Radon detector (DurrIDGE Co., USA),

Consultancy Areas

- Water testing facility for drinking water for public and private sectors on payment basis in the Pollution Control Board approved lab of department. For details of analysis and Rates of analysis visit university web site ([www.keralauniversity.ac.in/dept/env science/consultancy](http://www.keralauniversity.ac.in/dept/env%20science/consultancy)).
- Water resource management, surface water-ground water interaction studies using isotopic techniques
- Consultancy for rain water harvesting and artificial recharge
- EIA studies for developmental projects – preparation of TOR, EMP and EIS
- River bank mapping and sand auditing of rivers
- Solid waste management of proposed sites
- Environmental auditing (waste-, water- and energy- auditing)
- GIS analysis and mapping



Department of Arabic (Estd. 2001)

Phone: 0471 2308846; Email: campusarabic@gmail.com

Faculty

Dr. Thajudeen AS., Asst. Professor & Head (Email: thajudeenmannani@gmail.com; Ph: 9446827141)

Mr. Noushad V, Assistant Professor (Email: noushusasc@gmail.com; Ph: 9747318105)

Dr. Suhail E, Lecturer on Contract (Email: sekjnu@gmail.com; Ph: 9496749322)

Dr. Muhammad Shafi KP , Lecturer on Contract (Email: shafiwafi@gmail.com; Ph: 9562722485)

Dr. Nadeera J, Lecturer on Contract (Email: nadeeramaheen@gmail.com; Ph: 9562844787)

Brief Profile

Department of Arabic in University of Kerala was established on 29.01.2001 at university campus in Kariavattom. In the same academic year, the department began teaching providing students with the masters' degree in Arabic language and literature, with a syllabus based on modern curricula and new methods of teaching. The Department has achieved a prominent role in offering the effective literary education from the very beginning. It has contributed a remarkable number of teachers in Arabic language & literature, translators and efficient professionals in various fields in India and abroad. Many graduates of this department work in Saudi Arabia and other Arab countries. It upholds its pivotal role guaranteed by outstanding outputs in the academic arena as well as molding highly skilled professionals in Arabic oriented job sector. The Department has tried well in the expansion of Arabic language among students and promoted deep knowledge of Islamic and cultural topics by developing their written and spoken skills. Over the past ten years, and still, it has been providing invaluable services and creating a new generation of skilled scholars with high quality and unparalleled standards.

The Department of Arabic is one of the most important departments in University of Kerala. It aims to enhance communication skills and academic standards among students by motivating them to be creative and contribute socially meaningful life. The department

teaches all courses focused on the academic skills of the Arabic language, which meets the needs of students at University level. The focus is on reading, writing, listening and speaking skills as well as focusing on language structures; rules and academic outputs. The regular academic structure of this department follows the enrolment of students completed their bachelors' degree to continue their masters' degree in the university in four semesters within two years. The students will later enrol to the M.Phil and then finish the Ph.D here after fulfilling formalities and particulars of the courses. The courses in the department emphasize on professional, technical and commercial areas of translation along with literature. To attain this objective the department offers various courses like Ph.D in Arabic, M.Phil in Arabic, M.A. in Arabic Language and Literature, Certificate Course in Communicative Arabic, Diploma in Communicative Arabic, and Certificate Course in Arabic Typing. The department of Arabic has been approved by the governmental agencies like the Ministry of Home & the office of the Protector of Emigrants as their approved translation and attestation centre.

The department began publishing "Majalla Kairala" Peer Reviewed Academic journal in 2010 but was stopped for a while due to technical problems. But it resumed publishing as it now continues to issue as semi-annual academic magazine (ISSN: 2277-2839), the all issues are available in the department website. The journal publishes purely academic research articles in January and July (in Arabic and English). The Magazine has been enlisted by UGC in approved Journal. The Department has held successive international and national conferences and workshops on various topics. These conferences have had a profound impact on the academic, cultural, social and political spheres. The conference proceedings were published after all the conferences and seminars for the benefit of researchers, scholars and readers in the Arabic language.

PROGRAMMES OFFERED

I. M.A. Arabic Language and Literature

Semester 1: ARB-CC-511: Grammar & Morphology – I, ARB-CC-512: Qur'anic & Hadith Literature, ARB-CC-513: Classical Arabic Literature, ARB-CC-514: Linguistics, Rhetoric & Prosody

Discipline-Specific Elective (DE): ARB-DE-515: Arabic for Travelers, ARB-DE-516: Islamic Literature in Arabic, ARB-DE-517: Arabic Literature in Kerala

Semester 2: ARB-CC-521: Grammar & Morphology – II, ARB-CC-522: History of Islamic Civilization, ARB-CC-523: Medieval Arabic Literature, ARB-CC-524: Language Technology and Communication

Discipline-Specific Elective (DE): ARB-DE-525: Commercial Arabic, ARB-DE-526: Modern Arabic Literature in Saudi Arabia, ARB-DE-527: Arabic Literature in Spain

Semester 3: ARB-CC-531: Indo Arabic Literature, ARB-CC-532: Literary Criticism, ARB-CC-533: Modern Arabic Literature, ARB-CC-534: Methodology of Education & Research

Discipline-Specific Elective (DE): ARB-DE-535 : Resistance Literature in Arabic, ARB-DE-536: Drama, Biography and Fiction in Arabic, ARB-DE-537: Mahjar Literature

Semester 4: ARB-CC-541: Translation and Simultaneous Interpretation, ARB-CC-542: History of Modern Arab World, ARB-CC-543: Contemporary Arabic Literature, ARB-CC-544: Dissertation & Viva-voce



Discipline-Specific Elective (DE): ARB-DE-545: Special Author: Naguib Mahfouz, ARB-DE-546: Arabic Journalism and Essay Writing, ARB-DE-547: Women's Writing in Arabic

Skill Enhancement Elective (SE): ARB-SE-501: Basic Arabic Computer Skill, ARB-SE-502: Arabic for Employment

Generic Courses (GC): ARB-GC-501: Arabic for Communication, ARB-GC-502: Arabic for Correspondence, ARB-GC-503: Introduction to Arabic Language, ARB-GC-504: Introduction to Arabic Literature, ARB-GC-505: Basic Rhetoric in Arabic ARB-GC-506: The Qur'an

Programme Specific Outcomes (PSO)

- Demonstrate mastery of the discipline by detailing the development and current practices of literary and linguistics studies, rhetoric, grammar, translation and history of the literature.
- Keep pace with modern knowledge, approaches and theories in the fields of language and literature.
- Identify, analyze, interpret and describe the critical ideas, values, and themes that appear in literary and cultural texts and understand the way these ideas, values, and themes inform and impact culture and society, both now and in the past.
- Develop critical thinking skills in the fields of education and scientific research.
- Develop virtuous values of self-reliance and teamwork.
- Nurture culturally active researchers and scholars in the fields of literature, language and criticism.
- Evaluate and synthesize information from a variety of written and electronic sources.
- Compare different cultures for enhancing the scope of inter intra-cultural dialogue.
- Use IT for the purpose of drafting and document preparation.
- Develop a research personality capable of exploration, creativity and reasoning.
- Write analytically in a variety of formats, including essays, research papers, reflective writing and critical reviews of secondary sources.
- Demonstrate mastery of the discipline by characterizing, instantiating, and critiquing the dominant critical theories, methodologies, and practices in the field.

II. M.Phil in Arabic

Semester 1: ARB-711: Research Methodology, ARB-712: Literary Theories

Discipline Specific Elective: (i) ARB-713: History of Modern & Contemporary Arabic Literature: Egypt & Sudan (ii) ARB-713: History of Modern & Contemporary Arabic Literature: Maghreb Countries (iii) ARB-713 History of Modern & Contemporary Arabic Literature: Arabian Gulf Countries (iv) ARB-713 History of Modern & Contemporary Arabic Literature: Iraq & the Levant

Semester 2: AQB 721 - Dissertation



III. PhD in Arabic

The Department offers Ph.D. in Arabic Language and Literature. The focal Areas of the research are: Arab Culture and History, Arabic Cinema, Biographical Studies, Feminism and Women Literature in Arabic, Modern Arabic Poetry and Prose, Lexical Studies and Classical Texts

IV. Certificate Course in Communicative Arabic (Offline & Online)

V. Diploma in Communicative Arabic (Offline & Online)

VI. Certificate Course in Arabic Typing

Language Lab

Department of Arabic has a well-furnished language lab with software and 20 computers. The computers have internet connections.

Services rendered by Department

Department of Arabic extends its support for the general public through translation of documents from Arabic to English and Vice versa.

Alumni

Department of Arabic has a well-functioning Alumni Association in the name KUDAAA (Kerala University Department of Arabic Alumni Association). The committee has supported enormously for the development of Arabic Department. Association extended financial assistance for the renewal of language lab last year.

President: Dr. Hafeesudeen: 9633300970

Secretary: Dr. Haris: 9847053340





Institute of English (Estd. 1962)

Phone: 0471 2386325; Email: head.kuie@gmail.com

Faculty

Dr. B. Hariharan, Professor (Email: harirang@gmail.com; Ph: 9446203008)

Dr. Meena T. Pillai, Professor (Email: meenatpillai@gmail.com; Ph: 9495919749)

Dr. Suja Kurup P. L., Associate Professor (Email: sujapl@gmail.com; Ph: 9446302815)

Mr. Vishnu Narayanan, Assistant Professor (Email: vishnunarayananoo8@gmail.com; Ph: 9809538287)

Dr. Lakshmi Sukumar, Assistant Professor (Email: lakshmisukumarsept22@gmail.com; Ph: 9495310180)

Brief Profile

The Institute of English was established in 1962 as a programme for improving existing standards of teaching of English in schools and colleges. Two one-year courses were started, one for the Diploma in English for School teachers and the other Diploma in English for third class post graduates to improve their qualification. The M.A. course in English Language and Literature was started in 1964 and in 1965 a part-time M.A. English evening course was started. In 1972, the evening course was discontinued and in 1973 the Diploma Course in the Teaching of English was also discontinued. In 1982, the PG Diploma in English for Communication was started as an evening course. The fulltime regular M.A. course with greater facilities for research continued. With the introduction of the M.Phil course in 1978, the Institute became the nerve centre of research in English Language and Literature in Kerala. The Institute is a UGC-SAP funded department and has researched in areas like "English for Specific Purposes," "Diaspora Studies," and "Literature and Culture: The Kerala Experience." The Institute of English has four centres which include the Centre for Australian Studies, UGC Area Study Centre for Canadian Studies, Centre for Cultural Studies and the Centre for English Language Teaching.

PROGRAMMES OFFERED

MA English Language and Literature

I Semester: ENG-CC-511: British Literary Genres I (4 Credits); ENG-CC-512: Philosophy of Aesthetics (4 Credits); ENG-CC-513: Language Studies I (4 Credits). ENG-CC-513: European Literature (4 Credits).

II Semester: ENG-CC-521: British Literary Genres II (4 Credits); ENG-CC-522: Critical Theories I (4 Credits); ENG-CC-523: Indian Writing in English Literary (4 Credits). ENG-CC-524: American Literature (4 Credits).

III Semester: ENG-CC-531: British Literary Genres III (4 Credits); ENG-CC-532: Critical Theories II (4 Credits); ENG-CC-533: Cultural Studies (4 Credits);

IV Semester: ENG-CC-541: Contemporary Literatures (4 Credits); ENG-CC-542: Cultural Histories of Keralam (4 Credits); ENG-CC-543: Language Studies II (4 Credits); ENG-D-544: Project.

Elective Courses

I Semester: ENG-SEE-515: Academic Writing (2 Credits); ENG-DSE-516: Film Studies (2 Credits).

II Semester: ENG-DSE-525 (i): Laws and sexualities in India; ENG-DSE-525 (ii): Women, Bodily Autonomy and Law; ENG-DSE-526: Digital Feminisms; ENG-DSE-527: Dalit Writing (2 Credits); ENG-DSE-527: Regional Literatures in English Translation.

III Semester: ENG-DSE-534 (i): Study of an Author - John Milton; ENG-DSE-534 (ii): Study of an Author - Jane Austen; ENG-DSE-534 (iii): Study of an Author - Anton Chekhov; ENG-DSE-534 (iv): Study of an Author - G. B. Shaw; ENG-DSE-535: Canadian Contexts and Texts; ENG-DSE-536: Australia: History, Culture and Literature; ENG-DSE-537: South Asian Diaspora Narratives; ENG-DSE-538: Literature and Ecology.

M.Phil English Language and Literature

I Semester: ENG-711: Research Methodology (4 Credits); Eng-712: Literature and Culture: Intersections and Interventions (4 Credits); ENG-713: Area of Specialization (4 Credits) – ENG-713(i): Theorizing Heritage Studies, ENG-713(ii): The World in Canada, ENG-713(iii): Cultural Studies, ENG-713(iv): Feminist Digital Humanities, ENG-713(v): Literature, Ecology, Culture., ENG-713(vi): Ethnic Studies, ENG-713(vii): Folklore Studies, ENG-713(viii): New Zealand: Land, People and Culture, ENG-713(ix): African Studies, ENG-713(x): Australian Studies, ENG-713(xi): Women and law: Text to Practice, ENG-713(xii): Human Rights Discourses and Genres, ENG-713(xiii): Children's Literature and Childhood Studies, ENG-713(iv): English language Teaching. **II Semester:** ENG-721: Dissertation (20 Credits).

Advanced Post Graduate Diploma in English for Communication (APGDEC) (CSS: 1 Year)



Paper I: ENG-401: Oral Communicative Competence; Paper II: ENG-402: Written Communicative Competence.

Research

Research Areas: Indian, British, American, European, Canadian, South Asian, Japanese and Chinese, Australian, African and Caribbean Literatures, ELT and Linguistics, Popular Culture: Film and Theatre Studies, Cultural Studies: Gender Studies, Heritage Studies, Public Spaces in Kerala.



Department of German (Estd. 1961)

Phone: 0471 2386320; Email: germandepartmenthead@gmail.com

Faculty

Shri. Sreekumar K N, Assistant Professor and Head
(Email: sreekumar@keralauniversity.ac.in ; Ph: 9488653336)

Shri. Anees. A., Assistant Professor (Email: aneesmampad@gmail.com; Ph: 9037735727)

Guest faculty: Shri. Sajana. K. Sebastian, Geethanjali. E

Brief Profile

The Department of German was founded in the year 1961 through the joint initiative of the University of Kerala and the German Academic Exchange Service. With the exception of a period between 1991 and 1998 the German Academic Exchange Service provided guest teachers from Germany on contract basis to the Department till 2001. The Department used to be headed by these visiting teachers until 1982 when the Indian teachers took over as Head of Department. After 2001 the programme of visiting teachers has been discontinued due to the change of policy in Germany.

The Department of German, University of Kerala is a premier centre of German language learning in India. At present we are the only University Department of German in South India to offer the study of Germanistics at the Post Graduate and Doctoral level. Three permanent teachers of the Department retired during a period of three years starting from 2010. Though not known to the university community here due to lack of inter departmental rapport, this faculty of the Department of German were held in high esteem by the faculties of the subject in all the Indian universities. These vacancies have not been filled up yet and Guest Lecturers are conducting classes in the Department. The number of students in the postgraduate courses, when compared with other subjects in this university is obviously much less, but is equal, if not more, to any PG in German in other Indian universities. The Department started an academic quarterly Indo-German, re-named German Studies in India in 1977, coordinating the scholarly pursuit of all the teachers of Germanistics in India and abroad. Professors of Germanistics from various German universities pay visits to the department to interact with the students and teachers and conduct lectures that update our knowledge in this field. The department has taken care to

acquire most modern electronic equipments to augment its language teaching. The library with its more than 15000 valuable books is the biggest of its kind in India.

PROGRAMMES OFFERED

M.A German Language and Literature

MA in German Language and Literature aims at a very high proficiency in the language in all its practical aspects, written and spoken. The master course is designed in such a way as to impart in-depth knowledge of the culture of Germany. German History and Literature form an integral part of the syllabus together with the opportunity for practical application of the language such as creative writing and translation. Translation provides the platform for a parallel understanding of our own and the target culture. The OBE Syllabus is the highlight of the newly approved syllabus which gives an advanced overview on the course attainment upon the completion of the course.

Duration is 2 years (4 semesters). Eligibility is Diploma or Second Language in German with any Degree recognized by University of Kerala

Certificate Course in German

This course provides basic level of German language and literature and enables the student to communicate in basic levels with a German speaker. Duration is one year.

Diploma Course in German

This course is after completion one year certificate course and it provides an advanced know-how in German structures linguistically and literary too. The student can communicate confidently with a native speaker in all aspects of the life with better vocabulary and by using advanced Grammar of German language.

A1 Level: This is a new short term course which tests the basic knowledge in terms of LSWR of a student as per the CERFL frame work of European Council. It lasts for eighty hours and imparts the knowledge of basic levels of German

A2 Level: This course is an advanced level of A1 Level and it imparts the know-how in terms of advanced basic level in German language. With this course, the student can have more vocabulary and grammar and can communicate fluently with German speaker almost all aspects of the life. This is also as per the CEFRL frame work.

B1 Level: This course is based on CEFRL and it gives an opportunity to grab the knowledge of intermediate level in German. The student can acquire advanced grammar and structure of the language. It imparts the confidence to communicate fluently various context based situations with a native speaker.

B2 Level: The CEFRL frame work based course is an advanced level of intermediate and it imparts the confidence to the student to use the language confidently and fluently with regard to various aspects of day to day life. Advanced grammar and a wide range of vocabulary will be studied and it gives practical experience to the usage of the German language.

Research

After the inception of the department in the year of 1961, M.A course was started in the year 1974. PhD Programme commenced in the year 1979 and the department has produced till



date 14 doctorates. The initial emphasis of the doctoral works were purely on German literature, but with the advent of comparative literature as a subject and method the focus turned to comparative analysis of German literature in the backdrop of Malayalam literature and vice-versa.

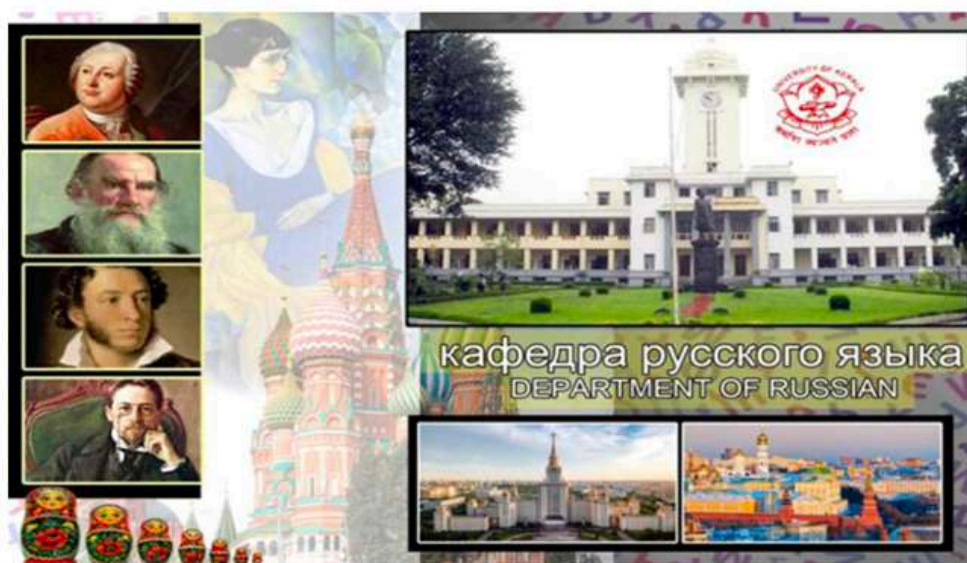
Areas of Research

- Twentieth and twenty first Century German literature
- Literature of Exile
- Comparative literature and Translation
- German language as DaF
- Comparative linguistic

Consultancy Services

Dept of German offers consultancy services in terms of various fields of translation and attestation of documents and certificates. Interpretation is another major area of simultaneous translation in real time.





Department of Russian (Estd. 1968)

Phone: 0471 2386321; Email: russiandepartmenthead@gmail.com

Faculty

Dr. Krishnakumar R.S., Assistant Professor and Head (Email: kkmeerkk@gmail.com; Ph: 9497270802)

Guest Lecturers

(Prof.) Dr. K. Govindan Nair

Dr. Narendran. V.

Dr. Anilkumar. S

Sri. R. Sreenivasan

Dr. Shyla. S.

Brief Profile

The Department of Russian was formally established in 1968. To start with, it offered a Post Graduate Certificate course in Russian and gradually a Diploma course and part-time M.A course in Russian. In addition to a Research programme leading to the Ph.D Degree in Russian language and literature. It has already started full-time M.A (Credit & Semester System) in Russian and M.Phil (Full time) in Russian. Russian teachers from Soviet Union were regularly deputed by the USSR Govt. up to 1990.

The University Department of Russian, University of Kerala, is one of the four centres in Russian, enjoying the Indo-Russian cultural exchange programme between the Pushkin Institute of Russian Language, Moscow. The University Department of Russian is imparting training to various courses in Russian language and literature.

- Certificate Course in Russian
- Diploma Course in Russian

- Integrated Diploma Course in Russian
- Advanced Diploma in Russian Translation.
- MA Russian (Credit & Semester System)
- MA Russian (Part-time 3 year course)

Following are the Research Degrees offered by the the University Department of Russian.

- MPhil. Degree in Russian
- Ph.D in Russian
- Post-Doctoral Research in Russian

A research journal entitled 'Journal of Russian Studies' is being published from the Dept. since 1979. Now it has been christened as 'Journal of Russian Studies in India: Language, Literature and Culture in Comparison' and already published thirteen volumes of the journal from the year 2004 to 2016 and published articles on Russian language and literature contributed by Teachers and Research Scholars from various Universities, Colleges.. The Department of Russian Library has around thirty thousand books. It has been considered as one of the greatest and biggest Russian libraries in India.

PROGRAMMES OFFERED

M. A. Russian Language and Literature.

Dept. of Russian conducts M.A. (part-time 3 year course) and M.A. (Credit and Semester System). Research papers are also included in the syllabi. Method of teaching Russian as a foreign language, Russian for Tourism, Russian for Businessmen and Translation and Interpretation are the attraction of all the two courses of MA Russian Language and literature in Russian. Eligibility is Graduate Degree recognised by the University of Kerala with Russian as second language of the University of Kerala or Diploma in Russian of the University of Kerala or Integrated Diploma in Russian of the University of Kerala or equivalent qualification in Russian recognised by University of Kerala.

M.Phil Degree Course in Russian.

Duration of M.Phil course in Russian is one year. Eligibility is MA Degree in Russian of the University of Kerala or equivalent qualifications recognised by University of Kerala.

Research Programmes

Ph.D. in Russian and Post-Doctoral Fellowship in Russian Language and Literature

These two programmes give full-fledged Research orientation and the students are trained to do translation and Interpretation, write Research articles, Dissertations and Theses in Russian Language and Literature. Research programmes are mainly focused on Russian language and Literature and Comparative Literature.





Department of Music (Estd. 1988)

Phone: 0471 2386321; Email: musicdept.uok2017@gmail.com

Faculty

Dr Bindu K, Associate Professor & Head (i/c) (Email: kbindusanjeevlal@gmail.com; Ph: 9744918335)

Dr Lakshmy J Nair, Lecturer on contract (Email: lakshmyjnair@gmail.com; Ph: 8301822729)

Dr Veena J., Lecturer on contract (Email: veenajnair85@gmail.com; Ph: 8138911314)

Brief Profile

The Department of Music, University of Kerala was established on 24th July 1998 with an intention to impart scholarly learning in theory and practice of Carnatic Music. The Department flourished and attained glory under the guidance of its former pioneers Dr. K Omanakutty and Dr B Pushpa. The Department offers M.A, M. Phil and Ph.D programme in Music. The M.A Programme in music has been designed to inculcate interest for Research in different areas of Music. Two compulsory elective papers on Hindustani Music and Thala Ensembles and one Discipline-Specific Elective (Veena, Violin or Mridangam) have been incorporated in this programme which is a speciality of this Department. The Department also takes initiative to empower the students to become performers. Two faculties specialized in Violin and Mridangam have been appointed for this purpose. Two Contract Lecturers are working in the Department. Distinguished scholars and prominent musicians render their services as guest faculties to train and nurture the performing skill of the students, which is another highlight of this Department.

The Department has a publication of Annual Research Journal “Nadamrutham”, and the First issue of “Students Journal” is getting released in December 2020. The Cultural programmes, Seminars, and Examinations are conducted in the Department Auditorium, which has the seating capacity of larger audiences. The Open Defence viva-voce examination

of Ph.D courses in Music of all the candidates coming under University of Kerala are conducted in this Department, which is adjacent to the University Womens' Hostel, Vazhuthacaud.

In addition to the core courses, unique papers have been introduced for Generic Courses (GC) and Skill Enhancement Electives (SE). GC has been designed with Devotional compositions, Composers of Kerala, Patriotic songs in Malayalam, Basics of Violin and Mridangam. Skill Enhancement Electives (SE) has been designed for preparing students to achieve better career prospects or to become good Entrepreneurs in the field of Music. This course encompasses innovative papers such as Basics of Music Production and Introduction to Media and Music, which are being introduced for the first time in the curriculum of Music.

PROGRAMMES OFFERED

MA Music

The Post graduate degree programme in Music is designed for 2 years (4 Semesters). Each Semester of the Course except 4th one has 4 core papers i.e. 2 Theory papers and 2 Practical papers along with 3 Discipline –Specific Elective papers. The 4th Semester comprises of 1 Theory paper, 3 practical papers and Dissertation. The total number of seats available for the M.A Programme is 10.

Semester I: MUS-CC-511: History of Indian Music; MUS-CC-512: Raga Classification in Indian Music; MUS-CC-513: Practical- I Preparatory Course on Performance; MUS-CC-514: Practical –II Compositions of Trinity.

Semester 2: MUS-CC-521: Advanced Theory I; MUS-CC-522: Advanced Theory II; MUS-CC-523: Different Musical Forms-Practical I; MUS-CC-524: Compositions of Kerala composers – Practical II

Semester 3: MUS-CC-531: Advanced Theory III; MUS-CC-532: Advanced Theory IV; MUS-CC-533: Group Kritis & Manodharma –Practical I; MUS-CC-534: Manodharma Sangita(1) Practical II.

Semester 4: MUS-CC-541: Art Music; MUS-CC-542: Concert-Practical I; MUS-CC-543: Manodharma Sangita (II) –Practical II; MUS-CC-544: Ragam Tanam Pallavi-Practical III; MUS-CC-545: Dissertation and Viva.

Discipline-Specific Elective (DE)

I Semester: MUS-DE-515-Veena –I-DE -(Practical) 2 Credits; MUS-DE-516- Violin I -DE-(Practical) 2 Credits; MUS-DE-517 - Mridangam I -DE(Practical) 2 Credits; MUS-DE-518 - Tala Ensembles I –DE- (Practical)2 Credits; MUS-DE-519-Hindustani Music I –DE-(Practical).

II Semester: MUS-DE-525 – Veena –II-DE- (Practical) 2 Credits; MUS-DE-526- Violin II (Practical) 2 Credits; MUS-DE-527-Mridangam II- Practical 2 Credits; MUS-DE-528-Tala Ensembles II- Practical 2 Credits; MUS-DE-529- Hindustani Music II – Practical.

III Semester: MUS-DE-535-Veena –III-DE- (Practical) 2 Credits; MUS-DE-536-Violin III (Practical) 2 Credits; MUS-DE-537-Mridangam III (Practical) 2 Credits; MUS-DE-538- Tala Ensembles III (Practical) 2 Credits-

M. Phil. Music

Semester I : Paper - I : Research Methodology and Subject Methodology; Paper- II: Critical Study of Musical Works; Paper-III : Practical (Concert).



Semester II: Paper-IV: Dissertation& Viva; 2 Assignments, 1 Seminar

Areas of Specialization:

Kerala Music, South Indian Music, Acoustics, Composers, Tamil Music, Swati Tirunal-The legendary Musician of Kerala.

Research

The Department occupies a prime position in the field of Research in Music. It has a well-equipped library with a collection of more than 2700 books. This excellent facility of the library is even made use of the outside Research Scholars.

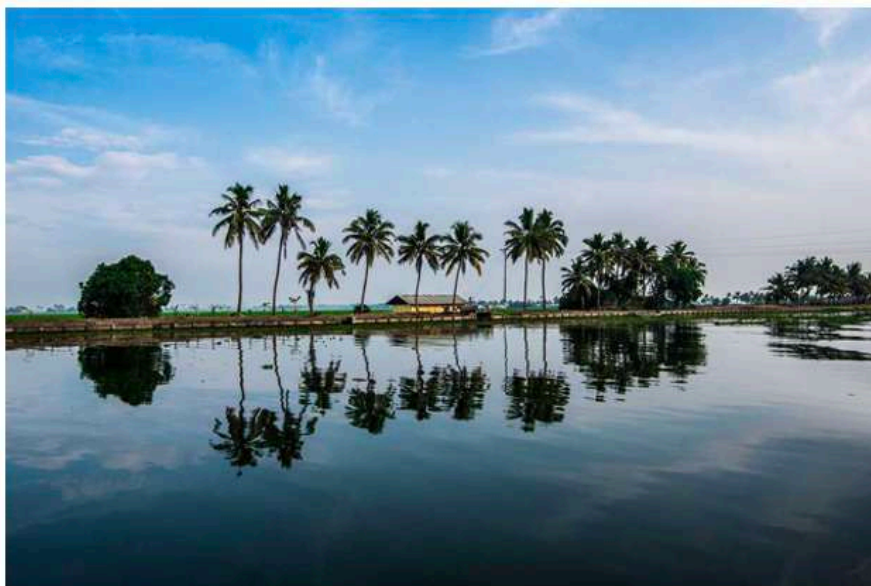
Areas of Specialization

Lakshanakaras and their contributions, South Indian Music, Acoustics, Composers of different Periods, Tamil Music, raga system, Musical Instruments, Music Therapy, Music and Temples, Lakshana grandhas.

Co-Curricular activities

- Seminars/Webinars/National Seminars on current topics held annually in the Department.
- Study tour to places of musical importance outside Kerala
- Monthly seminars by students on given topics and panel discussions were conducted.
- Monthly programmes by the students with accompaniments
- Monthly lecture demonstrations by experts in Musicology and vocal concerts by eminent artists were arranged.
- Commemoration day of great Musical Luminaries were observed.
- Monthly quiz programmes by the students were conducted.
- Audio-Video hour for the students to enhance their talents.





Department of Kerala Studies (Estd. 2019)

Email: keralastudies@gmail.com

Faculty

Dr CR Prasad, Professor and Head (Email: drcrprasad1@gmail.com; Ph: 9447552876)

Adjunct Professors

Prof. (Dr.) Desamangalam Ramakrishnan

Prof (Dr) B Sasikumar

Brief Profile

The International Center for Kerala Studies is a research institute established by the University of Kerala on June 9, 1988, with the aim of documenting and preserving the representations of all aspects of Kerala culture, including religion, language, chronology, customs, rituals, legends, songs and literature. To date, the Center has organized over forty - seven seminars and lectures, and published 28 research papers, besides organizing several short-term courses related to the study of the arts. More than 30 researchers have received PhDs from this research center, the university's only multidisciplinary center.

The University has elevated the Center as a Department as per Order No. UO.No.AcD/3/ Kerala Studies/2019 dated 03-04-2019 considering the activities of the Center such as religion, language, chronology, customs, rituals, myths, songs and literature pertaining to Kerala culture. A postgraduate programme called Media Studies was started in 2019 to examine and evaluate the changing living conditions in the language and literature in the context of Kerala culture and to ensure job opportunities for the learner in various fields by incorporating media studies. The aim of this study is to develop students' ability to specialize in literature and language and to develop knowledge of media movements.

PROGRAMME OFFERED

MA Malayalam Literature, Kerala Studies and Media Studies

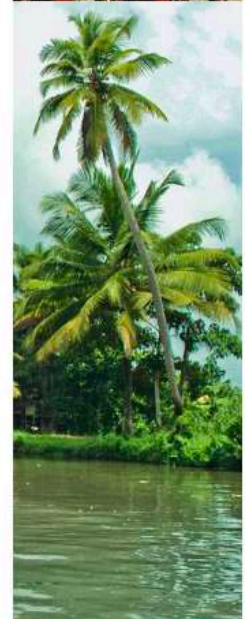
പ്രോഗ്രാമിന്റെ പഠനപ്രയോജനങ്ങൾ

Programme Specific Outcomes (PSO)

1. മലയാളസാഹിത്യം കേരളസാംസ്കാരികപശ്ചാത്തലത്തിൽ പഠിക്കുക.
2. കാലഘട്ടം സാഹിത്യത്തിലും മലയാളീബോധത്തിലും വരുത്തുന്ന മാറ്റങ്ങൾ പഠിക്കുക.
3. കേരളത്തിന്റെ സാംസ്കാരികവും സാമൂഹികവുമായ പരിണാമങ്ങൾ പഠിക്കുക.
4. കേരളീയജീവിതത്തിന്റെ വിവിധ കാലഘട്ടങ്ങളിലെ വളർച്ച പഠിക്കുക.
5. മലയാളമാധ്യമത്തിന്റെ വികസനചരിത്രം പഠിക്കുക.
6. മാധ്യമങ്ങളുടെ പ്രായോഗികവശം പഠിക്കുക.
7. ഭാഷയും സാഹിത്യവും മാധ്യമങ്ങളും മലയാളീബോധത്തെ എത്രമാത്രം സ്വാധീനിക്കുന്നു എന്നു പഠിക്കുക.

എം എ പ്രോഗ്രാം ഘടന (Structure of M A Programme)

സെമസ്റ്റർ	കോഴ്സ് കോഡ്	കോഴ്സിന്റെ പേര്	ക്രഡിറ്റ്
1.	DKS-CC-411	പ്രാചീന സാഹിത്യം	3
	DKS-CC-412	മലയാളസാഹിത്യം മധ്യഘട്ടം	4
	DKS-CC-413	മലയാളവ്യാകരണം	4
	DKS-CC-414	കേരളപഠനം കോഴ്സ് ഒന്ന്	3
	DKS-DE-415	വിവർത്തനപഠനം	2
2.	DKS-CC-421	മലയാളകഥാസാഹിത്യം	4
	DKS-CC-422	ഭാഷാശാസ്ത്രം	3
	DKS-CC-423	കേരളപഠനം കോഴ്സ് രണ്ട്	3
	DKS-CC-424	ഭാരതീയകാവ്യമിമാംസ	3
3.	DKS-CC-431	മലയാളകവിത	3
	DKS-CC-432	മാധ്യമചരിത്രം	4
	DKS-CC-433	പാശ്ചാത്യകാവ്യമിമാംസ	3
	DKS-CC-434	മലയാളനിരൂപണം	4
4.	DKS-CC-441	മലയാളനാടകം	4
	DKS-CC-442	മാധ്യമം: പ്രയോഗതലം	4
	DKS-DE-443	ഭാഷാഘടനയും ദാർശനികാവബോധങ്ങളും.	2
	DKS-CC-443	പ്രബന്ധം/പ്രായോഗികപരിശീലനം	4





Department of Linguistics (Est. 1963)

Ph: 04712308469; Email: head.linguistics.uok@gmail.com

Faculty

Dr. S.A.Shanavas, Professor & Head (Email: sasnavs@gmail.com; Ph: 9495074811)

Dr. S.Kunjamma, Professor (Email: drskunjamma63@gmail.com; Ph: 9400514982)

Dr. Darwin L, Assistant Professor (Email: darwinciil@gmail.com; Ph: 9446904488)

Dr. S.Prema, Assistant Professor (Email: premkrishnas@yahoo.co.in; Ph: 9446084361)

Mr. Sakthi vel S., Contract Lecturer (Email: ssvmphil@gmail.com; Ph: 7403555418)

Brief Profile

The Department of Linguistics, University of Kerala is the first department of linguistics in Kerala established in 1963 by Prof. V.I. Subramoniam (1926-2009). This department was a pioneer in India in the modernization of linguistics by introducing all the new trends in linguistics developed across the world. This trend reflected in the teaching and research programmes of the department and marked as distinct and advanced in the map of linguistic studies in India. The pioneering work of the Department was the Kerala State Dialect Survey of Malayalam, covering all the Panchayats of the state. The Dialect Atlas prepared by marking isoglosses attained international recognition. The widely adopted cognitive method of language teaching is developed from the department. This Department was the first linguistics department in India established an industrial collaboration. Department collaborated with FACT in teaching languages like Malayalam, Telugu and Tamil to FACT staffs.

The Dravidian Linguistic Association (1971) one of the largest professional linguistics association in India, International Journal of Dravidian Linguistics (1972), the leading linguistic journal from India with an international reputation, the International School of Dravidian Linguistics, and the Folklore Society of South Indian Languages are originated from this department. The introduction of MPhil Computational linguistics and Forensic Linguistics in collaboration with the State Police Training College is the recent advancements of this department. The department established the Technology Resource Centre for Malayalam Language (TRCML) and the Centre for Endangered Languages of Kerala (CeLK) with advanced language elicitation and documentation studio and lab for language documentation. The successful conduct of interdisciplinary MPhil and PhD in

computational linguistics programme for the last fifteen years and the resultant intake of students to the industry is an instance of it.

The Department offers MA programme in Linguistics, M.Phil. Programme in General Linguistics and an interdisciplinary M.Phil. programme in Computational Linguistics. Research is the top priority activities of the Department and the PhD programme of the department focuses on both traditional and applied areas of Linguistics. Ever since 1963, the Dept. of Linguistics has been consistently training students, documenting and delivering research output in the area of endangered tribal languages of Kerala. Therefore, the Department received national and global attention as an advanced centre in the area of field linguistics and documentation of tribal languages.

PROGRAMMES OFFERED

M.A. Linguistics

Semester 1: LIN-CC-511: Phonetics, LIN-CC-512: Phonology, LIN-CC-513: Morphology; Discipline-Specific Elective (DE): LIN-DE-514: Introduction to Linguistics

Semester 2: LIN-CC-521: Syntactic Theories, LIN-CC-522: Semantics, LIN-CC-523: Sociolinguistics; Discipline-Specific Elective (DE): LIN-DE-524: Clinical Linguistics

Semester 3: LIN-CC-531: Generative Syntax, LIN-CC-532: Historical Linguistics, LIN-CC-533: Computational Linguistics; Discipline-Specific Elective (DE): LIN-DE-534: Tribal Linguistics, LIN-DE-535: Forensic Linguistics

Semester 4: LIN-CC-541: Comparative Dravidian, LIN-CC-542: Grammatical Structure of Malayalam, LIN-CC-543: Field Linguistics and Language Documentation, LIN-CC-544: Dissertation & Viva; Discipline-Specific Elective (DE): LIN-DE-545: Techniques of Translation, LIN-DE-546: Language Teaching Methods

Skill Enhancement Elective (SE): LIN-SE-501: Writing System and Font Design, LIN-SE-502: A Course in Modern Malayalam

Generic Courses (GC): LIN-GC-501: General Linguistics, LIN-GC-502: Language and Communication, LIN-GC-503: Structure of Modern Malayalam, LIN-GC-504: Tribal Studies, LIN-GC-505: Gender and Language, LIN-GC-506: Corpus Linguistics

Programme Specific Outcomes (PSO)

- Demonstrates disciplinary literacy in Science of Language and all branches of linguistics.
- To describe and explain the structure of any language in the internationally accepted scientifically defined standards.
- To identify problems of language community in relation to their language.
- Document, and revitalize languages.
- Provide expert service and language resource for Natural Language Processing and Computational Linguistics.
- Develop independent linguistic research plan, method and tools.
- Present, and publishes research findings in the internationally accepted standards of representation and scientific communication.



- Apply linguistic theories for individual and social problems and the development of language skill and the advancement of the society.
- Engage in language activism for the recognition, development and revitalization of the languages.
- Critically and constructively contribute to the overall development of Malayalam language and the development of the linguistic resource of the nation.

M.Phil. General Linguistics

Semester 1: LIN 711: Research Methodology (4Cr), LIN 712: History of Linguistics and Linguistic Theory (4Cr), LIN 713: **Optional (Any one of the following)** LIN 713 (I): Transformational Grammar, LIN 713 (II): Sociolinguistics, LIN 713 (II): Language Teaching Techniques. **Semester 2:** LIN 721: Dissertation & Viva Voce.

M.Phil. Computational Linguistics

Semester 1: LIN 711: Research Methodology & Programming Theories (4 Cr), LIN 712: Linguistic Theories (4 Cr), LIN 713 (I): Natural Language: Understanding and Processing (4 Cr), LIN 713 (II): Current Trends in Computational Linguistics, (4 Cr); **Semester 2:** LIN 721: Dissertation & Viva Voce.

Research

Research is the top priority activities of the Department and the PhD programme of the department focuses on both traditional and applied areas of Linguistics. The Department promotes advanced research in Structure and History of Malayalam Grammar and Grammar formalisms, Theoretical Linguistics, Dravidian Studies, Historical and Comparative Studies, Sociolinguistics and sociology of language, Translation Studies, Language, Media and Communication, Instrumental phonetics and Language laboratory techniques, Computational Linguistics and Language Technology, Neurolinguistics, Clinical Linguistics and Language Pathology, Psycholinguistics and Cognitive Linguistics, Philosophy of languages, Regional, Social and Tribal Dialects, Diaspora Studies, Gender and Language, Language Teaching Methods, Educational Linguistics, Genetical Linguistics, Documentation Linguistics and Language Endangerment, Discourse Analysis, Stylistics and Semiotics, Forensic Linguistics, lexicology etc.

Phonetic Laboratory

The Phonetics and Speech Laboratory concentrates primarily on spectrogram analysis of recorded spoken language. It supports wholesome research and teaching on all areas of speech science. Its incessant repertoire extends further on detailing the precise usage of phonetics software, to about providing adequate resources for researchers and students who yearn to amass and accede to data under controlled conditions. With the Phonetic lab, we aim at indulging into a wide range of research themes, allied to acoustics, which encompass the creation and perception of speech sounds.

Language Technology Lab

The Language Technology Lab carries out research in the field of Computational Linguistics and Natural Language Processing (NLP). The Language Technology Lab research focuses on information access and manipulation from natural language data. The Language Technology Lab focus on developing language corpora, Dataset creation, Python programming



implementations, and Machine Learning using Python programming for various Computational Linguistics tasks.

Kalavara

KALAVARA” is a Startup project registered under University of Kerala and Kerala Start up mission in lie with under Government of Kerala. The purpose of the mission/ organization is to create whatever possible and essential for Natural Language Processing/ Language Technology on Malayalam and which will be useful to the all the stack holders like researchers, academic people industry and common men (software developers, IT peoples or people who have interest in making applications in Malayalam Language.

TRCML (Technology Research Centre for Malayalam Language)

The Technology and Research Centre for Malayalam language (TRCML) was established in 2006. TRCML working towards developing technology and resources for the Malayalam language to cope up with the modern technology and methods practiced across the world. Standardization, unification of fonts, Unicode related issues, morphological analyzer and generator, Spell checker, grammar checker, creation of lexical data and dictionaries, corpora building, and text processing, etc. are some major areas to be covered by the center.

CeLK (Centre for Endangered Languages of Kerala)

The UGC Centre for Endangered Languages of Kerala (CeLK), University of Kerala was established in 2017. A financial support of 1.92 crores was granted by the University Grant Commission for the establishment of this center at the Dept. of Linguistics, University of Kerala. CeLK stands and works for ensuring linguistic justice for indigenous and endangered language communities in Kerala.

CeLK Facilities: Language Elicitation and Documentation Studio, Language Lab & Office, Prof. V I Subramoniam Memorial Conference Hall



Alumni

An alumni association functions in the Department, and some of the distinguished alumni of the Department include Dr. M. Sreenathan (Professor, Malayalam University, Tirur), Dr. Achuthan Govindankutty Menon (former research fellow Dutch Ministry of Education for Research in Linguistics in Leiden University), Prof. S. Rajendran Sankaravelayatha (Professor, dept. of Linguistics, Tamil University, Thanjavur), Dr V. Saratchandran Nair (Project Director, National Translation Mission, Central Institute of Indian Languages), and Mr. Manoj Kumar, Deputy Director, Public Relation Dept., Govt. of Kerala, and Dr. Shyam S. K. Research Officer, KITARDS, Govt. of Kerala.



Department of Hindi (Est. 1990)

Ph: 0471 2308649; Email: hindeptkvtm@gmail.com



Faculty

Dr. Jayachandran R., Professor & Head (Email: drjayachandran@keralauniversity.ac.in; Ph: 9400472375)

Dr. S.R. Jayasree, Professor (Email: srjayasreegopinadh@gmail.com; Ph: 9446183785)

Dr. Herman P.J., Associate Professor (Email: hermanpjdr@gmail.com; Ph: 9446291350)

Dr. C.S. Suchith, Assistant Professor (Email: sribuddhakalari@yahoo.co.in; Ph: 9847093549)

Dr. Deepak K.R., Assistant Professor (On work arrangement from SDE) (Email: krdeepak5@gmail.com; Ph: 9447616483)

Dr. Leena B.L., Assistant Professor (Email: leenaunni.6000@gmail.com; Ph: 9496587510)

Brief Profile

The Department of Hindi was established in the Kariavattom Campus of the University of Kerala in the year 1990 . It was established with the aim of higher studies and advanced Research in Hindi Language and Literature and also for the purpose of extension of the Language.

The Department is situated in the ONV Memorial Academic Block of the Kariavattom Campus. It has well-furnished classrooms and well-arranged Administrative section and well equipped Library and Reading room. The library possess approximately 16000 volumes of books and 10 leading journals. The Seminar Hall of the Department can seat more than 100 audience. Apart from the seminars, discussions and cultural programmes organized by the students the Open Defence viva-voce examination of Ph.D courses in Hindi of all the candidates coming under University of Kerala are conducted here in this department.

With the aim of making Language teaching more effective and fast the Department established a 30 booth Language Laboratory with all modern amenities and equipments in the year 2001. Now it is under Renovation to make it as a state of the art Language Laboratory This facility is open to all Language Departments of the University. The Language students of School of Distance Education also uses the facility of Language

Laboratory for effective learning of Languages. The department offers M.A., M.Phil. and Ph.D. programmes in Hindi language and literature.

The Department also encourage Post-Doctoral Programmes in Hindi, the scholars of the department are the recipient of Dr. S. Radhakrishnan PDF and UGC's women PDF from UGC, New Delhi. The Department is entrusted with the experienced and talented teaching faculties aiming to uplift the department through their teaching and academic excellence. The Department is adhered to development of activities pertaining to the Language lab that targets the linguistics perspectives and overall outcome of the language in the National and International scenario.

PROGRAMMES OFFERED

M.A Hindi Language and Literature

Semester 1: HIN-CC-511 Hindi Poetry-Ancient and Medieval period ; HIN-CC-512: Hindi Prose- Essay; HIN-CC-513:History of Hindi language and literature(Aadikaal se Reetikaal tak); HIN-CC-514:Grammatical structure of Hindi and Linguistics

Semester 2: HIN-CC-521: Aadhunik Kavy; HIN-CC -522: Novel and Short story; HIN-CC -523: Functional Hindi : HIN-CC -524: Eastern and western literary thoughts, prosody & poetics

Semester 3: HIN-CC -531: Aadhunik kavy -2; HIN-CC -532: Drama and one act plays ; HIN-CC -533 Indian Literature; HIN-CC -534: History of Hindi literature- Aadhunik kaal

Semester 4: HIN-CC -541: Hindi literature: Modern discourses; HIN-CC -542: Translation theory and practice; HIN-CC -543: Dissertation & Viva

Discipline Specific Elective(DE)

HIN-DE-544: Grammar and structure of Indian English writing

Skill Enhancement Elective (SE): HIN-SE-501 Aadhunik Sanchaar Madhyam Aur Media Lekhan

Generic Courses (GC): HIN-GC-501 Beginners' Hindi ; HIN-GC-502 Spoken Hindi

Programme Specific Outcomes (PSO)

- Understand the concepts of literary trends, special dialects of early and medieval literature and about various prose forms, stylistic features of modern essayists. Understand the concepts of basic Hindi traditional grammar style, linguistic aspects and the acoustic qualities of the language for language promotion.
- Acquire a thorough coverage of the origin, source and development of the language and meet its modern technological demands. Acquaint with various Hindi software packages, online learning and technological aspects to promote its International acceptability.
- Understand the literary theories of eastern and western critics in a new perspective that develops an independent and integrated theoretical discourse to bring out an innovative outlook in literature.



- Develop the basic structure of the language by enhancing verbal and communication mode of Hindi through practice that enables them to be placed successfully in the jobs that requisites the language.
- Achieve a wider realm of knowledge on the concepts of Hindi drama and theatre conventions in the romantic and modern period through the comprehension of its thematic craft analysis, style and its vivid features and explore a variety of dramatic texts practically.
- Comprehend different perspectives of Indian literature and vivid concepts of comparative literature and imbibe the perspectives of Indian writings beyond linguistic variations and Gandhian thoughts inherent in their writings. Familiarise with the concepts of modern Hindi literature especially post independent literature and develop a critical thinking on the various streams of criticism and post independent literary experiments and movements.
- Acquire the ideas and practice of human rights, fundamental rights and democracy and the treats to the same and imbibe the ability to be critically conscious of our social reality equip them to resist the hegemonic power plays through the analytical study of modern discourses.
- Enhance the theoretical elements of Communication Mass Media along with the positive and negative effects and to gain deep knowledge on Advertisement and its various elements and role of Hindi and linguistic aspects of Advertisements and its effect on consumers.
- Comprehend the concepts of the historical developments of English language in India and acquire overall confidence and knowledge in translation skills between English and Hindi language and to make the students competent in their various job probable fields.

M.Phil. Hindi language and literature

Semester 1: Paper I – HIN- 711 - Research Methodology (4 Cr), Paper II- HIN- Modern literary thoughts and post- independence period (4 Cr); Paper III- HIN- 713- Comparative Literature (4 Cr) (HIN- 713(i)Teaching of Hindi Language and Literature, HIN- 713(ii)Hindi Movement and Hindi Literature of South India with special Reference to Kerala, HIN- 713(iii)Stylistics ,I HIN- 713(iv)ndian Literature –Bhakti Movement)

Semester 2: HIN-721 - Dissertation (20 Cr)

Research

The Department offers Ph.D. in Hindi language and literature and the areas of research are multidisciplinary including comparative literature, modern discourses , linguistic elements in literature , media , film studies and also the different prose and poetical aspects of literature in its vivid forms that explicit the social relevance.

Research Infrastructure

Language lab of the department comprises of 24 booths, state of art language lab audio video facility to enable the facilities pertaining to make the MOOC course and computer aided language teaching and this lab will cater the needs of the learners on par with global standards.



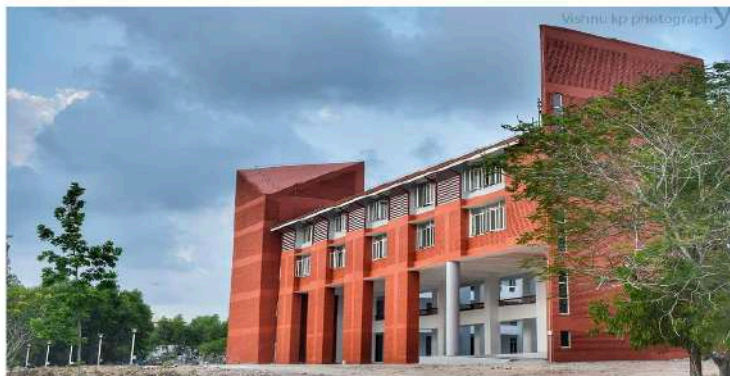
Post Graduate Diploma In Translation Administration Drafting And Reporting In Hindi

- Enable the student to acquire language proficiency for making them capable in translation.
- Provide a thorough awareness on the applicability of the language.
- Impart knowledge about job opportunities in the field of translation and develop their potential in this field .
- Streamline the students through ample training to avail opportunities in the field of Hindi Officers, translators in Central Govt. offices etc.

Alumni

The Department Alumni is regularly gathering in the Dept. All the members of the Alumni coordinates with the major activities of the Department. The alumni was reconstituted in the Department on Feb 8 & 22, 2014 regarding the farewell function of the former Prof & Head. Latest Annual General Body Meeting of the Alumni of the Department of Hindi was held in the seminar hall of the Department on June 22, 2019 at 10.30 A.M . The distinguished alumni of the department is Dr. Thankamoni Amma (9349193272). The new Executive Committee was reconstituted on 22 June 2019. The members elected were: President: Dr. Jayachandran R.; Secretary: (1) Dr. S. Sunilkumar (sunilsasthavattom@gmail.com; Ph: 9446082170); (2) Dr. Deepak K. R. (krdeepak5@gmail.com; 9447616483); Treasurer: Dr. C.S.Suchith; Executive Members - Dr. Letha V.S, Dr.Pradeepa, Dr. Rakhi Balagopal, Shri. Biju D. Shenoy, Dr. Leena B.L, Dr. Reeja, Dr. Rajesh. R, Dr. Parvathy R.





Department of Malayalam (Est. 1963)

Ph: 0471 2308459; Email: malkvtm@gmail.com

Faculty

Dr. S. Shifa, Professor and Head (Email: drsshifa1@gmail.com; Ph: 9447543476)

Dr. C.R. Prasad, Professor (Email: drcrprasad1@gmail.com; Ph: 9447552876)

Dr. Seema Jerome, Associate Professor (Email: seemajerome@gmail.com; Ph: 9495993198)

Dr. Siddeek M.A, Assistant Professor (Email: masiddeek28@gmail.com; Ph: 9447125202)

Dr. Sheebee M. Kurian, Assistant Professor (Email: sheebamkurian@gmail.com; Ph: 9495672559)

Brief Profile

Department of Malayalam, started in 1963 under the chairmanship of Dr. P. K. Narayanapillai, has been creating healthy movements in the field of Malayalam Language and Literature for the last six decades. Famous Malayalam poets, linguists, critics, folklorists, activists etc have served as teachers here. Geniuses like Sri. Chemmanam Chakko, Dr. K. Ramachandran Nair, Dr. T. Bhaskaran, Dr. P. V. Velayudhan Pillai, Dr. V. S. Sharma, Dr. Puthussery Ramachandran, Dr. N. R. Gopinathapillai, Dr. D. Benjamin, Dr. N. Mukundan, Sri. P. Raman, Dr. Deshamangalam Ramakrishnan, Dr. Valsala Baby, Dr. N. C. Haridasan, Dr. C.R. Rajagopalan, Dr. G. Padma Rao, Dr. B.V. Sasikumar has made the fifty years of the department dynamic and research oriented.

To the date the department has published more than 500 research papers and more than 250 Ph.D theses. Department's research journal is 'Bhasha Sahithi', which has won the award for best research journal by the Government of Kerala. Name of the alumni association of Department is 'Samavidhya'. In the alumni association there are so many well-known writers, critics, media persons, academicians and bureaucrats.

Every year since 2018 O.N.V Memorial Award is given to an individual in recognition of his/her excellence in the field of literature. The first ONV Memorial Award was given to smt: Sugathakumari. Also, in every year N.R.G memorial award has given to the student who scores the highest mark in MA examination and P. Raman Memorial award is given to the student who scores highest mark in M. Phil. Programme.

Commemorative lectures on retired and deceased Malayalam teachers in the department such as Dr. Puthussery Ramachandran, Dr. N. R. Gopinatha Pillai, Dr. P. Raman are being conducted in the name 'Orma' focusing in their research areas. Also, memorial lectures of Changampuzha, Vylloppilli, C. V. Raman Pillai, Kumaranasan, Vallathol, Ulloor, G. Shankara Kurup, Kesari. A. Balakrishna Pillai, N. Krishna Pillai are being conducted in the department every year.

MA Malayalam Language and Literature

Semester 1: MAL-CC-511: Pracheena Madhyakala Malayalakavitha; MAL-CC-512: Malayala gadhyasameeksha; MAL-CC-513: Gaveshana reethishasthram; MAL-CC-514: Malayala cherukadha; MAL-CC-515: Malayala bhashacharithram.

Department Specific Electives: MAL-DE-516: Sidhanthangalile BhashapariPREKSHYAM; Sadhyathayum Prayogavum; MAL-DE-517: Malayalanadaka-Chalachithraganapadanam; MAL-DE-518: Tharathamysahithyam; MAL-DE-519: Bhashasankethikavidhya.

Semester 2: MAL-CC-521: Neoclassic-Romantic Kavitha; MAL-CC-522: Malayala vyakaranam; MAL-CC-523: Sahithya charithra vijnaneeyam; MAL-CC-524: Vivarthana padanangal; MAL-CC-525: Malayala nadakam.

Department Specific Elective: MAL-DE-526: Drishya kalasamskaram; MAL-DE-527: Computerile Bhashasannivesham.

Semester 3: MAL-CC-531: Malayala kavitha Kalpanikanantharam; MAL-CC-532: Kavya padhathi; MAL-CC-533: Pashchathya sahithya chinthakal; MAL-CC-534: Bharatheeya sahithya chinthakal

Department Specific Electives: MAL-DE-535: Thirakkadha- Cinema- Cinema padanam; MAL-DE-536: Dalit sahithya padanam.

Semester 4: MAL-CC-541: Bhasha shasthram; MAL-CC-542: Malayala niroopanam; MAL-CC-543: Malayala novel; MAL-CC-544: Keralathinte Samskarikacharithram; MAL-CC-545: Prabandham.

Department Specific Electives: MAL-DE-546: Nadodisahithyam; MAL-DE-547: Paristhithibodhavum Manushyavyavaharangalum.

Generic Courses Offered by Department of Malayalam (GC): MAL-GC-501: Malayala bhashayum Sahithyavum Oru Amukhapadanam; MAL-GC-502: Samskarika bhasha; MAL-GC-503: Lingathva padanam; MAL-GC-504: Bodhana malayalam; MAL-GC-505: Sahitheeya Chikilsashasthram; MAL-GC-506: Malayalam e- Ulladakkam.

Programme Specific Outcomes (PSO)

- Develops research aptitude and critical thinking in Language, Literature and Culture.
- Historically studies the Origin, Growth and Diversities of Malayalam Language and Literature.
- Understanding the Kerala Cultural History as the aspect of Literary Studies.
- Differentiates and studies the influence and assimilation of Foreign Language, Literature and Philosophy.



- Understanding the impact of Social Evolution and Power Structure on Language and Literature.
- Inter-disciplinarily studies in Language and Literature.
- Studies of Text/Literature of various arts in Kerala, in relation to its aesthetics.
- Recognizes the evolution in the Language and Literature caused by Technology and Audio-Visual Media.
- Gain proficiency in language-based technologies.
- Studies on local and foreign literary thoughts and aesthetic concepts.
- Attain practical experience in Translation and Research.
- Attain knowledge in Grammar and Linguistics.

M.Phil. Programme

Semester 1: MAL.711: Research Methodology; MAL.712: Literary Theories; MAL.713: Theory of Comparative Literature; **Semester 2:** MAL.721: Dissertation

Research

The Department offers Ph. D in Malayalam: Language and Literature and its multidisciplinary domains including Language, Literature, Linguistics, Grammar, Cultural Studies, Comparative Literature, Literary History, Translation, Adaptation, Film Studies, Folklore, Performing Art Forms, Gender Studies, Malayalam Computing etc. The Department also offers post-doctoral research.

Research Infrastructure

Seminar hall with theater facilities, Library, Computer room, Recording room etc.

Library

The Department library has more than 60000 books in English, Malayalam, Tamil, Arabic, Hindi and Sanskrit. The first phase of library automation has completed, and 55000 books are now available on 'Koha' platform. The library is unique as it houses more than 60000 books, national and international journals and doctoral theses.

Club Activities

Research forum, Career guidance cell, Gender club, Media club, Literary club entitled 'Thanalmuttam', Discussion forum named 'Anukalikam', 'Sargasahithi', a forum for interactions with eminent writers

Inter University Centre for Malayalam Language (IUCML)

The Inter University Centre for Malayalam Language (IUCML) functioning under the Department aims to create e-resources of published doctoral dissertations and Malayalam films. The e-resource also plans to make available early Malayalam journals, to collect, digitize and publish Malayalam research papers from various universities in India. This project is almost in the final stage. A Heritage museum is a future project envisaged by the Centre. Director of IUCML is Dr. Sheeba. M. Kurian.



International Centre for Sree Narayana Guru Studies (ICSNGS)

International Centre for Sree Narayana Guru Studies and research was constituted under the department of Malayalam. The main objectives of the centre are to propagate Sreenarayana literature, introducing new courses, conducting seminars and discussions and thereby to disseminate the philosophy of Guru. The centre already conducted diverse seminars, Literary exhibitions, literary camps, talks, book releases and workshops keeping in mind the vision of Guru. At present the centre is in the midst of the project, 'Preparation of the descriptive glossary of Sree Narayana Literature'. Director of ICSNGS is Dr. M.A. Siddeek.





Department of Sanskrit (Est. 1963)

Ph: 0471 2308801; Email: sanskritkerala@gmail.com

Faculty

Dr. C.A. Shaila, Professor & Head (Email: shailalatheefo62@gmail.com; Ph: 9995381562)

Dr. Usha Raja Varier, Associate Professor (Email: drushakumarig@gmail.com; Ph: 9497614707)

Dr. C.N. Vijayakumari, Assistant Professor (Email: vijayaisavasyam@gmail.com; Ph: 944609948)

Dr. Jayalakshmi Thazhe Veettil, Assistant Professor (Email: drtvjayalakshmi@gmail.com; Ph: 7561066585)

Dr. Shamseer. P.C, Assistant Professor (Email: shamseerpc86@gmail.com; Ph: 9846811531)

Brief Profile

The Department of Sanskrit started functioning in 1963 under the headship of Prof. (Dr.) A.G. Krishna Warriar, one of the famous Indologists of that time. The Department aimed at, from its inception the promotion of higher studies and research in the different branches of Sanskrit learning. It has achieved growth and development during the last five decades. At first facilities for research leading to Ph.D Degree were provided. Later in 1975, M.Phil course in Sanskrit was started. In 1984, the department became a full-fledged one with the introduction of M.A. course. Dr. A.G. Krishna Warriar, Dr. S. Venkitasubramonia Iyer, Dr. E. Easwaran Nampoothiri, Dr. N.P. Unni, Dr. R. Karunakaran, Dr. K. Vijayan, Dr. P. Syamaladevi, Dr. P.K. Thankamoni, Dr. K. Maheswaran Nair, Dr.T. Devarajan, Dr. V. Sisupala Panicker were the eminent scholars of this department. The faculty of the department combines a tradition of excellence in research with modern and multidisciplinary teaching in different branches of Sanskrit. In the aspect of publication, the Faculty members of the Department have published so many books of international recognition and research papers in National and Inter-national level Journals.

The department offers M.A., M.Phil. and Ph.D. programmes in Sanskrit. M.A. CSS Programme is successfully conducted from 1995 onwards. The curriculum for the M.A. CSS Programme and M.Phil Semester are designed with a view to offer diversity and flexibility to the learners. This enables the students to understand the depth of Sanskrit literature. It

covers the study of Indian Philosophical systems, Methodology of research Procedure, the amazing depiction of technical literature and communication in Sanskrit language. The courses are redesigned to suit the regional and national needs following the model curriculum designed by the UGC. Presently the Department offers inter-disciplinary Elective courses to departments like Hindi, Malayalam, History, Archaeology, Psychology, Philosophy, Botany, Linguistics etc.

PROGRAMMES OFFERED

M.A Sanskrit Language and Literature

Semester 1: SKT-CC-511: Texts of early period, credit, (4Cr); SKT-CC-512: History of Vedic, classical and kerala Sanskrit Literature, (4Cr); SKT-CC-513: Grammar- I-Indian Intellectual Traditions –I, (4Cr); SKT-CC-514: Indian Logic –I, (3Cr); Discipline-Specific Elective (DE)- SKT-DE-515: Alankara Sastra, (4Cr)

Semester 2: SKT-CC-521: History of Sanskrit Language, (4Cr); SKT-CC-522: Grammar II - Indian Intellectual Traditions - II, (4Cr); SKT-CC-523: Indian Logic –II, (3Cr); SKT-CC-524: Advaita Vedanta –I, 4(Cr)

Semester 3: SKT-CC-531: Literary Criticism- I, (4Cr); SKT-CC-532: Grammar –III-Indian Intellectual Traditions –III, (3Cr); SKT-CC-533: Literary Criticism -II (3Cr); SKT-CC-534: Advaita Vedanta- II, (4Cr); Discipline-Specific Elective (DE) SKT-DE—535: Yoga Sutra of Patanjali, (4Cr)

Semester 4: SKT-CC-541: Poetry, Drama and Translation, (4Cr); SKT-CC-542: Literary Criticism –III, (4Cr); SKT-CC-543: Dvaita and Visistadvaita, (4Cr); SKT-CC-544 : Project Work & Viva, (4Cr)

Skill Enhancement Elective (SE): SKT-SE-501 Human Rights in Smṛti-s., (2Cr); SKT-SE-502: Musicology in Sanskrit, (2Cr); SKT-SE-503 Sanskrit Lyrics for Performance, (2Cr)

Generic Courses (GC): SKT-GC-501: Elementary Sanskrit- I, (2 Cr); SKT-GC-502: Sanskrit for Beginners, (2 Cr); KT-GC-503: Elementary Sanskrit –II, (2 Cr); SKT-GC-504: Samskṛta Pravesah, (2 Cr); SKT-GC-505: Contemporary Literary Compositions in Sanskrit, (2 Cr); SKT-GC-506: Sanskrit theatre –Kūḍiyāttom, (2Cr); SKT-GC-507: Environmental Awareness through Sanskrit Literature, (2Cr); SKT-GC-508: Kalidasa in Indian Literature, (2Cr); SKT-GC-509: Bhasa in Indian Theatre (2Cr); SKT-GC-510: Historiography in Sanskrit, (2Cr); SKT-GC-511: Sanskrit and Social Motivation, (2Cr)

Programme Specific Outcomes (PSO)

- Acquire the knowledge and understanding of the role of language in general, and Sanskrit particular, in language-based scholarship and research.
- Enhance the knowledge base in order to meet the requirements in career advancement
- Critically evaluate various types of literary works and find out the merits and demerits in it.
- Develop communication and presentation skills in Sanskrit, English and Regional Language
- Analyze the theories and its application in various situations
- Enrich the skills and knowledge of students the ability to read narrative Sanskrit texts



- Build research aptitude specifically in Sanskrit and allied areas
- Acquire command over Sanskrit language, literature and Sanskrit poetics
- Conceive traditional wisdom and relate it to the contemporary academic knowledge in Sanskrit studies.

M.Phil Sanskrit

Semester 1: Paper I - SKT 711 - Research Methodology (4 Cr); Paper II -SKT 712- Manuscriptology and Technical Literature (4 Cr); Paper III - SKT 713- Poetics, Indian Philosophy and Translation (4 Cr); **Semester 2:** SKT 721 – Dissertation, (20 Cr)

Research in Sanskrit

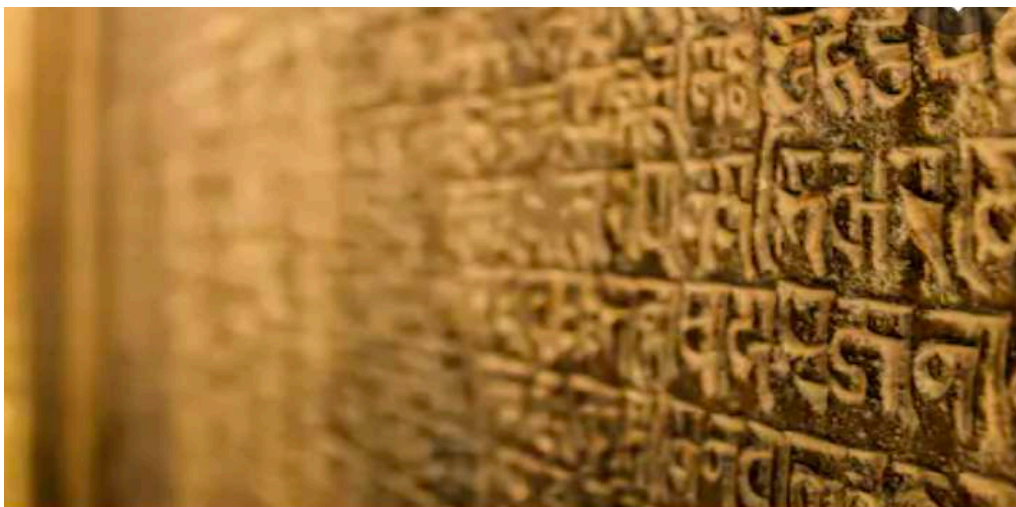
The Department offers Ph.D. in Sanskrit . The Ph.D programme has been designated to inculcate interest for research in different areas of Sanskrit literature, culture language and history. The department also heartens research in Sanskrit studies in other interdisciplinary areas such as Physical science, Social science, Mathematics, Bio- informatics, Linguistics etc.

Areas of Research

Sanskrit Language and literature, Sanskrit Grammar, Sanskrit Logic, Poetics, Drama and Dramaturgy. Vedanta, Indian Philosophy- Astika and Nastika, Classical Literature, Technical Literature, Manuscriptology, Comparative Literature, Indological Research, Sanskrit Linguistics, Astronomy.

Alumni

Since its inception in 1963 at Kariavattom, Department of Sanskrit has a long tradition of pursuing excellence in teaching and research. In the finest global tradition of the reputed seats of learning, which cherish links with their former students for mutual pride and enrichment. The Alumni Association of Sanskrit Department (AASAD) open to the network of 250-plus alumni. Some prominent Alumni are Dr. N.P. Unni, former Vice Chancellor, Sree Sankaracharya University of Sanskrit, Kalady, Dr. K. Mahaswaran Nair, Professor (Retd), Department of Sanskrit, University of Kerala, Dr. V. Sisupalapanicker, Professor (Retd), Department of Sanskrit, University of Kerala, Dr. Morassa Sayadi ,Professor,Bushehr,Azad University, Iran, Dr. N.K. Sankaran. Former Pro-Vice Chancellor, SSUS, Kalady etc.





Department of Tamil (Est. 1944)

Phone: 0471 2308919; Email: tamildepartmentku@gmail.com

Faculty

Dr. Hepsy Rose Mary.A., Assistant Professor & Head (Email: hepsy.rosemary@gmail.com; Ph:s 9495656167)

Dr. Jeyakrishnan P., Associate Professor (Email: pjktamil@gmail.com; Ph: 9447222571)

Dr. T Vijayalakshmi, Associate Professor (Email: drvijisyam@gmail.com; Ph: 9447070931)

Dr. Precila A, Assistant Professor (Email: precillamunnar@gmail.com, Ph: 9496814309)

Dr. Leema Metilda A., Assistant Professor (Email: leema@keralauniversity.ac.in; Ph: 9946897456)

Dr.Muthulakshmi.S.,ContractLecturer (Email:mthulakshmi.s.ramalingam@gmail.com; Ph: 8075152061)

Brief Profile

The Department which was started as a chair for an honorary professorship of Tamil in the year 1944 in the then Travancore University with the munificent donation of rupees one lakh and one by Dr. R.M. Azhakappa Chettiar One of the great philanthropists of Tamil Nadu grew and became the Department of Tamil in the University of Kerala during the stewardship of Prof. V.I. Subramanian (1954- 1966) due to his vision and dynamic leadership.

The Department has been doing good work in the training of good researchers and scholars. The contribution of the Department to the qualitative change of Tamil scholarship and research is recognized widely. Apart from offering MA and M Phil courses, facilities are also available in the Department for doing higher research for Ph. D and Post-Doctoral levels.

Many of former students have made their marks in their fields and earned a name for themselves and the alma mater. Most of them are well known in and outside India and have worked as Vice Chancellors, Visiting Professors in foreign countries, Professors, Directors, Research Associates, Project Heads, Journalists, Archaeologists ,Critics and School Teachers in Tamil.

Three of students of the Department have become the Vice chancellors of Universities. Prof. V. I. Subramaniam who was the head of the Department of Tamil and Linguistics in Kerala University was the first and second Vice Chancellor of Tamil University. Prof. S. Agasthalingom, a doctorate holder from our Department was the third Vice chancellor of the same university. Prof. K. P. Aravanan was the Vice Chancellor of Manomaniyam Sundaranar University. Prof. S. V. Subramaniam, former Head of the Department of Tamil was the Director of the International Institute of Tamil Studies.

The achievements of the Department is manifold. The compilation of Tamil literary source materials (Ceravendar Ceyyutkovai by Prof. M. Raghavaiyengar etc.), the preparation of word indices and grammatical description of Sangam and other texts, the translation and introduction of texts on literary criticism and folklore (Index of Purananoru by Prof. V. I. Subramanian, Theory of Literature-translation by Prof. Gloria Sundramathy), the compilation of grammatical texts thematically (Prof. S. V. Subramanian's Ilakkanatthokai), the pioneering efforts in the preparation of retrospective research bibliographies (Cilappatikara Ayvatankal by R. Kasirajan), the two way translation of Tamil and Malayalam grammatical and literary texts and Tamil Malayalam comparative literary and grammatical studies (Lilatilakam Tamil translation, Tolkappiyam Malayalam translation etc. by Prof. M. Elayaperumal and others). Recently department released Malayalam Tamil Dictionary, by Former Hon. Governor of Kerala, Justice. P. Sadasivam

The Department has published twenty Six books so far. In addition, an annual Journal called Research Papers has been published. Aspects of classical literature, grammatical studies, comparative literature, folklore, cultural studies, and textual criticism are the thrust areas of the department. A data base of word indices has been built over the years with which one can pursue compilation of different dictionaries. The library has about 32000 thousand books plus a number of dissertations which makes it a veritable store house of knowledge on Tamil language and literature.

COURSES OFFERED

MA Tamil Language and Literature

Semester 1: TAM-CC-511: Modern Literature; TAM-CC-512: History of Tamil Literature, Tamilnadu & Its Culture; TAM-CC-513: Literary Theories And Approaches; Discipline-Specific Elective (DE): TAM-CC-514: Human Values For Excellence In Tamil Literature

Semester 2: TAM-CC-521: Medieval And Bhakthi Literature; TAM-CC-522: Prosody And Poetics; TAM-CC-523: Tolkappiyam – Ezhuthu; TAM-CC-524: Modern Literary Criticism.

Semester 3: TAM-CC-531: The Study Of Tamil Epic; TAM-CC-532: Akam Puram Theories Of Tolkappiyam; TAM-CC-533 Tolkappiyam -COL; TAM-CC-534: Comparative Literature. Discipline-Specific Elective (DE): TAM-DE-535: Tamil Journalism And Mass Communication.

Semester 4: TAM-CC-541: Ancient Literature; TAM-CC-542: System Of Indian Philosophy With Special Reference To Tamil; TAM-CC-543: Linguistics, Comparative Dravidian And History Of Tamil Language; TAM -CC – 544 ;Folklore And Dravidian Ethnography; TAM – CC -545: Project Work & Viva.

Skill Enhancement Elective (SE): TAM-SE-501 Tamil Kanini Inaya Payanpadukal; TAM-SE-502: Spoken Malayalam; TAM-SE-503 Tamil English Translation



Generic Courses (GC): TAM-GC-501 Basic Functional Tamil; TAM-GC-502: Tamil Language And Literature An Introductory Course; TAM-GC-503: Tamil Malayalam Translation.

Programme Specific Outcomes (PSO)

- Increase Knowledge in Ancient ,Medival, Bhakthi and Modern Literature in Tamil Language .Enhance skills and attitudes for becoming a better learner ,thinker, and a human being by understanding the ancient and modern ethical Literature in Tamil.
- Develope skill in TolkappiyamEzhuthu and apply the rules of Tolkappiyam in Contemporary Tamil language.
- Articulate and exemplify basic knowledge of literary theories and its inevitability to interpret a literary text. ability to apply the literary Theories to the modern literary texts and interpret accordingly.
- Ability to understand the Indian Philosophy and Identify the Philosophy behind a literature.
- Apply the Modern Linguistic theories in Tamil language and differentiate Phonology, Morphology, Syntax, and Semantic structures. Learn TolkappiyamChol and Evaluate the structure of Tamil Sentences.
- Acquire the knowledge to Compare the Literature of Tamil with the Literature of other languages, Arts and Culture. Acquire knowledge on different kinds of criticism like Historical, Comparative, Modernistic , Marxist, Post modernistic, Feministic, Environmental Criticism etc..
- Acquire Skill in various techniques of Poetry writing.
- Apply the Modern Linguistic theories in Tamil language and differentiate Phonology, Morphology and Syntax , Semantic structures.
- Enhance skills and attitudes for becoming a better learner, thinker, and a human being by understanding the ancient and modern ethical Tamil Literature. Ability to Speak, write and Translate from Tamil to Malayalam and English and also understand the history of Tamil Literature.
- Acquire Skill in Folk Literature and understand the different kinds of performing folk arts.
- Acquire Knowledge on Journalism, Electronic media, Types of news reporting,Types broadcasting and Social media .
- Ability to Speak ,write, Translate from Tamil to Malayalam and English and also understand the history of Tamil Literature.

M.Phil Programme in Tamil

Semester 1: Paper I - TAM- 711- Research Methodology (4 Cr), Paper II - TAM- 712Literary theories (4 Cr); Paper III - TAM 713- Grammatical Theories (4 Cr). **Semester 2:** TAM 721 - Dissertation (20 Cr)



Research

The Department offers Ph.D. in Tamil Language and Literature and the areas of research are Comparative Grammar, Tamil Malayalam Translation, Tamil Malayalam Comparative Studies, Folklore, Sangam Literature, Ethnography Studies, Lexicography, Edit Manuscripts, Tamil Malayalam Machine Translation, Textual Criticism, Grammatical Studies, Cultural Studies etc.

Library

Our Library is one of the best and rarest libraries in India since it established in 1944. It has around 32,000 book collections apart from Ph.D thesis.

Certificate Course in Functional Tamil

The Department offers six months Certificate Course in Functional Tamil. It is very useful for non Tamizhiyans.

Centres

Manonmaniam Sundaranar Centre for Dravidian Cultural Studies

Director: Jeyakrishnan P.

One such is the Manonmaniam Sundaranar Centre for Dravidian Cultural Studies established in the Department of Tamil to undertake culture studies and area studies of the Dravidian languages and people of South India. The Center is mainly intended to survey and study the 5000 years old Dravidian Culture in its totality. The focus will be on the comparative study of Dravidian Languages & Literatures but will also include the areas of history, archaeology, epigraphy, art history, manuscriptology, folklore, sociology and other relevant areas. In addition, documentation and showcasing the same in the form of archives, museum etc.

The common literary heritage has not been properly highlighted by the world of scholarship till date. All the other major Dravidian Language including Malayalam have realized the classical status because of the Proto Dravidian components preserved in Tamil Literatures.

Alumni

Three of students of the Department have become the Vice Chancellors of Universities. Prof. V. I. Subramaniam who was the head of the Department of Tamil and Linguistics in Kerala University was the Vice Chancellor of Tamil University. Prof. S. Agasthalingom, a doctorate holder from our Department was the third Vice chancellor of the same university. Prof. K. P. Aravanan was the Vice Chancellor of Manomaniyam Sundaranar University. Prof. S. V. Subramaniam, former Head of the Department of Tamil was the Director of the International Institute of Tamil Studies. Prof. K. Nachimuthu are Served as Head of Various reputed Universities.

President: Dr. M. Nainar (Rtd Professor, University College; Ph: 9446517938); Secretary: Dr. P. Jeyakrishnan (Ph: 9447222571)





Oriental Research Institute and Manuscripts Library (Est. 1982)

Ph: 0471 2308421; Email: orimss.library1908@gmail.com

Faculty

Dr. Rejani, R.S, Assistant Professor & Head

Dr. R.B. Sreekala, Professor

Dr. Sainaba M, Assistant Professor

Dr. Padmadas, K.L, Assistant Professor

Dr. J.P. Prajith, Assistant Professor

Dr. Naushad, S., Assistant Professor

Brief Profile

The Department of Oriental Research Institute and Manuscripts Library situated at the beautiful scenario of Kariavattom campus, the Department is symbolically the converging point of Eastern and Western architecture. The building became a reality, due to the timely efforts of former Central Minister; Dr.S.Karan Singh. It has a history of about a century, and now done substantial work in the field of Indological studies. It has come in to existence out of Royal interest. The Kings of Travancore, as a ruler, was valorous as well as lovers of art and literature. H.H.Sri.Moolam Thirunal was mainly responsible for the spread of Oriental literature throughout the world. It is better known for its rare and archaic collection with manuscripts in ancient scripts. This has the unique status of unearthing the maximum number of works which are hither to hidden in darkness, but at the same time are of paramount importance and also for getting them published under Travancore Sanskrit Series and Trivandrum Malayalam Series. The Travancore Sanskrit Series has won international reputation among the Sanskrit scholars and has earned a great name for our state. The discovery and publication of the dramas attributed to Bhasa, the Arthasastra of Kautilya Aryamanjusrimulakalpa etc. has each by itself marked an epoch in the history of Sanskrit publications and has unfolded invaluable material for a correct appreciation of Sanskrit learning and the reconstruction of India's political and cultural history.

This institution is considered to be the first largest Manuscript Library of our country having more than 65,000 Manuscripts. Majority of the Manuscripts are in the form of palm leaf. Our collection is unique for their vastness in number, variety of subjects, scripts, language and writing materials. Philosophy, Mimamsa, Nyaya, Mantra, Tantra, Astronomy, Vedas, Upanishat, Ayurvedic Medicine, Jyothisha, Shilpa, Srauta, Music, Smritis and various forms of literature like Kavya, Nataka, Ithihasa, Puranas, Attakkatha, Tullal and Folklores are found in our collection. The languages include Sanskrit, Malayalam, Tamil, Telugu, Kannada, Hindi, Oriya, Burmese, Bengali, Indonesian etc. The scripts found in the Manuscripts vary from Grantha, Nandinagari, Vattezhuttu, Kolezhuttu, Tamil, Telugu, Malayalam, Devanagari, Burmese, Bengali and Marathi so on. From the Manuscripts Library of the Government,

The Manuscripts obtained were only 2500 and the remaining huge collections in this library are due to the drive and enthusiasm shown in this regard by the academic staff of this institution. The department accepts donations wholeheartedly, from those who are reluctant to hand over their Manuscripts, the department resort to the method of photocopying and digitization of Manuscripts. To treasure these age old documents we combine traditional as well modern techniques of preservation. Cleaning and oiling is done rotationally by the staff, trained and well equipped for the same. Our two periodicals published annually are one bilingual (English & Sanskrit) and other is in Malayalam. They are 'Journal of Manuscript Studies' and 'Pracheena Kairali'. Teaching is yet another endeavour undertaken by us. We offer Ph.D Programmes, M.Phil Programmes and M.A Elective Manuscriptology classes.

M.A Elective -Manuscriptology

MA Elective classes deals with various aspects of Manuscriptology. The speciality of the Course is that it is interdisciplinary in nature. Other Oriental faculty departments Sanskrit, Malayalam, Hindi, Arabic, as well as Philosophy, Archeology, Psychology, Science, Mathematics and History join hands with us, in running these courses.

M.Phil. Manuscriptology (Malayalam, Sanskrit, Tamil)

Semester 1: Paper I-Mss-711 –Research Methodology (4Cr), Paper II-Mss-712-Textual Criticism (4Cr) - Paper III- Mss-713-Writing and Writing materials (4 Cr).

Semester 2: Mss T21-Dissertation (20 Cr).

Research

Manuscriptology, Palaeography and Epigraphy, Ancient Literature, Critical edition of Manuscript.





Department of Aquatic Biology & Fisheries (Estd. 1938)

Phone: 0471 2308031; Email: aquaticbiology@gmail.com

Faculty

Dr. Biju Kumar, A., Professor & Head (Email: bijupuzhayoram@gmail.com; Ph: 9447216157)

Dr. S.M. Raffi, Associate Professor (Email: raffi_cas@yahoo.co.in; Ph: 9497393516)

Dr. Pramod Kiran, R.B., Assistant Professor (Email: pramodkiranrb@yahoo.com; Ph: 9995883318)

Dr. Kurian Mathew Abraham, Assistant Professor (Email: kurianma@gmail.com; Ph: 9447244803)

Dr. Mithun Sukumaran, Assistant Professor (Email: mithunsugun@gmail.com; Ph: 8075956015)

Dr. Suvarna Devi S., Guest Lecturer (Email: suvarnaraja1995@gmail.com; Ph: 8547575422)

Dr. Pramitha V.S., Guest Lecturer (Email: pramivs_vzm@yahoo.com; Ph: 8848838235)

Administrative Officer: Sri Abhilash K (Ph: 9447880192)

Librarian: Smt Vasudha (Ph: 9400870470)

Brief Profile

The department is as old as the University of Kerala and adorns a vibrant and pivotal position in the national and international arena as a Centre of Advanced Study in Aquatic Biology and Fisheries of University Grants Commission. This department had its inception in 1938 as the Marine Biology and Fisheries Laboratory and Aquarium of the erstwhile Travancore University at Shanghumugham, Thiruvananthapuram. In 1958, the laboratory started a two-year M.Sc., Programme in Marine Biology and Oceanography. Subsequently, a full-fledged new Department of Marine Biology and Oceanography was started at Cochin during 1962 with the view of expanding the research activities of the laboratory and this later became part of Cochin University of Science and Technology. In 1968, based on the recommendations of Padmasree Prof. N. Balakrishnan Nair, the laboratory was renamed as the Department of Aquatic Biology and Fisheries and it diversified its research activities to various aspects of freshwater, brackish water and marine habitats. This is the first research and teaching department under University in Kerala to be elevated to the Status of Centre of Advanced Studies (CAS) by the University Grants Commission. The Department also was awarded SAP

and COSIST schemes by UGC and FIST by Department of Science and Technology, Govt. of India. It has also received equipment grant from DOD, Govt. of India and Infrastructure Development Grant from UGC, in addition to research funding from various State and Central agencies, and from International institutions.

The department has Memorandum of Agreements (MoAs) with Lee Kong Chian Natural History Museum, National University of Singapore and Institute of Marine Biology and Center of Excellence for the Oceans, National Taiwan, and combined research publications with over 20 international research institutions.

The department offers M.Sc., M.Phil. and Ph.D. programmes in Aquatic Biology and Fisheries. It also offers consultancy services to various national and international agencies. The faculty of the department combines a tradition of excellence in research with modern and multidisciplinary teaching in various facets of aquatic biology which includes Aquaculture, Aquatic Microbiology, Taxonomy and Biodiversity, Aquatic Ecology, Chemical Ecology, Parasitology, Diseases of Finfish and Shellfish, Aquatic Pollution and Toxicology, Marine Natural Products etc. The department is implementing collaborative research with various national and international institutions.

PROGRAMMES OFFERED

M.Sc. Aquatic Biology and Fisheries

Semester 1: AQB-CC-511: Limnology ; AQB-CC-512: Marine Biology & Oceanography; AQB-CC-513: Systematics & Conservation Biology; AQB-CC-514: Fish Biology & Physiology; AQB-CC-515: Practical I: Aquatic Ecology, Systematics & Fish Biology; Discipline-Specific Elective (DE): AQB-DE-516: Aquatic Toxicology

Semester 2: AQB-CC-521: Inland Fisheries Management; AQB-CC-522: Marine Fisheries Management; AQB-CC-523: Fish Genetics & Biotechnology; AQB-CC-524: Fish Biochemistry & Microbiology; AQB-CC-525: Practical II: Fisheries, Biochemistry & Biotechnology. Discipline-Specific Elective (DE): AQB-DE-526: Biostatistics & Research Methodology

Semester 3: AQB-CC-531: Freshwater Aquaculture & Aquarium Management; AQB-CC-532: Coastal Aquaculture & Mariculture; AQB-CC-533: Fish Health Management; AQB-CC-534: Fish Processing Technology; AQB-CC-535: Practical III: Aquaculture, Fish Health & Fish Processing; Discipline-Specific Elective (DE)- AQB-DE-536: Fisheries extension, Economics, Marketing & IPR.

Semester 4: AQB-CC-541: Internship in Aquaculture; AQB-CC-542: Internship in Fish Processing/Fisheries Extension; AQB-CC-543: Project Work & Viva

Skill Enhancement Elective (SE): AQB-SE-501: Soft Skills; AQB-SE-502: Data Presentation Techniques; AQB-SE-503: Underwater Research & Recreation

Generic Courses (GC): AQB-GC-501: Environment, Education & Sustainable Development; AQB-GC-502: Aquatic Eco-restoration; AQB-GC-503: Oceans Literacy; AQB-GC-504: Aquarium Design & Ornamental Fish Keeping; AQB-GC-505: Biodiversity: Survey & Sampling Methods; AQB-GC-506: Research Methodology & Project Formulation; AQB-GC-507: Ecoinformatics; AQB-GC-508: Elementary

Biostatistics: AQB-GC-509: Environment Impact Assessment; AQB-GC-510: Drinking Water Quality & Sanitation; AQB-GC-511: Live Feed Culture Technology; AQB-GC-512: The Future of Water: Environment, Politics & Sustainability.

Programme Specific Outcomes (PSO)

- Concepts and skills relevant to Aquatic Biology, Fisheries and Aquaculture.
- Academic excellence in Limnology, Marine Biology, Fisheries and Aquaculture, Fish and Shellfish Biology, Fish Health, Fish Processing, Fishery Economics, Marketing, IPR and allied fields.
- Practical skills in major fields related to Aquatic Ecology, Systematics, Fish Biology, Fisheries, Fish Biochemistry, Microbiology, Biotechnology, Aquaculture, Fish Health & Fish Processing
- Creation of concerned and responsible citizen who appreciate the need for biodiversity conservation in the country.
- Perform the roles of a job provider, consultant, supervisor or and entrepreneurship skill development in sectors like Aquaculture, Fish Processing and Marketing, and Fisheries Extension.
- Ability to identify socially relevant research problems in the sector, design and carry out experiments and publish the results for the benefit of the society.
- Enhanced skills and attitudes for becoming a better learner, thinker, professional and skilled person.
- Enhanced attitudes towards critically analysing issues in the fisheries sector and aquatic ecosystem management and to develop confidence in undertaking projects relevant to the society and sustainable development.

New MSc Programme Proposed: MSc Applied Aquaculture (2021 onwards)

M.Phil. Aquatic Biology and Fisheries

Semester 1: Paper I - AQB 711 - Research Methodology (4 Cr), Paper II - AQB 712 Advances in Aquatic Ecology (4 Cr); Paper III - AQB 713- Advances in Fisheries and Aquaculture (4 Cr). **Semester 2:** AQB 721 - Dissertation (20 Cr)

M.Phil. Marine Science and Technology

Semester 1: Paper I - AQB 711 - Research Methodology (4 Cr), Paper II - AQB 712 Advances in Marine Science and Conservation (4 Cr); Paper III - AQB 713- Advances in Marine Technology (4 Cr). **Semester 2:** AQB 721 - Dissertation (20 Cr)

Research

The Department offers Ph.D. in Aquatic Biology & Fisheries and the areas of research are multidisciplinary including Aquatic Botany, Aquatic Zoology, Ecology, Biodiversity and Taxonomy (freshwater, estuarine and marine), Aquaculture, Aquatic Microbiology, Chemical Ecology, Parasitology and Pathology, Marine Natural Products, Ecosystem Modelling, Ethology, Conservation Biology etc. **Research Infrastructure:** Wetlabs,

UV-Visible spectrophotometer, HPLC, PCR, Gel Documentation Unit; Deep freezers; Muffle furnace, Hot air Ovens, laminar flows, Recirculatory Aquaculture System.

Special Facilities

The department hosts a well-furnished **museum**, showcasing aquatic animals of freshwater, estuarine and marine environments. The museum also extend services for taxonomic identification of aquatic organisms to other academic and research institutions and civil society organisations. It also serves as a repository of museum specimens. The department also conducts exhibition on aquatic biodiversity to school and college children, besides taxonomy workshops.



Centre for Aquaculture Research and Extension (CARE) is established near the Hymavathy pond in Karyavattom Campus, to facilitate aquaculture research, and the fish culture has begun in campus ponds. Recently, the department installed Recirculatory Aquaculture System and aquaculture using biofloc technology, and aquaponics facilities.

Consultancy/training offered: The department offers consultancy services for Freshwater and Brackish water Aquaculture; Seed production of shrimps and fish; Ornamental fish breeding; Aquarium design and Public Aquarium; Water Quality studies; Fish Census; Environmental Impact Assessment; preparation of policy documents on conservation and biodiversity.

Aquatic Biology and Fisheries Alumni Association (ABAFAA): The Alumni is active since 2008, and it support students with fellowships and facilities to do research. Secretary: Dr. Mithun Sukumaran.



Department of Biochemistry (Est. 1970)

Ph: 0471 2308078, Email: biochemistrykariavattom@gmail.com

Faculty

Dr. Mini S, Professor & Head (Email: minisaraswathy@gmail.com, Ph: 9495276631)

Dr. A. Helen, Professor (Email: helenbiochem@gmail.com, Ph: 9447399759)

Dr. Arun A. Rauf, Assistant Professor (Email: arunarauf@keralauniversity.ac.in, Ph: 9447290954)

Dr. Saja K, Assistant Professor (Email: sajaboban@gmail.com, Ph: 9447343980)

Dr. P.G. Biju, Assistant Professor (Email: bijupg@keralauniversity.ac.in, Ph: 9847502952)

Dr. Viji Vijayan, Assistant Professor (Email: vijivijayan@keralauniversity.ac.in, Ph: 9074529255, 9990104799)

Dr. Janeesh P.A, Assistant Professor (Email: janeeshbiochemistry@keralauniversity.ac.in, Ph: 9746318631)

Additional Faculties

Dr. Annie Abraham, Emeritus Professor (Email: annieab2001@gmail.com, Ph: 9447246692)

Dr. Annie John, Emerita Scientist (Email: karippacheril@gmail.com, Ph: 9495340030)

Dr. Soumya MS, Lecturer on Contract (Email: soumyams@gmail.com, Ph: 9400403905)

Brief Profile

The Department of Biochemistry is celebrating its 'Golden Jubilee' year this year. The Department's inception was in the year 1961 as a division of department of Chemistry and attained the status of an independent department in 1970, under the eminent leadership of Prof. P.A. Kurup (Late). The Department has a distinguished tradition of teaching and research on various aspects of Biochemistry. The major areas of research include biochemical basis of diseases such as Atherosclerosis, Diabetes, Cataract, Cancer, Inflammation, Arthritis, and high impact areas such as Nanobiology, Nutrition, Structural Biology and Alcoholism. The department has successfully undertaken a

number of externally funded research programmes sponsored by both national and international agencies, independently and in collaboration with various laboratories in India and abroad.

This department of the University has always been in the forefront in organizing a number of academic activities. For the past several years, the department has been offering a series of extension, consultancy and service activities, particularly in disease diagnosis. The department has received special financial support for research and teaching from UGC, Govt. of India under the SAP programme, from DST, Govt. of India under the FIST programme, and KSCSTE, Govt. of Kerala under the SARD programme. Faculties have received extramural research funding from DBT, ICMR, UGC, DST, KSCSTE, etc., in the areas of Nanobiology, Marine Biotechnology, Inflammation, Atherosclerosis, Diabetes and Tissue Engineering. The department maintains active research collaboration with other institutions in India and abroad. Memorandum of Understanding (MoU) are in place with Regional Cancer Centre (RCC), and National Institute of Interdisciplinary Science and Technology (NIIST), Thiruvananthapuram, Kerala and another one is to be signed shortly with University of Colorado, USA.

The department currently offers M.Sc. in Biochemistry, M.Phil. (Biochemistry, Genetics and Genomics) and Ph.D. in Biochemistry. The department has produced more than 280 Ph.Ds and published more than 900 research articles in leading national and international peer reviewed journals. The department is proud of its distinction as the best performing department of the University in terms of external research funding and research output on several consecutive years.

PROGRAMMES OFFERED

M.Sc. Biochemistry

Semester 1: BCH-CC-511: Biomolecules, BCH-CC-512: Advanced Techniques in Biochemistry, BCH-CC-513: Microbial Biochemistry: BCH-CC-514: Physiology and Specialized Tissues, BCH-CC-515: Lab Course I (Biochemical and Microbial Techniques). BCH-DE-516: Methods in Research, BCH-DE-517: Radioactivity and Radiation Biology.

Semester 2: BCH-CC-521: Enzymes, BCH-CC-522: Metabolism I, BCH-CC-523: Metabolism II, BCH-CC-524: Nutritional Biochemistry, BCH-CC-525: Clinical Biochemistry, BCH-CC-526: Lab Course -II (Clinical Biochemistry & Enzymology). BCH-DE-527: Bioinformatics, BCH-DE-528: Tissue Engineering.

Semester 3: BCH-CC-531: Molecular Cell Biology, BCH-CC-532: Molecular Biology, BCH-CC-533: Plant Biochemistry, BCH-CC-534: Molecular Immunology, BCH-CC-535: Lab Course III (Techniques in Molecular Biology, Immunology and Phytochemistry). BCH-DE-536: Developmental Biology, BCH-DE-537: Environmental Biochemistry.

Semester 4: BCH-CC-541: Molecular Endocrinology, BCH-CC-542: Genetics and genomics, BCH-DE-543: Pharmaceutical Biochemistry, BCH-DE-544: Biotechnology, BCH-CC-545: Dissertation

Skill Enhancement Elective: BCH-SE-501: Laboratory Animal Experimentation, BCH-SE-502: Effective Scientific Communication, BCH-SE-503: Animal Cell Culture Techniques.

Generic Courses

BCH-GC-501: Radiation Biology and Health, BCH-GC-502: Enzymology, BCH-GC-503: Lifestyle diseases.

Program specific outcomes (PSO)

- To impart advanced knowledge on various concepts of biochemistry
- Enable students to achieve capacity for inquisitive enquire in the field of biochemistry
- To develop skills in students necessary for careers into advanced research
- Enrich the skills and applied knowledge of students towards current industry expectations from biochemists

M.Phil. Biochemistry

BCH711: Research Methodology, BCH712: Advanced Biological Techniques, BCH713: Special paper in Biochemistry, BCH714: Dissertation

M.Phil. Genetics and Genomics

GAG711: Research Methodology, GAG712: Molecular and Analytical Techniques, GAG713: Special Paper in Genetics and Genomics, GAG714: Dissertation.

Research

The thrust areas of research in the department are Lifestyle Diseases (Atherosclerosis, Cancer, Diabetes, Inflammation, Arthritis, Cataract, Alcoholism etc.) Phytochemistry (Phytochemical Evaluation, Bioactive Compound Isolation, Drug Development). The research program has diversified into newer areas of research like structural Biology, Epigenetics, Nano Biotechnology. Marine Biotechnology and Tissue Engineering. The Department is actively engaged in research on natural products with therapeutic applications in these thrust areas.

Research Infrastructure

Small Animal Research Facility: The department runs a CPCSEA approved small animal research facility for rabbits, guinea pigs, rats and mice. The facility is managed by a full time government veterinary doctor on deputation.

Equipments: Electrospin apparatus, Ultra centrifuge, Microplate reader, UV-Vis Spectrophotometer, Lyophilizer, Fluorescence microscope, qPCR, Animal cell culture facility, Microbiology laboratory, -80 Freezer, -20 Freezer, LN₂ Facility, Sonicator, Inverted microscope, Cooling centrifuge, Chemidoc apparatus, Cold room, Ice flake machine, Autoclave, etc.



Centres of the Department

As a part of the research expansion of the department, Advanced Centre for Tissue Engineering (ACTE) was initiated in the Department of Biochemistry during 2015-16. The centre is involved in research on novel scaffolds and pathways in tissue engineering and regenerative medicine.

Alumni: The department has an active alumni association (Biochemistry Alumni Association- BAA) with active participation of former faculties, research scholars and students. The current president of the association is Dr. K.T. Augusti, and vice-president is Dr. M. Indira, both former professors of the Department. Head of Department serves as the secretary of the association. BAA is actively involved in student encouragement in the form of awards for first and second rank holders of M.Sc. Biochemistry in the Department every academic year.

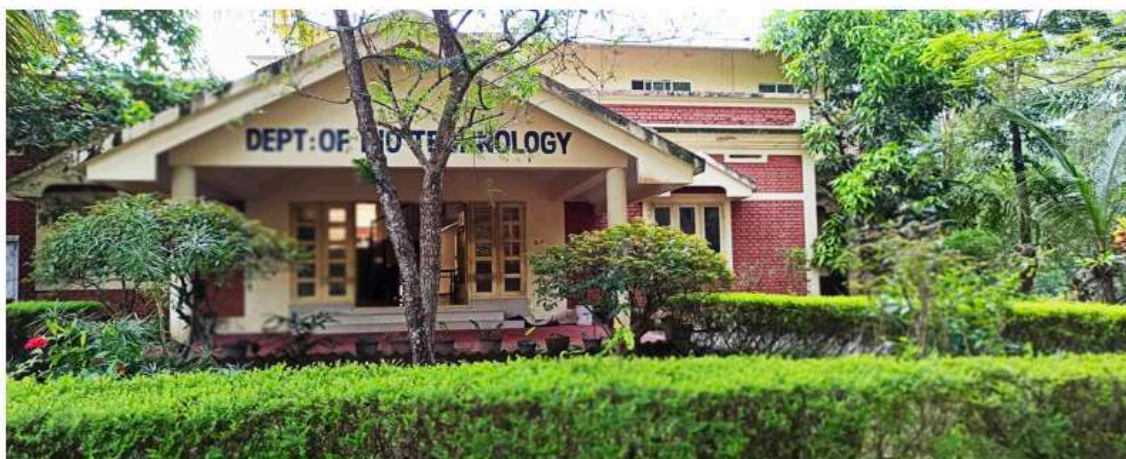
Other Activities

- **Prof. P.A. Kurup Memorial Lecture:** In memory of our beloved founder head, an annual memorial lecture carrying his name has been instituted with support from the University. Eminent scientists of international stature are invited to deliver this prestigious lecture, to honour the contributions and to cherish the memory of Prof. P.A. Kurup.
- **Patents:** The department currently holds one patent by Dr. G. Muraleedhara Kurup, former Professor & Head of the Department. Four patents have been filed from the department by Dr. Annie Abraham, former Professor & Head, and presently Emeritus Professor.
- **Extension and Cocurricular Activities:** The department routinely conducts camps for Breast cancer screening, Life style diseases screening, Vision and eye diseases

screening, Diabetes awareness lectures, Open house exhibition for school students, Science day celebrations, popular lectures by eminent scientists on current and emerging topics. The department was an active participant in the 'Hand Sanitizer Drive' initiated by the University as part of the COVID-19 prevention programme.



- **International/National Seminars and Workshops:** The department has been organizing a seminar titled “Recent Biochemical Approaches in Therapeutics-RBAT” every year, as national or international alternatively. A national seminar titled “Recent Approaches in Biochemical Research-RABR” is organized every year. A workshop for Animal Handling in Research is organized at least once every year, for research scholars involved in animal research.
- **International Webinar Series:** In view of the current pandemic scenario where the world has moved to webinars and online platforms, the department has initiated a new International Webinar Series on a monthly basis, where eminent researchers from abroad deliver scientific lectures followed by interaction with faculty and students.
- **Awards/Honours:** The department was awarded by the University for generating the highest external funding among all departments of the University for the year 2018-19. Dr. Annie Abraham, former Professor & Head, and presently Emeritus Professor, was honoured by the University for bringing the highest individual external funding among faculties of the Department.
- **Top Scientists in India:** The department is proud to announce the listing of Dr. K.T. Augusti and Dr. P. Venugopal Menon, alumni and former Professors of the department, among the top 2% scientists of India in the current year.
- **Online Activities:** The department is among the first departments of the University to start Moodle platform course. In the present pandemic condition, all classes are offered via online platform as both live and pre-recorded classes.



Department of Biotechnology (Est. 1995)

Ph: 0471 2308778, Email: biotechkariavattom@gmail.com

Faculty

Dr. A. Jayakumaran Nair, Associate Professor and Head; Email: jekksnair@gmail.com; 8921031690, 9447059164

Dr. Supriya R., Lecturer (on Contract); Email: supriyaradhakrishnan@gmail.com; 9495163733

Dr. Bindhu Ismail, Lecturer (on Contract); Email: bindu.ismail@gmail.com; 9072051495

Dr. Veena O., Lecturer (on Contract); Email: veenamanojkumar@gmail.com; 9447126070

Dr. Mini M George, Guest faculty; Email: drminimgeorge@gmail.com Ph: 9447004049

Brief Profile

The Department of Biotechnology under University of Kerala was established in 1995. It offers postgraduate degree and doctoral degree in biotechnology. Now the Department is provided with all basic and essential laboratory amenities for carrying out research and development activities in modern areas of biotechnology. The Department started to initiate biotechnology education as a program to generate trained manpower to meet the industry's demand. The course curriculum of PG program in biotechnology and doctoral research programs are meticulously designed to impart practical oriented training in all areas of biotechnology as required by the biotechnology industry. Both basic and applied aspects of biotechnology researches are carried out here. The Inter University Centre for Genomics and Gene Technology (IUCGGT) under Department of Biotechnology offers PG diploma course especially in Molecular Diagnostics, where the students will get a thorough understanding on various areas related to diagnostics and therapeutics through molecular tools.

As a part of extension activities in the Department, we do testing to assess the microbial quality of drinking water and food materials for the needy persons and groups and also

conduct short term training programmes in microbial analysis as well as in other related major biotechnological and biochemical techniques such as animal cell culture, screening of drug compounds, Molecular techniques and instrumental techniques. We also extend our facilities to the students of other colleges and universities for their educational purposes. We undertake project training of students in PG, M.Phil and PhD streams from other departments, colleges and research institutes.

We frequently organize short term training programme on various aspects of Biotechnology and molecular techniques.

PROGRAMMES OFFERED

MSc Program in Biotechnology: Through an entrance examination conducted by the University and the mark scored for the qualifying examination. The Maximum intake: 14

Semester I: BTY-CC-511 Microbiology; BTY-CC-512 -Biochemistry; BTY-CC-513- Biophysics and Instrumentation; BTY-CC-514- Genetics; BTY-CC-515- Bio-Techniques-I

Semester II: BTY-CC-521- Molecular Biology; BTY-CC-522 Enzymology; BTY-CC-523- Cell Biology; BTY-CC-524- Natural Products and Molecular Medicine; BTY-CC-525- Bio-Techniques- II; Discipline-Specific Electives: BTY-DE-526 Computer Applications and Biostatistics; BTY-DE-527- Bioethics and Biosafety Regulations

Semester III: BTY-CC-531 Immunology and Immunotechnology; BTY-CC-532- Recombinant DNA Technology; BTY-CC-533 -Bioprocess Engineering; BTY-CC-534 Plant and Animal biotechnology; BTY-CC-535- Bio-Techniques-III. Discipline-Specific Electives: BTY-DE-536- IPR and Patent Laws in Biotechnology

Semester IV: BTY-CC-541 Pharmaceutical Biotechnology; BTY-CC-542 Nanobiotechnology; BTY-CC-543 Bioinformatics and Computational Biology; BTY-CC-544- Industrial Attachment Training; BTY-CC-545- Project work (Starts from 1st Semester)

Generic Courses: BTY-GC-501- Public Perception of Biotechnology; BTY-GC-502- Environmental Biotechnology; BTY-GC-503- Food and Dairy Biotechnology; BTY-GC-504- Bioethics and Biosafety Regulations; BTY-GC-505 Virology and Vaccines; BTY-GC-506- Genomics and Proteomics

Programme Specific Outcomes (PSO)

- Design and execute industry-oriented experiments in biotechnology using modern biotechnological tools and techniques.
- Apply the knowledge of biotechnology to demonstrate research skills and develop technology for industrial and medicinal aspects.
- Understand the basic knowledge and concepts of biotechnology and other related areas.
- Understand the ability to apply their knowledge for practical which they can conduct independently.

- Apply their knowledge in other advanced subject area like nanobiotechnology, immunotechnology and animal and plant biotechnology for the betterment and advancement of their professional career.
- Learn the theoretical and practical exposure to the basic and the advanced fields of biotechnology.

Research and academic infrastructure

Biotechnology Department is equipped with a well and sufficient laboratory facilities for doing high end researches and is supported with sophisticated instruments like Flow Cytometer, PCR, chromatographic equipment like FPLC and LPLC, FLASH Chromatography, Lyophilizer etc, and frequently organizes workshops to understand the applications of these equipment to the students, researchers and academicians. The Department has a full-fledged animal Cell Culture Facility. Moreover, the Department is facilitated with MSc labs and extension of the classrooms and labs are going on.

Laboratory facilities in the Department



The major research activities in the Department

PhD in Biotechnology offered by the Department include many cutting edge research areas on bioprocess technology, cancer biology, nanobiotechnology, tissue engineering, molecular biology, neurobiology, probiotics, development of nutraceuticals etc. Major research works include extraction and purification of enzymes of industrial and clinical importance from the microbial and other related sources, purification of active plant compounds for medicinal application and anticancer studies, molecular diagnostics, production of nano-based edible films for the food packaging through nano

biotechnology, generation of nanoparticles for various food and clinical applications, development of recombinant vaccines against avian viruses and development of monoclonal antibodies etc. Proteomics, Enzymology and enzyme technology are another major field of our activities.

Start- Ups and other services

A Startup company BIOVENT is working under KU-TBSC (Kerala University – Technology & Business Start-Up Centre) scheme at the Department of Biotechnology. Biovent is founded in 2017 by the ex- alumni academic entrepreneurs from Biotechnology and Microbiology. The venture focuses on high quality analytical service in Biotechnology, Microbiology, Biochemistry, as well as other streams of life science, innovation outcomes in terms of society, beneficial research or interventions, develop technologies useful to biomedical research, learning collaborations, patents and other beneficial knowledge outputs. Biovent is supported by the KU-TBSC, Department of Biotechnology and Central Laboratory for Instrumentation and Facilitation (CLIF), University Kerala.

Inter University Centre for Genomics and Gene Technology (IUCGGT)

The Department has established an **Inter University Centre for Genomics and Gene Technology (IUCGGT)**, an initiative of the Department of Higher Education, Govt. of Kerala. The Centre is functioning as platform for the research and academic interaction of researchers and students of Biotechnology. We impart infrastructure and conceptual support to researchers training and promote co-operation between academia and industry. We also provide training on various fields of Biotechnology to the needy person according to their research and academic needs here.

The Centre mainly concentrates on the research in Genomics and Genetics based technology in the field of plant animal and microbial research. Genome analysis, Genome sequencing, RNA based gene expression studies and genetic regulations are the other thrust areas here.

Post-doctoral researchers working at IUCGGT do many scientific studies on Plant and animal genomics, Pharmacogenomics, epidemiological studies, miRNA mediated stress in neuronal cells, role of miRNA in adipogenesis, animal cell culture experiments, plant breeding based on marker assisted selection and plant genetic engineering etc. IUCGGT conducts a PG Diploma Course in Molecular diagnostics.

Other Unique features

The Department has published more than 80 scientific articles in different peer reviewed journals and books till now. More than thirty PhD thesis have been submitted for the award of PhD degree in the year from the Department. Some of our students were able to join multinational companies, other national research and academic institutes to pursue their higher studies after securing national level fellowships like CSIR, ICMA, ICAR, DBT Inspire, DBT JRF etc. The students also have joined Jawaharlal Nehru University, IISER, and multi-national companies like Thermo Fischer Scientific etc.



Department of Botany (Est. 1959)

Ph: 08547313703; Email: botany@keralauniversity.ac.in

Faculty

Dr. Swapna T.S., Professor & Head (Email: swapnats@yahoo.com; Ph: 9745824670)

Dr. P.M. Radhamany, Professor (Email: radhamany_m@rediffmail.com; Ph: 9446215095)

Dr. S. Suhara Beevy, Professor (Email: s.beevy@rediffmail.com; Ph: 9447012324)

Dr. A. Gangaprasad, Professor (Email: agangaprasad@yahoo.com; Ph: 9447552783)

Dr. E. A. Siril, Professor (Email: easiril@yahoo.com; Ph: 9447260101)

Dr. Shiburaj S, Professor (Email: drshiburaj@gmail.com; Ph: 9495826669)

Dr. Bindu R. Nair, Associate Professor (Email: bindunair_r@yahoo.co.in; Ph: 9447111375)

Dr. R. Rajalakshmi, Associate Professor (Email: rajalakshmi.murali@gmail.com; Ph: 9495819218)

Brief Profile

The Department was established in the year 1959 by Late Professor (Dr.) A. Abraham, a visionary and a doyen in Cytogenetics and Plant Breeding. The Department actively serves the society through the dissemination of knowledge and training the younger generation through unique courses and research programmes in frontier areas of Plant Science. It is internationally acclaimed for its major contributions in Cytogenetics and Cytotaxonomy and for running the novel postgraduate programmes in Genetics and Plant Breeding. The Department is also active in doing research in Plant Systematics, Plant Biotechnology, Molecular Biology, Reproductive Biology, Biodiversity Conservation and

Phytochemistry. The Department earned the privilege of being selected for the UGC- COSIST programme and SAP programme for developing its infrastructure and research. SAP phase II, SARD programme of KSCSTE and DST-FIST during 2005-10, resulted in the addition of sophisticated equipments and facilities in the Department. The Department is still maintaining its reputation with high academic excellence.

PROGRAMMES OFFERED

M.Sc. Genetics & Plant Breeding (4 Semesters; Program code 815)

Semester 1: BOT-CC-511: Mendelian Genetics; BOT-CC-512: Biophysics, Biological Techniques and Research Methodology; BOT-CC- 513: Cytology. Discipline-Specific Elective (DE) BOT-DE-514: Diversity in Cryptogamae and Gymnospermae

Semester 2: BOT-CC-521: Molecular Genetics; BOT-CC-522: Cytogenetics; BOT-CC-523: Plant Breeding; BOT-CC-524: Plant Physiology and Biochemistry. Discipline-Specific Elective (DE) BOT-DE-525: Bioinformatics

Semester 3: BOT-CC-531: Genetic Engineering; BOT-CC-532: Plant Biotechnology; BOT-CC-533: Environmental Genetics; BOT-CC-534: Modern Methods in Crop Breeding, Discipline-Specific Elective (DE) BOT-DE-535: Applied Palynology; BOT-DE-536: Phytochemistry

Semester 4: BOT-CC-541: Population & Evolutionary Genetics; BOT-CC-542: Developmental Genetics BOT-CC-543: Biosystematics; DISSERTATION BOT-D-544: Dissertation.

Skill Enhancement Elective (SE): BOT- SE- 501 Plant Propagation and Nursery Management

Generic courses-(GC): BOT-GC-5A1: Plant Tissue Culture; BOT-GC-5A2: Microbial Technology; BOT-GC-5A3: Plant Cell Culture Technology; BOTGC-5A4: Principles of Gardening; BOT-X-5A5: Transgenic Plants; BOT-X-5A6: Ethnobotany

Programme Specific Outcomes (PSO)

- Understand the interdisciplinary approach of Genetics and Plant breeding
- Develop skills in breeding practices, crop management strategies, improvement in crop characters under stress
- Gain experience in technology rich and integrated research and training
- Pursue a career in Academic and Research Institutes as well as Industry

M.Sc. Biodiversity Conservation (4 semesters; Program code: 850)

Semester 1: BDC-CC-511: Biodiversity and Conservation Biology; BDC-CC-512: Diversity in Algae, Fungi and Microbes; BDC-CC-513: Cell Biology, Genetics and Evolution; Discipline-Specific Elective (DE): BDC-DE-514: Research methodology and Instrumentation

Semester 2: BDC-CC-521: Environmental Biology; BDC -CC-522: Animal Diversity; BDC-CC-523: Diversity in Bryophytes, Pteridophytes and Gymnosperms; BDC-CC-524:

Biochemistry, Physiology and Immunology. Discipline-Specific Elective (DE): BDC-DE-525 Bioinformatics

Semester 3: BDC-CC-531: Angiosperm Taxonomy, Economic Botany and Ethnobotany; BDC-CC-532: Forest Botany and Phytogeography; BDC-CC-533: Conservation of Natural Resources and Policies; BDC-CC-534: Molecular Biology and Biotechnology. Discipline-Specific Elective (DE): BDC-DSE-535: Remote Sensing Applications and GIS; BDC-DSE-536: Climate Change and Crop Adaptations

Semester 4: BDC-CC-541: Environmental Impact Assessment (EIA) and Auditing; BDC-CC-542: Agro-biodiversity & Wetland Management; BDC-CC-543: Coastal and Marine Biodiversity and Management; DISSERTATION BDC-D-544: Dissertation

Generic courses-(GC): BDC-GC-5A1: Germplasm Conservation

Programme Specific Outcomes (PSO)

- Mastery in biodiversity and its conservation strategies.
- Experience and identify the diversity of plant and animal kingdom, from lower to higher level
- Recognize the need to conserve the wealth of Biodiversity
- Address environmental issues related to biodiversity
- Create social awareness in biodiversity conservation and sustainable utilization of bioresources

M. Phil. Advanced Botany (4 Semesters)

Semester I: MAB 711- Research Methodology (4 Cr) MAB 712- Advanced Botany (4 Cr), MAB 713- Modern Methods of Crop Breeding (4 Cr). **Semester II:** MAB 721 Dissertation (20 Cr)

Research

The Department offers Ph.D. in Botany and the areas of research are multidisciplinary including Conservation of Tropical Plant Diversity, Evaluation and Genetic characterization, Biosystematics and Evolution, Chemical / Gene prospecting, Crop Genomics, Plant Tissue culture and Molecular Biology of Medicinal and Crop Plant relatives. Cytogenesis, Cytotoxicity and Cytotaxonomy, Plant Reproductive Biology, Breeding and Palynology, Seed Biology, *In vitro* production of secondary metabolites.

Research Infrastructure

Molecular Biology & Instrumentation Laboratory, Plant Tissue Culture Lab, Biosystematics Lab, Plant Reproductive Biology Lab, Plant Reproductive Biology Lab, Botanic Garden (Member of Botanic Garden Conservation International), 'Thulaseevanam' Medicinal Garden, Herbarium with more than 8000 specimens, Seed bank, Library with LIBMAS Software having more than 9000 books, Computer lab with Wi Fi connectivity and INFLIB Net facility, Seminar Hall with Wi Fi and modern audio visual facility, Translational research laboratory in plant cell culture technology, Bioproduction and microbiology laboratory

Equipment available: High Speed Cooling Centrifuge, UV-Vis, spectrophotometer, Stereo- Zoom Microscope, Phase contrast microscope, Image Analyser, Cryotome, Protein purification System & Fraction collector, HPLC, GC, Flash chromatography, PCR, Real time PCR, Gel Documentation System, Deep Freezers (-80 , -40 , -20 , -4°C), Elisa Reader, Biophotometer, nanophotometer, Sonicator, incubators, incubator shaker, humidity chamber, Bio fermenters, Lyophilizer, Nitrogen Analyser, Rotary evaporator, Walk in Cold Room.



Kerala University Botany Herbarium (KUBH) was established in the year 1989. (Registered in Index Herbarium, New York: with an Acronym – KUBH). Just like in a library, the dried plant specimens are arranged in the herbarium in systematic order, by plant family, according to Bentham and Hooker, 1876 & Smith et al., 2006, systems of classification. The collections of KUBH includes Angiosperms (5291), Gymnosperms (21) Pteridophytes (2000) Bryophytes (10) Lichen, Fungi and Algae (40) and type specimens (50)] totalling over 7362. More than 3000 specimens are yet to be identified and several new specimens are arriving periodically in the herbaria.

KUBH supports (i) the correct identification of plant specimens (ii) form the basis for research and preparation of Floras (iii) provide the comparative material essential for studies in taxonomy, systematics, ecology, anatomy, morphology, conservation biology, biodiversity, ethnobotany, paleobotany (iv) for teaching. (v) for being used by the public and (iv) for the preservation of voucher specimens.

Services rendered by KUBH: (i) Identification of plants for researchers and students of the Department of Botany as well as for the sister departments and other institutions. (ii) Deposition of the voucher specimens and issuing voucher number and certificate of identification. (iii) Giving Training in the preparation and maintenance of herbarium for

the school students, researchers and to the general public. (iv) Taking projects to identify the plants inside and outside the premises of various organizations, institutions and Government bodies.

Botanical garden: Botanical garden of University of Kerala, Kariavattom was established in 1969. It is spread over a good 30+ acres of land on the North side of the campus. It consists of three green houses, one mist chamber, an herbal garden, a medicinal garden, an arboretum and a nursery for plant sale, a vegetable garden etc.

Seed Bank: Department of Botany, University of Kerala has established a seed bank facility for the seed conservation of indigenous crops, vegetables, underutilized vegetables, fruits, and medicinal plants, with support of Kerala State Biodiversity Board, Govt. of Kerala. As a part of seed banking program, a massive effort to procure seeds of underutilized vegetables, fruits and medicinal plants are under taken. Procuring seeds from traditional farmers in the state, home gardens are initiated especially for indigenous crops and underutilized crops, besides, on-going seed collections from the wild. Seed Bank is expected to serve as seed source for researchers and small / traditional growers. University has signed a tripartite MoU with Jawaharlal Nehru Botanic Garden & Research Institute and Kerala Forest Research Institute on 'Seed Bank maintenance and enrichment'. Seed bank now serving as a repository of seeds of rare, endangered, threatened (RET) plants, wild relatives of crop plants, and underutilized plants in the state, thus boost conservation activities.



Centre for Biodiversity Conservation

Centre for Biodiversity Conservation was established in January 2019 to provide bounteous knowledge about the importance of conservation of our biodiversity to the upcoming young talents. The Centre is mainly focusing on the management and sustainable use of our natural resources. Centre for Biodiversity Conservation is currently involved in the conservation and sustainable utilization of both wild ornamentals and edible plants of Western Ghats. The Centre also proposes to establish

an orchard of fruit trees in place of the existing Acacia plantation by planting the locally available traditional varieties of fruit trees collected from various parts of Kerala. Centre is also engaged in the conservation of economically important species of Andaman and Nicobar Islands. Recently, more than hundred species of such plants were collected from Andaman Islands were established an ex situ gene Bank of economically important species in the Kariavattom campus.

The Kerala University Botany Alumni Association (KUBAA)

Kerala University Botany Alumni Association established in the year 2003 with Prof. (Dr.) C.A. Ninan & Prof. P.M. Mathew (Former Head of the Department) as Patrons. Dr. T.S. Swapna, Professor & Head, Department of Botany is the present chairperson of the Association and Dr. Mariamma Cherian (Contact No. 8547096178) is the Secretary. The Association has around 350 members who actively participate and generously contribute to all its activities. The Alumni Association is proud to announce that many of the members of the Association are working in reputed research labs, across the country and abroad. Distinguished alumni include; Dr. Susan Eapen (Scientist Rtd. BARC), Dr. V. Sarasan (Royal Botanic Garden, Kew), Dr. P.G. Latha (Director Rtd., JNTBGRI), Dr Vijayan Nair (Director Rtd., Sugarcane Breeding Institute).

Unique features to showcase

‘Abrahamia’ - an International Journal of Plant Sciences is a biannual journal published by Department of Botany, University of Kerala <https://www.abrahamia.com/>

Digital garden: Digital Garden is a concept of digitization of floristic diversity of an area for the easy access of plant data using our mobile phones. The concept of digital garden and creation of India’s first digital garden was done by Shri Akhilesh S.V. Nair, Research Scholar and Dr. A. Gangaprasad at Kanakakkunnu Palace, Thiruvananthapuram. Digital gardens were also established in public premises like Kerala Raj Bhavan, Kanakakkunnu Palace and University of Kerala.

Vegetable cultivation: Recently Department has initiated Vegetable cultivation under Harithalayam project of the University. Vegetables like bringal, lady’s finger, cow pea, tomato were planted as part of the project.

Fernery: Recently initiated a conservatory exclusively for ferns. The fernery envisaged to house all the ferns available in the Western Ghats.



Ornamental garden

Fern collection



Department of Zoology (Est. 1968)

Ph: 2308906; Email: kudeptzoology@yahoo.co.in

Faculty

Dr. G Prasad, Professor & Head (Email: probios1@gmail.com; Ph: 9544381060)

Dr. MC Subhash Peter, Professor (Email: director.solku@gmail.com; Ph: 9447044657)

Dr. P Sreejith, Assistant Professor (Email: p.sreejith@gmail.com; Ph: 9496793794)

Dr. Benno Pereira F G, Assistant Professor (Email: bennopereira@gmail.com; Ph: 9447220233)

Dr. Sainudeen Sahib, Assistant Professor (Email: sainudeenpattazhy@hotmail.com; Ph: 9447243003)

Dr. Jeejakumari V K, Assistant Professor (Email: jeejagopan@gmail.com; Ph: 9447240761)

Brief Profile

The University Department of Zoology was established as a full-fledged teaching and research department in July, 1968, at Kariavattom in the leadership of the late Prof. K. K. Nair as the Professor and Head of the Department. During the formative period beginning with 1964, the Department was concentrating mainly on research, the principal field being Comparative Endocrinology of Invertebrates, especially insects. There were a number of ongoing mega research projects during that period supported by various agencies like the Ford Foundation, PL 480, CSIR, UGC, INSA, ICMR, ICAR, Tea Board, Atomic Energy Commission, etc. and the research activities of the Department were organized along definite lines with an active group of research workers pursuing one or more lines of study. The Department was equipped during this period with many of the modern equipments like Electron Microscope. On the death of Prof. K. K. Nair, was preceded by Prof. K.M. Alexander. He was appointed as Head of the Department on January 1, 1976 and then Professors such as G. K. Karanavar,

Oommen V Oommen and Mathew M Oommen were retired as the Heads of the Department.

The Department started the M. Sc. Course in Zoology (General and Applied) in 1983-1984. During the same period, the Department also offered the M. Phil. Course from 1974 onwards. It has produced 100 % pass in all the examinations with high degree of First Classes. For the Ph.D. programme, which has been offered in the Department since its inception, more than 150 students had registered till 2019 and out of this more than 120 candidates had been awarded the Ph.D. Degree.

The main areas of research chosen by candidates for the Ph.D. and M. Phil. Programmes are: - Insect Taxonomy and diversity, Endocrinology, Wild Life Biology, Animal Physiology, Animal Behaviour, Vector Biology, Environmental Biology, Stress Physiology, Fish Biology, Aquatic ecology, skin and hair biology and Natural products. Active research in these areas is progressing with substantial financial aid from National/ state/University funding agencies. Adequate facilities are available for the research in mentioned areas. The Faculty of the Department has been engaged in diverse research projects in pure and applied fields of Zoology dealing with various problems of regional and national relevance. The successful implementation of the research projects covering these areas has earned the department recognition in the field of Zoological research. The current outlay of financial assistance is more than Rs. 3 crores.

The studies undertaken by the Department on the Hydrobiology of certain rivers of Kerala like Beypore and Kallai with special reference to the problems of pollution and its impact on the fishery productivity have yielded very useful data. Considerable data has been collected on the ethology of various economically important small mammals such as musk, shrew, mongoose and various rodent pests as well as on the ecobehavioral aspects of some of the threatened forms of wildlife such as Nilgiri langur, Spotted deer, Nilgiri tahr and Blackbuck. Studies relevant to the control of certain human and animal diseases like malaria, filariasis, encephalitis, plague, etc. caused by blood-sucking arthropods like mosquitoes, sand flies, fleas, bugs and ticks have yielded vital information applicable in vector control. The studies conducted on soil fauna have yielded valuable data relevant to the preservation of natural forests, plantations and grasslands which occupy a key position in the economy of the state. The Neyyar reservoir and Sasthamkotta Lake were subjected to limnological studies and it was established that both the systems had high potential for fish production. It was noted that owing to the activities of predatory birds the fish catch in the Neyyar was low and corrective measures have been suggested to implement to obtain good fish catch. The pests affecting rubber seedlings in Kerala have been subjected to serious study with good results. Investigations on the ecology and population structure of various mammals have been carried out by a group of researchers with special reference to the larger and medium sized mammals of the Silent Valley forests, the Periyar Tiger Reserve, the Parambikulam Wild Life Sanctuary and Waynad Wild Life Sanctuary in Kerala. The Department has also carried out very useful in-depth studies on the mechanism of action of different hormones in vertebrates, higher and lower, and these are expected to be of clinical importance for various hormone disorders.

PROGRAMMES OFFERED

M.Sc. Zoology

Semester 1: ZOO-CC-511 Animal Physiology, ZOO-CC-512 Animal systematic and Taxonomy, ZOO-CC-513 Principles of Ecology, ZOO-CC-514 Physiology, Ecology and Taxonomy- Practical. Discipline-Specific Elective (DE): ZOO-DE-515 Regenerative biology and medicine, ZOO-DE-516 Microscopy and Micro techniques

Semester 2: ZOO-CC-521 Environmental Pollution and Toxicology, ZOO-CC-522 Developmental Biology, ZOO-CC-523 Microbiology and Immunology, ZOO-CC-524 Microbiology and Immunology, ZOO-CC-525 Pollution, Toxicology, Developmental and Molecular Biology- Practical. Discipline-Specific Elective (DE): ZOO-DE-526 Field Course-Animal Diversity, ZOO-DE-527 Cell Culture Techniques

Semester 3: ZOO-CC-531 Genetics and Biotechnology, ZOO-CC-532 Endocrinology and Reproductive Physiology, ZOO-CC-533 Biochemistry and Synthetic Biology, ZOO-CC-534 Evolution and Animal Behaviour, ZOO-CC-535 Evolution and Animal Behaviour. Discipline-Specific Elective (DE) ZOO-DE-536 Bio-Entrepreneurship in Life Science, ZOO-DE-537 Institutional Visit

Semester 4: ZOO-CC-541 Applied Zoology, ZOO-CC-542 Biodiversity and Conservation Biology, ZOO-CC-543 Biostatistics, Instrumentation and Research Methodology, ZOO-CC-544 Project Work and viva

Skill Enhancement Elective (SE): ZOO-SE-501 Aquarium setting and management, ZOO-SE-502 Nutraceuticals, ZOO-SE-503 Toxicity Evaluation: In vitro and In vivo Methods

Generic Courses (GC): ZOO-GC-501 Biodiversity, ZOO-GC-502 Bio-Entrepreneurship in Life Science, ZOO-GC-503 Skin and hair biology and diseases, ZOO-GC-504 Ayurveda biology, ZOO-GC-505 Cell Culture Techniques, ZOO-GC-506 Regenerative Medicine and Biology, ZOO-GC-507 Wetland Ecology

Programme Specific Outcomes (PSO)

- Understand the nature and basic concepts of Animal Physiology, Ecology, Environmental Science, Developmental Biology, Reproductive Biology, Endocrinology, Cell Biology, Biochemistry, Taxonomy and Entomology and Conservation
- Analyse and understand the relationships among invertebrates, vertebrates and microorganisms
- Develop procedures and Conduct experiments as per laboratory standards in the areas of Animal Physiology, Ecology, Environmental Science, Developmental Biology, Reproductive Biology, Endocrinology, Cell Biology, Biochemistry, Taxonomy and Entomology.
- Understand the applications of biological sciences in Apiculture, Aquaculture, Agriculture, Medicine, Fertilisation, Bioenterprenurship and BioInstrumentation.

- Acquire necessary skills in the observation and study of nature, biological techniques, experimental skills and scientific investigations
- Apply ethical principles and commit to professional ethics and responsibilities in delivering his duties in research and teaching.
- Enable the students to avail career opportunities in teaching, industry and research.
- Students will be able to apply the scientific method to questions in biology by formulating testable hypotheses, gathering data and analysing those data to assess the degree to which their scientific work supports their hypotheses.
- Understanding of environmental conservation processes and its importance, pollution control and biodiversity and protection of endangered species.
- Create empathy and care towards the Ecosystem and Biomes.
- Acquire knowledge about research methodologies, Instrumentation, effective communication and problem solving.
- Students will be able to use computational tools for the analysis of relevant biological situations and to communicate acquired knowledge.

New PG Programme to be initiated - MSc Zoology (Medical Entomology) M.Phil. Zoology

Semester 1: ZOO711- Research Methodology, ZOO712- Instrumentation, ZOO713 - Special Paper

ZOO 713 Special Papers (Optional):

ZOO 713(i) Comparative Endocrinology; ZOO 713(ii) Environmental Endocrinology; ZOO 713(iii) Biodiversity & Conservation Biology; ZOO 713(iv) Entomology; ZOO 713(v) Ethology; ZOO 713(vi) Aquaculture; ZOO 713(vii) Freshwater Ecology; ZOO 713(viii) Biology of Cutaneous system & Disorders; ZOO 713(ix) Cancer Biology

Semester 2: ZOO721 Dissertation – Based on Original Research Work

Research

The Department offers Ph.D. in Zoology and the areas of research are multidisciplinary including Fish immunology, Biodiversity and Conservation Biology, Wildlife biology, Aquatic Ecology, Animal behaviour, Insect taxonomy and conservation, Stress Physiology And Endocrinology, Gamete Biology, Marine Biology, Fisheries and Aquaculture, Recirculatory Aquaculture system (RAS), Cutaneous Biology, Cancer Biology, Ayurveda Biology, Freshwater Ecology and Environmental Sciences, Therapeutic intervention of phyto-products. phytochemical analysis, Diabetes research and Toxicology

Department-wise Research Infrastructure

Thermal Cycler, Gel Doc Machine, Deep Freezer, Fluorescent Microscope, Cryotome, Microtome, UV-VIS Double Beam Spectrophotometer, Centrifuges, Stereo microscopes, Micro plate Reader, Millipore Deionized Water System, BOD Incubator,

Laminar Air Flow, High quality research and stereo zoom microscopes, PCR machine. GelDoc, Florescent Plate Reader, Nano drop, Ice Making Machine, Animal House, Fish Keeping Facilities, 24 hour Wi-Fi Facility, Laboratory facilities, Well established library and etc.

Start-ups

1. eLA Nutracosmetics
2. Sukrithi

Centres Established in the Department

1. Centre for Animal Behaviour Studies (CABS)

The centre aims to understand the basic behavioural changes occurring in wildlife on the effects of climate change and other environmental influences. In addition to this, it also aims to find out the possible reasons behind the increased man –animal conflicts in Western Ghats of Kerala and suggest site specific mechanisms for the mitigation of man-animal conflicts. The centre shall strive to understand the adaptive mechanisms developed /followed by the organisms due to change in environment to survive and exist. The centre shall suggest site specific mitigation measures to cope up with the climate change for the conservation of the wildlife in the state. The outcome of the studies conducted by the Centre will help to formulate the mitigation of human-wildlife conflicts in the forest buffer zones and in settlement areas of the protected forests of the state of Kerala and propose effective management measures for the mitigation of man –animal conflicts in forest and adjacent land use patterns in Kerala for the conservation of wildlife.

2. Advanced Centre for Regenerative Medicine and Stem cell Research in Cutaneous Biology (AcREM-Stem)

New Courses

PG Diploma in Clinical Embryology

Alumni: Secretary: Dr P Sreejith. Contact: 9496793794

Prominent Alumni members include

Dr. Suraj Unniappan, Professor & Centennial Enhancement Chair, Department of Veterinary Biomedical Sciences, Western College of Veterinary Medicine, University of Saskatchewan, Canada, Prof. Oommen V Oommen, Former Chairman, KSBB, Dr.Padmaja Thomas, Quality Assurance Manager at City of Hope, Chino Hills, California, United States, Dr.Biju Thomas, Assistant Professor of Research Ophthalmology, Keck School of Medicine of USC University of Southern California etc. Every Year Second week of October Alumni Association meeting

New PG Programme to be initiated

MSc. Biosystematics and Biodiversity



Department of Chemistry (Est. 1939)

Ph: 04712418782; Email: chem12uniker@gmail.com

Faculty

Dr. Sony George, Associate Professor and Head (Email: emailtosony@gmail.com; Ph: 9446462933)

Prof. S. M.A Shibli, Professor (Email: smashibli@yahoo.com; Ph: 8547067230)

Dr. Jayasree E. G., Assistant Professor (Email: jelambal@keralauniversity.ac.in; Ph: 9746790202)

Dr. Suneesh C. V., Assistant Professor (Email: suneeshcv@gmail.com; Ph: 9446260614)

Dr. Ani Deepthi, Assistant Professor (Email: anideepthi@gmail.com; Ph: 9447151002)

Prof. T.S. Anirudhan, UGC-BSR Faculty (Email: tsani@rediffmail.com; Ph: 9446684887)

Dr. Ajesh P. Thomas, Contract Faculty (Email: ajeshpyn@gmail.com; contact Ph: 8848283002)

Brief Profile

The Department of Chemistry traces its origin to August 1939, when a Department of Applied Chemistry with water analysis, industrial chemistry and biochemistry started functioning as a division of the Central Research Institute under the University of Travancore. During the first ten years of its existence, the Department concentrated on work related to war-efforts. The production of coconut charcoal for gas masks and mitigation of the scarcities of the times by devising reasonably efficient substitutes were some achievements of this Department during that period. In 1956, the analytical sections functioning within the Department were transferred back to the Government. In 1957 a full-fledged Department of Chemistry came into existence. In 1970, the biochemistry section was transformed into an independent University Department. Prominent academicians who have made seminal contributions in building the Department include Prof K. L Moudgill, Prof P. V. Nair, Prof. T. R Narayana Pillai, Prof P. P. Pillai, Prof R. Anantharaman, Prof C. G. Ramachandran Nair, Prof C. P. Joshua, and those who followed these stalwarts. A master level course in Analytical Chemistry was

started which was later transformed to M.Sc in Chemistry. Meanwhile M.Phil and Ph.D programmes were also launched.

The Department library has over 5000 books, subscribed journals and several bound volumes of journals. The Chemical abstracts collection present in the Department library is the one of the best hard volume source for historical chemistry information for the entire state. Several scientists such as Dr. K. N. Ninan (VSSC), Dr. K. G. K Warriar (CSIR-NIIST), Dr. George Thomas (IISER, TVM) and academicians such as Dr. K. Saramma Dr. V.N Rajasekharan Pillai, Dr. P. K. Radhakrishnan, Dr. K. N. Rajasekharan, Dr. K.K.M Yusuf, Dr. S. Sugunan, Dr. Jacob Chacko, Dr. T. D Radhakrishnan are alumni of this Department. Several other outstanding alumni are working in India and abroad. An alumni association, KUDoCAA started functioning in the year 2014 well with an insight to initiate awards, scholarships and honours to outstanding and meritorious students.

In the early stages the Department was concerned with applied research. In 1961-1962, it turned its attention to teaching and research in fundamental areas. Since then, the Department has seen much significant research emerging in various fields substantiated by large number of high impact publications, patents, collaborations and consultancies.

PROGRAMMES OFFERED

M.Sc. Chemistry

Semester 1: CHE-CC-511 Inorganic Chemistry I; CHE-CC-512 Organic Chemistry I; CHE-CC-513 Physical Chemistry I; CHE-CC-514 Inorganic Chemistry Lab I; CHE-CC-515 Organic Chemistry Lab I; CHE-CC-516 Physical Chemistry Lab I

Semester 2: CHE-CC-521 Inorganic Chemistry II; CHE-CC-522 Organic Chemistry II; CHE-CC-523 Physical Chemistry II; CHE-CC-524 Inorganic Chemistry Lab II; CHE-CC-525 Organic Chemistry Lab II; CHE-CC-526 Physical Chemistry Lab II

Discipline-Specific Elective (DE): CHE-DE-52A Advanced Inorganic Chemistry; CHE-DE-52B Advanced Organic Chemistry; CHE-DE-52C Advanced Physical Chemistry

Semester 3: CHE-CC-531 Inorganic Chemistry III; CHE-CC-532 Organic Chemistry III; CHE-CC-533 Physical Chemistry III; CHE-CC-534 Inorganic Chemistry Lab III; CHE-CC-535 Organic Chemistry Lab III; CHE-CC-536 Physical Chemistry Lab III

Discipline-Specific Elective (DE): CHE-DE-53A Electronic Structure Theory and Applications; CHE-DE-53B Photophysical Processes and Applications; CHE-DE-53C New Methods in Organic Synthesis; CHE-DE-53D Introduction to Chemical Biology and Anti-cancer Research.

Semester 4: CHE-CC-541 Comprehensive viva; CHE-542 Dissertation

Discipline-Specific Elective (DE): CHE-DE-54A Applied Chemistry; CHE-DE-54B Analytical and Instrumental Methods.

Generic Courses (GC): CHE-GC-501 Analytical and Environmental Chemistry.

Programme Specific Outcomes (PSO)

- Develop a solid understanding on the fundamental principles and major concepts in the core disciplines of chemistry with the ability to analyze at an advanced level

- Generate an understanding on the importance of application of Chemistry in academic, industrial, environmental and social context
- Provide an intellectual training to develop a rational and rigorous scientific approach in synthesizing information and concepts
- Develop skills to handle modern analytical and spectroscopic instruments
- Equip the students to perform standard laboratory procedures, monitor by observation and measurement events or changes and record data
- Develop research and analytical skills in basic research with the ability to undertake research in multidisciplinary teams
- Provide a detailed training in written and verbal communication of scientific information and ideas
- Develop ability to work independently or as part of a team in a research setting to adapt to wide range of available career option in the future.

M. Sc. Chemistry (Specialization in Renewable Energy)

Semester 1: CHE-CC-511- Inorganic Chemistry I; CHE-CC-512: Organic Chemistry I; CHE-CC-513: Physical Chemistry I; CHE-CC-514 Inorganic Chemistry Lab I; CHE-CC-515: Organic Chemistry Lab I; CHE-CC-516: Physical Chemistry Lab I

Semester 2: CHE-CC-521: Inorganic Chemistry II; CHE-CC-522: Organic Chemistry II; CHE-CC-523: Physical Chemistry II; CHE-CC-524: Inorganic Chemistry Lab II; CHE-CC-525: Organic Chemistry Lab II; CHE-CC-526 Physical Chemistry Lab II.

Semester 3: CHE-CC-531: Inorganic Chemistry III; CHE-CC-532: Organic Chemistry III; CHE-CC-533: Physical Chemistry III; CHE-CC-534: Inorganic Chemistry Lab III; CHE-CC-535: Organic Chemistry Lab III; CHE-CC-536: Physical Chemistry Lab III. Discipline Specific Electives: REC-DE-531: Renewable Energy Materials; CHE-DE-537: Electronic Structure Theory and Applications; CHE-DE-538: Photophysical Processes and Applications

Semester 4: REC-CC-541: Dissertation. Discipline-Specific Elective (DE): REC-DE-542: Renewable Energy Generation and Storage; REC-DE-543: Data Analysis / Case study REC-DE-544 Renewable Energy Lab

Generic Course: CHE-GC-501: Analytical and Environmental Chemistry

M.Phil. Chemistry

Semester 1: Paper I - CHE 711 - Research Methodology (4 Cr), Paper II - CHE 712 Analytical Methods (4 Cr); Paper III - CHE 713(i) – Selected Topics in Inorganic Chemistry (4 Cr)/ CHE 713(ii) – Selected Topics in Organic Chemistry/ CHE 713(iii) – Selected Topics in Physical Chemistry (4 Cr). **Semester 2:** CHE 721 - Dissertation (20 Cr)

Research

The Department offers Ph.D. in Chemistry. Various areas of research are Electrochemistry and its applications, Material Chemistry, Applied Theoretical/Computational Chemistry Organic Photochemistry and Organic synthesis. Current research groups and facilities available in various labs are listed below.

Prof S. M. A. Shibli: Surface Engineering for various applications such as Microbial Fuel Cells, Corrosion Control, Galvanic Coatings, Industrial Metal Finishing, Marine



Tolerant Surfaces, Biocidal Coating, Coatings for Medical Implants, Dental Materials, Biosensors, Composite Coatings, Metal Composite Matrix, Nano Materials Coating & Energy Conservation and Catalytic Electrodes for Hydrogen generation.

Dr. Sony George: Research Interests: Design and Development of Holmium Based Fluorescent magnetic Nanoparticles for Bimodal Imaging, FRET enabled sensor application of Lanthanide Luminescent nanoparticles and gold nano conjugates.

Dr. Jayasree E. G. : Research Interests: C – heteroatom bond formation, Catalytic design and tuning, Reaction Mechanism, Tautomerization reactions, Non-bonding or weak interactions, Host-guest chemistry, Bioorganic reactions

Dr. Suneesh C. V. : Research interests: Photophysical properties of donor-acceptor systems, Photoinduced electron transfer, Solar water splitting, Solar energy conversion, Microporous organic polymers

Dr. Ani Deepthi: Research Interests: heterocyclic and carbocyclic constructions, oxidation reactions, natural products, new reaction methodologies, polycarbonyl compounds – synthesis and reactivity

Prof. T. S. Anirudhan, UGC-BSR Faculty: Chemical oceanography, Mass transfer/Chemical transport processes in lakes, rivers, seas and estuarine ecosystems. Chemical kinetics and catalysis, Polysaccharide-based stimuli-responsive functionalized hydrogels for controlled single and multiple drug delivery and related applications, Reactive and Functional copolymers for separation science and Industrial wastewater treatment, Silane-grafted Fe-TiO₂ based Photocatalysts for environmental remediation, Polymer-functionalized carbon-nanotube-based chemical sensors, Interpenetrating polymer networks and ‘Globe-Compatible Materials’ from renewable resources for medical, analytical and environmental applications, Molecularly imprinted polymers for protein recognition and targeted gene delivery. Functionalized hydrotalcites, silylated clays, organo pillared clays, super paramagnetic iron oxide nanoparticles, superabsorbent polymers and polymer/clay nanocomposites: Advanced materials for specific applications.

Facilities available in the Department



FT-IR; Electrochemical work station; Gas chromatograph; Solar simulator; Laminar air flow; Scanning electrochemical workstation; High temperature muffle furnace; Vickers hardness tester; Wear and friction monitor; High performance computing cluster; Computing softwares; UV-VIS Spectrophotometer (2); Atomic absorption spectrophotometer;

Spectrofluorimeter; Simultaneous fluorescence absorption spectrometer; High Pressure Liquid Chromatography (HPLC); DLS; Rotary Evaporator (3)



Department of Demography (Est. 1939)

Ph: 0471 2308057; Email: demographyku@gmail.com

Faculty

Dr P. Mohanachandran Nair, Professor and Head (Email: nair.pmc@gmail.com; Ph: 9446415618)

Preethi K., Assistant Professor (Email: preethikarunakaran@gmail.com; Ph: 8547533285)

Dr Anil Chandran S., Assistant Professor (Email: anil@keralauniversity.ac.in; Ph: 9446093978)

Dr Anjana A, Lecturer (On Contract)

Arun Kumar VS, Lecturer (On Contract)

Guest Faculties

Sri. Adithya Varma Thampan, (Retd. LIC)

Sri. Lakshmanan (Retd. LIC)

Prof: P. S. Nair (Former Prof: & Head, Dept. of Demography, University of Kerala & former Prof: & Head, Dept. of Population Studies, University of Botswana)

Sri. S. Chidambaram, Actuary, Trivandrum.

Brief Profile

The University of Kerala has the distinction of being the first university in India to introduce Demography as a scientific discipline at the post-graduate level in 1963. Initially attached to the Department of Statistics, it became a full-fledged department-Department of Demography and Population Studies in 1979 under the leadership of late Dr R. Ramakumar. In 1997 the department was renamed as Department of Demography. The Family Planning Communication and Action Research Centre and

the Demographic Research Centre of the University of Kerala were merged to form the present Population Research Centre of the university which came into existence on 1st July 1983 and was attached to the Department of Demography. The department offers MSc, MPhil And PhD programmes and also carries out research and extension activities in the field of population. Department also offers an MSc programme in actuarial science since 2013. Publication of an internationally accepted journal, *Janasamkhyā* was started in the year 1983 and has been published semi-annually. Research articles, notes and reviews on topics relating to Population Studies, particularly Technical demography, will be considered for publication in the Journal. To promote research on Census data, a new centre named *Workstation for Research on Micro-Data from Census* is established in the department in 2013 with financial and technical support from the Registrar General of India, New Delhi. In order to co-ordinate the research activities pertaining to population ageing and related issues, Dr. Ramakumar Memorial Centre for Population Ageing and Health is established at the Department of Demography in 2017. The department houses a library with about 8000 titles and about 15 journals on Demography and related areas.

PROGRAMMES OFFERED

MSc Demography and Biostatistics

Semester 1: DEM-CC-511: Introduction to Demography, DEM-CC-512: Introductory Biostatistics, DEM-CC-513: Fertility-Theories, Determinants and Techniques, DEM-CC-514: Mortality - Determinants and Techniques, DEM-DE-515: Population Education, DEM-DE-516: Kerala's Demography

Semester 2: DEM-CC-521: Migration and Urbanization-Theories, Determinants and Techniques, DEM-CC-522: Health Programmes, Management, Monitoring & Evaluation, DEM-CC-523: Probability Theory and Probability Distributions, DEM-CC-524-Statistical Inference, DEM-CC-525: Practical-I, DEM-DE-526: Research Methodology & Computer Applications, DEM-DE-527: Gender Issues

Semester 3: DEM-CC-531: Epidemiology and Public Health, DEM-CC-532: Applied Multivariate Analysis, DEM-CC-533: Community Outreach Activity, DEM-DE-534: Population Estimates and Projections, DEM-DE-535: Business Demography, DEM-DE-536: Field Study Report

Semester 4: DEM-CC-541: Population Models and Indirect Estimation Techniques, DEM-CC-542: Population, Environment and Development, DEM-CC-543: Practical II, DEM-CC-544: Dissertation, DEM-DE-545: Population Ageing, DEM-DE-546: Timeseries Analysis

MSc Actuarial Science

Semester 1: DAS-CC-511: Foundations of Financial Mathematics, DAS-CC-512: Probability and Statistics Part -I, DAS-CC-513: Reinsurance (Basic principles, Techniques), DAS-CC-514: Techniques of Demographic Analysis Part -I, DAS-DE-515: Role of Actuaries in Insurance and Other sectors, DAS-DE-516: Group Insurance and Employee Benefits,

Semester 2: DAS-CC-521:Applications of Financial Mathematics, DAS-CC-522:Probability and Statistics Part -II, DAS-CC-523:Practical (Based on DAS-C-412 and DAS-C-422), DAS-CC-524:Techniques of Demographic Analysis Part -II, DAS-DE-525:Research Methodology

Semester 3: DAS-CC-531:Life and Other Contingencies Part – I, DAS-CC-532:Multivariate and Computer Applications, DAS-CC-533:Business Economics, DAS-CC-534:Principles of Insurance – Life, General and Health, DAS-DE-535:Basic Risk Modelling

Semester 4: DAS-CC-541:Life and Other Contingencies Part – II, DAS-CC-542:Practice of Insurance In the Indian Context, DAS-CC-543:Dissertation/ Internship, DAS-DE-544:Agriculture Insurance, DAS-DE-545:Basic Principles of Investment

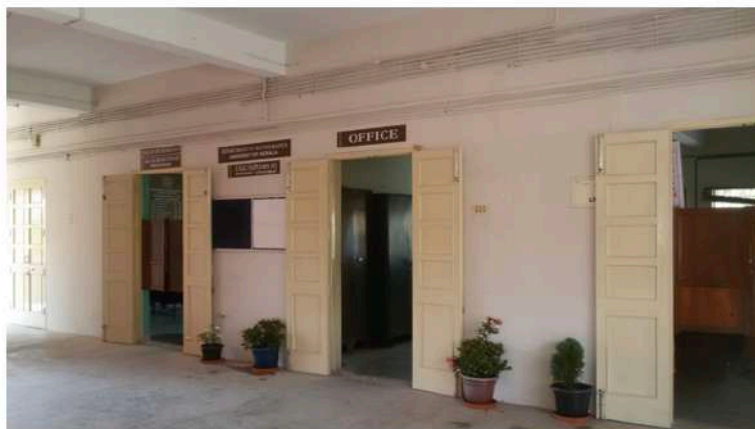
MPhil. Demography

Semester 1: DEM711: Research Methodology; DEM712: Advanced Demographic Techniques; DEM713: Paper based on the topic of the dissertation. **Semester 2:** DEM721: Project & Dissertation.

M. Phil. Actuarial Science

Semester 1: DAS711: Financial Mathematics; DAS712 : Probability and Statistics; DAS713: Research Methodology. **Semester 2:** DAS721: Life contingencies, DAS722: Project and Dissertation





Department of Mathematics (Est. 1965)

Ph: 0471 2308303; Email: ku.dmaths@gmail.com

Faculty

Dr. G. Suresh Singh, Professor & Head (Email: gsureshsingh65@gmail.com; Ph: 9447471455)

Dr. Ramesh Kumar P., Associate Professor (Email: Ramesh.ker64@gmail.com; Ph: 9447127873)

Smt.B. Thalmi, Assistant Professor (Email: thalmaths@yahoo.com; Ph: 9188363507)

Smt Manju V.N., Assistant Professor (Email: manjushaijulal@yahoo.com; Ph: 8075907792)

Dr. Chithra M.R., Assistant Professor (Email: chithramohanr@gmail.com; Ph: 9567763243)

Dr. Dilip Kumar., Assistant Professor (Email: dilipkumar.cms@gmail.com; Ph: 9446195433)

Dr. Krishna Kumar G., Assistant Professor (Email: Krishna.math@gmail.com; Ph: 8281466011)

Brief Profile

Right from the inception of the University of Kerala, the department of Mathematics was combined with department of Statistics to form the department of Statistics and Mathematics. The department of Mathematics of the University of Kerala started functioning as an independent department from November 1965. Dr. M.R.Parameswaran joined the department as a Professor of Mathematics and became the first Head of the Department. During the period 1966-1968 Dr.M.V.Subba Rao, and Dr.B.R.Srinivasan were in-charge of the department for short periods. In 1968, the University appointed Dr.Y.Sitaraman as the Head of the Department and he continued till 1983. Dr. K.S. Subramonian Nambooripad has been functioning as Head of the Department from 1983 till 1994. After that Dr. N. Sathyabhama (1994-1995), Dr. M. I. Jinnah (1995-2000), Dr. A. R. Rajan (2000-2009) and Dr.C. Jayasri (2009-2012) served

as the Head of the Department. Dr. G. Suresh Singh has been functioning as Head of the Department from 2012 onwards.

The Department of Mathematics started the regular M.Sc. degree course in Mathematics since its inception and the M.Phil. course in 1977-78 academic year. The M.Sc. degree course had an intake of 10 till 1982-1983 and it was increased to 25 since then. From 2019 admission onwards the M.Sc. degree course has 30 seats. In 2020, the department started a new M.Sc. course in Mathematics with specialization in Finance and Computation with an intake of 15. The M.Phil. course, had an intake of 5 and recently it was increased to 10. The department had the distinction of producing 100% pas almost every year.

The department has been provided funding under SAP of UGC from 2007 to till date. The National Board for Higher Mathematics has chosen the department for Library Grant aid for providing publications. The Department of Science and Technology (DST) funded the department under FIST for infrastructure development.

PROGRAMMES OFFERED

MSc Programme in Mathematics

Semester 1: Core Courses (CC):-MAT-CC-511: Linear Algebra; MAT-CC-512: Real Analysis; MAT-CC-513: Differential Equations; MAT-CC-514: General Topology; MAT-CC-515: Numerical Methods.

Semester 2: Core Courses (CC):-MAT-CC-521: Abstract Algebra; MAT-CC-522: Measure Theory; MAT-CC-523: Algebraic Topology.

Discipline-Specific Elective (DE):-MAT-DE-524: Graph Theory; MAT-DE-525: Theory of Wavelets.

Semester 3: Core Courses (CC):-MAT-CC-531: Complex Analysis-I; MAT-CC-532: Functional Analysis; MAT-CC-533: Approximation Theory.

Discipline-Specific Elective (DE):- MAT-DE-534: Differential Geometry; MAT-DE-535: Operations Research; MAT-DE-536: Galois Theory.

Semester 4: Core Courses (CC):-MAT-CC-541: Complex Analysis-II; MAT-CC-542: Theory of Linear Operators; MAT-CC-543: Dissertation and Viva.

Discipline-Specific Elective (DE):-MAT-DE-544: Integral Equations and Calculus of Variations; MAT-DE-545: Number Theory; MAT-DE-546: Coding Theory.

Generic Courses (GC):-MAT-GC-501: Complex Analysis; MAT-GC-502: Finite State Machines.

Skill Enhancement Elective (SE):- MAT-SE-501: Fundamentals in Latex.

*No of electives to be taken in each semester:

Semester I: NIL, Semester II: ONE, Semester III: ONE, Semester IV: TWO

Programme Specific Outcomes (PSO)

- Solve problems in various fields of Mathematics.
- Sharpening of mathematical concepts leading to research.

- Knowledge about scientific method and skills in mathematical computation
- Extension of domain knowledge to face real life problems
- Enhancement of critical thinking skills and attitudes to become a thinker and professional
- Creating academic excellence in mathematics and allied subjects

M.Sc. Programme in MSc Mathematics with specialisation in Finance and Computation

Semester 1: MATF-CC-511:Algebra; MATF-CC-512: Real Analysis ;MATF-CC-513: Differential Equations; MATF-CC-514: Financial Management. Discipline-Specific Elective (DE):-MATF-DE-515: Data Structure and Management; MATF-DE-516:Graph Theory; MATF-DE-517:Difference Equation; MATF-DE-518: Coding Theory.

Semester 2: MATF-CC-521:Topology; MATF-CC-522: Measure Theory; MATF-CC-523: Computing in Python and SageMath; MATF-CC-524: Risk Management. Discipline-Specific Elective (DE):-MATF-DE-525: Combinatorics; MATF-DE-526: Advanced Graph Theory.

Semester 3: MATF-CC-531: Complex Analysis-I; MATF-CC-532: Functional Analysis; MATF-CC-533: Operations Research. Discipline-Specific Elective (DE):-MATF-DE-534: Complex Networks; MATF-DE-535: Numerical Methods; MATF-DE-536: Differential Geometry.

Semester 4: Core Courses (CC):-MATF-CC-541: Theory of Linear Operators; MATF-CC-542: Number Theory; MATF-CC-543: Dissertation and Viva. Discipline-Specific Elective-MATF-DE-544: Theory of Wavelets; MATF-DE-544: Business Mathematics; MATF-DE-544: Social Networks; MATF-DE-544: Representation Theory of Finite Groups.

Generic Courses (GC):- MATF-GC-501: Complex Analysis; MATF-GC-502: Finite State Machines.

Skill Enhancement Elective (SE):- MATF-SE-501: Fundamentals in Latex.

Programme Specific Outcomes (PSO)

- Solve problems in various fields of mathematics.
- Sharpening of mathematical concepts leading to research.
- Extension of domain knowledge to face real life problems.
- Knowledge about scientific method and skills in mathematical computation
- Understand concepts and skills related to financial and computational techniques.
- Enhancement of critical thinking skills and attitudes to become a thinker and professional.
- Creating academic excellence in mathematics and allied subjects.

M.Phil. Mathematics

Semester 1: Paper I - MAT 711 – Research Methodology (4 Cr), Paper II –MAT 712: Algebra (4 Cr); Paper III - MAT 713- Analysis (4 Cr).

Semester 2: MAT 721 - Dissertation (20 Cr)

Research

The department of Mathematics is one of the prominent departments of the university which imparts quality education right from its inception. Research programme got a real start after Dr.Y.Sitaraman took charge of the Head of the department in 1968. The first Ph.D in Mathematics of the University of Kerala was that of Y.Sitaraman in 1967. But his research was carried out in Ramanujan Institute, Madras. The first Ph.D produced from the department was that of K.S.S.Nambooripad under the supervision of Dr.Y.Sitaraman. The faculty of the department combines a tradition of excellence in research with modern and multidisciplinary teaching in various facets of mathematics which includes Graph theory, Algebra, Approximation Theory, functional analysis, special functions, integral transforms and fractional calculus. The department is implementing collaborative research with various national and international institutions. So far around 60 Ph.D's have been produced from the department followed by more than 325 M.Phil dissertations. Researchers from various Indian and Foreign Universities visit the department for collaborative work as well as for interactions. The following are few samples. John Meakin from USA. Francis Patjn from Belgium, Mohan Putcha from USA, Pascal Weil from France, Yu Bin Jun from China, T.K.Dutta and S.K.Acharya from Calcutta, Sreebala, Parvathy, Rema and Laganathan from Madras, Boris. M.Schein from Arkansas, Marcu Du Sautoy from UK, Yuri Satarov form London, George Thomas from USA, Stefano Serra Capizzero from Italy, Lynn Batten from Australia and Terri Thomas Elliot from USA.

Other academic activities

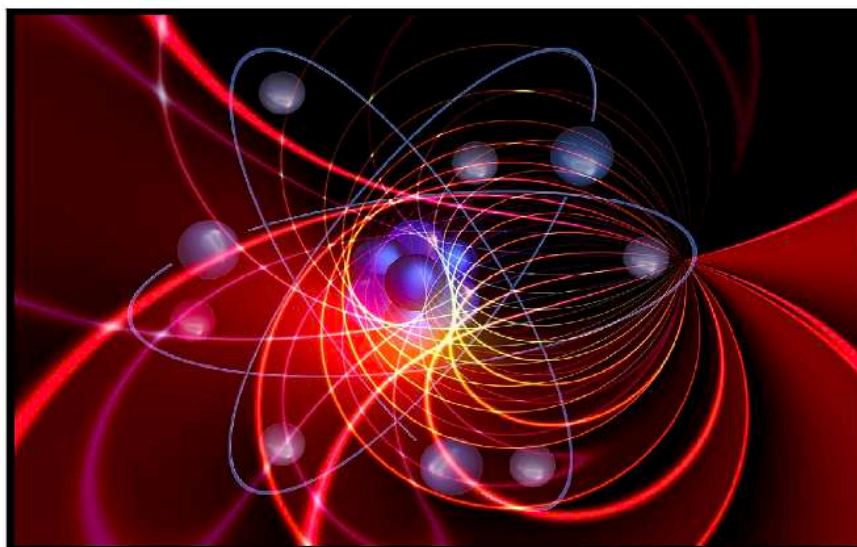
The department has organized several refresher courses and workshops target at improving the teaching of Mathematics prior to start functioning of Academic Staff Colleges. Now the refresher programmes in Mathematics at Academic Staff College, University of Kerala are provided academic leadership from the department.

The department has been provided funding under SAP of UGC from 2007 to till date. The National Board for Higher Mathematics has chosen the department for Library Grant aid for providing publications. The Department of Science and Technology (DST) funded the department under FIST for infrastructure development.

Library: Department library was started to function, since its inception, with a small collection of books derived from the Department of Statistics. At present, the library has nearly 7900 books in its credits.

Centres: The Centre for Quantitative Analysis is functioning under the department of mathematics and Dr G Suresh Singh is designated as the honorary director of the centre. The key vision of the centre is to encourage industrial collaborations and provide technical consultancies to various enterprises. The centre Name and a few lines highlighting the vision and mission

Alumni: The Alumni Association of the department has around 175 members at present. Professor K.S.S. Nampoothiripad, a world renowned mathematician; Dr Y. Sitaraman, renowned analyst; and . Currently Smt. Manju V. N. is the secretary of the Alumni Association (Phone: 81219391763; email: manju@keralauniversity.ac.in)



Department of Physics (Est. 1970)

Ph: 0471 2308920; Email: kuphysics76@gmail.com

Faculty

Dr. Sibi K S Assistant Professor & Head (Email: sibi@keralauniversity.ac.in; Ph: 9847470356)

Dr. Biju V., Professor (Email: bijunano@gmail.com; Ph: 9961228468)

Dr. I Hubert Joe, Associate Professor (Email: hubertjoe@keralauniversity.ac.in; Ph: 9447220563)

Dr. R. Jayakrishnan, Associate Professor (Email: rjk@keralauniversity.ac.in; Ph: 9447242210)

Dr. I N Jawahar, Assistant Professor (Email: jawaharin@gmail.com; Ph: 9895691877)

Dr. Subodh G., Assistant Professor (Email: gsubodh@gmail.com; Ph: 9633983404)

Dr. Deepa KG., Assistant Professor (Email: deepa@keralauniversity.ac.in; Ph: 9632784886)

Dr. R. B. Rakhi, Assistant Professor, UGC-FRP (Email: rakhisarath@gmail.com; Ph: 9497113659)

Dr. Savitha Pillai, S., Assistant Professor, UGC-FRP (Email: savitha@keralauniversity.ac.in; Ph: 8289971734)

Dr. Mamatha Sahoo, Assistant Professor, UGC-FRP (Email: mamata@keralauniversity.ac.in, Ph: 0471 2308920)

Brief Profile

Founded in the year 1970, The Department of Physics is an advanced centre of learning for postgraduate and doctoral students of Kerala. The department presently offers M.Sc. (with specialization in Electronics), M. Phil and PhD programme for the students. The

Department's reputation for academic excellence and outstanding track record of Postgraduate teaching has attracted some of the most brilliant students in the State. In addition to their academic excellence they are acting at par with the vision of the department. They have given ample opportunities to fine tune their soft skills by participating in many leadership and development opportunities including self-help groups. Several of our alumni are working as Bankers, Scientists, Lecturers, Engineers, Researchers, and Teachers in Banking sector, Educational & Research institutions, Universities, Industries and in many diverse fields in India and across the globe. The department exists as a living proof to the saying "The sky is the limit" for people who possess basic degree in physics. The faculties of the department regularly educate the students and parents on possible career options after M.Sc. course work.

- For post graduate students avenues in higher education spread into fields like M.Phil., Ph.D., M. Tech, M.S, PG diploma in radiation physics, computer science etc.
- The job market for the M.Sc. graduates is multidisciplinary. The Government sector attracts a large number of graduates and post graduates through the PSC, UPSC exams. Organizations like DRDO, VSSC, ISRO etc. recruit scientists and technical staffs in large numbers with physics background. The banking sector provides opening to the graduates and post graduates with competency in holding managerial/clerical posts.
- Academic and Research openings are available for post graduates in institutes like IISER, NIT, IIT, IISC, NSC, TIFR, DAE etc.
- Industries like CMOS, VLSI, OPTICS, Process control, Process automation, Design, Content development, Skill writers, Application developers seek graduate and post graduates with training in basic science.
- The thriving BPO, ITES industry today seeks science post graduates who are better equipped to be trained according to their business needs compared to professional degree holders.
- Financial accounting, Marketing, Book keeping opportunities are open both in the private and public sector for science graduates.

Manpower development and establishment of research activities in basic science are the major objectives of the Department. By merging concentrated expertise, sweeping vision and sturdy commitment to values, the Department is creating scholars with a vision and ability to make a mark in the Society. The Department until recently had only four faculty members under whom various academic and research activities were being coordinated. Today the Department has been raised to the status of a full department with faculty strength of 10 members.

PROGRAMMES OFFERED

M.Sc. Physics (Specialisation in Electronics)

Semester 1: PHY-CC-511: Mathematical Physics I ; PHY-CC-512 Classical Mechanics; PHY-CC-513: Electrodynamics; PHY-CC-514: Electronic Devices and Circuits; PHY-CC-515: Lab-Basic Electronics.



Semester 2: PHY-CC-521: Mathematical Physics II; PHY-CC-522: Quantum Mechanics I; PHY-CC-523: Thermal and Statistical Physics; PHY-CC-524: Atomic and Molecular Physics; PHY-CC-525: Lab- Advanced Physics.

Semester 3: PHY-CC-531: Quantum Mechanics II; PHY-CC-532: Solid State Physics; PHY-CC-533: Nuclear and Particle Physics. Discipline Specific Electives: PHY -DE-534: Computational Methods; PHY -DE-535: Digital Electronics & Microprocessors.

Semester 4: PHY-CC-541: Project.

Discipline Specific Electives (DE): PHY-DE-542: Solid State Electronic Devices; PHY-DE-543: Communication Electronics and Instrumentation; PHY-DE-544: Lab-Advanced Electronics.

Generic Courses (GC)*: PHY-GC-501: Foundations of Astronomy; PHY-GC-502: Renewable Energy; PHY-GC-503: Introduction to Materials Characterization Techniques; PHY-GC-504: Vacuum Science and Technology; PHY-GC-505: Artificial Intelligence through Brain Initiative (*Common courses for the Department)

Programme Specific Outcomes (PSO)

- To provide well defined study of theoretical and experimental physics to impart in depth understanding in fundamental aspects of all core areas of Physics
- To equip the student to pursue research and development in any areas of theoretical, experimental and computational physics.
- To impart special training in different areas of electronics.
- To bridge the gap between text book knowledge and practical problems through well designed laboratory sessions.
- Understand, apply and verify the theoretical/empirical concepts and experimental facts by practical.
- To introduce the student to the scientific research methodology, literature survey, technical writing, assimilation and dissemination of results, research ethics etc. through a project work.

M.Sc. Physics (Specialisation in Space Physics)

Semester 1: PHY-CC-511 Mathematical Physics I PHY -CC-512 Classical Mechanics PHY -CC-513 Electrodynamics PHY -CC-514 Electronic Devices and Circuits PHY -CC-515 Lab-Basic Electronics

Semester 2: PHY -CC-521 Mathematical Physics II PHY -CC-522 Quantum Mechanics I PHY-CC-523 Thermal and Statistical Physics PHY -CC-524 Atomic and Molecular Physics PHY -CC-525 Lab- Advanced Physics

Semester 3: PHY -CC-531 Quantum Mechanics II PHY -CC-532 Solid State Physics PHY -CC-533 Nuclear and Particle Physics PHY -DE-534 Computational Methods PHY -SDE-535 Physics of the Atmosphere

Semester 4: PHY -CC-541 Project PHY -SDE-542 Space Physics PHY -SDE-543 Earth's Upper Atmosphere and Space Weather PHY-SDE-544 Introduction to Astrophysics PHY -SDE-545 Lab- Space Physics

Programme Specific Outcomes (PSO)

- To provide well defined study of theoretical and experimental physics to impart in depth understanding in fundamental aspects of all core areas of Physics
- To equip the student to pursue research and development in any areas of theoretical, experimental and computational physics.
- To impart special training in different areas of electronics.
- To bridge the gap between textbook knowledge and practical problems through well designed laboratory sessions.
- Understand, apply and verify the theoretical/empirical concepts and experimental facts by practical.
- To introduce the student to the scientific research methodology, literature survey, technical writing, assimilation and dissemination of results, research ethics etc. through a project work.

M.Sc. Physics (Specialisation in Renewable Energy)

Semester 1: PHY-CC-511 Mathematical Physics I PHY -CC-512 Classical Mechanics PHY -CC-513 Electrodynamics PHY -CC-514 Electronic Devices and Circuits PHY -CC-515 Lab-Basic Electronics PHY-DE-516 Renewable Energy-I

Semester 2: PHY -CC-521 Mathematical Physics II PHY -CC-522 Quantum Mechanics I PHY-CC-523 Thermal and Statistical Physics PHY -CC-524 Atomic and Molecular Physics PHY -CC-525 Lab- Advanced Physics PHY-DE-526 Renewable Energy II.

Semester 3: PHY -CC-531 Quantum Mechanics II PHY -CC-532 Solid State Physics PHY -CC-533 Nuclear and Particle Physics PHY -DE-534 Computational Methods PHY -DE-535 Renewable Energy III.

Semester 4: PHY -CC-541 Project PHY -DE-542 Fundamentals of Photovoltaic Technology PHY -DE-543 Renewable Energy IV PHY -DE-544 Lab- Renewable Energy PHY -DE-545 Case Study/ Data Analysis

Programme Specific Outcomes (PSO)

- To provide well defined study of theoretical and experimental physics to impart in depth understanding in fundamental aspects of all core areas of Physics.
- To equip the student to pursue research and development in any areas of theoretical, experimental and computational physics.
- To impart special training in different areas of Renewable Energy.
- To bridge the gap between textbook knowledge and practical problems through well designed laboratory sessions.
- Understand, apply and verify the theoretical/empirical concepts and experimental facts by practical.
- To introduce the student to the scientific research methodology, literature survey, technical writing, assimilation and dissemination of results, research ethics etc. through a project work.

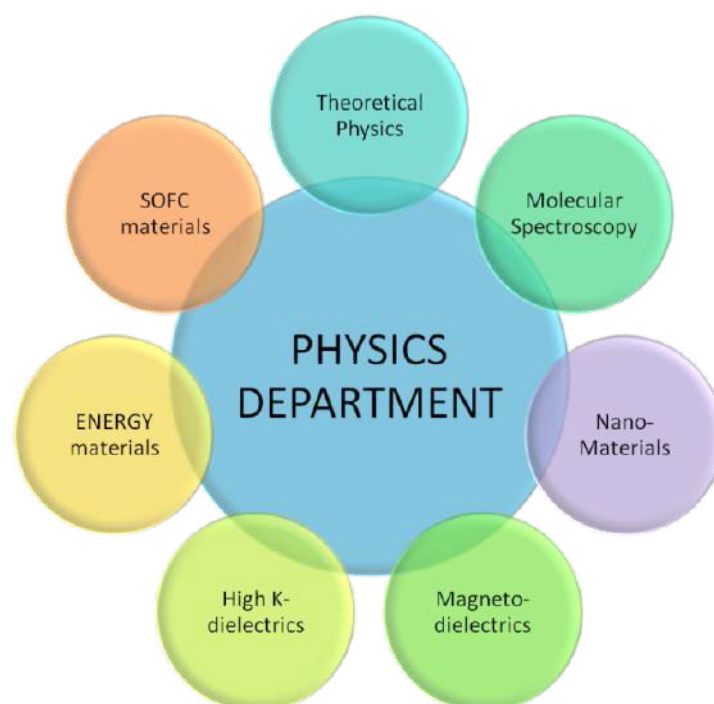
M.Phil. Physics

Semester 1: PHY-711:Theoretical Physics; PHY-712:Research Methodology; PHY-713 (i): Nanostructured Materials; PHY-713(ii): Inorganic Phosphors; PHY-713(iii): Supercapacitors; PHY- 713(iv): Materials for Microwave Applications; PHY- 713(v): Non-equilibrium Statistical Mechanics; PHY-713 (vi): Magnetic Materials and Applications; PHY-713 (vii): Solar cell materials and devices; PHY-713 (viii)Science and Technology of Thin FilmsPHY-713 (viii)The Science and Technology of Solar Cells

Semester 2: PHY 721: Dissertation

Research

The Department is an active center of research activities ranging from Computational studies, Electromagnetic shielding materials, Condensed matter Physics, Solid Oxide Fuel Cells, Vibrational Spectroscopy, Raman Spectroscopy, Electrochemical energy storage, Super capacitors, Oxide materials, Magnetic Materials, Thin films and Solar cells. A number of research works in these areas are being pursued by the faculty through government funded research projects.



Research Infrastructure

The Department of Physics has received augmentation projects aimed at revamping its research arsenal. The department received the DST FIST grant during the period 2004-2000, the KSCSTE SARD grant during the period 2015-2018 and the DST-PURSE grant. Using these grants the array of research instruments of the department were expanded.

Equipments: Network Analyzers; Impedance Analyser (10 MHz to 3 GHz), Raman Microscope, FTIR Spectrometer, Furnaces (three numbers), X-ray Diffractometer, Spectrophotometer, U-V Visible spectrometer, DC sourcemeter 2400 Electrometer, Electrochemical Workstation, Fume hood, VSM (vibrating sample magneto facility).

Consultancy

The department offers consultancy services in the following areas

- Design and Installation of Roof-top Solar Photovoltaic Energy Systems
- Implementation of computerization projects for Banking, Hospitals and Housing Societies
- Design and implementation of Core banking solution for Cooperative Societies (Banks, Hospitals and Housing)
- Thin film Coatings for filter, anti-corrosion, DLC and cosmetic applications

Trivandrum Astronomical Observatory

The Thiruvananthapuram Observatory stands on a hill, about 60 feet high, and 200 feet above the level of sea. It commands an extensive and beautiful view of an undulating and finely variegated country towards north, the east, and the south-and of the sea horizon to the west. The eastern view is terminated by the Ghat Mountains. The geographical situation of the Observatory is 8 degree 30 min northern latitude and 76 degree 59 min eastern longitude. The Observatory which functions today as part of the Department of Physics, University of Kerala, commenced its operations in 1837 and is one of the oldest of its kind in modern India. It owes its origin to the initiative and vision of Sri Swati Tirunal, the versatile Maharaja of Travancore who himself, a keen student of Astronomy..

Alumni

The Physics Alumni is vibrant with members from different continents of the world pursuing different career perspectives. Four of the present faculty members are the alumni of the department which has enabled establishment of linkage with a number of batches of the Department. Several of the alumni have received national and international awards and fellowships. A large number of the alumni of the department serve as faculty members in the aided colleges and Government colleges of the state.

Secretary: Dr. Biju V, Professor, Department of Physics, University of Kerala. Ph: 9961228468





Department of Statistics (Est. 1945)

Ph: 0471 2308905; Email: statkerala@gmail.com

Faculty

Dr. C. Satheesh Kumar, Professor and Head (Email: drsatheesh001@gmail.com; Ph: 9895980078)

Dr. E.I. Abdul Sathar, Professor (Email: sathare@gmail.com; Ph: 9495366416)

Dr. Manoj Chacko, Associate Professor (Email: sathare@gmail.com; Ph: 9495366416)

Dr. Riyaz, A., Assistant Professor (Email: riyazstatoyour@gmail.com; Ph: 9495366416)

Miss Rakhi Ramachandran, Lecturer on contract (Email: rakhir3@gmail.com; Ph: 9526363247)

Brief Profile

The Department of Statistics, University of Kerala is the second oldest post-graduate department of Statistics in India, established in 1945 based on the recommendation of a committee consisting of eminent members including Prof. P. C Mahalanobis. Dr. U. S. Nair was the Founder Professor of this department (after taking his Doctorate Degree under Professor E. S. Pearson from the University of London) followed by eminent successors Dr. Aleyamma George (1957-76) Dr R. Krishna Pillai (1976-77), Dr R. Ramakumar (1977-79), Prof P.S.J. Nair (1979-81), Dr Jacob Sundara Raja (1981-82), Dr R.N. Pillai (1982-93), Dr T.S.K. Moothathu (1993-2006), Dr P. Yageen Thomas (2006-12), Dr G. Lesitha (2012-14) and Dr C. Satheesh Kumar (2015 onwards). During the tenure of Dr. Aleyamma George a number of projects were undertaken and the infrastructure development of this department was materialized. She was instrumental in introducing a post graduate course in the subject of Demography and in establishing the Population Research Centre. With much foresight she introduced computer programming as a part of curriculum for M.Sc. Statistics degree course in the beginning of seventies itself. Prof U.S. Nair laid strong foundations for research in Statistics. Prof R.N. Pillai joined as Head of the Department in 1982 and thereafter the research activities of this department took momentum and several research publications of this department started appearing

in leading journals of Statistics and that resulted with the bagging of International Award viz. Jan Timbergen Award of International Statistical Institute, Netherlands. This department has moulded several reputed statisticians like Prof K. C. S. Pillai, Prof A. M. Mathai, Prof Thomas Mathew and so on.

The Government of Kerala also utilized the services of this department to organize the Statistical System in Kerala by instituting the Directorate of Economics and Statistics and further posted Prof U. S. Nair as its Founding Director (Honorary). The services of this department are utilized by major departments of Government of Kerala viz. Planning Board, Prices Board, Directorate of Economics and Statistics, Office of the Commissioner for Entrance Examinations, Kerala Public Service Commission, Kerala State Electricity Board Ltd., KIRTADAS and others. The Department of Science and Technology, New Delhi included this Department under its FIST 2010-2015.

The Department has MoUs with (1) Georgian Technical University, Georgia (Academic Collaboration), (2) Cognub Decisions Solutions Pvt. Ltd, Technopark Campus, Trivandrum (Industrial Collaboration), (3) The State University of New Jersey, USA (Academic Collaboration; towards final stage) and (4) and another MoU is under processing with University of Patras, Greece. Three faculty members of this department won MATRICS research grant for top researchers in Mathematical Sciences. The department has produced more than 120 research papers and around twenty-two PhDs during 1985-2015 and seventeen PhDs during the last five years. Among these PhDs, two PhDs are in the area of Cancer Research, done in collaboration with Regional Cancer Centre (RCC), Trivandrum. Presently twenty research scholars are working in this department for their Ph.D. degree. From 2019 admission, we are conducting a new M.Sc. programme in Applied Statistics and Data Analytics. The Department library is one among the best library in the country.

PROGRAMMES OFFERED

M.Sc. Statistics

Semester 1: STA-CC-511 : Measure Theory, STA-CC-512: Mathematical Methods, STA-CC-513: Distribution Theory, STA-CC-514: Statistical Computing

Semester 2: STA-CC-521 : Sampling Theory, STA-CC-522 : Applied Statistics, STA-CC-523 : Multivariate Analysis, STA-CC-524 : Probability Theory, STA-CC-525 : Practical 1.

Semester 3: STA-CC-531 : Stochastic Processes, STA-CC-532 : Estimation, STA-CC-533 : Testing of Hypothesis. Elective Courses: STA-DE-534 (i): Statistical Quality Control and Reliability Modeling, STA-DE-534 (ii): Advanced Probability Theory and STA-DE-534 (iii): Data Mining

Semester 4: STA-CC-541 : Nonparametric Methods, STA-CC-542 : Design and Analysis of Experiments, STA-CC-543 : Practical 2, STA-DE-544 : Elective 2, STA-DE-545: Elective 3, STA-CC-546 : Dissertation / Project Work. Elective Courses: STA-DE-544(i): Operations Research, STA-DE-544 (ii): Bayesian Inference, STA-DE-544 (iii): Order Statistics; STA-DE-545(i): Regression Analysis and Econometric Methods, STA-DE-545(ii): Actuarial Statistics, STA-DE-545(iii): Biostatistics

Generic Courses: STA-GC-521: Elements of Probability Theory, STA-GC-531: Elementary Statistical Methods

M.Sc. Applied Statistics and Data Analytics

Semester 1: STAD-CC-511 : Statistical Mathematics, STAD-CC-512 : Distribution Theory, STAD-CC-513 : Sampling Theory, STAD-CC-514 : Statistical Computing for Data Analytics using R and Python

Semester 2 : STAD-CC-521: Machine Learning, STAD-CC-522: Time Series and Statistical Forecasting, STAD-CC-523: Multivariate Analysis, STAD-CC-524: Probability Theory, STAD-CC-525: Practical 1 for Data Analytics

Semester 3: STAD-CC-531: Stochastic Processes, STAD-CC-532: Estimation, STAD-CC-533: Testing of Hypothesis. Elective Courses: STAD-DE-534 (i): Statistical Quality Control and Reliability Modeling, STAD-DE-534 (ii): Official Statistics, STAD-DE-534 (iii): Data Mining and Their Applications, STAD-DE-534 (iv): Categorical Data Analysis, STAD-DE-534 (v): Longitudinal Data Analysis

Semester 4: STAD-CC-541: Big Data Analytics and Artificial Intelligence, STAD-CC-542: Design and Analysis of Experiments, STAD-CC-543: Practical 2 for Data Analytics, STAD-DE-544: Elective 2, STAD-DE-545: Elective 3, STAD-CC-546 : Internship / Project Work. Elective Courses: STAD-DE-544(i): Optimization Techniques, STAD-DE-544 (ii): Stochastic Finance, STAD-DE-544 (iii): Bayesian Inference, STAD-DE-544 (iv): Order Statistics, STAD-DE-544 (v): Spatial Data Analytics; STAD-DE-545(i): Regression Analysis and Econometric Methods, STAD-DE-545(ii): Actuarial Statistics, STAD-DE-545(iii): Biostatistics, STAD-DE-545(iv): Survival Analysis, STAD-DE-545(v) Statistical Genetics

Generic Course: STAD-GC-521: Data Analytics Using R

M.Phil. Statistics

Semester 1: STA 711: Research Methodology (4 Credits), STA 712: Research Methods in Statistics (4 Credits), STA 713: Elective (4 Credits), STA 713(i): Distribution Theory, STA 713(ii): Order Statistics, STA 713(iii): Reliability theory; STA 721 : Dissertation (20 Credits)

Research

This Department of Statistics attracted global importance because of the emanation of several theories of statistics which came out through the intelligent work of those researchers associated with this department. Many theorems are named after our eminent researchers like Pillai's Trace, Mathai Moschopoulos Distribution, etc. This Department always encourages its researchers to produce quality research output which help them to achieve young Statistician Awards at National and International levels. The major contributions of this department are in the areas: Distribution Theory, Inequality Measures, Order statistics, Point Estimation, Ranked Set Sampling, Reliability Theory, Stochastic Process, Time Series etc. Research papers are published regularly from this department in refereed journals in Statistics and have been extensively cited in the latest statistical publications.



Department of Archaeology (Est. 1997)

Ph: 0471 2308053; Email: archaeologydepartment@gmail.com

Faculty

Dr. Preeta Nayar, Reader & Head (Email: preetasnayar@gmail.com; Ph: 94956 26707; 95678 83047)

Dr. Rajesh S.V., Assistant Professor (Email: rajeshkeraliyan@yahoo.co.in; Ph: 94970 78573; 94265 36305)

Dr. Abhayan G.S., Assistant Professor (Email: abhayangs@gmail.com; Ph: 98462 76539)

Dr. Sheena V. R., Contract Lecturer (Email: vr.sheena@gmail.com; Ph: 99614 39933)

Mr. Renjeshlal S.R. (Email: renjeshlalsr@gmail.com; Ph: 97472 78117)

Brief Profile

The Department of Archaeology was established in 1997 and formally inaugurated in 1998 as part of the Diamond Jubilee Year Celebrations of the University of Kerala by the then Hon. Minister for Food Tourism and Law, Govt. of Kerala Shri E. Chandrasekharan Nair with then Vice-Chancellor Dr. N. Babu presiding over the function. Today, it is the sole department amongst universities of Kerala offering post graduate studies and research facility in Archaeology. The faculty and students of the department have been actively contributing to research in various facets of archaeology. The department has been taking lead in academic matters collaborating with many other government and non-government professional bodies in Archaeology across the state, country and internationally well-known organizations. The department has been in the fore front in organizing various national and international seminars as part of the knowledge dissemination process. The explorations/excavations undertaken by the Department at various parts of Kerala and Gujarat during the past years have attracted attention of scholars worldwide and the results would richly contribute to archaeological studies in Kerala and India as a whole. The department offers MA, MPhil, PhD and Post-Doctoral Programmes. The MA and MPhil programmes are framed with a view to introduce student to various facets of archaeology and also provide field training to allow them to pursue archaeology as a career. The Department has laboratory facilities like GIS lab

equipped with Total Station and Zooarchaeology and Ichthyoarchaeology lab. The Department publishes an international annual journal titled “Heritage: journal of Multidisciplinary Studies in Archaeology”.

PROGRAMMES OFFERED

MA Archaeology

Semester 1: ARC-CC-511: Principles and Methods in Archaeology ; ARC-CC-512: World Prehistory ; ARC-CC-513: Indian Prehistory ; ARC-CC-514: Ancient Indian History

Semester 2: ARC-CC-521: Proto-history; ARC-CC-522: Early Iron Age of India; ARC-CC-523: Early Indian Art; ARC-CC-524: Indian Architecture

Semester 3: ARC-CC-531: Research Methodology; ARC-CC-532: Ancient Indian Iconography; ARC-CC-533: Archaeology of Kerala. Discipline-Specific Elective (DE): ARC-DE-534: Heritage and Museum Management; ARC-DE-535: Pottery and Ceramics; ARC-DE-536: Zooarchaeology in Practice,

Semester 4: ARC-CC-541: Paleography and Epigraphy; ARC-CC-542: Ancient Indian Numismatics; ARC-CC-543: Dissertation. Discipline-Specific Elective (DE): ARC-DE-544: Science in Archaeology; ARC-DE-545: Field Archaeology (Explorations and Excavations); ARC-DE-546: Field Archaeology (Study Tour of Monuments)

Skill Enhancement Elective (SE): ARC-SE-501: Essential Computer Applications for Archaeology

Generic Courses (GC): ARC-GC-501: Introduction to Archaeology; ARC-GC-502: Human Origin and Evolution

Programme Specific Outcomes (PSO)

- Understand historical development of human culture approaching through the material remains of the past.
- Understand relationships between humans and environment and their impacted development on human culture in different ecological zones.
- Comprehend the major theoretical perspectives and debates within archaeology focussing how they have affected our views of the past and how they can be applied to research in the field.
- Investigate the formation of archaeological records and acquire skills to conduct archaeological excavation dealing with how to record, investigate, analyze and interpret archaeological remains.
- Identify and distinguish the steps involved in carrying out quantitative and qualitative research using available library and internet resources besides primary materials like literary, historical and archaeological sources.
- Gain an overview of major developments in human history, including basic sciences and technologies with the help of archaeological sources.
- Understand the origin and development of complex societies, agricultural systems, knowledge systems, art and architecture.
- Understand the current theoretical debates across the dimensions of Archaeology, Civilization and Religion in the context of South Asia.
- Fathom deep the past to understand the rich cultural and artistic heritage of India.

- Protect the rich heritage objectively and conserve the rich cultural elements of the country scientifically for the posterity.

M Phil Archaeology

Semester 1: ARC 711: Principles and Methods in Archaeology; ARC 712: Research Methodology; ARC 713: Archaeology of Kerala. **Semester 2:** ARC 721: Dissertation and Viva-voce

Research

The Department offers Ph.D. in Archaeology and the areas of research are multidisciplinary. The Department also offers Post-Doctoral Research facilities.

Research Infrastructure: Zooarchaeology and Ichthyoarchaeology laboratory, Ceramic Petrology laboratory, GIS-Computer lab with Total Station and GPS units.



Museum at Department of Archaeology



Excavation at Juna Khatiya, Gujarat



Excavation at Arikkadi Fort, Kasargod



3D model of the excavation at Enadimangalam, Pathanamthitta

Archaeological Museum

The Archaeological Museum in the Department houses one of the biggest collections of rare artefacts of Indus Civilization, including a 5000-year-old human skeleton, besides various Megalithic, Early Historic and Medieval artefacts from Kerala. The growing collection in the museum is open to the enthusiasts and researchers alike.

Consultancy Services

At present the department is providing consultancy services in areas of Faunal Studies, Ceramic Studies, Iconography and Museum Display. These consultancy services are being carried out as mutual academic collaborations promoting research interest of involved parties without any monetary benefits.

Publication

The Department publishes an international peer-reviewed, UGC approved (CARE list) annual journal titled “Heritage: journal of Multidisciplinary Studies in Archaeology” from 2013.

Alumni

Department has an active alumni association with the participation of majority of passed out students from 2003 (Secretary: Dr. Vinod V., Assistant Professor, Mar Thoma College, Perumbavoor; Contact number: 70121 40532; email: vinodarchaeo2003@gmail.com)



Department of Economics (Est. 1959)

Ph: 0471 2308309; Email: ecodept50years@gmail.com

Faculty

Dr. Anitha V, Professor and Head (Email: anitha.palavila@yahoo.com; Ph: 9539204587/7907195976)

Dr. Abdul Salim A, Professor (Email: abdulsalimo1@gmail.com; Ph: 9074859583)

Dr. Prasad A.K, Professor (Email: akprasad95@gmail.com Ph: 7510864618)

Dr. Manju S.Nair, Professor (Email: meetmanjunaidu@yahoo.com; Ph: 9495513584)

Dr. Sheeja S.R, Professor (Email: sheejasunil99@gmail.com; Ph: 9447123777)

Dr. Christabell P.J., Associate Professor (Email: christabell@keralauniversity.ac.in; Ph: 9497850893)

Siddik R, Assistant Professor (Email: siddikrabiya@gmail.com; Ph: 811989221)

Brief Profile

The Department of Economics is one of the earliest of the teaching and research departments started in the University of Kerala and the first of its kind in Economics in the State. The department was formed towards the end of 1959 with the appointment of two renowned economists, Prof. V R Pillai, and Prof. M A Oommen. The activities of the Department during the period 1959-62 were confined to the enrolment of students for Doctoral research and preparation of a blueprint for research activities and teaching programmes. Later M.Phil and Ph. D programmes were also started. Now the Department has a long history of 61 years' spectacular performance in bringing out brilliant and eminent persons rendering their services in various national and international institutions of repute. During this period, 8 students of the Department got IAS, 17 IRS/IES/IPS, 25 were placed in various universities and research institutes, and 201 in various colleges.

PROGRAMMES OFFERED

M.A. Economics

Semester 1: ECO-CC- 411 Microeconomics I, ECO-CC- 412 Macroeconomics I, ECO-CC-413 Mathematical Methods for Economics, ECO-CC-414- Indian Economic

Development and Policies, ECO-CC-415 Environmental Economics, ECO-DE-416; History of Economic Thought

Semester 2: ECO -CC-421 Microeconomics II, ECO -CC-422 Macroeconomics II, ECO -CC-423 Statistical Methods and Research Methodology, ECO -CC-424; Economic Growth and Development, ECO-DSE-425 Health Economics, ECO-DE-426 Economics of Education

Semester 3: ECO -CC-431 International Economics, ECO -CC-432 Basic Econometrics, ECO -CC-433 Public Economics, ECO-DE-434 Mathematical Economics, ECO-DE-435 Women and Development, ECO-DE-436 Labour Economics, ECO-DE-437 Demography

Semester 4: ECO -CC-441 Kerala's Economic Development; ECO -CC-442 Finance and Capital Market, ECO-D-443 Dissertation and Viva Voce, ECO-DE-444 Advanced Applied Econometrics, ECO-DE-445 Agricultural Economics ECO-DE-446 Industrial Economics, ECO-DE-447 Law and Economics, ECO-DE-448 Social Choice and Welfare Economics

Generic Courses(GC): ECO-GC-501: Economics of Health Care, ECO-GC-502; Mathematical Economics, ECO-GC-503 Advanced Econometrics, ECO-GC-504 Agricultural Economics, ECO-GC-505- Law and Economics

Programme Specific Outcomes

- To equip students with advanced knowledge of Applied Economics & Development Issues of Indian Economy in general and Kerala Economy in particular
- To familiarise the students with suitable alternative methods of knowledge on the basis of the heterogeneity of societies
- To develop right skills in students catering to the needs of the industry and policy makers
- To make the students capable of addressing and solving the issues in the society and the economy by contextualising the knowledge they have acquired and finally
- To create academic excellence through holistic education.

M.Phil. Economics

Semester I: ECO 711: Research Methodology(4 cr), ECO 712: Advances in Economic Theory(4cr), ECO 713: Indian Economy(4 cr). **Semester II.** ECO 721: Dissertation (20 cr)

Research: Ph.D Economics

Research facilities: The Department library is a premier teaching and research library in South India with an impressive collection of nearly 16500 books, Journals, dissertations and data bases. Every year from 2009, students of the Department organises Dr. V.R.Pillai Memorial Inter university student festival by name 'Prodigy'. The dept. also organises Dr. Ramachandran Nair Memorial Endowment Lecture. The Cost of Cultivation Scheme on the Study of Principal Crops in India(est.1971) funded by the Ministry of Agriculture, Government of India is attached to the Department of Economics with an annual budget of nearly two crores. In 2015, an Inter University Center for Alternative Economics (IUCAE) was initiated to promote research and studies in alternative economic streams to meet the challenges of the fast-growing knowledge economy. The Centre for Agro Ecology and Public Health is also attached to the Department.



Department of Education (Est. 1956)

Phone: 0471 2304718; Email: education@keralauniversity.ac.in

Faculty

Dr. Bindu R.L., Professor & Head (Email: profdrbindurl@gmail.com; Ph: 9947323222)

Dr. Geetha Janet Vitus, Associate Professor (Email: andrew.geetha@gmail.com; Ph: 9995283337)

Dr. Bindu D., Assistant Professor (Email: dbindusuresh@gmail.com; Ph: 9495681565)

Dr. Sindhya V., Assistant Professor (Email: sindhyaajith@gmail.com; Ph: 9495969268)

Dr. Divya C. Senan, Assistant Professor (Email: mail2divyacsenan@gmail.com; Ph: 9447552870)

Dr. Sameer Babu M., Assistant Professor (Email: sameer@keralauniversity.ac.in; Ph: 9447943244)

Brief Profile

The Department of Education was established in 1956 and with the launch of Ph.D. programme it became one of the earliest University Departments in India to do so. The Department has been recognized by the UGC for its high standards of teaching and research and had been identified for the DSA scheme (1986), as National Centre for Curriculum Development in Education (1986) and for instituting ASARCO fellowship (1988). The department has a Library with 19330 volumes with 2153 theses making it a reference center for students from all over the country. The Department is linked with SCERT, NCERT, Kerala State Higher Education Council and the like bodies in the Design and try out of curricular reforms.

PROGRAMMES OFFERED

M.Ed. (Master of Education)

Semester 1: EDU-CC-411: Philosophical Perspectives of Education; EDU-CC-412: Teacher Education: Conceptual Base, Competencies and Professionalism; EDU-CC-413: ICT Integration and Innovative Practices in Education; EDU-CC -414: Context and

Issues in (i) Elementary Education / (ii) Secondary Senior Secondary Education; (iii) Higher Education UG, PG & Professional; GC 1: Generic Course 1; GC 2: Generic Course 2

Semester 2: EDU-CC-421: Basics of Educational Research and Statistics; EDU-CC-422: Perspectives in Advanced Educational Psychology; EDU-CC-423: Curriculum, Pedagogy and Assessment in (i) Elementary Education/ (ii) Secondary & Sr. Secondary Education; (iii) Higher Education -UG, PG & Professional; EDU-CC-424: Attachment to Teacher Education Institution (Internship Phase I); EDU-CC-425: Preparation and Presentation of Research Proposal; EDU-SEE-4B1 Yoga and Meditation; EDU-SEE-4B2 Communication and Academic Writing

Semester 3: EDU-CC-431: Advanced Educational Research and Statistics; EDU-CC-432: Educational Management; EDU-CC-433: Dissertation; EDU-SEE-4B3: Communication & Soft Skill Development; EDU-SEE-4B4: Expository Writing Practice; EDU-CC-441: Emerging Trends in Curriculum Development; EDU-CC-442: Modern Educational Policies and Teacher Education; EDU-CC-443: Sociological Perspectives of Education

Semester 4: EDU-DSE-444: (i-xi) Discipline Specific Courses: i. Advanced Mathematics Education, ii. Advanced Science Education. Advanced Language Education (English), iv. Advanced Language Education (Hindi), v. Advanced Language Education (Malayalam), vi. Advanced Language Education (Sanskrit), vii. Advanced Language Education (Tamil), viii. Advanced Language Education (Arabic), ix. Advanced Social Science Education. Advanced Commerce Education. Advanced Geography Education; EDU-CC-445: Observation & Case study, Internship Phase II; EDU-SEE-4B5: Gender Issues: Awareness and Management; EDU-SEE-4B6: Practices Promoting Eco-friendliness

Generic Courses (GC): EDU GC-4A1: Understanding the Learner; EDU GC-4A2: Human Rights Education; EDU GC-4A3: Value Education; EDU GC-4A4: Life skill Education; EDU GC-4A5: Environmental Education; EDU – GC 4A6: Inclusive education; EDU – GC 4A7: Educational and Vocational Guidance and Counselling; EDU – GC 4A8: Tools and Techniques of Assessment in Education

Programme Specific Outcomes (PSO)

- Develop professional attitudes, values and interests needed to function as a teacher educator.
- Master the methods and techniques of developing competencies, commitments and performance skills of teachers.
- Explain the nature of issues and problems faced by the state system of education and suggest some innovative remedies or policies to solve them.
- Appreciate as well as to evaluate the national education policies and provisions made in the plan documents of state and central governments to spread quality education at all levels in the country.
- Gain insight and reflect on the concept and the status of pre-service and in-service teacher education.

- Acquainted with the content, and organization of pre-service teacher education curriculum, infrastructure and resources needed, and the issues and problems related to teacher preparation.
- Examine the role and contribution of various agencies and regulating bodies in enhancing the quality of teacher education
- Propagate the ways and means to inculcate intellectual, emotional and performance skills among the different categories of learners in order to execute their responsibilities as “Global citizens”.
- Realize the importance of leadership in education and how it can be developed.
- Realize the importance of leadership in education and how it can be developed.
- Imbibe the attitudes and skills required of ‘life-long learners’ on the present day ‘ICT influenced world’.
- Acquire the skills required of a ‘consumer’ and a ‘practitioner’ of educational research and innovations.
- Acquire skills to design a curriculum for research embedded instruction.
- Understand and appreciate the research perspective on various practices in teacher education.

M.Phil. Education

Semester I: EDU 711: Advanced Research methodology and applied Statistics; EDU 712: Trends in Educational Thoughts and Practice; EDU 713: Elective Courses: EDU 713.1: Instructional Technology; EDU 713.2: Curriculum Design and Development; EDU 713.3: Learning Difficulties and Disabilities; EDU 713.4: Planning and Management of Education; EDU 713.5: Educational Assessment and Evaluation. **Semester II:** EDU 721: Dissertation.

Research

The Department offers Ph.D. in Education and Post-Doctoral Research

Proposed Programme

M Ed (Educational Technology)

This is a new programme proposed to begin in the next academic year subject to the approval of the National Council for Teacher Education. The programme is designed to prepare the teachers and teacher educators who will be strong in the use of various modalities of technology used in teaching, learning, and evaluation. Innovative elements like virtual reality, augmented reality, MOOCs and SPOCs, OERs and FOSS, and innovative curriculum designs are also included in the proposed programme.

Study Centres attached to the Department

- ❖ Curriculum Development Centre (CDC)
- ❖ Centre for Educational Technology (CET)
- ❖ Centre for Learning Disabilities and Difficulties (CLDD)



Department of History (Est. 1968)

Ph: 0471 2308839; Email: his.uok@rediffmail.com;
history@keralauniversity.ac.in

Faculty

Dr. V. Sathish, Professor & Head, Email : drsathishvasudevan@gmail.com, Mob: 9446533386

Dr. P. Jinimon, Assistant Professor (Email: jinimon@gmail.com, Ph: 8547584458, 7356591496)

Dr. A. Sajna, Assistant Professor (Email: sajnass7@gmail.com, Ph: 9567414455)

Brief Profile

Department of History, one of the formidable research and teaching centers of University of Kerala, Thiruvananthapuram imparts intensive knowledge to the student fraternity, in the spectrum of history. The Department of History, University of Kerala, Kariavattom, Thiruvananthapuram is a full-fledged institution, imbued with salient characteristics of academically and research-oriented activities which came into being in 1968. Apart from the publication of *Journal of Indian History & Journal of Kerala Studies* and pursuance of Ph.D programme, Post Graduate course was started by the Department at Kariavattom Campus, in the academic year 1976-77. Furthermore, M.Phil course was commenced, in the year 1990-91. The cogent, the Department has been perusing Post Graduate, M.Phil, Ph.D, and Post-Doctoral Programmes.

While tracing out the historical antecedence of this Department, it can be stated that the respective Department was constituted by the University of Travancore, Trivandrum for the exquisite publication of *Journal of Indian History* which attains accolade from all over the world. The relevant journal was initially published by the University of Allahabad in the state of Uttar Pradesh. Professor Shafad Ahmed Khan, the founder president of the prestigious academic organization, Indian History Congress is the first editor. Later on, this journal was published by the University of Madras, State of Tamilnadu by virtue of the right of acquisition. To facilitate boom to

the prestige of the University of Travancore, the then Vice Chancellor, Sir C.P. Ramaswami Iyer obtained the exclusive right of ownership as well as possessive from the University of Madras, by means of monetary consideration, in 1946. From this period onwards, the relevant journal has been publishing by the Department of History, University of Kerala, uninterruptedly and its *Centenary Volume* is to be published in the year 2020-21. Apart from this, the Department has been publishing another remarkable journal under the rubric of *Journal of Kerala Studies*, commencing from 1973 onwards by giving emphasis on the reconstruction of the history of state of Kerala, in a correct historical prospective.

PROGRAMMES OFFERED

M.A. History

Semester 1: HIS-CC-511- Historical Method – I; HIS-CC-512 Kerala History – I (Social Formations in the Pre Modern Period - Pre-Historic to 800 C.E.); HIS-CC-513-Indian History – I (Formation of State and Society in Early India- upto 600 C.E.); HIS-CC-514-Select Problems in Western Civilization – I.

Semester 2: HIS-CC-521-Historical Method – II; HIS-CC-522 Kerala History – II (Social Formations in the Pre Modern Period - From 800 To 1498 C.E.); HIS-CC-523-Indian History – II (India in Transition - Medieval and Pre-Modern Periods - 600- 1700 C.E.); HIS-CC-524-Select Problems in Western Civilization – II

Semester 3: HIS-CC-531-Issues in Historiography; HIS-CC-532-Kerala History – III (Colonialism and Nationalism -From 1498 To 1956 C.E.); HIS-CC-533-Indian History – III (Colonialism and Indian Responses - From 1701 to 1947 C.E.); HIS-DE-534-History of Freedom Movement in India - I (1857-1919)

Semester 4: HIS-CC-541-Indian Historiography; HIS-CC-542- Kerala History – IV (Contemporary Period - From 1956 To 2019 C.E.); HIS-CC-543 Indian History – IV Contemporary India; HIS-DE-544 History of Freedom Movement in India - II (1919-1947); HIS-CC-545-Dissertation

Generic Course: HIS-GC-4A1-Indian History - Colonialism and Nationalism in India (1757-1947)

Programme Specific Outcomes (PSO)

- Create historical consciousness and cognize the major Historical themes and causative factors in History
- Students should be able to differentiate among multiple theories, concepts and methodology in the practice of History from a range of written or spoken genres. They should be able to explain, analyse and articulate contemporary issues and events using such perspectives, theories and ideologies.
- Develops critical thinking faculty to analyse and interpreting sources germane to the subject and Develops historical communication through the development of skill in writing and research
- Provides knowledge on historicity various aspects of contemporary issues, concerns, policies and practices

- Evaluate the paradigm shift in the discipline of History, Historiography and Methodology
- Enables interdisciplinary and multi-disciplinary outlook in the understanding of historical issues and acquire employment opportunities in academic and research institutes in India and abroad
- Analyze historical events, movements and changes occurred in world history. Indian History and Kerala history
- Understand the process and developments from pre historic phase to present history in area specific and thematic in world, Indian, and Kerala historical Contexts
- Understand the diverse institutions, processes, constitutional and legal frameworks and public policies in one's own country and to compare it across the world.
- Evaluate the history of Kerala with special focus on the society, institution, culture, and political process for further research

M.Phil. History

Semester 1: HIS- 711 - Research Methodology; HIS – 712-Development of Historiography; HIS – 713 Contemporary India; **Semester 2:** HIS – 721-Dissertation

Research

The Department offers Ph.D. in History and the areas of research are Constitutional History of India with comparison to prominent countries of the world, Historiography, Human Rights Jurisprudence, Ethnic Studies, Affirmative Action, saturated with the precept of Distributive Justice, Sabalarn Studies, Aspect on Environment, Weaker Sections and Minority Communities, Gender Equality and Law and Social Change; Cultural Studies, Kerala Studies, Theory and History, Environmental History, Local History, Micro History, Biographies and Autobiographies; Social Movements in Kerala, Women Empowerment and Movements, Social Change and Political Process, Social Transformation and Cultural Change.

Post-Doctoral Research: The Department offers Post-Doctoral Research in History.

Library

History Department Library has a collection of more than 15,000 books, Journals. It has provided internet and WIFI facilities for students and scholars for accessing e-resources. Department library has a very good collection of rare historical documents, nearly seven hundred Ph.D thesis, and M.Phil/MA Dissertations are available for ready reference. Online catalog of the total collection in the Department Library is available in the url : campuslib.keralauniversity.ac.in

The department publishes *Journal of Kerala Studies* is credited as one of the leading academic journals in India covering a wide variety of historical themes pertinent to Kerala since 1973.

Student Activities

Heritage Walk, Women's Tango and Researcher's Tract

Alumni

ClioFist is the Alumni Association of the Department of History.



Department of Islamic Studies (Est. 1990)

Ph: 0471 2308115; Email: islhist.univkerala@gmail.com

Faculty

Dr. A.K Ampotti, Associate Professor & Head (Email: ampottibharanikkavu@gmail.com, Ph: 6282317664, 9495231737)
 Asharaf A, Assistant Professor (asharafkadakkal@gmail.com, 9446900853)
 Manu T, Assistant Professor (manuhockey@gmail.com, 8606437981, 7907819553)
 Deeja S, Guest Lecturer (deejakrishna@gmail.com, 9074291619)
 Santhosh Kumar M, Guest Lecturer (santhoshkarette@gmail.com, 9895647109)
 Naseer M, Guest Lecturer (naseermolumporam@gmail.com, 8078950852)
 Dr. Abdul Jaleel PKM, Guest Lecturer (pkmjali@gmail.com, 9037727538)
 Dr. Shakeel Anjum, Guest Lecturer (anjum.shakeel1987@gmail.com, 9818260914)
 Dr. Ashly K. Ramachandran, Guest Lecturer (ashlyramchand@gmail.com, 9497760398, 9544317983)
 Hassan J, Guest Lecturer, (hassankallara@gmail.com, 9446552008, 9747648310)

Brief Profile

Though the origin of the Department of Islamic studies, University of Kerala, can be traced back to 1970, it actually came into existence in 1990, twenty years later, with the appointment of a Reader in the Department. Today, the Department is offering MA, M Phil and PhD in Islamic History and culture, besides the MA in West Asian Studies. There is no denying that the study of Islamic History and Culture assumes paramount significance as far as Kerala is concerned, because Islam spread in Kerala as soon as it spread in Arabia. That is to say, Kerala was the first soil with which Islam had come into contact, that too during the time of the Prophet himself. The most interesting thing is that Islam spread in Kerala peacefully unlike north India where Islam came through expedition. Naturally Islam made an indelible mark on the culture and life style of the people of Kerala. This explains the relevance of the study of Islamic history and culture in this beautiful tiny state, god's own country.

Though many colleges in Kerala offer Islamic history and culture as optional subjects, the Department alone provides facilities for higher studies and research on the subject. Thrust areas of research in the department include such areas as Kerala Muslims, their education, culture and politics, gulf migration, Islamic economics, Islamic politics, Muslims and the Indian freedom struggle, Muslim education, Muslim women, Islamic jurisprudence, Muslim philosophy, human rights in Islam, Muslim religious and social reformers, religiosity and ethnicity among Muslims, Muslim shrines in India, Muslim architecture, Orientalism and Islam, Muslim historiography, Muslim rulers in India, Islamic sects and reform movements, Islam and the Arab society, political and cultural history of west Asia and north Africa, Islamic law and jurisprudence, Madrasa system in India with special reference to Kerala.

The department library, one of the best of its kind in India, has a total collection of 4362 books, 13 journals and 7 periodicals. It is fully computerized, and a unique feature of the library is the Maraikar collection of rare books and journals.

PROGRAMMES OFFERED

MA Islamic History

Semester I: ISH-CC-511: Historical Method and Historiography ; ISH-CC-512: Arab-Muslim Historiography ; ISH-CC-513: Life and Times of the Holy Prophet ; ISH-CC-514: Advent of the Islamic State – Pious Caliphs

Semester II: ISH-CC-521: Umayyads and the Abbasids; ISH-CC-522: Muslim Culture in Spain; ISH-CC-523: Islam in Africa – Fatimids to the Mamlukes; ISH-CC-524: The Ottoman Empire; ISH-CC-525: Islamic Philosophy and Theology – Sects and Trends

Semester III: ISH-CC-531: Islam in India – Part I (Early Medieval India); ISH-CC-532: Freedom Struggle and Indian Muslims; ISH-CC-533: Islam in Kerala; ISH-DE-534: Reform Movements in Islam; ISH-DE-535: Islam and Orientalism

Semester IV: ISH-CC-541: Islam in India Part II – (Later Medieval India); ISH-CC-542: European Colonialism and the Emergence of Modern Arab-Muslim States; ISH-DE-543: Islamic Jurisprudence; ISH-D-544: Dissertation.

Generic Courses (GC): ISH-GC-501: The Modern West Asia

Programme Specific Outcomes (PSO)

- Familiarise the students with a knowledge about the method and methodology of studies and research in Islamic History and allied subjects in social sciences.
- Understand the history, culture, politics and philosophy of the Islamic people from the pre-prophetic period up to the contemporary era.
- Develop a thorough understanding about the socio political and religious institutions in the Muslim society.
- Develop expertise in the tools of Islamic discourses in the interpretation of the sources and conceptual frame works.
- Examine a phenomenon or an event which leads to socio political changes in the Muslim society.

- Develop a theoretical framework to analyze the historical events and phenomenal changes in the Indo-Islamic society.
- Develop a scientific perspective in analyzing the history, culture, politics and religion of the Muslims of India in general and Kerala in particular.

MA West Asian Studies

Semester I- WAS-CC-511: West Asia in History – I, WAS-CC-512: Understanding The Region : Society And Culture, WAS-CC-513: India – West Asia Trade and Cultural Linkages

Semester II- WAS-CC-521: West Asia in History – II, WAS-CC-522: Arab –Israeli Conflict, WAS-CC-523: Contemporary Intellectual Movements in West Asia, WAS-CC-524: Major Concepts and Issues in International Politics,

Semester III- WAS-CC-531: West Asia in History – III, WAS-CC-532: State and Politics in West Asia, WAS-CC-533: West Asian Economy: Issues in Developments

Semester IV- WAS-CC-541: The Modern West Asia, WAS-CC-542: West Asia and Global Energy Security, WAS-CC-543: Theoretical Aspects of International Politics, WAS-D-544: Dissertation.

Generic Courses (GC): WAS-GC-501: Introduction to Social Sciences, WAS-GC-502: Academic Writing

Programme Specific Outcomes (PSO)

- Comprehend the fundamental concepts and theories of Area Studies & International Relations with an interdisciplinary approach.
- Impart advanced research methods and methodologies in studying West Asian society, history, culture, economy, politics and intellectual traditions.
- Achieve critical and interdisciplinary understanding of historical, geographical, anthropological, social, economic, cultural and political processes in the region.
- Exhibit oral and written communication skills of languages spoken in the region (Arabic as a special focus) along with the language of instruction in postgraduate studies.
- Develop expertise in West Asian Studies with an Indian perspective (India-West Asia, Israel-Palestine conflicts, GCC states, energy and security issues) in particular, and International Studies in general for an informed advice on intellectual history of the region, foreign relations, conflict resolution, policy critique and dissemination of unbiased knowledge.

M.Phil Islamic History

Semester I: Paper I- ISH – 711: Research Methodology (4Cr.): Paper II- ISH – 712: Islam in Kerala – History and Culture (Cr.4); Paper-III- ISH – 713 -Special Paper – Area Study Connected with the Dissertation (Cr.4); **Semester II:** ISH D 721: Dissertation (Cr.20)

Research: The Department offers Ph.D in Islamic History. The programme intends to familiarize the students with the theory and methodology specific to History. It is also intended to enable students to get a deep insight into the fundamental principles to be observed in history writing.



Department of Philosophy (Est. 1985)

Ph: 0471 2418746; departmentofphilosophyuk@gmail.com

Faculty

Dr. Binu G. Bheemnath, Assistant Professor & Head (Email: bheemnath@gmail.com; Ph: 9847936148)

Dr. R. Lekshmi, Associate Professor (Email: lekshmi51@yahoo.co.in; Ph: 9495473899)

Dr. Balamurali P.B., Assistant Professor (Email: baluputhenkotta@gmail.com; Ph: 9961487951)

Dr. G. Padmakumar, Visiting Faculty (Email: padmakumarg16@gmail.com; Ph: 9447903108)

Smt. Krishnakumari J.T., Contract Lecturer (Email: krishnachaitanyam@gmail.com.& Mob.No.9072802538)

Dr Beena Isaac, Director, Centre for Philosophical Counselling and Research (Email: drbeenaaisaac@yahoo.in; Ph: 9447586802)

Brief Profile

The Department of Philosophy started functioning in 1979 under the Department of Psychology. In 1985 the Department of Philosophy became an independent Department with Dr. K. Saratchandran as the founder professor. Dr. D. Nesy joined as lecturer in 1989. In 1990, M.Phil. Programme started with an average intake of six students per year. In 1993, M.A. programme started under the annual pattern, switched over to credit and semester system (CSS) from 1995 onwards. The Department is marching ahead with an excellent track record on teaching and research activities. Keeping par with the cutting edge of the new academic scenario, the Department offers a variety of courses under the PG and M.Phil programs. The Department runs a Centre on Philosophical Counselling and Research. The Centre offers a PG Diploma programme in Philosophical Counselling. The Department has produced 30 Ph.D's and a few Post-Doctoral theses. About 100 students have secured M.Phil. Degrees.

The Centre for Philosophical Counselling and Research has invited attention both at the international and national levels. The first batch of PG Diploma course successfully completed the program in September 2020. The Department has taken initiatives in

starting new certificate programs of interdisciplinary nature which include standalone courses as well as inter departmental programs. The Department is actively engaged in a lot of research programs including UGC projects, publication of books, conduct of international and national seminars, webinars, syllabus revision workshops etc. with the assistance of UGC, ICPR, ICMR as well as the University of Kerala. The active participation in the SIP (Semester in India) program was a highlight of the Department. Foreign students also join the Department for their MA program as well as elective courses.

PROGRAMMES OFFERED

M.A. Philosophy

Semester I: PHI CC 511 - Indian Epistemology and Metaphysics (4 Credits); PHI CC 512 - Western Philosophy: Greek Medieval and Modern (4 Credits); PHI CC 513 - Introduction to Ethics (3 Credits); PHI CC 514 - Fundamentals of Logic (3 Credits). Elective Courses: PHI DE 515 - Philosophy of Yoga and Meditation (2 Credits); PHI DE 516 - Vedanta Philosophy (2 Credits); PHI DE 517 - Philosophy of Value Education (2 Credits).

Semester II: PHI CC 521- Modern Indian Thinkers (4 Credits); PHI CC 522- Analytical Philosophy (4 Credits); PHI CC 523- Environmental Ethics (3 Credits); PHI CC 524- Symbolic Logic (3 Credits). **Elective Courses:** PHI DE 525 - Philosophy of Mind (2 Credits); PHI DE 526- Philosophy of Gender (2 Credits); PHI DE 527 - Research Methodology (2 Credits).

Semester III: PHI CC 531- Philosophical Counselling (Indian) (4 Credits); PHI CC 532- Phenomenology, Existentialism and Hermeneutics (4 Credits); PHI CC 533- Philosophy of Science (3 Credits); PHI CC 534- Aesthetics (3 Credits). Elective Courses: PHI DE 535 - Applies Ethics (2 Credits); PHI DE 536 - Philosophy of Religion (2 Credits); PHI DE 537 - Peace Studies (2 Credits).

Semester IV: PHI CC 541- Contemporary Continental Philosophy (4 Credits); PHI CC 542- Western Theories of Philosophical Counselling (4 Credits); PHI CC 543- Logical Reasoning and Critical Thinking (4 Credits). Elective Courses: PHI DE 544 - Social and Political Philosophy (2 Credits); PHI DE 545 - Social Reformers and Kerala Philosophy (2 Credits); PHI CC 544- Dissertation (6 Credits)

Generic Courses: PHI GC 5 A 1- Yoga Philosophy and Practice; PHI GC 5 A 2- Philosophy of Language (2 Credits); PHI GC 5 A 3 - Introduction to Philosophy; PHI GC 5 A 4 - Logical Reasoning; PHI GC 5 A 5 - Gender Studies; PHI GC 5 A 6 - Elements of Research Ethics

Skill enhancement courses: PHI SE 5 B 1 - Ethical Decision Making (2 Credits); PHI SE 5 B 2 - Critical Thinking and Problem Solving (2 Credits)

Programme Specific Outcome (PSO)

- Comprehension and Enhancement of Knowledge: The major outcome of the programme is to make the students inculcate an in depth knowledge of the core and applied areas of philosophy.

- **Analytical and Critical thinking:** Fostering critical thinking and reasoning skills in the students is a significant outcome of the programme.
- **Communicative Skills and Career Opportunities:** The rendering of each program is done with the specific motive of developing good communicative skills in the students.
- **Research Aptitudes and Self-learning Abilities:** Since the students are exposed to a wide ranging topics, they are free enough to advance their learning and research aptitudes in a better way.
- **Scientific Temper and Social Accountability:** The students inculcate scientific temper in their thinking which helps them to approach social situations and pressing issues in a rational way.
- **Ethical Decision Making and Value Inculcation;** The students can make rational and ethical decisions for the moral dilemmas confronting life. Inculcation of values including moral, ethical social, political ,aesthetic and environmental in the learners is a major outcome of the programme
- **Interpretation and Practical Application:** The study of philosophy helps the students learn the art of interpretation and proper understanding of texts and contexts of life. It makes them apply the philosophical principles to concrete, existential situations with ease and optimal resourcefulness.

M.Phil. Philosophy Programme

SEMESTER I: Methodology of Philosophical Research and Writing; Classical Indian Epistemology and Logic Choose one paper from the list of optional courses OR Book Review).

Optional Courses: Analysis of philosophical concepts; Management Ethics; Philosophical Analysis of Psychology; Philosophy of Hermeneutics; Postmodernism – A Philosophical Study; Medical and Health Care Ethics; Philosophical Foundations of Logic; Philosophy of Law and Human Rights or Book Review (Follow the Criteria).

SEMESTER II

Dissertation & Viva-Voce

Research

Areas of Research in the department are in the broader areas of Philosophy of Mind, Moral Philosophy, Philosophy of Logic, Indian and Western Epistemology, Philosophy of Language, Metaphysics, Political Philosophy, Philosophy of Religion, Aesthetics, Phenomenology, Existentialism, Philosophy of Science, Metaphilosophy, Philosophy of Law, Applied Philosophy, Philosophical Counselling, Philosophy of Management, Consciousness Studies, Philosophical aspects in Psychology, Metareality, Philosophy of Yoga, Hermeneutics, Ethics in Management, Healthcare Ethics, etc.



Department of Political Science (Est. 1957)

Ph: 0471 2308307; Email: politicalscience307@gmail.com

Faculty

Dr. Suresh R, Professor and Head (Email: sureshrajani994@yahoo.co.in; Ph: 9447586458)

Dr. KM Sajad Ibrahim, Professor (Email: sajad67@gmail.com; Ph: 9447337189)

Dr. Shaji Varkey, Professor (Email: shaji.varkey@gmail.com; Ph: 9447129451)

Dr. Girish R Kumar, Professor (Email: girishramkumar@yahoo.com; Ph: 9447090000)

Dr. Josukutty C.A, Associate Professor (Email: cajosukutty@gmail.com; Ph: 9447145381)

Dr. Samuel J Kuruvila, Assistant Professor (Email: sjk201@gmail.com; Ph: 9249102321)

Dr. Anu Unny, Assistant Professor (Email: unny.anu@gmail.com; Ph: 9526844885)

Dr. Arun Kumar K, Assistant Professor (On Leave) (Email: arunpolitics@gmail.com; Ph: 9745667333)

Dr. Nitya N R, Assistant Professor (Email: nithyatpm@gmail.com; 9496468751)

Brief Profile

The Department of Political Science was established on 18 September 1957 with Dr. V.K.Sukumaran Nayar as the first Head. The Department offers M A, M.Phil., and PhD programmes in Political Science. The epistemological foundation of Political Science as a discipline and its frontier areas have expanded with the distinct contributions made by scholars, intellectuals, statesmen and policymakers. Since the last six decades, the department of Political Science has been pursuing a trendsetting path by deploying innovative methods in teaching and research. Holding on to its essential tenets, Political

Science perse has transcended its classical parameters to liberally assimilate a variety of theories and experiences from other social sciences, as well. This has broadened the scope of the discipline universally. To accommodate the new trends in the subject it became imperative that we offer three Master's programmes. Thus, the Dept of Political Science now has three post graduate courses – MA (Political Science), MA (Public Administration), and the latest feather to its cap being the MA (Politics, International Relations and Diplomacy).

The Department has been incessantly engaged in empirical studies. It enjoys a coveted position in the field of psephology studies too. We pioneered a scientific analysis of voting behaviour, as early as in 1965 – a feat which we impeccably and unfalteringly continue to accomplish with every election. The Department has its own Research Journal – Journal of Polity and Society. It was started in 2010 and has figured in the UGC approved list of journals in 2016. The Department received funds from the University Grants Commission (UGC) under the Eleventh Plan for the Special Assistance Programme (SAP) (2007), establishment of Nehru Studies Centre (2005), SAP Award for the Period of 2007-2012 and 2016-2021, UGC Project on 'Maritime Security of India' (2018) etc. We have been conducting regular Election Studies since 1996 in collaboration with the CSDS, Delhi, the State of the Nation Surveys since 2006, Election Commission of India, etc.

The Department has entered into academic collaborations with various foreign universities with the support of international agencies. This includes the Fulbright International Education Programme (funded by the US State Department, the Claremont Graduate University USA and the University of Kerala) that facilitated faculty/research students' exchange programmes. The Department has also undertaken collaborative research projects with Maism De Sciences Del Homme, Paris, France. Memorandum of Understanding was also signed with the Faculty of Political Science and International Studies, University of Warsaw and the Department of Political Science and the Shandong University in 2019. Our faculty are recipients of renowned national/ international fellowship like Fulbright, Jean Monnet, Salzburg Awards, Cambridge-Pavate, US State Department-sponsored SUSI Scholarships, Sasthri-Indo Canadian Fellowship, ICSSR, etc. They have conducted research and taught in renowned universities like University of South Dakota (US), University of Cambridge (UK), Claremont Graduate University (US), George Washington University (US), European University (Italy), Indian Law Institute (India), Indian Institute of Advanced Study (IIAS), Shimla (India) etc.

To bolster interdisciplinary research, it has established five major centres - V.K.Krishna Menon Study Centre for International Relations, UGC- Nehru Studies Centre, Survey Research Centre, International Centre for Latin American Studies and V.K.Sukumaran Nayar Chair for Parliamentary Affairs. We have provided consultancy services to Election Commission of India. As part of its extension activities and social commitment, the department has adopted the settlement colony at Amabalathinkara, Kazhakuttam and Government U P School, Kariavattom. We conduct social, educational and economic activities to assess the overall development of the hamlet and prescribe policy solutions to raise their human development index.

PROGRAMMES OFFERED

M.A. Political Science

Semester 1: Core Courses: Theories and Concepts of Public Administration, Indian Government and Politics, Modern Political Analysis, International Political Economy. Discipline-Specific Elective (DE): Media and Politics, Modern Indian Political Thought: Liberal and Socialist Traditions, West European Politics, Global Health Security, The US Government: Law and Politics

Semester 2: Core Courses: Issues in Indian Administration, Modern Political Thought, Research Methodology. Discipline-Specific Elective (DE): Politics of South Asia, Indian Constitution: Law and Politics, Foreign Policy of United states, Gender Politics, Democracy, Elections and Voting Behaviour, Politics of Eastern Europe, Politics of Climate Change, Politics of Global South, India's Foreign Policy, Human Rights in India

Semester 3: Core Courses: Theoretical Aspects of International Politics, Political Economy of Kerala, Comparative Politics. Discipline-Specific Elective (DE): United Nations Organisation and World Peace, Contemporary West Asian Politics, Latin American Politics, Theory and Practice of Diplomacy, Science and Technology in International Relations, Understanding Global Migration, Central Asian Politics, Decentralised Governance in Kerala, Shakespeare and Politics, Global Governance

Semester 4: Core Courses: Modern Political Theory, Issues in International Politics, Issues in Indian Politics, Dissertation

Generic Courses (GC): India and the World, Environment, Development and Politics, Human Rights in India, China and world, Refugees and Forced Migration, Science and Technology in International Relations

M A Public Administration

Semester 1: Discipline- Core Papers: Theories and Concepts of Public Administration, Indian Government and Politics, Comparative Administration, Human Resource Management and Personnel Administration

Semester 2: Core Papers: Issues in Indian Administration, Research Methodology, Administrative Thinkers I, Development Administration. Discipline Specific Elective (DE): Labour Laws in India, Governance in Kerala, E-Governance, Public Systems Management in India, Ethics in Governance, Administrative Law, Police Administration in India, Criminal Justice System in India, Corporate Governance in India

Semester 3: Core Papers: Administrative Thinkers II, Local Governance in India, Public Policy Analysis. Discipline Specific Elective (DE): Disaster Management, State and Political Theory, Human Rights and Public Administration, Marketing and Materials Management, Tribal Administration, Public Health Administration in India, Social Groups and Welfare Administration, Environmental Administration

Semester 4: Core Papers: Principles of Governance, Financial Administration, Public Policy Making in India, Dissertation

M A Politics, International Relations and Diplomacy

Semester 1: Discipline- Core Papers: Indian Government and Politics, Modern Political Analysis, International Political Economy. Discipline Specific Elective (DE): French Language and Political System of France, German Language and Political System of Germany, Global Health Security, The US Government: Law and Politics, Political Geography, Peace and Conflict Analysis, Introduction to International Law

Semester 2: Core Papers: India's Foreign Policy, Modern Political Thought, Research Methodology. Discipline Specific Elective (DE): French Language and Foreign Policy of France, German Language and Foreign Policy of Germany, Politics of South Asia, Foreign Policy of United states, Democracy, Elections and Voting Behaviour, Politics of Climate Change, Politics of Global South, Laws of International Peace and Security, International Security: Traditional and Non- traditional approaches, Human Security

Semester 3: Core Papers: Comparative Politics, Theories in International Relations, Theory and Practice of Diplomacy. Discipline-Specific Elective (DE): United Nations Organisation and World Peace, Science and Technology in International Relations, Global Migration, Contemporary West Asian Politics, Latin American Politics, India and International Organisations, Maritime Security, Space Security, French Language and Indo-French Relations, German: Language and Indo-German Relations

Semester 4: Core Papers: Modern Political Theory, Issues in International Politics, Issues in Indian Politics, Dissertation

Generic Courses (GC): India and the World, Environment, Development and Politics, Human Rights in India, China and the world, Refugees and Forced Migration, Science and Technology in International Relations

M.Phil Political Science

Semester 1: Contemporary Political Theories, International Politics, Research Methodology. **Semester 2:** Dissertation

Research

PhD Programme Full time/Part time

The Department has very strong record in research. It has already produced 161 Ph.Ds. Areas of Specialization: International Studies, Area Studies, Human Rights, Human Security, Maritime Security, Indian Administration, Kerala Politics, and Local Self Government Institutions.

Department-wise Research Infrastructure

Full-fledged Library with a collection of more than 25000 books and 25 Journals

Air-conditioned Research Project Room with computer and internet facilities, E resources.



Department of Psychology (Est. 1957)

Ph: 0471 2308304; Email: psydepartment1956@gmail.com

Faculty

Dr. Bindu P., Associate Professor & Head (Email: bindupsycho1967@keralauniversity.ac.in; Ph: :9447769036)

Dr. H Sylaja, Professor (Email: sylasurash@gmail.com; Ph: 9387058048)

Dr. Jasseeer J., Associate Professor (Email: drjasseeerj@keralauniversity.ac.in; Ph: 9447221421)

Dr. Tissy Mariam Thomas, Assistant Professor (Email: tissy.mariam@keralauniversity.ac.in; Ph: 9945370365)

Dr Johnson R, Assistant Professor (Email: johnsonr@keralauniversity.ac.in; Ph: 9447345097)

Mr Sujith Babu, Assistant Professor (Email: psy.sujith@gmail.com; Ph: 8547281985)

Dr. Archana Chandran., Asst. Professor on contract (Email: archanasekhar5393@gmail.com; Ph: 9746011711)

Mrs Anupama. S ., Asst. Professor on contract (Email: sadasivan.anupama@gmail.com; Ph: 8547333086)

Brief Profile

The Department of Psychology was started in 1957 in the University College campus at Palayam. In 1960, the Department was shifted to its present campus at Kariavattom. Dr. E. I. George, a disciple of the famous psychologist H.J Eysenck was the founding head of the department. Dr. George held the post of Professor and Head till his retirement in 1984. Being the pioneering Psychology Department in the State, the department is unique in terms of its legacy and established traditions.

The Post graduate programme was started at the Department in 1957-58 with an initial intake of six students (four men and two women). The first MPhil programme was started in 1990 in Consulting Psychology and second MPhil specialization was started

in 2008 in Learning Disabilities. The PhD programme was offered since 1958 and Post Doc programme since 2003.

PROGRAMMES OFFERED

M.Sc. Applied Psychology

Semester 1: PSY-CC-511:Psychological Processes- I; PSY-CC-512: Quantitative Research Methods, PSY-CC-513: Personality & Personal Growth; PSY-CC-514: Psychological Testing & Measurement; PSY-CC-515: Experimental Psychology (Practical).

Semester 2: PSY-CC-521:Psychological Processes- II; PSY-CC-522:Qualitative Research Method; PSY-CC-523:Psychological Testing (Practical). Discipline-Specific Electives (DE):PSY-DE-524:Physiological Psychology;PSY-DE-525: Educational Psychology;PSY-DE-526:Organizational Behavior

Semester 3: PSY-CC-531:Counselling Psychology; PSY-CC-532:Psychopathology;PSY-CC-533:Advanced Social Psychology. Discipline-Specific Electives (DE):PSY-DE-534: Advanced Neuropsychology; PSY-DE-535: Assessment in Educational Settings; PSY-DE-536: Human Resource Development

Semester 4: PSY-CC-541:Dissertation; PSY-CC-542: Internship, Discipline-Specific Electives (DE):PSY-DE-543: Therapeutic Intervention Strategies, PSY-DE-544: Psychological Interventions in Educational settings, PSY-DE-545: Assessment and Intervention in Organizational Settings

Skill Enhancement Elective (SE): PSY-SE-501:Academic Community Engagement; PSY-SE-502: Psychologist: Personal and Professional Development

Generic Courses (GC): PSY-GC-501:Media Psychology; PSY-GC-502: Sports Psychology; PSY-GC-503: Stress Management; PSY-GC-504: Psychology of Crime; PSY-GC-505: Cyberpsychology;PSY-GC-506: Positive Psychology; PSY-GC-507: Psychological First Aid; PSY-GC-508: Psychology of Gender; PSY-GC-509: Consumer Behaviour and Marketing; PSY-GC-510: Environmental Psychology ;PSY-GC-511: Forensic Psychology; PSY-GC-512: Health Psychology; PSY-GC-513: Indian Psychology; PSY-GC-514: Psychology in Perspective; PSY-GC-515: Contemporary Issues in Psychology.

Programme Specific Outcomes (PSO)

- Develop a strong theoretical foundation of psychological knowledge.
- Integrate psychological knowledge for developing a student with adaptability, feasibility and self-regulation.
- Illustrate competency in conversing with diverse audience.
- Manage scientific information from various sources.
- Prepare a student to deliver quality mental health service observing the professional and ethical standards.
- Design and perform psychological tests for appropriate behavioral training and effective interventions in multiple settings.

- Design research projects in response to emerging needs of the community.
- Relate empathetically to people of diverse groups to ensure equity in providing psychological services.
- Engage responsibly with the environment and promote sustainability.
- Support employability through professional training and organizational collaboration.
- Recommend advocacy programs to disseminate research outcomes for community empowerment.
- Develop an academically engaged student community with the scientific acumen to advance the (contextual/global) evolution of psychology.

M.Phil. Consulting Psychology

Semester 1: Paper I -PSY-711-Research Methodology (4 Cr), Paper II-PSY-712- Psychological testing and Measurement (4 Cr), Paper III- PSY-713(i)- Clinical Psychology (4Cr)/ PSY-713(ii)- Organizational Psychology (4 Cr)/ PSY-713(iii)- Educational Guidance and Student Services(4Cr)

Semester 2: PSY 721-Dissertation(20 Cr)

M.Phil. Learning Disabilities

Semester 1: Paper I -PSY(LD)711-Research Methodology (4 Cr), Paper II-PSY(LD)- Learning Disabilities (4Cr), Paper III-PSY(LD)713-Dyslexia, Reading and Brain (4 Cr), Paper IV-PSY(LD)-714- Assessment and Remediation Skills (Practical)(2Cr), Paper IV- PSY715-Case Studies (2 Cr).

Semester 2: PSY(LD) 721-Dissertation(20 Cr)

Research

The Department offers Ph.D. in Psychology .The areas of research are multidisciplinary including Clinical Psychology, Educational Psychology, Organizational Behaviour, Health Psychology, Cyber Psychology, Geriatric Psychology etc. Since its inception, the Department has produced more than 170 PhDs, published over 300 scientific papers and developed as well as standardized 200 psychological tests.

Research Infrastructure

Library, Computer Lab, Psychology Lab, Centre for Geriatric Studies, Care Counselling and Testing Centre, Psychology Consultancy Cell and Learning Disability Clinic.

Special Facilities in Dept. of Psychology

In 2017, in 2017, the Department established Centre for Geriatric Studies which offers **Post Graduate Diploma in Psychological Counselling**.

The Department has a well-equipped laboratory, and modern library with an array of over 10,000 books and journals.

Other Services

In 2019, the Department established Care Counselling and Testing Centre to offer counselling and assessment support at University campus.

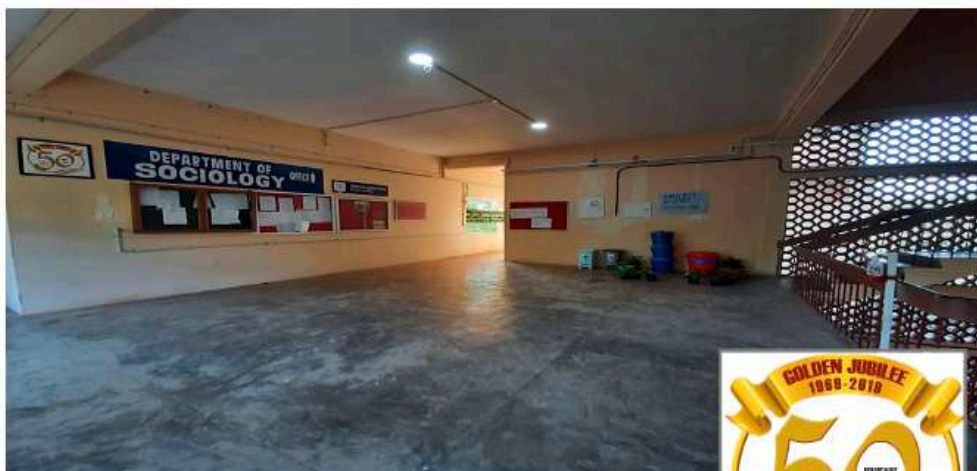
The Department also offers additional facilities such as Psychology Consultancy Cell and Learning Disability Clinic.

Alumni

The department has a strong and proficient network of alumni called 'Orma'. Orma organizes yearly meetings and encourages impactful interaction of distinguished alumni with the students and research scholars. Some of the distinguished alumni of the department are, renowned Clinical Psychologist Dr.P.M. Mathew Vellore; Dr. Sivakumar., Rtd. Director, NIMH; Dr. Subramonian, Scientist, DRDO; Dr. Shabu B.Raj, Scientist, DRDO; academicians including Dr. Krishna Prasad Sreedhar, Dr.V. George Mathew; Dr. John Baby, Dr. Bhasi Sukumaran to name a few.

Secretary: Harikrishnan Alingal; email hadecio@gmail.com; Mob: 9895825310





Department of Sociology (Est. 1964)

Ph: 0471 2308425; Email: deptsocku@gmail.com



Faculty in Sociology

Dr. Antony Palackal, Associate Professor & Head (Email: antonypalackal@gmail.com; Ph: 9447739189)

Dr. Sandhya R.S., Professor (Email: sandhyasgtds@gmail.com; Ph: 9496114094)

Dr. Pushpam M., Associate Professor (Email: pushpasocio@gmail.com; Ph: 7907232436)

Dr. Bushra Beegom R.K., Assistant Professor (Email: bushrabeegom@gmail.com; Ph: 9995446165)

Dr. M.S. Jayakumar, Assistant Professor & Director, Centre for Diaspora Studies (Email: jayanmadhavan@gmail.com; Ph: 9847564447)

Faculty in MSW

Dr. V.N. Sreekumar. Contract Lecturer & Coordinator (Email: vnsreekumar01@gmail.com; Ph: 9446905608)

Smt. Beenamol S.G., Guest Lecturer (Email: beenamolsg@gmail.com; Ph: 9495766330)

Smt. Daliya R. Chandran (Email: daliaspectrum@gmail.com; Ph: 9447088761)

Dr. Abdul Basith (Email: basithcg@gmail.com; Ph: 8130532313)

Brief Profile

Established in 1969, the department as an advanced Centre, has been at the forefront of teaching-learning, extension and research in Sociology in the State and has produced generations of social scientists working across the globe. The department conducts two full-fledged PG programmes, Sociology and Social Work, MPhil in Sociology, PhD and Postdoctoral programmes in Sociology and Social Work, and thus remains as one of the largest departments in the University.

The Department celebrated its Golden Jubilee in 2019, and organized the historic event of 45th All India Sociological under the auspices of the University of Kerala with all its elegance and charm.

Presently, two international and three national research projects are being carried out under the auspices of the department and it houses the Centre for Diaspora Studies of the University. The Department has been providing consultancy services to various government and public sector organizations such as Inter State Migration in Kerala in association with GIFT; Social Audit for Rural Development in association with MGNREGP; Socio-Economic Survey of Street Vendors in association with Trivandrum Corporation as part of the National Urban Livelihood Mission Programme (NULM), Old Age related Programme and Book Publication in association with State Resource Centre. In the year 2019, the department celebrated its Golden Jubilee marking its legacy in practice of Sociology and Social Work in the State.

Some of the salient features of the Department include, vibrant academic ambience, innovative teaching and learning, international and national research projects and academic events, interaction with eminent scholars across, Enrolment of International students,

PROGRAMMES OFFERED

MA Sociology

Semester 1: SOC-CC-511: Classical Sociological Tradition, SOC-CC-511: Sociology of Indian Society, SOC-CC-511: Cultural Anthropology, SOC-CC-514: Social Research Methodology. Ability Enhancement Course (AE): SOC-AE-501: Soft-skill Imparting and Learning for Professional Advancement (SILPA)

Semester 2: SOC -CC-521: Advanced Sociological Theories, SOC -CC-522: Sociology of Development. Discipline-Specific Elective (DE): SOC-DE-524: Sociology of Excluded Communities, SOC-DE-525: Sociology of Health. Ability Enhancement Course (AE): SOC-AE-502: Participatory Rural Appraisal (PRA)

Semester 3: SOC-CC-531: Post-structural and Postmodern Theories, SOC-CC-532: Urbanization and Social Transformation, SOC-CC-533: Gender and Society. Discipline-Specific Elective (DE): SOC-DE-534: Social Gerontology, SOC-DE-535: Population and Society. Ability Enhancement Course (AE): SOC-AE-503: Academic Writing and Publishing in Social Sciences

Semester 4: SOC-CC-541: Science, Technology and Society, SOC-CC-542 Environment and Society; SOC-CC-543: Project Planning and Management, SOC-CC-544: Dissertation

Generic Elective (GE)

SOC -GE-501: Sociology of Migration, SOC -GE-502: Sociology of Information and Communication Technology, SOC -GE-503: Women's Studies, SOC -GE-504: Urbanization and Urban Space, SOC -GE-505: Fundamentals of Gandhian Thought, SOC-GE-506: Sociology of Ageing

Programme Specific Outcomes (PSO)

- Develop skills in sociological imagination, critical thinking and analysis on various social phenomena and emerging social problems
- Acquire concepts, theories and skills relevant to Sociology as a scientific discipline
- Comprehend fundamental theoretical traditions in Sociology and are enabled to build theoretical understanding on changing social reality
- Gain knowledge about research methodology in Sociology and are equipped to apply appropriate methods in studying social phenomena
- Become proficient in applying sociology so as to enhance career prospects

Master of Social Work (MSW)

Semester 1: MSW-CC-511: Development of Social Work Profession, MSW-CC-512: Social Sciences for Social Work, MSW-CC-513: Social Case Work, MSW-CC-514: Social Work Research, MSW-CC-515: Fieldwork Practicum I. Ability Enhancement Course (AE): MSW-AE-501: Soft-skill Imparting and Learning for Professional Advancement (SILPA)

Semester 2: MSW-CC-521: Working with Groups and Communities, MSW-CC-522: Theory and Practices of Counseling, MSW-CC-523: Statistics and Scaling Techniques, MSW-CC-524: Fieldwork Practicum- II. Discipline Specific Electives (DE): MSW-DE-525: Developmental Psychology, MSW-DE-526: Crime and Correctional Administration. Ability Enhancement Course (AE): MSW-AE-502: Organizational and Managerial Acquisition Skills

Semester 3: Core Specialization (CS): MSW-CS-533(i): Medical and Psychiatric Social Work, MSW-CS-533(ii): Psychiatric Information for Social, Work, MSW-CS-534(ii): Environment and Development Social Work Practice. Discipline Specific Elective (DE): MSW-DE-535: Social Legislation and Social Welfare Administration. Ability Enhancement Course (AE): Participatory Rural Appraisal (PRA)

Semester 3: MSW-CC-541: NGO Management, MSW-CC-542: Project Planning and Implementation, MSW-CC-543: Field Work Practicum IV, MSW-CC-544: Internship , MSW-CC-545: Dissertation

Semester 4: Core Specialization (CS): MSW-CS-546(i): Health Social Work Practices Settings, MSW-CS-546(ii): Disaster management, MSW-CS-547(i): Community Health and Health care services, MSW-CS-447(ii): Rural and Urban Community Development

Programme Specific Outcomes (PSO)

- **Professional Social Worker:** Identify as a professional Social Worker by gaining mastery over factual , conceptual procedural, meta-cognitive ,scientific and systematic psycho social knowledge domain.
- **Social Worker in Multicultural Settings:** Ability to apply Social Work ethical principals to guide Social Work practive practice in diverse and multicultural settings
- **Social Work Skills:** Assess, intervene and evaluate with individuals, families, groups, organization and communities with a positive, creative and non-possessive relationship

- **Social Work Research Praxis:** Engage in research-informed practice and practice-informed research and administer, manage and guide professional Social Work institutions and communities
- **Social Justice and Human Rights.** Advocate human rights and social and economic justice in as Professional Social Work Practitioner and become agents of social transformation

M.Phil. Sociology

Semester 1: Paper I - SOC711: Current Trends in Sociological Theories (Cr), SOC712: Research Methodology (Cr), SOC713: Kerala Society, Culture and Change (Cr)

Research

The Department offers Ph.D. in Sociology and Social Work and the areas of research are multidisciplinary including cultural studies, development, gender, socio-economic and political studies, Local Self Governance and Management, Health, gerontology, Environmental studies, contemporary social phenomenon and issues etc.

Consultancy Services

Department offers consultancy in the following areas: Migration and Related Issues; Development and Displacement, Resettlement, Rehabilitation; Social Gerontology; Monitoring and Evaluation of Old Age Homes, Elder Issues etc; Social Intervention among Disaster affected People; Issues of Excluded Communities; Gender Studies; Environmental Issues; Non-Governmental Organizations; Participatory Rural Appraisal; Need Assessment studies; Evaluation studies; Social Audit

Alumni

The department has vibrant Alumni Association – ALMiSOC - that cherishes its ongoing interaction and engagement with the department and support and collaborate with its curricular, extra-curricular and programmes and infrastructural developments.

Some prominent Alumni Members: Dr. L. Tharabhai, Professor & Head (Rtd), Dept. of Sociology, Madurai Kamaraj University, TN & Formerly Member, ICSSR, New Delhi, P.M. Nair, IPS, New Delhi, Dr. Lekshmi V. Nair, Associate Professor and Head, Dept. of Humnites, IIST, Dr. Biju Vincent, Associate Professor and Head, Dept. of Sociology, Sri Sankaracharya University of Sanskrit.

President: Dr. Jessy George, Formerly, Asst. Director, ICSSR, New Delhi; **Secretary:** Dr. Nisha V.I., ICDS Officer, Social Justice Department, Govt. of Kerala, Mobile: 9496753045

Green Protocol & Green Park: The Department of Sociology has already initiated the efforts for premise beautification in connection with the “Golden Jubilee Celebrations - 2019” and set up *Chola* – Green Park, having *Patasala* – Open class room, Open Stage, natural seating, Badminton Court, and fruit trees. The Department is the first University Department to implement complete Green Protocol with Zero Waste Management in its premise. *Gramyatha* is the Outreach and extension programme, onsite training, eco-friendly environment.



Department of Computer Science (Est. 1985)

Ph: 0471 2308360; Email: hod.dcsku@gmail.com

Faculty

Dr. D. Muhammad Noorul Mubarak, Assistant Professor and Head (Email: noorul.muby@keralauniversity.ac.in, dmncse@gmail.com; Ph: 9446100484).

Dr. Vinod Chandra S. S., Professor (Email: vinod@keralauniversity.ac.in; 9447271806).

Dr Aji S., Associate Professor (Email: aji@keralauniversity.ac.in; Ph: 9895474042).

Philomina Simon, Assistant Professor (Email: philominasimon@keralauniversity.ac.in; Ph: 8137806393/8893769627).

Ms. Aswathy A.L., Lecturer on Contract (Email: aswathy@keralauniversity.ac.in; +919497846114)

Ms. Rhythu N Raj, Lecturer on Contract (rhythu@keralauniversity.ac.in, +919747778622)

Ms. Shyja Rafeek S., Lecturer on Contract (Email: shyja@keralauniversity.ac.in; +918943199700).

Mr. Faizal N., Lecturer on Contract (Email: faizal@keralauniversity.ac.in, 9895441543).

Brief Profile

The Department of Computer Science, University of Kerala, was established in 1985. It offers M. Sc. in Computer Science, M. Sc. Computer Science (with Specialization in Artificial Intelligence) M.Tech. in Computer Science (with specialization in Digital Image Computing), M. Phil. Computer Science and Ph.D. in Computer Science. The Department gives at most importance on Research and Development besides regular teaching. Over the past few years the department has acquired national and international importance. The department has a track record of producing highly skilled professionals in the field of Computer Science. Many of the alumni are well placed in Institutes of National Importance, Central/State universities, R&D organizations like ISRO, CDAC, Educational Institutions and different MNCs. The department has produced more than 45 Ph.D.s so far. The students and faculty

members have published a good number of research papers in reputed International Journals/Conference Proceedings published by IEEE, Springer, Elsevier, Wiley etc. Many of our students and faculty members have received national and international recognitions. Department of Computer Science is the only department in Kerala to bag three times the National Award for Best M. Tech. thesis from Indian National Academy of Engineering (INAE), New Delhi. The faculty members of the department have received prestigious awards such as AICTE Career Award for Young Teachers, IEI Young Engineer Award, SSI Young System Scientist Award etc. to name a few.



Department of Computer Science is the hub for Artificial Intelligence related research and projects. Department offers placement to the M. Sc. and M. Tech. students. We have prominent alumni working in different R&D, Software industry and Academic field. Department is having a library with more than 4000 books and journals. The library system is fully computerized and bar-coded with online information for students and staffs. Department is fully equipped with 8 different laboratories for M. Sc. (CS), M.



Sc. (CS-AI), M. Tech., M. Phil. and research students including High Performance Computing Lab. Nowadays, Artificial Intelligence is a key term in the computer science field where the real world problems are solved in an intelligent manner with Artificial Intelligence. These are the key technologies in the current era because of the advances in the

processing or computing power and the enormous amount of data that is pumped in daily in the web world. The department also aims at doing collaborative research with various national and international institutions. Our department has the High performance computing facility performing computationally intensive applications based on Machine Learning and Deep Learning.

PROGRAMMES OFFERED

M.Sc. Computer Science

Semester 1: CSC-CC-511: Mathematical Foundations of Computer Science; CSC-CC-512: Design and Analysis of Algorithms; CSC-CC-513 Distributed Systems; CSC-CC-514 Design and Analysis of Algorithms Lab.

Semester 2: CSC-CC-521 Compiler Construction; CSC-CC-522 Software Engineering for Industry; CSC-CC-523 Theoretical Foundations of Machine Learning; CSC-CC-524 Machine Learning Lab.

Discipline Specific Electives (DE); CSC-DE-525(i) Digital Image Processing; CSC-DE-525(ii) Natural Language Processing; CSC-DE-525(iii) Block Chain Technology; CSC-DE-525(iv) Computational Biology; CSC-DE-525(v) Cyber Security and Cyber Law.

Semester 3: CSC-CC-531 Database Systems for Big Data; CSC-CC-532 Database System Lab; CSC-CC-533 Case Study; CSC-CC-534 Seminar.

Discipline-Specific Elective (DE): SC-DE-535(i) Foundations of Robotics ;CSC-DE-535(ii) Internet of Things; CSC-DE-535(iii) Cloud Computing; CSC-DE-535(iv) Intelligent Agent based computing; CSC-DE-535(v) High Performance Computing; CSC-DE-536(i) Optimization Techniques; CSC-DE-536(ii) Social Network Analysis; CSC-DE-536(iii) Artificial Intelligence in Cyber Security; CSC-DE-536(iv) Smart Applications; CSC-DE-536(v) Nature Inspired Computing

Semester 4: CSC-CC-541 Dissertation and Viva-Voce.

Skill Enhancement Elective (SE): CSC-SE-501 Entrepreneurial Skills and Scientific Writing.

Generic Courses (GC): CSC-GC-501 Introduction to Scilab, CSC-GC-502 Computational Social Science.

Programme Specific Outcomes (PSO)

- Develop advanced knowledge in Advanced Database Management Systems, Data Mining, Algorithms, Distributed systems and Information Security related courses.
- Provide students' mathematical and technical skill set of Machine Learning, Data Analytics, Cloud Computing, and Pattern Recognition, thereby facilitating them for developing intelligent system based on these technologies.
- Develop the skill set for industry ready professionals to join the Information Technology field.
- Prepare and motivate students for doing research in Computer Science and interdisciplinary fields.
- Acquire flair on solving real world Case study problems.
- Hands on experience on doing experiment for solving real life problems using advanced programming languages.
- Allow graduates to increase their knowledge and understanding of computers and their systems, to prepare them for advanced positions in the workforce.
- Develop cutting edge developments in computing technology and contemporary research for society.
- Possess the ability to take up advanced innovative development work in the industry as well as to pursue higher research degree qualifications.
- Provide great flexibility through extensive choices of electives to respond to rapidly changing industry needs as well as their interests
- Industrial-style methods of analysis, design, implementation, testing and documentation in software development
- Produce a new breed of computer science graduates that have a strong mathematical background along with project management skills.

- Graduates with strong technical expertise, and ability to work effectively in interdisciplinary teams and be able to tackle problems that require both technical and non-technical solution.

M.Sc. Computer Science (with Specialization in Artificial Intelligence)

Semester 1: CSA-CC-511 Mathematics of Artificial Intelligence; CSA-CC-512 Autonomous Systems and Knowledge Representation; CSA-CC-513 Algorithms-Complexity and Optimization; CSA-CC-514 Artificial Intelligence Lab.

Semester 2: CSA-CC-521 Theoretical Foundations of Machine Learning; CSA-CC-522 Analytics and Data Science; CSA-CC-523 Database Systems for Big Data; CSA-CC-524 Machine Learning Lab.

Discipline-Specific Elective (DE): CSA-DE-525(i) Digital Image Processing; CSA-DE-525(ii) Natural Language Processing; CSA-DE-525(iii) Blockchain Technology ; CSA-DE-525(iv) Computational Biology ; CSA-DE-525(v) Cyber Security and Cyber Law.

Semester 3: CSA-CC-531 Advanced Learning Models; CSA-CC-532 Machine Intelligence Lab; CSA-CC-533 Case Study; CSA-CC-534 Seminar.

Discipline-Specific Elective (DE) : CSA-DE-535(i) Foundations of Robotics; CSA-DE-535(ii) Internet of Things ; CSA-DE-535(iii) Cloud Computing; CSA-DE-535(iv) Intelligent Agent based computing; CSA-DE-535(v) High Performance Computing ; CSA-DE-536(i) Optimization Techniques; CSA-DE-536(ii) Social Network Analysis ; CSA-DE-536(iii) Artificial Intelligence in Cyber Security; CSA-DE-536(iv) Smart Applications ; CSA-DE-536(v) Nature Inspired Computing; AQB-DE-536: Fisheries extension, Economics, Marketing & IPR.

Semester 4: CSA-CC-541 Dissertation and Viva - Voce

Skill Enhancement Elective (SE): CSA-SE-501 Entrepreneurial Skills and Scientific Writing.

Generic Courses (GC): CSA-GC-501 Introduction to Machine Learning and Applications; CSA-GC-502 Artificial Intelligence and Daily Life.

Programme Specific Outcomes (PSO)

- Develop advanced knowledge in Artificial intelligence, Intelligent Agents, Advanced Machine Learning, Artificial Intelligence algorithms, applications of Artificial Intelligence Management Systems and Information Security related courses.
- Provide students' mathematical and technical skill set of Machine Learning, Data Analytics, Pattern Recognition and thereby facilitating them for developing intelligent system based on these technologies.
- Develop the skill set for industry ready professionals to join the Information Technology field.
- Prepare and motivate students for doing research in Computer Science and Artificial Intelligence.
- Acquire flair on solving real world Case study problems.
- Hands on experience on doing experiment for solving real life problems using

- advanced programming languages.
- Allow graduates to increase their knowledge and understanding of computers and their systems, to prepare them for advanced positions in the workforce.
- Develop cutting edge developments in computing technology and contemporary research for society.
- Possess the ability to take up advanced innovative development work in the industry as well as to pursue higher research degree qualifications.
- Provide great flexibility through extensive choices of electives to respond to rapidly changing industry needs as well as their interests.
- Industrial-style methods of analysis, design, implementation, testing and documentation in software development.
- Produce a new breed of computer science graduates that have a strong mathematical background along with project management skills.
- Graduates with strong technical expertise, and ability to work effectively in interdisciplinary teams and be able to tackle problems that require both technical and non-technical solution.

M.Tech. Computer Science (with Specialization in Digital Image Computing)

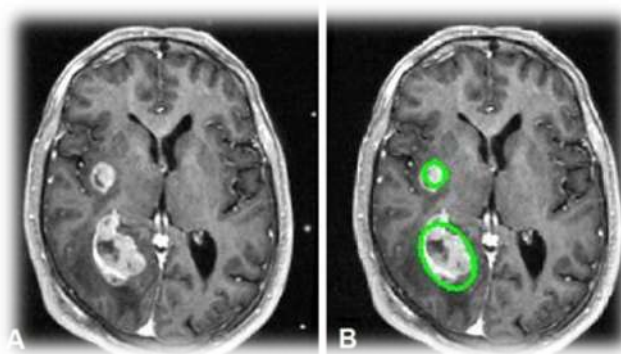
Semester 1: CSM-CC-611 Mathematics for Image Processing; CSM-CC-612 Digital Image Processing; CSM-CC-613 Machine Learning Techniques; CSM-CC-614 Image Processing Laboratory.

Discipline-Specific Elective (DE): CSM-DE-615(i) High-Performance Computing; CSM-DE-615(ii) Computational Cognitive Neuroscience; CSM-DE-615(iii) Advanced Natural Language Processing; CSM-DE-615(iv) Cyber Security and Cyber law; CSM-DE-615(v) Digital Video Processing; CSM-DE-615(vi) Computational Geometry.

Semester 2:

CSM-CC-621 Advanced Computation Models; CSM- CC -622 Data and Image Compression; CSM- CC -623 Image Analysis and Computer Vision; CSM- CC - 624 Computer Vision Laboratory.

Discipline-Specific Elective (DE): CSM-DE-625(i) Robotics and Intelligent System Design; CSM-DE-625(ii) Biomedical Image Processing; CSM-DE-625(iii) Visual Cryptography; CSM-DE-625(iv) Nature Inspired Computing and Optimization; CSM-DE-625(v) Reinforcement Learning Techniques



Semester 3: CSM-CC-631 Research Methodology; CSM-CC-632 Dissertation (Part-I)

Semester 4: CSM-CC-641 Dissertation (Part-II)

Skill Enhancement Elective (SE): CSM-SE-601 Entrepreneurial Skills and Scientific Writing.

Generic Courses (GC): CSM-GC-601 Basics of Digital Image Processing.

CSM-GC-602 Introduction to Scilab; CSM-GC-602 Artificial Intelligence and Applications.

Programme Specific Outcomes (PSO)

- Provide the graduates flair of research by making them to do research-oriented projects.
- Possess the skill set to develop and implement the algorithms in computer science and the interdisciplinary areas.
- Provide advanced technical skills in the area of Image Processing and Machine Intelligence to graduates who can perform better as an individual or in a team; through their critical analytical and research skills.
- Develop the ability to apply mathematical and engineering skills in a pragmatic manner to solve problems.
- Develop an ability to identify, critically analyze, formulate and solve research problems in Digital Image Processing, Medical Image Processing.
- Develop the skills for writing technical and scientific research publications.
- Able to solve the real life problems with machine learning and deep learning techniques.
- Possess the ability to specialize in Image Processing, Intelligent systems.
- Exposure to learn new tools and programming languages including MATLAB, Python, OpenCV, LaTeX, etc.

M.Phil. Computer Science

Semester 1: Paper I – COS 711: Research Methodology; Paper II – COS 712: Machine Intelligence; Paper III – COS 713(i): Big Data Analytics; COS 713(ii): Information Security; COS 713(iii): Information Theory and Coding and COS 713(iv): Medical Image Processing. **Semester 2:** COS 721 Dissertation & Viva – Voce.

Research

The Department offers Ph.D. in Computer Science and the areas of research are multidisciplinary including Image Processing, 3D reconstruction, Data Mining, Medical Image Processing, Machine Learning, Deep learning, Operating System, Artificial Intelligence, Computer Vision.

Student Activities

COSSA: Computer Science Students Association (COSSA) is a student organization formed by the Department for managing and organizing various co-curricular activities. It is guided by the Head of the Department. It organizes timely seminars, workshops, festival celebrations and other activities.

IEEE Student Branch: A non-profit organization, IEEE is the world's leading professional association for the advancement of technology. Through its global membership, IEEE is a leading authority on areas ranging from aerospace systems, computers and telecommunications to biomedical engineering, electric power and consumer electronics among others. Members rely on IEEE as a source of technical and professional information, resources and services. To foster an interest in the engineering

profession, IEEE also serves student members in colleges and universities around the world.

Alumni Association (COMSAAK)

The annual alumni association (COMSAAK) conducts alumni gatherings regularly in our department to welcome our alumni members back to department. For the past ten years, Computer Science Alumni Association has been strengthening the grit and determination of the current students to reach academic excellences. Alumni gatherings are conducted to strengthen the bond between the alumni and the ongoing current students. Alumni members help the students of the department to take part in the placement activities and also to guide them regarding the industry standards. There are Alumni Proficiency awards for the outgoing students every year instituted by the Alumni of our department.

Start-up: 'Auggen21' is the startup from the Department of Computer Science, University of Kerala under KUTBSC.

Centre for Data Science and Information Processing

The Centre is intended to do the cutting edge research in data science and information processing to address the different data-centric problems which may directly or indirectly support social enrichment. The Centre can provide intelligent inputs to the government bodies and other organizations for better planning and implementation of various government policies and schemes.

Center for Artificial Intelligence

The University has a significant role in knowledge generation and knowledge sharing for other organizations. We have to deliver applications based on Research on artificial intelligence and its performing areas. From major resources we have kept digital data and the full-fledged analysis, the use of Artificial Intelligence and Machine Learning techniques can be employed.

Alumni

The Department of Computer Science has formed an alumni association, The Computer Science Department Alumni Association, University of Kerala Kariavattom, (COMSAAK), in the year 2003. Department is conducting the Annual Alumni meet in December every year and formulating new plans and team.

Secretary: Dr. Vishnukumar, +919497359253,
vks@cusat.ac.in/vishnukumars2006@gmail.com

Distinguished Alumni: Dr. B Valsa (Rtd. Deputy Director, VSSC, Trivandrum), Dr. R. Rajesh (Head of the Department, Central University of Kerala), Jimmy Jose (Associate Professor, National Institute of Technology, Calicut), Dr. Madhu S. Nair (Associate Professor, Department of Computer Science and Engineering, CUSAT), Dr. Madhu S. Nair (Associate Professor, Department of Computer Science and Engineering, CUSAT), Dr. Jeny Rajan (Assistant Professor, Department of Computer Science and Engineering, NIT, Surathkal, Karnataka).



Department of Computational Biology & Bioinformatics (2005/2011)

Phone: 9446928759; Email: Website: <https://dcb.res.in/>

Department of Computational Biology & Bioinformatics (DCB) is a new generation inter-disciplinary department for teaching and research. It has made modest and steady progress since its establishment as Centre for Bioinformatics in 2005. The centre started its MPhil programme in 2005. UGC provided support for starting an innovative MSc Computational Biology programme in 2007. Meanwhile, the first batch of MPhil students made local history by launching a start-up company within the campus under the Industry Incubation scheme. The Dept. of Biotechnology granted the BIF status to the centre and a consequent annual funding. A separate building for the centre was opened in 2007. The centre was upgraded into a State Inter-University Centre of Excellence in Bioinformatics in 2010, with a grant of Rs. 3 crores. On May 27, 2011, the Chancellor of the University of Kerala gave assent to amendment No. 199 in University Statutes paving way for the department status which came into force on Nov 1st 2011.

Research is the top priority activity of the department and the academic programmes of the Department are a blend of computational and life science areas. Department's doctoral programme has so far produced 25 PhDs. Consultancy services to clients such as Microsoft, Biothera Health Care Group, Saxon Systems & Solutions Pvt. Ltd., Govt. Ayurveda Medical College, Trivandrum etc. have been successfully delivered, in addition to many minor consultancies on computational drug design. 2012 saw the launching of a new MPhil in Computer Aided Drug Design. Centre of Excellence status in Computational Drug Discovery & Ayur-informatics under a scheme of Ministry of Human Resources Department, Govt. of India, was granted to this department. In 2019, permanent teaching posts have been sanctioned to the Dept.

Faculty

- Dr. Achuthsankar S. Nair, Professor & Head (Email: sankar.achuth@gmail.com)
- Dr. Biji C.L., Lecturer (Email: bijijomy@gmail.com)
- Dr. Sunitha P., Lecturer (Email: sunifeb12@gmail.com)
- Ms. Rani J. R., Lecturer (Email: rani1983@gmail.com)
- Ms. Shanitha A., Lecturer (Email: shanitha2002shaji@gmail.com)

PROGRAMMES OFFERED

MSc Computational Biology

Semester I: BIN-CC-511: Introduction to Life Sciences & Bioinformatics, BIN-CC-512: Applied Mathematics, BIN-CC-513: Python Programming, BIN-CC-514: Bioinformatics Lab I, BIN-DE-515: Soft skills and Life skills (E), BIN-DE-516: Web programming and Databases (E).

Semester II: BIN-CC-521: Machine Learning I, BIN-CC-522: Fundamentals of Molecular Biology, BIN-CC-523: Computational Genomics, BIN-CC-524: Bioinformatics Lab II, BIN-DE-525: Perl and BioPerl (E), BIN-DE-526: Negotiated Studies (E), BIN-DE-527: Soft Skills (Additional Skill Acquisition Course) (E).

Semester III: BIN-CC-531: Machine Learning II, BIN-CC-532: Computational Proteomics and CADD, BIN-CC-533: Advanced Topics in Computational Biology, BIN-CC-534: Bioinformatics Lab III, BIN-DE-535: Programming in R (E), BIN-DE-536: Seminar (E), BIN-DE-537: Soft Skills (Additional Skill Acquisition Course) (E).

Semester IV: BIN-CC-541: Project and Viva Voce

Programme Specific Outcomes (PSO)

- Life Science concepts (especially molecular biology) and skills relevant to CB & B
- Mathematical concepts and skills relevant to CB& B
- Concepts and skills in processing bio-sequence data
- Skill in designing and developing on-line databases
- Basic skill in designing and developing dynamic websites
- Basic wet lab skill and exposure to molecular biology experiments
- Advanced skill in selected industry-required programming language
- Thorough knowledge of basic concepts underpinning CB& B
- Moderate skill in using basic computation tools of CB& B
- Knowledge in the field of Machine/Deep Learning
- Skill in developing Deep Learning models for general/ CB&B problems
- Knowledge about scientific method and skill in research process
- Knowledge and skill to process DNA/RNA sequence data
- Knowledge and skill in computational drug design
- Basic in- silico laboratory skills relevant to CB & B
- Skill in designing & implementing medium-scale projects in CB& B
- Enhanced skills and attitudes for becoming a better learner, thinker, professional and a human being
- Awareness of emerging trends and concepts in CB & B

MPhil Bioinformatics & CADD

Semester I: BIN 711: Research Methodology, BIN 712: Introduction to Bioinformatics, BIN 713: Advanced Bioinformatics, BIN 714: Bioinformatics and Molecular Biology Lab, BIN 715: Applied Mathematics & Scientific Computing, BIN 716: Introduction to Informatics (E), BIN 717: Introduction to Biosciences (E). **Semester II:** BIN 721: Project & Viva Voce.

MPhil Computer Aided Drug Design (CADD)

Semester I: CAD 711: Research Methodology, CAD 712: Introduction to Bioinformatics, CAD 713: Advanced Topics in CADD, CAD 714: CADD and Molecular Biology Lab, CAD 715: Applied Mathematics & Scientific Computing, CAD 716: Introduction to Informatics (E), CAD 717: Introduction to Biosciences (E). **Semester II:** CAD 721: Project & Viva Voce.

Generic Course: BIN-GC-501: Introductory Bioinformatics

Research Areas

Protein-Protein interaction networks; Bio-sequence studies using DSP; Characterization of Hub proteins; Protein sub-cellular localization prediction; Plant transcriptomics; Systems Biology and Synthetic Biology; Transcription factor binding site and affinity prediction; Immuno-informatics of cancer; Small gene identification; Molecular evolution of RNA viruses; Computer aided drug design based on natural products; Investigations into non-coding DNA; Snake Venomics, Transcriptomics & Genomics; Beta- Glucan and longevity; Bio-sequence compression; Accurate scoring matrices for sequence alignment; Genome insights into eusocial insects

Research Infrastructure

The scientific infrastructure includes a state of the art informatics laboratory that provides Licensed Biovia Discovery Studio Software, and Online softwares – ITASSER, Cluspro and Swiss dock and a basic molecular biology lab with Biologic Duoflow Protein Purification System, UV-Spectrophotometer, Gel Doc, PCR, Inverted Microscope, Digital Microscope, Protein Detection Syatem etc.

Consultancy Services

The Department offers consultancy services in the following areas related to CADD.

Molecular modeling: for predicting unknown structure of a protein: (a) Homology modeling (Both DS and open source software); (b) De-novo modeling (open source software)

Molecular Docking: for analyzing target-ligand interaction: (a) Protein – Small molecules (DS); (b) Protein – Protein (DS and open source software like Cluspro); (c) Protein – DNA/RNA (DS)

ADME and toxicity prediction (Both DS and open source software such as PreADMET, OSIRIS Property explorer and Datawarrior): Molecular Dynamic Simulation, Microbiological studies; Phylogenetic Analysis



Department of Futures Studies (Est. 1990)

Ph: 0471 2305321; Email: kufutures@gmail.com

Faculty

Dr. K. Satheesh Kumar, Associate, Professor & Head (Email: kskumar@keralauniversity.ac.in; Ph: 9249438722)

Dr. Manoj Changat, Professor (Email: mchangat@keralauniversity.ac.in; Ph: 9446967394)

Dr. Thara Prabhakaran, Assistant Professor (Email: thara.dfs@gmail.com; Ph: 2305321)

Brief Profile

The department was established by the UGC in 1990 acknowledging the growing importance of Futures Studies as an academic discipline. Currently, the department is offering academic programmes, interdisciplinary M. Phil. in Futures Studies, M.Sc. Data Science, M. Tech. (Technology Management), UGC innovative programme Post Graduate Diploma in Knowledge Management apart from Ph. D. programme. As well as its faculty with international exposure and diverse backgrounds, the department draws academics and expertise from other research institutes as well as industry offering students an excellent choice. Many of the alumni are currently occupying the middle and top-level positions in various multinational companies, state and central government departments and organisations and many are employed abroad.

The department is carrying out interdisciplinary research in various fields including Technology Management and Forecasting, System Dynamics, Mathematical Modeling and Simulation, Knowledge Management and Discrete Mathematics, Data Analytics etc. The research contributions of the department in the area of Discrete Mathematics have attracted international attention. The Department has been partnering with University of Maribor, Slovenia and Erasmus University, Netherlands and is having exchange programs for the last seven years.

The department is also actively engaged in consultancy services. In order to facilitate the service, a consultancy centre named Consultancy Group for research and Forecasting (C-GRAF) was established in 1992. The prime objective of the centre is to undertake socially relevant consultancy works catering to the needs of the central and

state governments and other organizations. Right from its inception, C-GRAF has successfully completed several interdisciplinary projects for various agencies.

PROGRAMMES OFFERED

M.Sc. Data Science

Semester 1: FDS-CC-511: Introduction to Data Science; FDS-CC-512: Python for Data Science; FDS-CC-513: Database Management Systems; FDS-CC-514: Mathematical Foundations of Data Science; FDS-CC-515: Statistical Foundations of Data Science; FDS-CC-516: Lab1: Data Base Management System

Semester 2: FDS-CC-521: Introduction to Machine Learning; FDS-CC-522: Parallel and Distributed Computing; FDS-CC-523: Information Retrieval Techniques; FDS-CC-524: Data Visualization and Presentation; FDS-CC-525: Minor project – Industry Based
Discipline-Specific Elective (DE): FDS-DE-526(i): Business Data Analytics; FDS-DE-526(ii): Time Series Analysis; FDS-DE-526(iii): Introduction to Big Data; FDS-DE-527(i): Basic Image Processing; FDS-DE-527(ii): Text Analytics; FDS-DE-527(iii) Operations Research

Semester 3: FDS-CC-531: Advanced Machine Learning; FDS-CC-532: Advanced Graph and Network Analysis; FDS-CC-533: Lab3-Complex Network Analysis
Discipline-Specific Elective (DE): FDS-DE-535(i): Fraud Analytics; FDS-DE-535(ii): Web Scraping and Analytics; FDS-DE-535(iii): Internet of Things in the Cloud; FDS-DE-536(i): Artificial Intelligence; FDS-DE-536(ii): Large Scale Optimization for Data Analytics; FDS-DE-536(iii): Models of Computations

Semester 4: FDS-CC-541: Dissertation (Stage II)

Generic Courses (GC): FDS-GC-501 Foresight and Futures Research; FDS-GC-502 Parallel Programming with MPI; FDS-GC-503 Scientific Research Paper Writing

Programme Specific Outcomes (PSO)

- Understand principles and concepts of Data Science
- Develop necessary skills for data processing, statistical and computational analysis, visualization and document preparation.
- Improve skills in solving scientific problems of interdisciplinary nature in academia and industry.
- Students will be able to demonstrate a degree of mastery over the area as per the specialization of the program.
- Develop necessary mathematical and computational skill related to data science and allied areas.

M.Tech. Technology Management

Semester 1: FUS-CC-611: Foresight and Futures Research; FUS-CC-612: Technology Forecasting and Assessment; FUS-CC-613: Management of Innovation; FUS-CC-614: Systems Analysis and Design; FUS-CC-615: Operations Research and Decision Theory; FUS-CC-616: Lab1: Python for Data Analysis

Semester 2: FUS-CC-621: Combinatorial Optimization; FUS-CC-622: Modelling and Simulation; FUS-CC-623: Principles of Technology Management; FUS-CC-624: IPR and Patents: Law, Practice and Consultancy; FUS-CC-625: Lab II: Statistical Computing with R
 Discipline-Specific Elective (DE): FUS-DE-626: Artificial Intelligence for Technology Leaders; FUS-DE-627: Econometrics and Economic Forecasting; FUS-DE-628: Total Quality Management; FUS-DE-629: Computer Aided Design; FUS-DE-6210: Environmental Engineering; FUS-DE-6211: Energy, Ecology & Environment; FUS-DE-6212: Strategic Management; FUS-DE-6213: Knowledge Management; FUS-DE-6214: Computer Aided Decision Support Systems; FUS-DE-6215: Intelligent Manufacturing Systems

Semester 3: FUS-CC-631: Research Methodology and Negotiated Studies; FUS-CC-632: Industrial Project; FUS-CC-633: Dissertation (Stage I)

Discipline-Specific Elective (DE): FUS-DE-634: System Dynamics Simulation; FUS-DE-635: Intelligent and Knowledge Based systems; FUS-DE-636: Planning and Management of Human Resources; FUS-DE-637: Structure and Analysis of Complex Networks; FUS-DE-638: Management Information Systems; FUS-DE-639: Software Projects Management

Semester 4: FDS-CC-641: Dissertation (Stage II)

Generic Courses (GC): FDS-GC-411 Foresight and Futures Research; FDS-GC-431 Parallel Programming with MPI; FDS-GC-A1 Scientific Research Paper Writing

Programme Specific Outcomes (PSO)

- Understand principles and concepts of technology management
- Develop necessary skills for technology forecasting and assessment for technology management Improve skills in solving scientific problems of interdisciplinary nature in academia and industry.
- Improve skills in solving scientific problems of interdisciplinary nature in academia and industry Develop necessary mathematical and computational skill related to data science and allied areas.
- Students will become able to demonstrate a degree of mastery over the area as per the specialization of the program.
- Develop necessary mathematical and computational skill related to technology management and allied areas op skills to act as data scientist in industry or academia.
- Develop skills to act as technology managers in industry

M.Phil. Futures Studies

Semester 1: Paper I –FUS-CC-711: Interdisciplinary research & Research Methodology (4 Cr), Paper II –FUS-CC-712: Scientific Computing and Forecasting (4 Cr); Paper III –FUS-DE-713(i): Technological Futures, Forecasting and Assessment (4 Cr), FUS-DE-713(ii): Optimization Techniques; FUS-DE-713(iii): Nonlinear Dynamics and Chaos; FUS-DE-713(iv): Computational Biology and Bioinformatics; FUS-DE-713(v): Operations Research and Decision Theory; FUS-DE-713(vi): Discrete Mathematics and Combinatorics. **Semester 2:** FUS-CC-721 - Dissertation (20 Cr)

Programme Specific Outcomes (PSO)

- Understand different research paradigms with a basic understanding of the ontological, epistemological and methodological prospective.

- Develop societal problem-solving skills using the different futures studies tools, techniques and methods
- Develop different types of modelling approaches to model and analyse data in science using sophisticated computational and software tools
- Develop data analytical and modelling skill
- Students will become able to demonstrate a degree of expertise in carrying out scientific research in the area of specialization, and write reports/dissertation/articles

Research

Department of Futures Studies is a unique University Department in Kerala that gives emphasis on interdisciplinary research. Research is going on in Discrete Convexity in the Department of Futures Studies since last eight years in collaboration with the Erasmus University, Rotterdam, The Netherlands and University of Maribor, Slovenia. The Department of Science and Technology, Government of India has supported the research works of the Department of Futures Studies in these areas by awarding BOYSCAST Fellowship and granting sponsored project. An international project between Slovenia and India funded by the DST and the Ministry of Education, Science and Sports, Govt. of Slovenia was recently completed.

Important research works completed in the Department include, Locale Specific Environment Based Education, Achievement Motivation of R & D Scientists in India, Impact studies of Information Technology, Technology Figure of Merit of Electronic Industry in India, Prospects of Software Industry in Kerala, Solid Waste Management of Thiruvananthapuram city, Epidemic modeling, Anticipatory Crisis Management (ACM) of HIV/AIDS, Energy Planning beyond 2000 etc. Some of the ongoing works are System Modeling, Chaotic Dynamics of Non-linear Systems, Water Quality Management, Energy Studies, Software Industry Studies, Environment Impact Analysis, Environment Health Education in Kerala, Technology Diffusion in Health Services, Ecotourism Development in Kerala. Technology Futures / Management, Knowledge Systems and its Management, Mathematical/Computer modelling and Discrete Mathematics. We have under taken various research projects funded by MHRD, DST, Govt of India and NABARD. Recently, we have received MODROBS project funded by AICTE. The Department has so far produced 30+ Ph.D's in various topics.

Consultancy Details

To undertake different projects, consultancy works and advanced research activities in interdisciplinary areas, a consultancy centre named Consultancy Group for research and Forecasting (C-GRAF) was established in the department in 1992. The Consultancy Group for Research and Forecasting (C-Graf) has been formulated as a consultancy centre of the University of Kerala under the chairmanship of the Vice-Chancellor and HOD as the Director. The C-Graf is a major consultancy centre in Kerala undertaking project/consultancy works of government and International agencies like World Bank, DFID, JBIC etc.

Research Infrastructure

Temperature controlled lab with high-end work stations.



Department of Nanoscience and Nanotechnology (Est. 2016)

Phone: 0471 2308863; Email: nanotech.ku@gmail.com

Faculty

Dr. V. Biju, Professor and Head-in-Charge (Email: bijunano@gmail.com; Ph: 9961228468)

Dr. S. R. Sarath Kumar

Brief Profile

Department of Nanoscience and Nanotechnology was established in the year 2016. It is an interdisciplinary department which was evolved from Centre for Nanoscience and Nanotechnology, University of Kerala with Prof. M Abdul Khadar, one of the pioneers of Nanoscience and Nanotechnology in the country as the leading spirit. Dr. S. Sankararaman, Professor, Department of Optoelectronics was the first Head-in-Charge. Being an Interdisciplinary Department faculty of Department of Physics, Department of Chemistry, Department of Optoelectronics, Department of Biochemistry, Department of Biotechnology and Department of Zoology are approved Research Guides of this Department.

Within a short span Department had developed laboratory facilities for synthesis of nanomaterials, fabrication of thin film devices and a well-equipped Characterization laboratory. Facilities such as Thermal evaporation unit, RF magnetron sputtering unit, vacuum furnaces, Photoconductivity setup, Solar simulator, Stylus profilometer, UV-visible absorption spectrometer, Photoluminescence spectrometer, Electrochemical workstation, Sourcemeter, etc. are available in the Department

PROGRAMS OFFERED

M.Phil in Nanoscience and Nanotechnology

Semester 1: NST-711 – Research Methodology; NST-712- Nanomaterials and Nanoscience: NST-713- Advance Nanomaterials and Nanotechnology

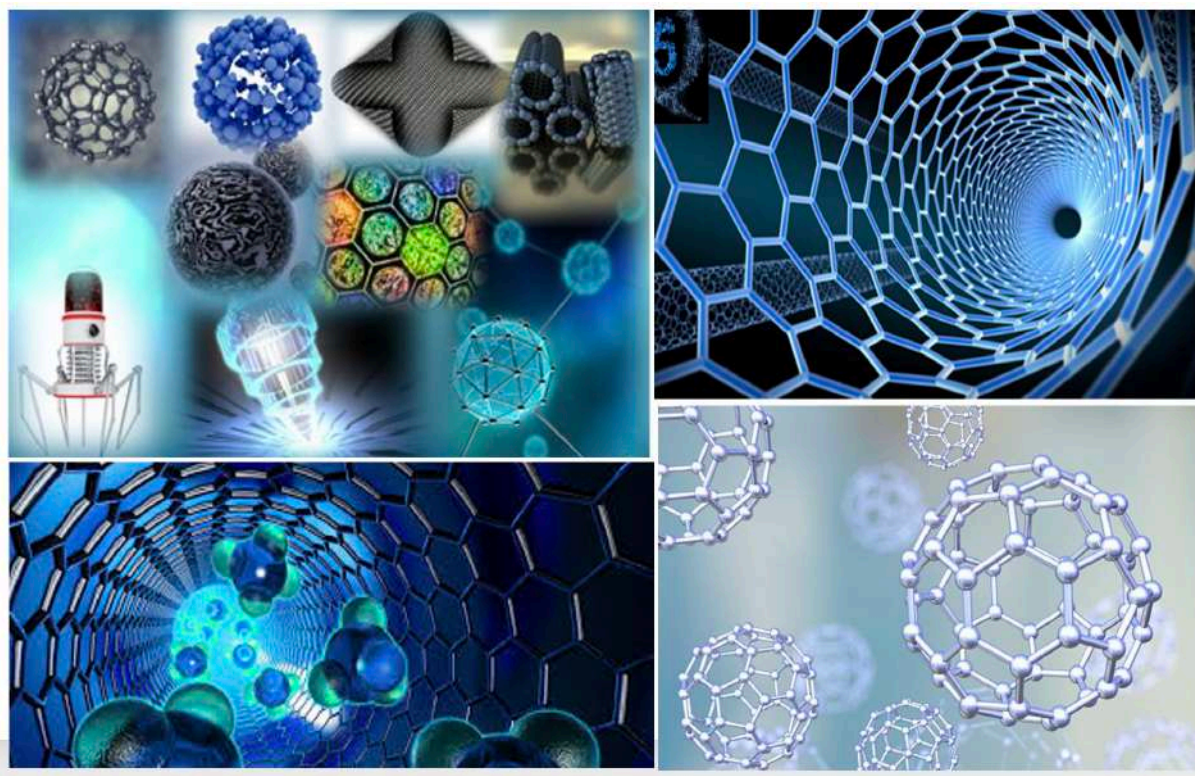
Semester 2: NST-721 – Dissertation

Program Specific Outcomes

- Acquires in-depth knowledge of the synthesis of novel nanostructured materials
- Gains expertise in emerging areas of research in nanomaterials and nanotechnology
- Develops innovative methodologies for the development of technological knowledge and intellectual property
- Analyzes the impact of emerging research areas in Nanoscience and Nanotechnology, in providing mankind with sustainable resources and cleaner environment
- Applies scientific context in developing ideas, products and methods for the benefit of humanity through need-based innovations in Nanoscience and Nanotechnology

Ph.D in Nanoscience and Nanotechnology

Research areas: Thin film nanostructures, Photovoltaics, Luminescence, Electrochemical Sensing, Photocatalysts, Energy storage applications, Nanobiotechnology, etc.





Faculty

Dr. S Sankararaman, Professor & Head (Email: drssraman@gmail.com; Ph: 9447421844)

Dr. K.G Gopchandran, Professor (Email: kggopchnadran@gmail.com; Ph: 8129914751)

Dr. Sam Solomon, Professor (Email: sam.profoto.ku@gmail.com; Ph: 9847314237)

Dr. Yamuna A, Assistant Professor (Email: amminiyamuna@gmail.com; Ph: 9446324306)

Dr. Reji K Dhaman, Lecturer (Contract) (Email: rejikdhaman2007@gmail.com; 9446175616)

Ms. Anitha M J., Lecturer (Contract) (Email: anithamj333@gmail.com; Ph: 8086286969)

Ms. Jumna Muhammed Ibrahim, Lecturer (Contract) (Email: jumna.jumna@gmail.com; Ph: 8086445459)

Brief Profile

In this age of information Technology, the discipline 'Optoelectronics' has its significance and relevance. Making an impact through Research, Training, Technology Innovation and Service to Society is the vision of the Department. Department of Optoelectronics is established in 1995 under Faculty of Applied Sciences. The Department now offers M.Tech Electronics and Communication (Optoelectronics and Optical Communication), M.Phil (Photonics) and PhD (Optoelectronics) programmes. Today the Department has a vibrant student body consisting of Research Scholars, M.Tech students and M.Phil students, over 70% of them are supported by scholarships. Department of Optoelectronics is offering M.Tech, M. Phil. and Ph.D. programmes. Most of the students passed out from this Department are well placed in reputed institutions.

PROGRAMS OFFERED

M.Tech Degree in Electronics and Communication (Optoelectronics & Optical Communication)

Semester I: OPE-C-611: Modern Optics; OPE-C-612: Digital Communication; OPE-C-613: Optoelectronic Devices; OPE-C-614: Fiber Optics Technology; OPE-C-615: Optoelectronics and Image Processing Lab; Internal Electives: OPE-E-616: Lasers; OPE-E-617: Advanced Digital Signal Processing

Semester II: OPE-C-621: Fiber Optic Sensors and Applications; OPE-C-622: Optical Fiber Communication Systems; OPE-C-623: Seminar; OPE-C-624: Mini Project I (Design and Development); OPE-C-625 Photonic Design, Communication and Digital Signal Processing Lab; Internal Electives: OPE-E-626: Optical Signal Processing; OPE-E-627: Artificial Neural Networks; OPE-E-628: Nonlinear Optics; OPE-E-629: Nanophotonics; OPE-E-6210: Solar Photovoltaics; OPE-E-6211: Mathematical Physics

Semester III: OPE-C-631: Research Methodology; OPE-C-632: Mini Project II (Design and Development); OPE-C-633: Study on Current Advanced Research; OPE-D-634: Dissertation Phase I

Semester IV: OPE-D-641 Dissertation Phase II

Programme Specific Outcomes (PSO)

- Understand the principles and theoretical concepts in the fabrication of Optoelectronic materials and devices.
- Develop skills in designing optoelectronic devices and optical communication systems which are in tune with current technology and adaptable for future changes.
- Create an environment such that students develop a passion for hardware and software design.
- Act as the part of the electronic design industry to become leaders in indigenous product development.
- Get mathematical background for theoretical analysis

M.Phil Photonics

Semester I: OPE-711: Research Methodology; OPE-712: Photonics; OPE-713(i) Nanophotonics; OPE-713(ii) Holography and Speckle Interferometry; OPE-713(iii) Advanced Laser Technology; OPE-713(iv) Optical Sensor Technology; OPE-713(v): Nonlinear Optics; OPE-713(vi): Solar Photovoltaics; OPE-713(vii): Biophotonics.

Semester II: OPE-721: Dissertation

Programme Specific Outcomes (PSO)

- A deep knowledge about important areas of photonics at both theoretical and experimental levels.
- Make the students capable to work in photonics related areas in an institution or industry as a researcher, expert and developer, and will also make them equipped to continue to PhD studies in photonics.
- The learning is based on high-quality photonics research in the department.

Research

The Department offers Ph.D in Optoelectronics and the area of research are Nanobiophotonics, Fiber Optic Communication, Laser Applications, Thin Film, Biophotonics, Nanophotonics, nanomaterials, Photonic Crystal Fiber, Fiber Sensors, Artificial Neural Networking, Nondestructive Evaluation, Speckle & Holography etc.

Major Facilities

FESEM, Micro Raman Spectroscopy, FTIR, UV Vis NIR, High Power lasers, Thermal Vacuum Coating unit, Photoluminescence, External Quantum Efficiency, Measurement System

Research Collaboration

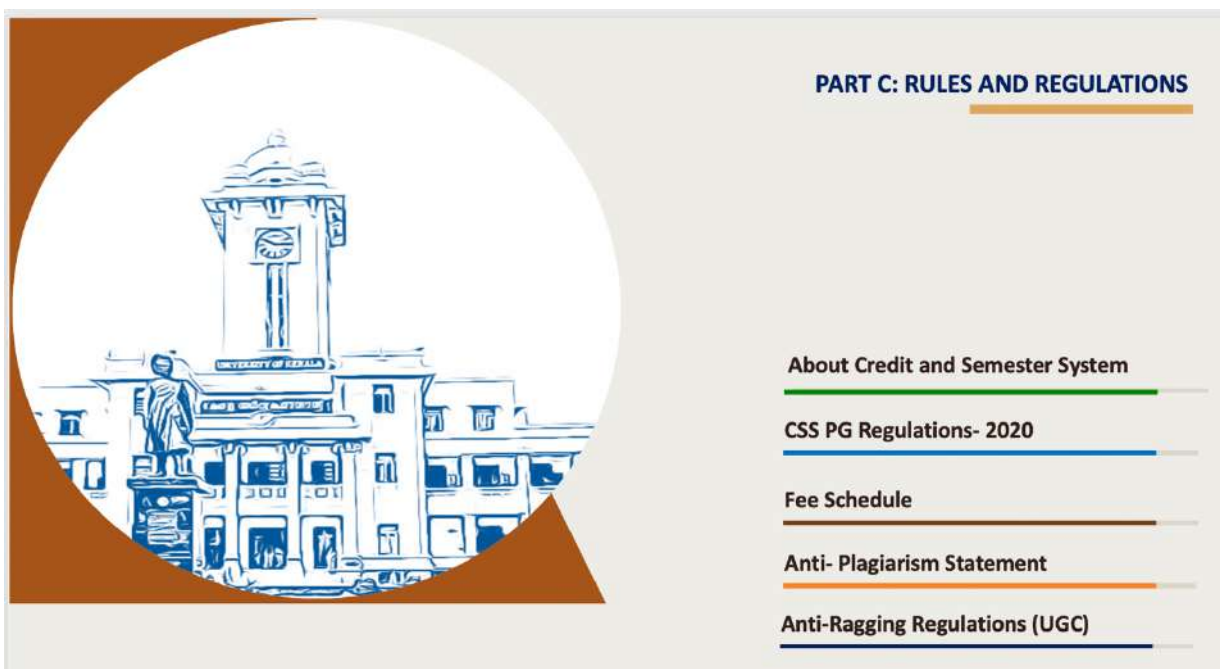
The Department has already established collaboration with the following International & National Institutions as the part of Ph.D/ M.Tech programmes as evidenced by research publications/project reports:

- Karlshue University of Applied Sciences, Germany
- Robert Gordon University, Aberdeen, UK
- Nanyang Technological University, Singapore
- Kyushu University, Japan
- Bhabha Atomic Research Centre (BARC), Mumbai
- Indian Institute of Science (IISc.), Bangalore
- Raman Research Institute (RRI), Bangalore
- IGACR, Kalpakam
- NARL, Gadanki, AP
- RRCAT, Indore
- IIST, Trivandrum
- NIIST, Trivandrum
- SCTIMST, Trivandrum
- VSSC, Trivandrum

Alumni

The OPTAAK is the Alumni Association of the Department of Optoelectronics, University of Kerala.

Dr. V R Ravindran Memorial Award and Prof. V Unnikrishan Nayar Award are also given under the OPTAAK.



“Education is not just about going to school and getting a degree.
It’s about widening your knowledge and
absorbing the truth about life”.
-Shakuntala Devi

C1. About Credit and Semester System

(Prof Achuthsankar S. Nair)

Students would benefit by understanding the philosophy and practice of credit and semester system. The following sections discuss the four major aspects of the Credit and Semester systems, which are:

- *Semesterisation*
- *Choice-based credit system*
- *Continuous assessment*
- *Grading*

The Concept of semester: What should be the ideal length of an academic term ?

3 years ? 2 years ? 1 Year? 6 months ? 4 months ? ... All the above models have been used/are in use in various Universities, year system being the rarest internationally. In Kerala, even 3-year term was in use once, for the BA/BSc Honours programme, a few decades back. The semester system has been in use for B.Tech courses since late 1970s and trimester was also tried out in Kerala Agricultural University for some time. Almost all PG programmes in various Universities in Kerala have been running on semester system since 2002.

The examination at the end of the BA/BSc Honours programme supposedly covered all that was transacted in the 3 years of the degree programme. One can imagine what a demand on memory recall would such a 3-year final examination have created. Examination questions in such an examination (3-hour exam) could not have achieved a comprehensive coverage of topics studied. A year system best suits the administration of examinations. This is because the work force and work-load of the University administrative set-up have, for many decades, been tuned to the year system. However, shorter terms seem to be more suited academically, as (i) shorter terms will have relatively less demand for memory recall (ii) questions can cover topics more comprehensively (iii) it is easier to ensure cohesive learning experience and academic momentum for shorter terms. This requires a careful transformation in teaching and learning practices.

Choice & Credit: Our traditional degree programmes are reminiscent of a served lunch, or the traditional *sadya*. Irrespective of the need and taste, the same food is served for all. The logistics of administering the lunch is simple. The new choice based system is like a *buffet lunch*, where students choose the ‘papers’ of their choice, within certain broad restrictions. In a choice-based credit system, we divide the papers into **core** and **elective** groups and ask students to choose, say, 60% of their papers from core group and the rest from electives¹. The electives could come from other Departments also. This ensures inter-disciplinary teaching and learning. For instance, in an ideal situation, a student specialising in mathematics can opt to learn a paper in

¹ In fact, there is an argument that all papers are electives, and there should be choice for core papers also.

Sanskrit, or Ethics or Introduction to Life Sciences, if she so desires. A horizontal integration of learning experience across disciplines will thus become possible. This suits the changing knowledge scenario. Today, no chemistry student can ignore mathematics and computer science, no computer science student can ignore linguistics; no biology student can ignore ethics.

In “credit” system, “papers” are referred to as “**courses**” and BA/MSc/MA “courses” will be referred to as “**programmes**”. One of the major features of the credit system is that not every paper (course) is treated equal. While designing syllabus, courses can have weightages defined. These weightages are called **credits**. A paper/course which has 4 contact hours per week per semester is taken as a full paper/course and is considered as having a weightage of 4, or as a 4-credit course. A paper with 2-credits is like a half paper. An example is a seminar. Dissertation Projects typically carry higher credits. Instead of adding all marks directly, they are meaningfully multiplied by their weightages (ie, credits) to arrive at the aggregate. This is indirectly equivalent to giving more marks for more important papers or for activities such as dissertation projects.

In the credit system, instead of specifying number of papers/courses, only the total credits to be earned is specified. If a 6-semester UG programme specifies credit requirement as 120 credits, it means that at an average 20 credits need to be earned each semester, which can be earned in different ways such as: (i) five 4-credit courses (five full papers) or (ii) four 4-credit courses and two 2-credit courses (four full papers and 2 half papers) or (iii) five 3-credit courses and one 2-credit course.

In an age where student mobility is on the increase, this system will ensure that our academic programmes are understood well by other educational institutions and students find it easy to transfer their credits across institutions.

Continuous/Internal Assessment: In the year system, assessment of students is through end-of-the year university examinations. Even though class tests are practiced, as they do not form part of formal assessment. A continuous assessment in semester system (also known as internal assessment/formative assessment) is spread throughout the duration of the course and is done by the teacher teaching the course through various means including written tests, MCQ (multiple choice question)-based quizzes, mini projects, presentations, group activities, field visits etc. The most important aspect of continuous assessment is that continuous feedback on teaching and learning are available to the teachers /students which are crucial in readjusting the teaching and learning accordingly.

By its very nature, continuous assessment can afford unstructured assessment tasks spread across a span of time and also reaching out of the classrooms, like case studies, projects, field visits etc. Typical end-semester assessment attempts to measure direct and indirect cognitive achievement alone. Continuous assessment makes it feasible to measure non-cognitive outcomes also. This implies taking into account the specific conditions of the class room and also the teaching style of the teacher and learning style of the students and hence is feasible only if conducted by the teacher concerned. Indeed, for the same reasons, there is strong case that all assessment must be made by concerned teachers – *those who teach must mark. Teaching, learning and evaluation are inseparably linked.*

Continuous assessment is often discussed in the backdrop of (i) victimisation of students by some teachers and (ii) generous granting of marks in profit-motivated institutions. A very transparent and somewhat structured assessment system (structured to the extent that it does not kill the creativity in assessment envisaged in continuous assessment) will address the victimisation possibility which must be seen as one-off incidences, anyway. Transparency can be achieved by publishing assignment questions and grading policies in advance. There should also be clear grievance redressal system in place. When assignments are given, there must be clear guidelines as to how to earn each grade. See for example the assignment guideline below:

This assignment is aimed at giving the students an opportunity to practice some activities that will enable them to acquire knowledge/statistics related to some topics covered in the syllabus. The starred questions may require self-study of topics not covered in the course. .Dead-line: 3PM, Friday of the 16th week of the semester (if holiday, then the subsequent working day). Delayed submission will attract 5% less marks/day. Any request for delayed submission will be entertained only if the work completed as on the deadline is submitted. Grading would be as follows:

*A: Evidence of exceptionally keen involvement and successful completion of all tasks.
B: Evidence of keen involvement and attempt to solve at least some of the starred tasks and successful completion of other tasks.*

C: Successful completion of all tasks except starred ones

D: Partial/Satisfactory completion of all tasks except starred ones

F: Unsatisfactory

Grading

Let us now look at the scientific outlook regarding assessment: the basic premise is that **measurement of educational outcomes is subjective**. The subjectivity arises from many sources such as (even the so-called objective type test (MCQs) is subjective in many of these aspects):

- the subjective choice of questions in examinations
- the subjective assignments of weightage to questions
- the subjective interpretation of marking schemes by examiners
- the human element in making assessment

It is also to be noted that it is impossible for any education system to ensure that the students who are subjected to a 'standard assessment' also have a standard educational experience. The wide variations such as the following are well-known:

- the varied learning experiences of students
- the varied teaching style of teachers
- the varied linguistic skill of students
- the varied socio-economic background of students

Cartoon

Due to long standing history of assigning numerical scores during evaluation of answer scripts, sometimes marks are taken too seriously as an indication of the exact measurement of the students' achievement. How else can we fail a student who scores 39 and pass one who gets 41? In most cases, a revaluation by the same examiner might result in 39 becoming 42 or 41 becoming 37. This is not a fault of the examiner, it is the natural subjectivity of assessment coming to fore. Harper & Harper (1990) quotes many studies in India regarding unreliability of examination marks. (i) 90 photocopies of the same history answer books were awarded marks ranging from 22% to 76% marks by 90 experienced examiners (ii) A mathematics examiner remarked 50 scripts after 6 months (iii) On an average (in 4000 scripts covering subjects Hindi, Biology, History and Mathematics), 34% of the scripts were awarded a different class or division when they were marked again (happily, the researchers report that Indian examiners are slightly more reliable than those of many other countries, including USA, England and France). (iv) When 100 students in HSLC exam in Assam were administered two equivalent versions of the same question paper (traditional style), only 36% of the students were awarded the same class or division. Even in a multiple-choice examination, 10% showed different classification. Harper and Harper quotes the 1948-50 Education Commission chaired by Dr. S. Radhakrishnan, which describes the traditional type of examination as *invalid ... inadequate ... subjective and therefore not reliable*. The casualty list of traditional examinations is an interesting one. It includes Einstein (in high school mathematics), Gregor Mendel (twice in Biology), Oliver Goldsmith, Walter Scott, Issac Newton, and James Watt ... Back home, we have the great example of Mathematician Sreenivasa Ramanujan, to whom Madras University awarded 85/150 marks for Mathematics!

Due to such invalid ... *inadequate ... subjective* nature of examinations, the ranking system is also unscientific. How can one say that a student with 78.1% aggregate is above 77.98%; if the figures quoted by Harper and Harper are considered?

If we accept the premise that **educational measurement is subjective**, then conscious steps are required to prevent disadvantage to the student community. The focus thus falls on reducing (not removing) this subjectivity. One way of reducing the subjectivity is to consider an alternative to marks such as 3, 5, 10 etc. 10 marks for a question is actually a 20-point scale of differentiation if we consider aware of $\frac{1}{2}$ marks too. It would be fairer to classify students into 5 or 10 categories rather than 20 or 40 categories. Grading only does a coarse level of categorisation and hence is a *lesser evil* (recall that no system can claim perfection in assessment). As an example, a 5-letter grade scale for evaluating any answer etc can be:

- A- Wow ! Outstanding Display of Knowledge/Understanding/Application
- B- Very Good, but not extraordinary
- C- Good
- D- Fair/Satisfactory
- E- Poor/Unsatisfactory

Teacher's mental scales can always remain as above (of course, read along with specific guidelines as provided in Evaluation Schemes) whether teacher is grading a short answer question or a long essay or a proof of a theorem. This is the reason why letter grades and numerals are not equivalent. (Putting a zero which would mean "completely wrong" and putting E which would only mean "Poor/ Unsatisfactory").

PG Programmes in University Depts. use 10-point scale recommend by UGC as follows:

Sl. No.	Weightage in Percentage	Grade Point	Grade
1	90 to 100	10	O (Outstanding)
2	85 to less than 90	9	A+ (Excellent)
3	80 to less than 85	8.5	A (Very good)
4	70 to less than 80	8	B+ (Good)
5	60 to less than 70	7	B (Above Average)
6	55 to less than 60	6	C (Average)
7	50 to less than 55	5	D (Pass)
8	Less than 50	0	F (Fail)
9	Absent	0	Ab (Absent)
10	Course Incomplete	0	CI (Incomplete)

Combining grades of different courses/papers into that of a overall grade of a semester and then further combining the semester grades into that of a programme over-all grade:

In the Semester Report, the grade points corresponding to the letter grades for each course is multiplied by the course credits (which represent the weightage of the course) and total is calculated. This divided by the total number of credits earned in that semester gives the *Semester Grade Point Average (SGPA)*.

Course/Paper	Grade	Grade Points	Credits	Contribution to Sem Aggregate
Malayalam	A	8	3	24
English	B	6	3	18
Maths	C	5	4	20
Physics	A	8	4	32
Chemistry	A	8	4	32
Total		35	18	126
SGPA= $126/35 = 3.6$				

In the Programme Report, the grade point corresponding to the letter grades for each semester is multiplied by the total course credits of that semester and total is calculated. This, divided by the total number of credits earned in the whole programme, gives the *Cumulative Grade Point Average (CGPA)*. The difference here is that a 7-letter grade scale is used for grading the overall programme performance.

Semester	Grade	Grade Points	Credits	Contribution to Programme Aggregate
I	A+	9	18	162
II	B	6	20	120
III	C	5	21	105
IV	A+	9	18	162
Total	29		77	549
CGPA = $549/29=18.93$				

A Programme Report



C2. CSS Regulations- 2020



UNIVERSITY OF KERALA



**Regulations for Post-Graduate Programmes
in the Teaching Departments of the University of Kerala
under
CHOICE-BASED CREDIT AND SEMESTER SYSTEM
(2020)**



Chapter 1

SCOPE, EFFECT AND DEFINITIONS

1.1. Scope and Effect

The Regulations framed herein shall apply to all regular Post-Graduate programmes including M.A, M.Sc., M.Com., M.Ed., M.S.W., M.B.A., M.L.I.Sc., M.C.J., M.Tech., L.L.M. and Post Graduate diplomas conducted by the Teaching Departments of the University of Kerala. These Regulations shall come into force from 2020 admission onwards.

1.2. Definitions

In these Regulations, unless the context otherwise requires:

‘Act’ means “The Kerala University Act” (Act 17 of 1974) amended from time to time.

‘Assessment components’ mean any instrument of assessment of learning outcomes used for continuous assessment, like time-constrained examinations, closed-book and open-book tests, problem-based assignments, practical assignment, laboratory reports, observation of practical skills, individual project reports (case-study reports), team project reports, oral presentations including seminar presentation, viva voce, interviews, computerised adaptive testing, peer and self-assessment, activities in Moodle platforms including workshops, quiz, survey etc. and any other pedagogic approaches as per the context.

‘Academic Calendar’ means a calendar issued semester-wise by the University specifying time-lines of admission, classes, holidays, examinations, extra-curricular activities etc.

‘Annual Student Survey’ means a survey administered on all students admitted to a PG programme to understand their academic and social background and aspirations.

‘CSS Academic Committee’ (CSS AC) means the Committee by that name constituted under these Regulations.

‘Curriculum’ refers to the entire study requirements for the award of a post-graduate degree.

‘Course’ means a basic unit of a programme studied in a semester, with specific outcomes of learning. Each course is to be designed variously under lecturers/ tutorials/ laboratory or fieldwork/ seminar/ project/ practical training/ assignment, etc. to meet effective teaching and learning needs.

‘Core Course’ (CC) means a course offered by a Department to the students in their Post-Graduate programme, closely related to the subject of the Post-Graduate programme. The courses designed under this category aim to cover the essential contents that a student is expected to imbibe in that particular discipline, which should compulsorily be studied by a candidate as a core requirement.

‘Credit’ (Cr) means numbers attached to each course which define their weightage in the whole programme.

‘Credit Point’ (P) of a course is the value obtained by multiplying the Grade Point (G) by the Credit (Cr) of the course $P = G \times Cr$.

‘Credit Transfer’ (CT) means the transfer of credits into and out of a programme as per provision of the credit transfer regulations of the University.

‘Cumulative Grade Point Average’ (CGPA) is the value obtained by dividing the sum of credit points in all the courses taken by the student for the entire programme by the total number of credits and shall be rounded off to two decimal places.

$$\text{CGPA} = \sum (\text{Credits} \times \text{Grade Point}) / \sum (\text{credits})$$

$$\text{Percentage of Marks} = \text{Grade Points for SGPA or CGPA} \times 10$$

‘Continuous Assessment’ (CA) means an assessment aimed at giving continuous feedback about teaching and learning to teachers and students, respectively, carried out during the progress of a semester.

‘Course Brochure’ means a detailed brochure of each course relating to its course outlines and outcomes.

‘Department’ means the Department of Teaching and Research as defined in the Act and Statutes of the University.

‘Department Council’ (DC) means council by that name in every department, constituted according to the statutes of the University.

‘Elective Course’ (EC) means a course that is offered by a Department to students of Post-Graduate programmes of any Department, with choice, in areas that are closely or distantly related to the subject of the PG programme. Generally, a course in this category can be selected from a pool of courses and which may be very specific or specialized or advanced or supportive to the discipline/subject of study or which provides an extended scope or which enables exposure to some other discipline/subject/ domain or which nurtures the candidate’s proficiency/ skill. This includes **Discipline Specific Elective (DE)**, an elective course offered under the main discipline/subject of study, primarily offered to the students of the same discipline, and **Generic Course (GC)**, an elective course chosen from an unrelated discipline/subject, to seek exposure beyond discipline/s. The Generic Course may also be interdisciplinary (to be offered collaboratively by more than one Department/discipline).

‘End-Semester Assessment’ (ESA) means summative assessment of courses at the end of a semester.

‘Extenuating Circumstances’ means unavoidable personal challenges or circumstances which impact the ability of a student to complete, or attend tests, examinations etc. and significantly disruptive matters outside the control of the student, such as personal accident, injury or illness of self or close family member or natural disasters, pregnancy-related confinement etc.

‘Faculty’ means faculty as defined in Act and Statutes of the University.

‘Foreign Student’ means a student who is not an Indian national and does not include Non-resident Indians.

‘Formal Communication’ means any communication for which there is a proof of receipt, including signed paper receipts or electronic communication such as

email/SMS/WhatsApp message to address/ numbers provided by students in their application forms.

‘Grade’ means a letter indicating the level of achievement of learning objectives of a course.

‘Gradebook’ means the Moodle Gradebook, which automatically aggregates scores and feedback from assignments, activities, and manual grades from the Moodle course of a student.

‘Grade Point’ (GP) means a numeric attached to every grade that serves to combine grades when semester/ programme performance is to be evaluated.

‘Grade Point Average’ (GPA) means the weighted average of grade points corresponding to grades obtained in a set of courses.

‘Grade Sheet’ means a statement of courses completed, credits associated, grades awarded, grade point average and explanatory notes, issued in each semester.

‘Induction Programme’ means a programme aimed at introducing a newly admitted student to the University system, infrastructure and programme objectives, along with exposure to an array of learning habits appropriate in higher education. Usually, a three-tier (University, School and Department) induction programmes are arranged at three levels.

‘Learning Management System’ (LMS) refers to a software application or e-Learning tool for the administration, documentation, tracking, reporting, automation and delivery of courses offered by the University. LMS software provides a framework through which learning content is delivered and managed. Moodle (Modular Object-Oriented Dynamic Learning Environment) is a free and open-source LMS adopted by the University for e-learning.

‘Learning Outcomes-based Curriculum Framework’ (LOCF) refers to the broad curriculum framework of expected graduate attributes, qualification descriptors, programme learning outcomes and course-level learning outcomes recommended by the University Grants Commission (UGC). PG Degree is awarded based on achievement of outcomes (expressed in terms of knowledge, understanding, skills, attitude and values) and academic standards expected of graduates of a programme of study. Learning outcomes specify what graduates completing a particular programme of study are expected to know, understand and be able to do at the end of their programme of study. The outcomes will be determined in terms of skills, knowledge, understanding, employability, graduate attributes, attitude, values, etc., gained by students upon the completion of the course.

‘Marginal Seats’ mean the marginal increase in the number of seats for PG programmes allotted under special circumstances, on specific years, over and above the sanctioned strength.

‘Negotiated Course’ means elective course tailor-made on request from students.

‘Non-Taught Course’ means core or elective course which do not have class learning, but laboratory courses, seminars, projects, case studies, internship, fieldwork etc.

‘Outcome Based Education’ (OBE) refers to an educational theory that focuses each part of an educational system around goals (outcomes). Each student should have achieved the goal by the end of the educational experience. The outcomes include: (a) Programme Outcomes (POs) or statements that describe what the students graduating from general programmes should be able to do, (b) Programme-Specific Outcomes (PSOs) which are statements that describe what the graduates of a specific programme should be able to do, and (c) Course Outcomes (COs) or statements that describe what the students should be able to do at the end of a course.

‘Programme’ means a range of learning experiences offered to students in a formal manner for one-to-two years leading to certificates/ diplomas/ degrees.

‘Post-Graduate Programme’ refers to regular programmes of Post-Graduate level including M.A., M.Sc., M.Com., M.Ed., M.S.W., M.B.A., M.L.I.Sc., M.C.J., M.Tech., L.L.M. and Postgraduate Diploma, conducted by the Teaching Departments of the University. The term excludes M.Phil., Ph.D. and Post-Doctoral programmes.

‘Plagiarism’ means dishonest or unethical academic practice, including using scholarly content from external sources in the unacceptable quantum or without due acknowledgement.

‘Regular programme’ means a programme that is transacted in face-to-face or on-line manner by the teacher and does not involve distance/ part-time learning.

‘Semester’ means an academic term of usually five months (15-18 weeks), including end-semester examinations, having academic work equivalent to 90 teaching days or 450 hours of instruction.

‘Semester Grade Point Average (SGPA)’ is the value obtained by dividing the sum of credit points (P) obtained by a student in the various courses taken in a semester by the total number of credits taken by him/her in that semester. The grade points shall be rounded off to two decimal places. SGPA determines the overall performance of a student at the end of a semester.

‘Skill Enhancement Course’ means a course designed to provide value-based or skill-based knowledge and should contain both theory and lab/ hands-on/ training/ fieldwork. The main purpose of these courses is to provide students with life-skills in the hands-on mode to increase their skill development and employability.

‘Student Feedback’ means the opinion of students on teaching and learning effectiveness, collected at regular intervals in a semester/ programme.

‘Student Mobility’ means flexibility for the student to enter or exit programmes at different points and to transfer credits from other Departments/ Schools within the University and Institutions outside the University, as per provisions of this regulation.

‘Super-numerary Seats’ mean seats allotted over and above the sanctioned strength for specific purposes, which will lapse, if not used for that purpose.

‘Taught Courses’ mean core or elective courses which are mainly conducted through classroom transactions.

‘University’ means the University of Kerala established under Act 14 of 1957.

Chapter 2

ACADEMIC COORDINATION AND ADMINISTRATION

The academic coordination and administration of PG programmes shall be vested in the CSS Academic Committee and Department Councils as per the provisions laid out in this regulation.

2.1. CSS Academic Committee (CSS AC)

There shall be a CSS Academic Committee (CSSAC) constituted by the Vice-Chancellor to coordinate the PG programmes. The committee shall consist of:

- a) The Vice-Chancellor (Chairperson)
- b) The Pro-Vice-Chancellor
- c) Member of the Syndicate representing University teachers
- d) Three Deans of the University
- e) Two Heads of the University Departments other than Deans
- f) Three University teachers other than Deans and Heads of Departments
- g) Special invitee(s)

The Vice-Chancellor shall be the Chairperson of the CSS Academic Committee. A professor nominated by the Vice-Chancellor from among the members of the CSS Academic Committee shall be the Vice-Chairperson and Convener of the CSS Academic Committee. The term of office of the CSS Academic Committee shall be two years, but the CSS Academic Committee once constituted shall continue in office until a reconstituted committee assumes office. The CSS Academic Committee shall meet at least once in two months. The rules of business of Faculties (vide sections 14 of chapter 10 of Statutes of the University) shall, *mutatis mutandis*, apply to CSS Academic Committee.

The CSS Academic Committee shall be competent to:

- a) Recommend scheme and syllabi designed by Department Councils for approval of the Academic Council.
- b) Conduct end semester examinations and approve the results of all semesters of the PG programmes.
- c) Oversee admission to PG programmes and approve the rank list for admissions, and make other decisions on academic matters related to PG programmes within the purview of the regulations.
- d) To formulate and amend regulations for all the academic Programmes in University Departments with the approval of the academic Council.

Immediately upon adoption of these regulations, the CSS Academic Committee shall formulate and notify guidelines detailing the implementation of the system, including procedures and forms.

The CSS shall have an administrative office with an officer not below the rank of a Deputy Registrar and having sufficient staff to manage the administration of CSS system including registration, entrance examination, the conduct of semester examinations, issue of certificates and related matters.

The CSS Academic Committee shall have the following Sub-committees, nominated by the Vice-Chancellor.

2.1.1 Standing Committee on CSS Academic Committee

It shall consist of four teacher members nominated by the Vice-Chancellor, from among the CSS Academic Committee members including CSS Academic Committee Vice-Chairperson, who shall be the Convener of the committee. The standing committee shall have a mandate as assigned to it by the CSSAC from time to time. Member of the Syndicate representing University teachers shall be a permanent special invitee in the Committee.

2.1.2. Sub-Committee on Student Grievance Redressal (SGR)

It shall consist of three teacher members (one should be a lady teacher) nominated by the Vice-Chancellor including CSSAC Vice-Chairperson, who shall be the Convener of the committee. Dept.'s. Union Chairperson shall be a permanent invitee to the committee. The sub-committee on SGR shall meet whenever student grievances are brought to the notice of the CSSAC. Member of the Syndicate representing University teachers shall be a permanent special invitee in the Committee.

2.1.3. Sub-Committee on Admissions: It shall consist of three teacher members nominated by Vice-Chancellor from among the CSSAC members, including CSSAC Vice-Chairperson, who shall be the Convener of the Committee. The Director of the Computer Centre and two teachers (who are not members of CSSAC) nominated by the Vice-Chancellor shall be permanent invitees to the committee. The committee shall meet, as and when required, to resolve matters related to admissions.

2.1.4. Committee for Examination Monitoring: It shall consist of five members, including a minimum of two women faculty members, nominated by Vice-Chancellor, including CSS Academic Committee Vice-Chairperson, who shall be the Convener of the Committee. The committee will hear the complaints of examination malpractices if any and form a squad to visit the departments during the conduct of the examinations. The committee will report to the CSS Academic Committee. The Convenor can co-opt faculty members for such visits to the departments.

2.2 Role of Department Council (DC)

The Department Council (DC) shall, with regard to PG programmes, be competent to design programmes and courses, prescribe course delivery strategies, assessment and evaluation practices and teacher evaluation by students. The Council shall meet at least thrice every semester and shall consolidate the results of the students for each semester in time and forward it to the CSS Academic Committee.

2.3. Faculty Advisor

The Departmental Council shall nominate a faculty advisor from among the teachers of the Department for each PG programme. The faculty advisor shall generally mentor the students and monitor the progress of the programme and bring to the notice of Department Council, deviations, if any, from the academic calendar and from any provision of the regulations.

2.4. Faculty Mentors

A faculty Mentor shall be nominated by the DC and not more than 10 students to be assigned to a Mentor. Such mentors would support student Mentees in their academic, co-curricular as well as overall development, besides providing career support. Mentors to maintain Mentee files and records. The faculty advisor shall maintain student portfolios.

Chapter 3

ADMISSION TO POST-GRADUATE PROGRAMMES

3.1. Eligibility

3.1.1 Students who have pursued 10+2+3 scheme and obtained a Bachelor Degree from the University of Kerala or a degree recognized as equivalent thereto, and who have secured the following, shall be eligible for admission to PG programmes:

- a) CGPA of 2 or above in a 4-point scale or
- b) 3.5 or above in a 7-point scale or
- c) 5 or above in a 10-point scale or
- d) 50% or above in the case of Bachelor Degrees which award marks

3.1.2 Relaxation for candidates from SC/ST category shall be as follows:

- a) CGPA of 1.8 or above in a 4-point scale
- b) 3.15 or above in a 7-point scale
- c) 4.5 or above in a 10-point scale
- d) 45% or above in the case of Bachelor Degrees which award marks.

3.1.3. The CSSAC shall be competent to recommend revisions to decide the equivalence of any other system that may come up in admissions.

The percentile of marks shall be converted to parentage and normalized according to the CGPA of the University of Kerala for admission procedures.

3.1.4. Candidate shall secure at least 25% (20% for SC/ST category) of the average marks of the stream in the entrance examination conducted as per Section 3.4.

3.1.5. Candidate shall hold Bachelor degree in subjects specified in Schedule I, for admission to corresponding PG programmes. The CSSAC shall be competent to recommend revisions to Schedule I from time to time, on recommendations of the Department Councils.

3.1.6. Multiple Applications: A candidate may apply for a maximum of three PG programmes at a time.

3.1.7. The changes in the pattern of admission to MBA and MTech programmes

3.2. Notification of Admissions

Call for applications for admission shall be notified preferably before 1st March of every year. At least one advertisement shall be issued in nationally prominent newspapers in Malayalam and English each. Date, time and venue(s) of entrance examination shall be announced in the advertisement and notification. Each department shall advertise the details of the entrance examination, highlighting the importance of the programme(s) offered by them and circulate the brochure to other academic institutions and through the electronic media. Prospectus detailing the admission process and nature and scope of each PG programme shall be issued to each applicant; provided that visually challenged students shall be issued a prospectus in Braille print.

3.3. Applications

Candidates shall apply on-line and in the prescribed form and they shall also submit a statement of purpose for higher studies with the application.

3.4. Entrance Examination

There shall be an entrance examination for admission to each PG programme, and no candidate shall be admitted to a PG programme without taking the entrance examination; provided that the restrictions do not apply to SC/ST candidates admitted to vacant seats reserved for them, foreign candidates and sponsored candidates; provided further that: (a) for M.Tech. programmes, candidates with GATE/UGC-CSIR-NET shall be ranked first and admitted based on the respective test scores and the candidates ranked based on entrance examination of the University shall be admitted to the remaining seats only; (b) For MBA programme, either of the scores of C-MAT(AICTE), K-MAT(Kerala) and CAT(IIM) shall be considered instead of the entrance examination of the University. However, entrance examinations can be cancelled based on the decision of the Syndicate decision in exigencies such as disasters and pandemics.

3.4.1. Nature of Entrance Examinations

The nature of the entrance examinations for admission procedures shall be decided by the University from time to time. The entrance examination for admission shall follow the pattern of multiple-choice questions. The exams shall consist of 100 Multiple Choice Questions covering the subject at Bachelor's level or logical and numerical reasoning, for a maximum of 2 hours. However, the pattern of multiple questions for 60 marks and descriptive questions for 40 marks are also admissible for some programmes. The CSSAC shall be competent to recommend revisions in the pattern of questions from time to time.

3.4.2. Conduct of Entrance Examinations

The Department Council shall set model QPs for entrance examinations, and the Controller of Examinations shall arrange to set the QPs. The office of the CSS shall conduct the entrance examinations. No re-examination shall be provided to absentees,

under any circumstance. It shall be competent of the CSS Academic Committee to sanction special arrangements for differently-abled candidates. Entrance exams can be either online or offline.

3.4.3. Valuation of Entrance Examinations

The answer scripts of the entrance examination shall be valued digitally or by the teachers nominated by the respective Departments and approved by the Controller of Examinations.

3.4.4. Negative Marks

There shall be 0.25 negative marks only for each wrong answer marked in the case of multiple-choice questions.

3.4.5. Re-valuation

There shall be no revaluation of entrance examination answer scripts.

3.5. Rank List

Rank list for admission shall be prepared based on the performance in the entrance exam. For sponsored candidates, ranking shall be based on 80% weightage for CGPA/aggregate marks at bachelor level and 10% for work experience (1%/year) and 10% for an interview conducted by Department Council.

3.6. Bonus Marks for NSS/NCC

Bonus marks shall be awarded to holders of:

- a. NCC Certificates signed by NCC Director and issued by the Directorate of NCC.
- b. NSS Certificates signed by the Vice-Chancellor and issued to volunteers who have completed 240 hours of work within two years.

The benefit of bonus marks for the purpose of admission can be availed by the candidates only under any one category (either NCC or NSS). For certificates with 'C', 'B' and 'A' grades, 0.5, 0.4 and 0.3 % enhancement in index marks shall respectively be given.

3.7. Seats and Reservations

Each Department Council shall recommend the number of seats for PG programmes taking into account the academic resources and shall be approved by the CSSAC and form Schedule II of this regulation. Reservations for SC/ST, OBC, PWD/Transgender and other such categories shall be as per the norms in this regard, issued by the University from time to time.

3.8. Super-Numerary Seats

For each PG programme, there shall be super-numerary seats for

- a. One candidate who is in the rank list and who is not a native of Kerala and an Indian national, in case no such student has secured admission in the programme in the concerned year through the rank list.
- b. One foreign candidate is eligible as per relevant regulations for foreign students.

- c. Students who have won the titles of Kalathilakam or Kalaprathibha in University Youth Festivals in their Bachelors Programme, in any programme of their choice provided that he/she is eligible for admission to that programme.
- d. One Sponsored candidate from Govt./R&D Institutions/Industries, with a minimum of 2 years of work experience.
- e. One student who is a sports person as per the procedure for admission under sports quota. The eligibility details are listed in Schedule IV.
- f. One seat in a program for candidates from the Armed forces (Army, Navy Air force) as recommended by their authorities, subject to a maximum of 6 in all programs under CSS in an academic year.
- g. One supernumerary seat for an Ex-Serviceman who satisfies the eligibility, for each PG Programmes subject to reporting to the syndicate.
- h. One seat in each of the PG programme offered by the Department of Aquatic Biology & Fisheries shall be reserved for fishermen's children, who is otherwise eligible for admission, subject to reporting to the Syndicate.

3.9. Admission and Fees

Candidates ranked for admission shall present themselves for verification of records on announced date and time. The original certificates except transfer certificate shall be returned the same day after verification by respective Heads of Departments. Candidates shall pay prescribed fees of two kinds (i) one-time fee to be paid at the time of admission only and (ii) tuition fee to be paid in each semester.

3.10. Misrepresentation

Any willful misrepresentation or forgery of documents shall result in the expulsion of the candidate from the programme or withdrawal of the degree. The students have to follow the code of ethics and conduct (Schedule V).

Chapter 4

CHOICE-BASED CREDIT & SEMESTER SYSTEM (CSS) AND PROMOTION OF INTERDISCIPLINARITY

4.1. The CSS Framework

The post-graduate programmes shall be under credit and semester system (CSS). In CSS, each academic year shall be organized into two semesters, with a vacation of one month during the whole programme: Each semester shall have a minimum of 100 working days and a minimum of 30 hrs. in a five-day week. The semester schedules shall be as follows:

- Odd Semester July to December (inclusive of end semester exams)
- Even semester January to June (inclusive of end semester exams)

Each programme shall be offered a choice of courses of different types, each normally having an assigned credit associated with it. Teaching and learning shall be aided by feedback obtained through continuous assessment. Each course performance and

overall semester performance, as well as overall programme performance shall be evaluated and assigned grades, as per the grading scale mentioned in section 6.1.

4.2. Core Courses

Each Department shall offer core courses to the students in their Post-Graduate programme. The core courses shall be in the discipline and domain of the programme.

4.3. Elective Courses

Each department shall offer a choice of elective courses in areas that are closely or distantly related to the discipline and domain of the PG programme to students of PG programme of any Department. Each department can offer a pool of elective courses so that students have a choice of elective courses. The Discipline Specific Electives are courses offered under the main discipline/subject of study, primarily offered to the students of the same discipline in each semester. The departments can modify such electives or add fresh electives from time to time, based on the changing academic paradigms related to the subject. Such courses must be approved by the Department Council and the minutes of the meeting must be forwarded to the CSS and must be approved by the CSS Academic Committee.

The Generic Courses are electives on unrelated discipline/subjects, offered by a department or cluster of departments to the students of other departments, and shall be interdisciplinary in nature. Each student, during the entire programme, should complete a minimum of two such courses. The choice of such electives for each semester shall be advertised in CSS website and circulated to the Departments, and the departments can revise such electives from time to time with the approval of CSS Academic Committee.

Interdisciplinary Generic Courses may also be to be offered collaboratively by more than one Department/Discipline/School/Faculty, and central facilities such as Central Laboratory for Instrumentation and Facilitation (CLIF). Such interdisciplinary courses, including those offered by the centers, may be coordinated by a Department.

4.4. Skill Enhancement Courses

Department Council may designate appropriate electives as Skill Enhancement Electives. These courses are designed to provide value-based or skill-based knowledge and should contain both theory and lab/ hands-on training/ fieldwork. The main purpose of these courses is to give students life-skills in the hands-on mode to increase their employability. These courses shall have credits and grades, which shall not be used in computing and SGPA and CGPA, but shall be included in the Grade Sheet.

4.5. Audit Courses

Audit courses are courses that do not carry credits and are not graded.

4.6. Negotiated Courses

Negotiated Courses are elective courses that are designed and offered on request from students and are not graded.

4.7. Non-Taught Courses

Non-Taught Courses are core or elective courses which are not centered on teaching, such as laboratory courses, seminars, projects, media production, case studies, internship, and fieldwork. They can be offered by each department and shall have credit assignments and evaluation procedures suitably defined as per provisions of these regulations.

4.8. Internship and fieldwork outside the Institution

Students to be assigned with internship and fieldwork based on the nature of the Programme. Internship work could be offline or online, national or international. Direct visit internships can have a duration of a month. Preferably vacation between second and third semester could be used for this purpose, and the students shall submit an internship completion certificate, attendance statement from the organization offering internship, and the Department Council minutes approving internship to the CSS office. Any internship extending beyond one month should get the prior permission from the CSSAC. The credits allowed for each internship for a month may be one and each candidate shall have a maximum of two credits during the entire programme. The weightage of the credits for internship where credits are not offered by the host institutions, the Department Council shall fix the credits and report the same to the CSS Academic Committee for approval. Such credits earned shall be considered as additional credits.

4.9. SWAYAM (Study Webs of Active-learning for Young Aspiring Minds) Courses

Each student shall select at least one course from the SWAYAM Platform of Ministry of Human Resources Development (MHRD), Govt. of India during the tenure of their programme in the University. The course selection to be in consultation with the Faculty Advisor and mentors and as approved by the SWAYAM coordinator of the University. This course would be an additional elective and credits earned would be integrated as additional credits in the Grade Certificate.

4.10. Learning Management System (LMS) for CSS

Each department shall showcase their taught courses for each semester in the LMS platform with Programme code and course codes. Each faculty shall upload their courses on LMS portal and use the platform for Continuous Assessment (attainment of the course outcomes) of their students. The resources and activities may be made available online in tune with the Outcome Based Curriculum framework. Online activities and assessment under CA may be carried out through the LMS Platform.

4.11. Promotion of Inter-Disciplinarity

All Departments shall offer at least one generic elective every year. Every student of 2-year PG programmes shall, during the whole programme, register for at least two generic courses from outside Department, preferably in an unrelated subject.

4.12. Extension Activities

The extension activities, which promote neighbourhood services, and recommended by the DC shall be integrated with curricula as extended opportunities intended to help, serve to reflect and learn. Such extension activities may be part of the activities of National Service Scheme and services under the 'Harithalayam' project of University of

Kerala, including the Agriculture fellowship offered by the University or independent programmes initiated by departments or government.

4.13. Credits

Credits are numbers attached to each course which define their weightage in the whole programme. One credit is defined as:

- a) Weightage of a taught course with 1 contact hour/week/semester or
- b) Weightage of a non-taught course with 2 contact hour/week/semester.

4.14. Course Credits

Every taught course shall have 2, 3 or 4 credits. The discipline-specific electives, generic courses and other electives shall have 2 credits. For non-taught courses, the following guidelines are applicable: (a) seminars, term-papers, case studies, internship (of minimum 3 weeks) and fieldwork shall have 2 credits each. (b) Laboratory courses shall have a maximum of 4 credits.

Projects in all streams may have credits from 6 to 18, and they will be part of the core course. Each dissertation should pass through the plagiarism check with appropriate software advocated by the University or wherever it is not practicable, the DC should ensure that the dissertation submitted by the student is free from plagiarism.

4.15. Programme Credits

For all the four-semester programmes, the minimum and maximum credits of core courses shall be 48 and 64 and for the electives 12 and 24 respectively. For such programmes, the total minimum and maximum credits for the programme shall be 72 and 84 respectively.

For all the two-semester programmes, including diploma programmes, the minimum and maximum credits of core courses shall be 24 and 30 and for the electives 6 and 12 respectively. For such programmes, the total minimum and maximum credits for the programme shall be 34 and 42 respectively.

Provided that the CSSAC shall be competent to amend the above limits to conform to the mandatory guidelines of statutory authorities such as UGC, AICTE, Bar Council and NCTE, issued from time to time, and the same shall be reported to the next Academic Council.

Students shall register for the required number of courses at the beginning of each semester. No student shall register for more than 24 credits and less than 16 credits in a semester.

4.16. Duration of PG Programmes

PG programmes shall generally be of 2-year duration, with 4 semesters, except LLM and PG Diploma, for which the duration shall be 1 year with 2 semesters. The maximum number of semesters that can be taken by a candidate to complete a PG programme shall be 8 semesters, except for LLM and PG Diploma for which it shall be 4 semesters.

4.17. CSS Handbook & Website

Every student shall be issued in hard/soft copy, a CSS Handbook at the time of admission, containing these regulations and all other relevant information. CSSAC shall maintain a web site for providing comprehensive information about CSS and shall upload an annual report in the web site.

Chapter 5

CURRICULUM DESIGN & DELIVERY

5.1. Course as a Stand-Alone Unit

Each course shall be designed as a stand-alone unit of academic experience and shall follow Learning Outcomes based Curriculum Framework (LOCF) under the standards of Outcome Based Education (OBE).

5.2. Course Title and Code

Each course shall have a unique title and code. The code shall consist of maximum five alphabets indicating the Dept. and 3 digits; first digit indicating the level of the course (5 for PG programmes), second digit indicating the semester and the last digit indicating the serial number of the course in that semester. CSSAC may suitably amend these codes for special purposes, maintaining a reasoned structure.

5.3. Course Syllabus Outline

Course syllabus outline shall be a brief telegraphic statement of the topics to be dealt with in the course, designed by the Department Council for each course. This shall include statement of course outcomes, assessment strategy and course references.

5.4. Programme Syllabus

Programme Syllabus shall be a statement of graduate attributes, programme outcomes and programme-specific outcomes (PSOs) along with course syllabus outline of each course offered by the Department.

5.5. Course Bulletin

The University shall make available to all students a Bulletin listing all the courses offered in every semester specifying the credits, the pre-requisites, list of topics the course intends to cover, the instructor who is giving the course, the time and place of the classes for the courses and the nature and schedules of assessments.

5.6. Detailed Course Brochure

Detailed Course Brochure shall be issued to each student of a course by the respective teacher(s) offering the course. This shall be an expanded version of the course syllabus outline and shall typically consist of the following sections: Course title, course credits, name of teachers offering the course, course aims, learning outcomes, expanded syllabus, expanded core and supplementary references (including web resources), assessment strategies and any other noteworthy details of the course. The Course brochure shall be filed by the Department Councils and also reported to the CSSAC.

5.7. Academic Calendar

Academic calendar issued by CSSAC (which shall conform to semester definition as in section 4.1 of these regulations) shall be followed by each department.

5.8. Induction Programme

The University/School/ Department may arrange three-tier induction programme for students in the first week of their admission into the programme and is aimed at introducing the University system, infrastructure and programme objectives to students of PG programmes, along with imparting an array of learning habits appropriate in higher education. Each student shall be made aware of the University Graduate Attributes and Programme outcomes.

5.9. Registration

Every student shall register for a set of courses of his/her choice, from the courses on offer, taking into consideration the advice from faculty advisor. Registration shall be done in the prescribed form within 2 weeks after commencement of a semester. With the consent of the Faculty Advisor, a student can drop out of any course within 3 weeks after registration, by applying in prescribed form.

5.10. Curriculum Transaction Strategies

It shall be up to the teacher teaching a course to choose the most appropriate curricular transaction strategies. However, the Dept. Council or CSSAC may issue general guidelines in this regard for due consideration by teachers. Teachers may consider the following approaches for curricular transactions: (i) lecturing, (ii) experiential learning, (iii) service-learning, (iv) critical pedagogy, (v) field study, (vi) activity-based learning, (vii) discourse method, (viii) interactive learning, (ix) eLearning, (x) group discussions, and (xi) workshops.

5.11. Invited Professors/Experts: The Department Council shall prepare a panel of distinguished professors/experts from the field of industry, technology, media, literature, history, etc for inviting them and utilizing their expertise in academics and research in the University. The panel submitted to CSS office shall be vetted by the IQAC and placed in CSS AC and Syndicate for further placement in appropriate manner.

5.12. Teacher-Cum-Research Assistants: The Departments shall utilize the services of Post-Doctoral students, Research Associates, research scholars, and overseas researchers visiting the departments for short-term attachment programmes as teacher/research assistants.

5.13. Student Feedback

Student feedback on teaching and learning shall be collected for each course as a means of improving teaching. Student feedback shall be of two types. (i) Mid-sem qualitative feedback to be directly collected by the teacher teaching the course. (ii) quantitative feedback collected centrally by a committee authorized by the Vice-Chancellor. At the end of the programme, programme feedback shall be collected from students, compiled and discussed by DC.

5.14. Revisions of Syllabus

It shall be the responsibility of the Department Council to revise the syllabus from time to time. Minor revisions (such as additions, deletions, modifications of sub-topics, additions of latest reference materials etc.) shall be done as and when required, by the course teachers while issuing course bulletins. Such revisions shall, by and large, confine to the Course Syllabus outline approved by the Academic Council. The Department Council shall comprehensively revise the syllabus at least once in three years. Such major revisions shall involve collecting inputs from (i) alumni (ii) industry/academies (iii) employers (iv) peer inputs from subject experts outside the University. The revised syllabus shall be placed for approval of the Academic Council through the CSS Academic Committee.

5.15. Persons with Disabilities

A minimal set of reading materials printed in Braille press shall be provided, free of cost, to visually challenged students.

5.16. Role of Central/Campus/Department Library

Each student enrolled in the department shall become a registered member in the Central Library and Campus Library, and use the facilities for academics and research. They shall facilitate students with checking plagiarism in their documents if any. The Department libraries should also provide their inputs on curriculum revision, compile all previous and existing syllabi of the department, and organise workshops for the students regularly to introduce all the online facilities for academics and research. The librarian in the department shall provide information to the students regarding the latest arrival of books and online resources in the subject concerned, resources available in other departments and libraries in Universities, digital platforms of education, issues related with copyright education. Wherever necessary DC may include department librarians as a special invitee in meetings discussing curriculum revision and updating resources for the library.

Chapter 6

ASSESSMENT AND EVALUATION

6.1. Grading of Student Performance

Performance of students in individual courses shall be evaluated and assigned grades to indicate the level of achievement of objectives. The grading scale shall be the same as the national pattern recommended by the UGC. Each grade shall be indicated by a letter as in the table below:

Grade	Grade Point
O (Outstanding)	10
A+ (Excellent)	9
A (Very good)	8.5
B+ (Good)	8
B (Above Average)	7
C (Average)	6
D (Pass)	5
F (Fail)	0
Ab (Absent)	0
CI (Course Incomplete)	0

Each grade shall have a corresponding grade point which serves as a means of aggregating letter grades and are not marks or scores.

Course-wise Grading

Conversion of Percentage of marks into grade points of a course is as follows:

Sl. No.	Weightage in Percentage	Grade Point	Grade
1	90 to 100	10	O (Outstanding)
2	85 to less than 90	9	A+ (Excellent)
3	80 to less than 85	8.5	A (Very good)
4	70 to less than 80	8	B+ (Good)
5	60 to less than 70	7	B (Above Average)
6	55 to less than 60	6	C (Average)
7	50 to less than 55	5	D (Pass)
8	Less than 50	0	F (Fail)
9	Absent	0	Ab (Absent)
10	Course Incomplete	0	CI (Incomplete)

Programme-wise Grading

The range of CGPA and Grade is as follows:

Sl. No.	CGPA	Grade
1	9 to 10	O (Outstanding)
2	8.5 to less than 9	A+ (Excellent)
3	8 to less than 8.5	A (Very good)
4	7 to less than 8	B+ (Good)
5	6 to less than 7	B (Above Average)
6	5.5 to less than 6	C (Average)
7	5 to less than 5.5	D (Pass)
8	Less than 5	F (Fail)
9	Absent	Ab (Absent)
10	Course Incomplete	CI (Incomplete)

For the M.Tech programme, the grades shall be as follows:

Grades		Grade Point (GP)	% of Total Marks obtained in the course
O	(Outstanding)	10	90% and above
A+	(Excellent)	9	85% and above but less than 90%
A	(Very Good)	8.5	80% and above but less than 85%
B+	(Good)	8	70% and above but less than 80%
B	(Above Average)	7	60% and above but less than 70%
C	(Average)	6	55% and above but less than 60%
D	(Pass)	5	50% and above but less than 55%
F	(Fail)	0	Less than 50%
FE		0	Failed due to eligibility criteria
CI		0	Course Incomplete

6.2. Types of Assessment

In the PG programmes, every taught course shall be assessed through: (a) continuous assessment in each semester with 40% weightage (b) end-semester assessment with 60% weightage.

6.3. Continuous Assessment for Taught Courses

Continuous assessment is aimed at giving continuous feedback about teaching and learning to teachers and students, respectively.

The nature of continuous assessment may remain flexible, and it can be done based on the following assessment components: time-constrained examinations, closed-book and open-book tests, problem-based assignments, practical assignment laboratory reports; observation of practical skills, individual project reports (case-study reports), team project reports, oral presentations, including seminar presentation; viva voce interviews; computerised adaptive testing, peer and self-assessment, activities in Moodle platforms including workshops, quiz, survey etc. and any other pedagogic approaches as per the context.

Out of 40% weightage allotted for continuous assessment, the sub-components shall normally be:

Component 1: Weightage 20% (any examination strategies in the list); Component 2: Weightage 10%; Component 3: Weightage 10% (component 2 and 3 is the choice of the teacher from the above list or based on the activities in LMS platform).

In specific cases, wherever appropriate, Audit Electives or Negotiated Courses can be without end semester examination. In such cases, the student will learn and be evaluated through a selection of critical, creative, and responsive assignments throughout the term. The student will have to submit written assignments after completing every module. The assignment submitted must also include all the working drafts to understand and evaluate the progress made in the analytical and critical competence of the student. The assignments will include a series of essays of not more than 3000 words each. At the end of the course, the student will have submitted a complete portfolio that will form the basis of the final grading. The student may also choose to share video, audio, or other forms of media in order to enhance his/her learning experience, which can contribute to the cumulative grading. Final grades will be based entirely on the assignments submitted and responses shared throughout the course; there is no final exam, and the document will have to pass through the plagiarism checks.

6.3.1. Conduct of Assessment

Tests and other class assessments shall normally be conducted as per academic calendar and shall always be notified to students well in advance. Additional chance to take tests/examination or to submit assignments under extenuating circumstances or to take part in arts/sports events recognized by the University shall be duly considered by the teacher.

6.3.2. Abnormal Test Results

Any test for which class average score is less than 40% shall not be reckoned for assessment, and a re-test shall be administered for the whole class.

6.3.2.1. Remedial Teaching: Remedial teaching shall be designed by DC for the slow learners, providing them with the necessary help and guidance to help them overcome their problems, after identifying their areas of difficulty.

6.3.3. Articulating Grade Requirements & Late Submission Policies

For assignments/term papers/tasks, students shall be provided with a clear indication of the effort required to achieve specific grades or score bands. Late submission policy for assignments shall be clearly stated. For each day of delay, not more than 10% of the maximum score may be deducted.

6.3.4. Receipts for Assignments

Students shall be issued with receipts for assignment if they so desire. Time-stamped electronic communications shall also be considered as proof of submission.

6.3.5. Marking of Scripts

Teachers may offer written remarks on tests and assignments while returning marked scripts to students so as to enable them to understand the areas for improvement. This shall be mandatory for scores below 40%.

6.3.6. Plagiarism

Awareness shall be given by each course teacher to students about plagiarism and its unacceptability. Office of CSS shall organise workshops for students with Central Library, State Library and Department Library to create awareness on ethical issues related to plagiarism and familiarize students with software to check plagiarism. Students may be encouraged to check plagiarism with software tool recommended by the UGC from time to time for assignments, term papers, and dissertations.

6.3.7. Communicating Results & Addressing Grievances

Each teacher shall formally communicate the score awarded for tests and assignments to every student. Student grievances, if any, shall be first addressed by the teacher. If not resolved, the same may be raised in DC through the head of the department. Any appeal on the decision of the DC shall lie with student grievance subcommittee of CSSAC which shall give due hearing to the student(s) and teacher(s) and attempt to resolve the grievance, failing which the Syndicate of the University shall take a final decision in the matter.

6.3.8. Attainment of Course Outcomes (COs)

COs are to be attained by all students at the end of a formal course. While the method of computation of attainment of COs is not unique, CSS shall follow a well-defined direct method of computing CO attainment based on the student performance in all assessment instruments, and indirect method of computing COs through course exit survey of students.

6.4. End-Semester Assessment for Taught Courses

6.4.1. Nature of End-Semester Examination

Every taught course shall be assessed through a written end-semester exam of maximum 3 hours duration. The end-semester exams shall be of summative nature and aimed at testing the achievement of course outcomes, as stated in the syllabus. Every student shall be issued, in the first week of the semester, a model question paper for the end-semester examinations. The end-semester exam shall normally consist of at least 20% of questions which involve higher-order critical thinking. End-semester examination shall not constrain itself to knowledge recall.

6.4.2. Conduct of End Semester Examination

In all semesters, the faculty in the concerned department teaching the course shall prepare three sets of question papers and a scrutiny committee consisting of concerned faculty, faculty advisors and Head of the Department (HoD) will approve the same. The HoD shall select one of the QPs and arrange to conduct the examination with the same.

The CSS may adopt ICT based question bank system to ensure some uniformity, quality and standard in questions based on learning-outcomes. The questions prepared based on Bloom's taxonomy, covering all levels (remembering, understanding, applying, analyzing, evaluating, and creating) will be updated from time to time, and questions will be generated through the system for each semester. The Examinations Reforms Committee of Internal Quality Assurance Cell (IQAC) of the University will review the questions from time to time and suggest reforms needed if any.

Answer scripts shall be valued by the teacher who taught the course and one external examiner from the panel of examiners recommended by the DC and approved by the VC. If the marks awarded by two examiners differ by more than 10%, then a third examiner from the earlier panel shall be asked to re-evaluate, and the average of the nearest two scores shall be awarded to the candidate. Grievances if any shall be addressed as per provisions of 6.3.7.

During exigencies such as disasters and pandemics, the end semester examination, submission of dissertation and viva may be done online, with the approval of CSS Academic Committee.

6.4.4. Grace Marks

Students who participate in any event listed in schedule III shall be eligible for 15 score per academic year and 30 score for the whole programme. Grace mark shall be added to the total score achieved in any one or more courses of choice of the student, in the whole programme.

6.5. Assessment of Non-Taught Courses

6.5.1. Seminar/ Field Work/ Case Studies/ Internship/ Media Production etc

The assessment methodology and time lines shall be clearly defined by the teacher through the course brochure issued to students. Evaluation rubric shall be proposed by the teacher and approved by the DC, and communicated clearly to the students.

6.5.2. Projects

Detailed guidelines on project objectives and detailed evaluation rubric for the same shall be approved by the DC and communicated effectively to the students. Project Management System shall be developed by each Department to enable effective monitoring and support, for projects with credits above 4. Evaluations rubric of projects with credit above 4 shall include innovation as one component.

6.5.3. Laboratory Courses

Detailed guidelines on conduct and assessment of laboratory courses and detailed evaluation rubric for the same shall be approved by the DC and communicated effectively to the students.

6.5.4. Examination Management System

The examination management system shall be a well-defined document or a software application, implemented by the University for the planning, administration, documentation, tracking, evaluation of student responses, and the announcement of grades/marks obtained by students in all formal learning activities in an educational program.

Chapter 7

STUDENT PROGRESS AND CERTIFICATION

7.1. Prohibition of Other Enrollments, Employment and Ragging

Once admitted, students shall not undergo any other programme of education, or undertake any full-time employment; provided that short MOOC courses recommended by faculty advisors shall not come under this category. Students are prohibited from indulging in any form of ragging. Any student, who after due process of law, is found guilty of ragging during PG programme, shall not be eligible to continue in the programme.

7.2. Attendance

Students have to secure a minimum of 75% attendance for each course to become eligible to appear for End Semester Examinations for the course concerned. There shall be no score for classroom attendance. No condonation for the shortage of attendance shall be given. The Head of the Department shall, on the first of every month (or on the next immediate working day), formally communicate, any fall in attendance below 75%, related to the previous month, to the student concerned, and the CSS office.

7.3. Absence from Assessment Under Extenuating Circumstances

Students may apply to CSS Academic Committee through HoD for a special arrangement to make up for absence from assessment under extenuating circumstances, and the CSS Academic Committee shall be competent to permit such special arrangements after consideration and verification of the circumstances. Any consideration under this provision shall be based on formal request made immediately after the contingency (except in naturally impossible circumstances) either through self or next of kin.

7.4. Repeating a Course

A student who fails to secure 75% attendance shall be required to repeat the course along with the next batch; provided that the course may be dropped if the student has met minimum credit requirements otherwise.

7.5. Minimum Grades for Course, Semester and Programme

7.5.1. Minimum Grade for Successful Course Completion

The minimum required grade for successful completion of any course shall be a 'D' grade. There shall be a separate minimum of 40% marks for end semester examinations for each course.

7.5.2. Minimum Cumulative Grade and Scholastic Probation

If the Cumulative Grade of a student falls below 'D' in any semester, the student shall be declared to be on a scholastic probation and the same shall be formally communicated to the student by the DC. During the scholastic probation, the Faculty Advisor and Faculty Coordinator shall monitor the progress of the student and provide counseling and support through remedial teaching. The student shall be required to achieve cumulative grade of 'D' or above by the next semester, failing which the student shall not be allowed to continue in the programme.

7.5.3. Requirements for Successful Completion of the Programme

- a) The minimum Cumulative Grade for successful completion of the programme shall be a 'D' grade.
- b) The student also shall be required to pass all courses for which he/she is registered.
- c) The student shall meet the minimum credit requirements for Core and Elective courses as laid out in these regulations.

7.5.4. Supplementary Exams

Students who fail in any course in any semester shall be permitted to appear for a maximum of two supplementary exams (along with the junior batch), within 8 continuous semesters. A student who fails to achieve Cumulative Grade of 'D' for the programme, but has passed all courses, shall be permitted to take supplementary examinations in a maximum of 2 courses, after cancelling the results of the end-semester exam concerned (except project).

7.6. Break in Programme

Students who discontinue the programme due to extenuating circumstances or due to appointments in Govt./Quasi Government organisations, may, within the limit of 8 semesters, be permitted to rejoin the programme with the existing batch, reckoning the earlier attendance and assessments, as deemed fit by the CSS Academic Council.

7.7. Late Submission and Resubmission of Dissertation

- a) In the case of candidates who have completed the PG programme in all respects except submission of the dissertation, they shall be permitted to submit the dissertation within the maximum semester duration, on payment of prescribed fees

and fine. Students who prove extenuating circumstances shall be exempted from the above fine.

- b) In the case of candidates who are asked by examiners to resubmit dissertations, they shall be permitted to resubmit the dissertation within the maximum semester duration, on payment of prescribed re-submission fees.

7.8. Horizontal Mobility into and out of the Programme

It shall be competent of DCs to recommend lateral entry into and exit from PG programmes and recommend qualifications for entry and awards for the exit. Provided that the exits shall be limited to the first semester resulting in a Certificate and after the second semester, resulting in a PG Diploma. Each such scheme shall be offered only after approval by the Academic Council based on the recommendation of the CSSAC. A student who exits laterally shall not be re-admitted into the programme.

7.9. Credit Transfer

Credit transfer into PG programmes shall be permitted within the provisions of the Credit Transfer Regulations of the University (2014). Credits earned from SWAYAM platform of UGC shall be transferred into the PG programmes within the provisions of the “Credit Framework for Online Learning Courses through SWAYAM” Regulations of the University (2016).

7.10. Certification

7.10.1 Calculation of SGPA and Semester Grade

To arrive at the Semester Grade Point Average (SGPA) of each student, the sum of the products of the credits assigned to each course and the grade point corresponding to the grade awarded, is divided by the sum of the credits of all courses taken by the student in the semester. The grade awarded based on the SGPA shall be Semester Grade.

7.10.2. Calculation of CGPA and Programme Grade

To obtain Cumulative Grade Point Average (CGPA), the same procedure as in 7.10.1 is repeated except that the sum is taken over all the courses the student has taken in all the semesters till then. The grade awarded based on CGPA covering all semesters shall be the Programme Grade.

7.10.3 Classification

There shall be no classification such as Distinction, First Class etc. for PG programme.

7.10.4. Ranking

There shall be no ranking of students in PG programmes and the Cumulative Grade/Programme Grade is to be relied on, in preference to CGPA, wherever possible. In case of any selection for recognitions, the Programme Grade shall be relied on, and to break ties, if any, the number of highest grades awarded for courses shall be relied on. Position certificate may be issued by CSS only to those students applying for fellowships for research programmes such as INSPIRE, where it is mandatory.

7.11. Grade Sheet

The University shall, under its seal, issue to the students a grade sheet on completion of each semester of a programme. The Grade sheet issued at the end of the final semester shall contain the following:

- a) The titles of the courses taken (including audit courses and transfer courses)
- b) The credits associated with each course
- c) The Grades secured by the student for each course.
- d) The total credits earned by the student in the semester and the SGPA.
- e) The total credits earned by the student till that semester and the CGPA.
- f) Overall/Programme Grade based on CGPA and class (with the indication “Not completed” in case of students who do not meet requirements as in 7.5.3).

The Grade sheet shall not mention any marks/scores in any way. The grade sheet shall include a brief note on the credit definitions, grading scale and the grade statistics of the previous year. The CSS may also release Gradebook to the students through the LMS platform, which automatically aggregates scores and feedback from Assignments, Activities, or Manual grades from the LMS course of a student.

7.12. Monitoring Student Progression and Grade Inflation

The office of the CSSAC shall compile in January of each year, the following data covering the results of the last calendar year: (a) distribution of grades stream-wise and department-wise (b) The grade statistics showing the percentage of each type of grade awarded to all students and present it before the CSSAC. CSSAC shall analyze the pass percentage, investigate any abnormality and grade inflation or deflation and issue guidelines to address the same.

Chapter 8

TRANSITORY PROVISION AND REPEAL

8.1. Transitory Provision

Notwithstanding anything contained in these regulations, the Vice-Chancellor shall, for a period of three years from the date of coming into force of these regulations, have the power to:

- a) provide by the order that these regulations shall be applied to any other programme with such modifications as may be necessary.
- b) take actions as he/she deems fit, to remove difficulties in implementation/interpretation of the regulations.

8.2. Repeal

The CSS Regulations of 2017 is hereby repealed, except as applicable to students already admitted under that regulation.

SCHEDULE I

ELIGIBLE SPECIALIZATIONS

In addition to eligibility conditions specified in section 5.3 above, the candidate shall hold Bachelor degree in subjects specified below, for admission to corresponding PG Programmes.

1. **MA English Language and Literature:** BA English Language & Literature; BA English and Communicative English; BA Communicative English (Vocational); BA Communicative English OR any BA/BSc with credits earned for at least 4 English Language courses.
2. **MA Hindi Language and Literature:** Graduates in B.A. Hindi. Any BA/B.Sc. degree holder with at least 4 Hindi Language courses.
3. **MA Malayalam Language and Literature:** Graduates in B.A Malayalam. Also, any BA/BSc. with at least 4 Malayalam Language courses.
4. **MA Arabic Language and Literature:** B.A Arabic, Any BA/BSc. with at least Arabic 4 language courses; B.A/B.Sc. in Afzal-ul-ulama, Any graduate degree in 10+2+3 pattern with not less than 50% marks / CGPA in the Afzal-UI-Ulama preliminary examination of any Universities in Kerala or the Arabic teachers examination of Pariksha Bhavan.
5. **MA Sanskrit General Language and Literature:** B.A Sanskrit (any specialization); any B.A/B.Sc. degree holders with at least 4 Sanskrit language courses.
6. **MA Russian Language and Literature:** Any B.A/B.Sc. with at least 4 Russian language related courses; Any degree with diploma in Russian.
7. **MA German Language and Literature:** Any B.A/B.Sc. with German language related courses. Any degree with diploma in German.
8. **MA Malayalam Literature, Kerala Studies and Media Studies:** Graduates in B.A Malayalam. Also, any BA/BSc. with at least 4 Malayalam Language courses
9. **MA Philosophy:** BA Philosophy; any BA/BSc. Degree holder will be admitted after all BA Philosophy holders are admitted.
10. **MA History:** Degree holders from BA/BSc/LLB. 80% of seats shall be reserved for candidate who hold BA Degree in History.
11. **MA Sociology :** Any BA/BSc. from faculties of Arts/Social science/Science/Commerce/Law. 75% of the seats shall be reserved for candidates who hold B.A Sociology.
12. **MA Economics:** B.A Economics, B.Sc. Mathematics or B.Sc. Statistics
13. **MA Political Science:** Any BA from Faculty of Social Sciences, Law and Journalism. 15% of seats will be reserved for candidates from humanities science and commerce. Weightage will be given to candidates from the discipline of Political Science.
14. **MA Public Administration:** Any Bachelor's Degree

15. **MA Islamic History:** B.A Islamic History; any B.A/B.Sc. degree holder will be admitted after all BA Islamic History holders are admitted.
16. **MA West Asian Studies:** Any Degree in Social Sciences, Humanities, Languages and Fine Arts
17. **MA Linguistics:** Any BA, B.Sc, B.Com/MBBS/B.Tech from faculties of Arts/ Social science/ Commerce/Law/ Medicine and Engineering.
18. **MA Tamil Language and Literature:** B.A Tamil.
19. **MA Music:** B.A Music; BPA
20. **MA Archaeology:** Any BA, B.Sc.
21. **MSW:** Any BA, B.Sc. 50% of the seats reserved for B.Sc. degree holders. Graduates in Social Science, commerce, Law, BSW, BBA.
22. **M.Com- Finance and Accounting:** B.Com/ B.B.A. 80% of the total seats would be reserved for candidates with B.Com.
23. **M.Com - Global Business Operations:** Any Degree in Commerce, Management, Law, Social Sciences , and Engineering
24. **M.C.J:** Any Bachelor's degree including BA, B.Sc., BBA, BCA, B.Tech., B.VSc., MBBS.
25. **M.L.I.Sc.:** Any Bachelor's degree including BA, B.Sc., BBA, BCA, B.Tech., B.VSc., MBBS.
26. **M.Ed.:** B.Ed. degree, additional weightage will be given to PG. (MA, M.Sc./M.Com) candidates in the respective area of specialization² at B.Ed.
27. **LLM:** LLB 5 year/3 year/Annual Scheme
28. **M.Sc. Biochemistry:** B.Sc. in Chemistry/Biochemistry/Biochemistry and Industrial Microbiology/ Graduates in any multimajor course with Biochemistry (main).
29. **M.Sc. Biotechnology:** B.Sc. in Zoology/Botany/Microbiology/Biotechnology/ Biochemistry/ Environmental Science/Aquatic Biology
30. **M.Sc. Genetics & Plant Breeding:** B.Sc. Botany or in any Multi-major course with Botany. B.Sc. Botany and Biotechnology
31. **M.Sc. Biodiversity Conservation:** B.Sc. in Botany/Zoology
32. **M.Sc. Chemistry:** B.Sc. Chemistry/ Polymer Chemistry/Industrial chemistry/ Analytical chemistry with Mathematics as one of the Complementary subjects.
33. **M.Sc. Aquatic Biology and Fisheries:** B.Sc. Aquatic Biology and Fisheries/ Zoology/Aquaculture/ Fisheries Science (BFSc)/ Industrial Fisheries.
34. **M.Sc. Computer Science:** B.Sc Degree in Computer Science/Computer Application (BCA)/Electronics

1.Specialization at B.Ed means Natural Science /Physical Science/Mathematics/English/Malayalam/ Hindi/Arabic/Tamil/ Kannada/ Commerce/IT or Computer/Social Science etc.



35. **M.Sc. Computer Science with specialization in Artificial Intelligence:** B.Sc Degree in Computer Science/Computer Application (BCA)/Electronics
36. **M.Sc. Environmental Science:** B.Sc. Environmental Science/ Botany/ Zoology/ Biochemistry/ Chemistry and Industrial Chemistry/ Geology.
37. **M.Sc. Geology:** B.Sc. Geology
38. **M.Sc. Computational Biology:** B.Sc. Computational Biology/ Computer Science/ Statistics/Physics/BCA/ Electronics/ Information technology/ Bioinformatics/ Mathematics/ B.Tech in any branch
39. **M.Sc. Demography and Biostatistics :** B.Sc. Mathematics/ Statistics/BA Economics/ Sociology/B.Sc. Geography/ Anthropology with Statistics as one of the Complementary subjects
40. **M.Sc. Actuarial Science:** B.Sc. Mathematics/ Statistics/ Actuarial Science/ Mathematical Actuarial Science/Actuarial Statistics /Actuarial Economics/ Computer Science
41. **M.Sc. Mathematics:** B.Sc. Mathematics
42. **M.Sc. Mathematics with specialisation in Finance and Computation:** B.Sc. Mathematics
43. **M.Sc. Physics:** B.Sc. Physics with Mathematics
44. **M.Sc. Statistics:** B.Sc. Statistics; B.Sc. Mathematics(with Statistics courses). 30% of those general merit seats shall be reserved for B.Sc. Statistics Degree
45. **M.Sc. Applied Statistics and Data Analytics:** B.Sc in Statistics/Applied Statistics or B.Sc. Mathematics with Statistics at subsidiary level or B.Sc. Physics with Statistics at subsidiary level or B.Sc. Computer science with Statistics at subsidiary level
46. **M.Sc. Zoology (Pure & Applied):** B.Sc. Zoology
47. **M.Sc. Integrative Biology (Zoology):** B.Sc. Zoology with Chemistry & Botany as Complementary subjects
48. **M.Sc. Applied Psychology:** B.A/B.Sc. Psychology
49. **M.Sc. Data Science:** B.Sc. Degree in Mathematics/Statistics/Computer Science/B.Tech. in Computer Science/Information Technology
50. **M.Sc. Applied Aquaculture:** B.Sc. Aquatic Biology and Fisheries/ Zoology/Aquaculture/ Fisheries Science (BFSc)/ Industrial Fisheries
51. **MBA (General) and MBA (Travel and Tourism):** The candidate should have passed the degree from any Indian University, under the regular stream, recognized by the University of Kerala and shall be in the 10+2+3 pattern (or in 10+2+4 pattern). In all the cases the student should have passed the degree examination with not less than 50% marks/equivalent grade (no rounding off allowed) in Part III /core plus complimentary in BA, B.Sc., B.Com. etc., or 50% marks/equivalent grade (no rounding off allowed) in aggregate in case of B.E/ B.Tech, B.Sc. (Agri.) and other 4/5



year degree courses. The candidates, who have passed MA/M.Sc./M.Com. or any other PG Degree recognized by the University of Kerala with 50% of marks/equivalent grade in aggregate, are also eligible for admission. SC/ST candidates shall be given relaxation as per University rules.

52. M.Tech Computer Science (with Specialization in Digital Image Computing):

A Bachelor's degree in Engineering / Technology with at least 55% marks in one of the following branches: Computer Science and Engineering / Information Technology / Electronics Engineering / Electrical Engineering from the University of Kerala or equivalent recognized degree of a recognized University or First Class Master's degree in Computer Science / Computer Application from the University of Kerala or equivalent recognized degree of a recognized University.

53. M.Tech Technology Management (Futures Studies): B.Tech Degree or equivalent in any branch of Engineering / Technology with at least 55% marks from any of the recognized Universities in India. Admissions to non-sponsored seats will be made on the basis of valid GATE score. Admissions to sponsored seats will be governed by the following AICTE guidelines. The candidates should have:

(i) Bachelor's Degree in Engineering / Technology with at least 55% marks from AICTE approved institutions. Preference will be given to candidates who have qualified GATE.

(ii) A minimum two-years of full-time work experience in a registered firm / company / industry/educational and research institution / any Government Department or Government Autonomous Organization in the relevant field.

(iii) Less than 45 years of age as on 1st day of the year of admission.

54. M.Tech Electronics and Communication (Optoelectronics and Optical Communication): At least a second-class BE / B.Tech or equivalent degree with 55% marks in Electronics / Electrical and Electronics / Electronics and Communication Engineering, Applied Electronics and Instrumentation or M.Sc. Degree in Physics / Applied Physics / Electronic Science or Electronics of the University of Kerala or equivalent.

** Note: In the case of annual scheme, the following procedure will be adopted: For PG Programmes in Languages/Arts/ Humanities, in the place of requirement of 4 courses, Part II in the concerned languages shall be considered.*

SCHEDULE –II
DETAILS OF DEPARTMENTS, PROGRAMMES AND SEATS

Department	Subject	No of Seats
Aquatic Biology & Fisheries	M.Sc. Aquatic Biology & Fisheries	16
Aquatic Biology & Fisheries	M.Sc. Applied Aquaculture	10
Arabic	M.A. Arabic Language & Literature	20
Archaeology	M.A. Archaeology	15
Biochemistry	M.Sc. Biochemistry	16
Biotechnology	M.Sc. Biotechnology	12
Botany	M.Sc. Genetics & Plant Breeding	16
Botany	M.Sc. Biodiversity Conservation	10
Chemistry	M.Sc. Chemistry	18
Commerce	M.Com – Finance and Accounting	30
Commerce	M.Com - Global Business Operations	20
Communication & Journalism	MCJ	22
Computer Science	M.Sc. Computer Science	30
Computer Science	M.Sc. Computer Science with specialization in Artificial Intelligence	20
Computer Science	M.Tech Computer Science with Specialization in Digital Image Computing	18
Computational Biology & Bioinformatics	M.Sc. Computational Biology	12
Demography	M.Sc. Demography and Biostatistics	15
Demography	M.Sc. Actuarial Science	15
Economics	M.A. Economics	30
Education	M.Ed.	35
Environmental Sciences	M.Sc. Environmental Sciences	10
Geology	M.Sc. Geology	12
German	M.A. German Language & Literature	13
Hindi	M.A. Hindi Language & Literature	26
History	M.A. History	24
Institute of English	M.A. English Language & Literature	30
Islamic Studies	M.A. Islamic History	12
Islamic Studies	M.A. West Asian Studies	14
Kerala Studies	M.A. Malayalam Literature, Kerala Studies and Media Studies	15
Library Science	M.LISc.	22
Linguistics	M.A. Linguistics	24



Law	LLM	24
Malayalam	M.A. Malayalam Language & Literature	22
Mathematics	M.Sc. Mathematics	30
Mathematics	M.Sc. Mathematics with specialization in Finance and Computation	15
Music	M.A. Music	10
Philosophy	M.A. Philosophy	24
Physics	M.Sc. Physics (with specialization in applied electronics)	22
Political Science	M.A. Political Science	30
Political Science	M.A. Public Administration	10
Psychology	M.Sc. Applied Psychology	25
Russian	M.A. Russian Language & Literature	10
Sanskrit	M.A. Sanskrit General Language & Literature	18
Sociology	M.A. Sociology	24
Sociology	MSW	30
Statistics	M.Sc. Statistics	20
Statistics	M.Sc. Applied Statistics and Data Analytics	15
Tamil	M.A. Tamil Language & Literature	24
Zoology	M.Sc. Zoology (Pure & Applied)	15
Zoology	M.Sc. Integrative Biology (Zoology)	14
Futures Studies	M.Sc. Data Science	18
Futures Studies	M.Tech. Technology Management	15
Optoelectronics	M.Tech. Electronics and Communication (Optoelectronics and Optical Communication)	18
Institute of Management in Kerala	MBA (General)	40
Institute of Management in Kerala	MBA (Travel and Tourism)	40
	MBA (Evening- Regular)	30

SCHEDULE III

ITEMS LISTED FOR GRACE MARKS*

Kerala University Youth Festival (First three places)
 Kerala University Sports/Athletics Meet (First three places)
 Inter-University Youth Festival (First three places)
 Inter-University Sports/Athletics Meet (First three places)
 National Games (First three places)
 Olympics (Participation)
 Kerala Science Congress (Winning awards)
 National Science Congress (Winning awards)
 Indian History Congress (Winning awards)
 South Indian History Congress (Winning awards)
 National Service Scheme (NSS)
 Agricultural fellowships offered by the University of Kerala

* Allocation of grace marks based on respective University Orders

SCHEDULE IV

Norms for Admission to the Seats Reserved Under Sports Quota for Post Graduate Programmes

- a) Representing the country and winning the I/II/III in the International Competitions (Olympics, Approved World Competitions, Approved World University Competitions, Commonwealth Games, Asian Games, Afro-Asian games, SAF Games and South Asian Championships.)
- b) Representing the country in International Competitions (Olympics, Approved World Competitions, Approved World University Competitions, Commonwealth Games, Asian Games, Afro-Asian Games, SAF Games, South Asian Championships.)
- c) Winning the I/II/III in the Senior National Championships.
- d) Winning the I/II/III/IV in the All India Inter -University Competitions.
- e) Representing Senior State in National Championships.
- f) Winning the I/II/III in the Junior/Youth National Championships.
- g) Winning the I/II/III/IV in the Zonal Inter-University Competitions.
- h) Representing Senior State in South Zone Championship.
- i) Representing University in Inter -University Competitions.
- j) Representing the state in the Junior/Youth National Championships.
- k) Representing the state in the Junior/Youth Zone Championships.

- l) Winning the I/II/III place in the All Kerala Inter-Collegiate (College Games) organized by Kerala Sports Council.
- m) Winning the I/II/III place in the Senior/Junior Inter District Championships.
- n) Participating in the State Championships.

If the required number of sports persons is not available, the seats should be kept vacant and shall not be filled by other candidates. **Applications forwarded by sports council shall be considered.**

General Guidelines

- a) For filling up the seats reserved under Sports quota, hierarchy of preference shall be given as per norms/guidelines formulated by the University in addition to his/her satisfying academic eligibility of University of Kerala PG Admission.
- b) When the candidates fulfill minimum academic eligibility, the academic merit shall not be preferred over Sports merit in Sports quota reservation seats, except in the case of a tie in the sports merit.
- c) The original certificate/s from the Competent authority/authorities (Secretary, Organizer etc. as per the Circular Letter No.Ad.D1.3.1276/74 dtd 23.01.1979) must be produced by the candidate to prove his/her claim.
- d) The verification of the certificate/s shall be done by the Director of Physical Education of the University.
- e) For securing admission to PG programmes under Sports quota, including readmission, the performance of the candidate during the preceding three years shall be considered.
- f) Preferences shall be given to those items which have All India Inter-University Competitions.
- g) In case of a tie, with respect to the Sports merit, preference shall be given to that candidate who scored higher marks in Qualifying Examination.

Note: The candidates who are applying for Sports Quota should specifically mention the same during the Online Registration.

SCHEDULE V

CODE OF ETHICS AND CONDUCT

The University of Kerala's endeavour by means of enforcing this Code is to pioneer and administer a student discipline process that is egalitarian, conscientious, effectual and expeditious; and providing a system which promotes student growth through individual and collective responsibility.

Students shall show due respect to the teachers of the University, the Wardens of the Hostels of Residence; proper courtesy and consideration should be extended to the employees of the University.

Students are required to develop a friendly relationship with fellow students. In particular, they are expected to show kindness and consideration to the new students admitted to the University every year.

Law bans ragging in any form to anybody – acts of ragging will be considered as gross indiscipline and will be severely dealt with.

The following acts of omission and/or commission shall constitute gross violation of the code of conduct and are liable to invoke disciplinary measures:

- Ragging.
- Furnishing false statement of any kind in the form of application for admission or for award of scholarship etc.
- Displaying lack of courtesy and decorum; resorting to indecent behavior anywhere within or outside the campus.
- Willfully damaging or stealthily removing any property/belongings of the Institute, Hostel or fellow students.
- Possession, consumption or distribution of alcoholic drinks or any kind of hallucinogenic drugs.
- Involvement in misuse of internet/e-mail facilities or servers anywhere in the Hostel/Department/University.
- Adoption of unfair means in the examinations.
- Mutilation or unauthorized possession of library books.
- Disturbing studies of fellow students.
- Not intimating his/her absence to the warden of the Hostel before availing any leave.
- Any act of discrimination (physical or verbal conduct) based on an individual's gender, caste, race, religion or religious beliefs, colour, region, language, disability, or sexual orientation, marital or family status, physical or mental disability, gender identity, etc

Commensurate with the gravity of the offence, the punishment may be reprimand, fines, expulsion from the Hostel, debarment from an examination, rustication for a specified period or even outright expulsion from the University, based on the report of the respective committees of CSS and decisions by the syndicate of the University of Kerala.

Contact Details of the Office of the Credit and Semester System

CSS Office, Golden Jubilee (Engineering College) Building
 Karyavattom Campus, University of Kerala, Thiruvananthapuram 695581
 Vice-Chairman: Dr. A Biju Kumar (Email: vc.css@keralauniversity.ac.in; 9447216157)
 Deputy Registrar: Smt Hema
 Ph: 0471 2308328; Email: css.keralauniversity@gmail.com
 Website: <http://css.keralauniversity.ac.in/>

C3. Fee Schedule

Fee Structure of PG Programmes (Indian Students)

Sl. No.	Admission fee, Special fee and Tuition fee	MA/M.Com/LLM/MSW/M.Ed/MCJ/MLISc MSW/MCJ	M.Sc.
1	Admission Fee(S1)	105	105
2	Affiliation Fee	450	450
3	Library Fee	105	105
4	Lab Fee	Nil	1050
5	Stationary Fee	160	160
6	Internet & Audio Visual Fee	105	105
7	University Union Fee	120	120
8	Departments Union Fee	160	160
9	Magazine Fee	105	105
10.	Sports & Affiliation Fee	150	150
11	Sports & Athletic Fee	150	150
12	Student Care Fund	200	200
13	Medical Inspection Fee	50	50
14,	Women Study Unit Fee	30	30
	Total	1800	1800 + Lab fee
15	Tuition fee(per semester)*	840	840

Sl. No. 1-15 to be collected at the time of admission

* To be collected at the commencement of each semester.

Rate of Tuition Fee for Students from USA,EU,JAPAN,SOUTH KOREA, SINGAPORE & AUSTRALIA

Courses	PG Programmes per Semester	M.phil Programmes per Semster	Ph.D Programmes per Semster
Humanities/Social Sciences	US \$ 850	US \$ 1000	US \$ 1000
Science	US \$ 1000	US \$ 1100	US \$ 1500
Professional Courses	US \$ 1100	US \$ 1200	US \$ 1800

Rate of Tuition Fee for Students from Other Countries

Courses	PG Programmes per Semester	M.phil Programmes per Semster	Ph.D Programmes per Semster
Humanities/Social Sciences	US \$ 400	US \$ 550	US \$ 750
Science	US \$ 600	US \$ 800	US \$ 1000
Professional Courses	US \$ 900	US \$ 1100	US \$ 1200

English Courses

	Registration Fees	Course Fee
ICCR Students	US \$ 25	US \$ 250
Other Students	US \$ 50	US \$ 350

C4. Anti-Plagiarism Statement

(Adopted by Academic Council on 15th April 2017)

The following Anti-Plagiarism is at present mandatory to M.Phil/Ph.D. only. However PG students are encouraged to practice elements of the policy in consultation with teachers.

The University of Kerala declares through this policy statement that academic dishonesty of any manner is unacceptable and that the University would continuously strive to create and maintain awareness about it and any such unfair practice detected would be subjected to serious consequences.

Towards this, the University of Kerala shall

- *Provide a framework for the development of a research culture, making it unacceptable to use content (textual or other forms) not owned by the author, without citing sources / with or without paraphrasing or adoption;*
- *Promote research activities, in such a way as to improve the quality of work and sustainability, by putting an end to the use of large chunk of content from external sources;*
- *Contribute towards preventing unfair practice of cooked up results of surveys or experiments without actually carrying surveys / experiments;*
- *Prevent supportive for terminating any form of dishonest, misleading, fraudulent, inauthentic and inappropriate academic reporting; and*
- *Develop an academic ethos that generates and promotes innovation, free of any academic dishonesty innovative techniques.*

The following guidelines are framed for implementing the Anti-Plagiarism policy of the University which shall be made applicable to the project reports/ dissertations/theses submitted to the University for Award of MPhil/PhD degree respectively from 1st January 2017 onwards.


- The University of Kerala shall not tolerate plagiarism in any manner and for this purpose accepted limit shall be zero per cent.
- The project/research supervisor and HoD shall be responsible for creating awareness among candidates falling under the purview of these policy guidelines on the consequences of plagiarism in the research reports submitted to the University.
- Every University Department/ Approved Research centre shall arrange the conduct of awareness lectures on the consequences of plagiarism in the research reports submitted to the University at least once in a year and maintain attendance register of participants in the Department.
- The Dept. Doctoral Committees shall be responsible for scrutiny of the project reports/ dissertations/theses submitted to the University for Award of PG Diploma and Masters/MPhil/PhD degree respectively
- The students/researchers shall have to produce evidence of verification of “overlap with other sources” using UGC recommended URKUND software.
- The overlap with other sources shall not exceed 10 per cent in the report, submitted for evaluation, exclusive of references.

- Overlap of less than 10 per cent does not make the research report 'plagiarism free' and as such the research supervisor and DDC shall have to ensure in each case through scrutiny that the Anti-Plagiarism policy of the University to maintain the accepted limit of zero per cent is upheld
- In respect of Research reports written in non-English Text, wherein URKUND software may not be employed for evaluation of overlaps, manual evaluation shall have to be relied on and approximate quantification shall have to be attempted by the research supervisor and DDC concerned.
- Plagiarism, if any, brought to the notice of the University by the examiner(s) or a genuine/well-founded source shall be investigated in detail through a committee consisting of the respective Dean of the Faculty, Head of the Dept/Chairperson of the BoS, two external experts at the level of professors from outside the University, nominated by the Vice-Chancellor. Of the two external experts, at least one shall be from outside the State.
- The committee shall provide reasonable opportunities to the respective student/researcher and guide to be heard in person and shall seek their written statements before arriving at conclusions.
- The committee shall make specific recommendation on the extent of plagiarism as '**not existing**' / '**minor**' / '**major**'.
- In case of minor plagiarism, the candidate shall be imposed a fine, as decided by the University from time to time and shall be directed to resubmit the dissertation/report, with appropriate modifications.
- If case of major plagiarism, the matter shall be brought to the notice of the Academic Council and subsequently to the Senate for a decision inclusive of the withdrawal of degree/ diploma, in accordance with the provisions contained in the Acts and Statutes of the University of Kerala.

For attention of Researchers & Students ...

Prevent Plagiarism*!

with



*Plagiarism, according to Wikipedia, is the "wrongful appropriation" and "stealing and publication" of another author's "language, thoughts, ideas, or expressions" and the representation of them as one's own original work.



Source : techzim.co.zw

Use UGC recommended software: **Urkund !!!**

Request your research supervisor/project guide to register with URKUND and get an email ID in the format: **Adhyapakon.Kerala@analysis.arkund.com**. Simply mail your thesis chapter or assignment to the URKUND ID of your teacher and he/she will get a report in his/her regular email which can be forwarded to you. With advice of your teacher, you can then revise your text to avoid the plagiarized content.

For registering with URKUND, Teachers may contact

Dr. H. Majeed,
Asst Librarian, Kerala University Library
(email: majeed@post.com, mobile: 9447388714).



Detect and check for plagiarism with URKUND

C5. Anti-Ragging Regulations

UGC Regulations on Curbing the Menace of Ragging in Higher Educational Institutions, 2009.

(Under Section 26 (1)(g) of the University Grants Commission Act, 1956)

In pursuance to the Judgment of the Hon'ble Supreme Court of India dated 08.05.2009 in Civil Appeal No. 887/2009, the University Grants Commission has framed "UGC Regulations on curbing the menace of ragging in higher educational institutions, 2009" which have been notified on 4th July, 2009 in the Gazette of India. These regulations are mandatory for all Universities/Institutions. The UGC has made it mandatory for all student s/parents to submit anti ragging related affidavits to the institutions at the time of admission.

रजिस्ट्री सं. डीएल (एन)-04/0007/2003--05

REGISTERED No. DL(N)-04/0007/2003-05



भारत का राजपत्र The Gazette of India

साप्ताहिक/WEEKLY

प्राधिकार से प्रकाशित
PUBLISHED BY AUTHORITY

सं. 27] नई दिल्ली, शनिवार, जुलाई 4—जुलाई 10, 2009 (आषाढ़ 13, 1931)
No. 27] NEW DELHI, SATURDAY, JULY 4—JULY 10, 2009 (ASADHA 13, 1931)

इस भाग में भिन्न पृष्ठ संख्या दी जाती है जिससे कि यह अलग संकलन के रूप में रखा जा सके।
(Separate paging is given to this Part in order that it may be filed as a separate compilation)

भाग III—खण्ड 4

[PART III—SECTION 4]

[सांविधिक निकायों द्वारा जारी की गई विविध अधिसूचनाएं जिसमें कि आदेश, विज्ञापन और सूचनाएं सम्मिलित हैं]

[Miscellaneous Notifications including Notifications, Orders, Advertisements and Notices issued by Statutory Bodies]

For details see:

<https://www.ugc.ac.in/page/ragging-related-circulars.aspx>

<https://www.antiragging.in/>

National Anti-Ragging Help Line (UGC Crisis Hotline)

24x7 Toll Free Number* 1800-180-5522

(helpline@antiragging.in)

For the English, Malayalam and other versions of the regulations visit:

<https://www.antiragging.in/site/Infopack.aspx>



Download
ANTI RAGGING
App

SAY NO TO RAGGING

YES TO JOYFUL CAMPUS

What is Ragging?
Any Act Resulting in:

- Mental/physical/sexual Abuse
- Verbal Abuse
- Indecent Behaviour
- Criminal Intimidation/wrongful Restraint
- Undermining Human Dignity
- Financial Exploitation/extortion
- Use Of Force

A STUDENT INDULGING IN RAGGING CAN BE:

- Cancellation of admission,
- Suspension from attending classes,
- Withholding/withdrawing Scholarship/Fellowship and other benefits,
- Debarment from appearing in any test/ examination or other evaluation process,
- Withholding results,
- Debarment from representing the institution in any regional, national or international meet, tournament or youth festival etc.
- Collective punishment, when the persons committing or abetting the crime of ragging are not identified the institution shall resort to collective punishment as a deterrent to ensure community pressure on potential raggers.

Immediately call
UGC Anti-Ragging Helpline
1800-180-5522 (24x7 toll free)
or send an e-mail to helpline@antiragging.in

MHRD DEPARTMENT OF HIGHER EDUCATION
MINISTRY OF HUMAN RESOURCE DEVELOPMENT
GOVERNMENT OF INDIA

विश्वविद्यालय अनुदान आयोग
University Grants Commission
quality higher education for all

Foolishly I ragged & got suspended

Will I get prosecuted?
What about my Job prospects?

Download
ANTI RAGGING
App

MY FUTURE IS A BIG ?

Remember RAGGING is for LOSERS

Visit UGC Website i.e. www.ugc.ac.in & www.antiragging.in to see UGC Anti Ragging regulations.
Are You Being Ragged?
Immediately call UGC Anti Ragging Helpline- 1800-180-5522 (24x7 Toll Free)
Or Send an E-mail to helpline@antiragging.in

MHRD DEPARTMENT OF HIGHER EDUCATION
MINISTRY OF HUMAN RESOURCE DEVELOPMENT
GOVERNMENT OF INDIA

विश्वविद्यालय अनुदान आयोग
University Grants Commission
quality higher education for all

SAY NO TO RAGGING

Download
ANTI RAGGING
App

THINK OF

Suspension
Humiliation
Blacklisting
Ruined Career
Expulsion
Possible Prosecution

Don't just stand and watch. Stop Ragging! Show Character

Remember RAGGING is for LOSERS

Visit UGC Website i.e. www.ugc.ac.in & www.antiragging.in to see UGC Anti Ragging regulations.
Are You Being Ragged?
Immediately call UGC Anti Ragging Helpline- 1800-180-5522 (24x7 Toll Free)
Or Send an E-mail to helpline@antiragging.in

MHRD DEPARTMENT OF HIGHER EDUCATION
MINISTRY OF HUMAN RESOURCE DEVELOPMENT
GOVERNMENT OF INDIA

विश्वविद्यालय अनुदान आयोग
University Grants Commission
quality higher education for all

DON'T RAG, JUST INTERACT

Download
ANTI RAGGING
App

RAGGING IN ANY FORM IS PUNISHABLE

Visit UGC website i.e. www.ugc.ac.in & www.antiragging.in to see UGC Anti Ragging Regulations

Are you being ragged ?
Immediately call UGC Anti Ragging Helpline
1800-180-5522 (24x7 Toll Free)
Or send an e-mail to helpline@antiragging.in

Join hands to make your campus ragging free

MHRD DEPARTMENT OF HIGHER EDUCATION
MINISTRY OF HUMAN RESOURCE DEVELOPMENT
GOVERNMENT OF INDIA

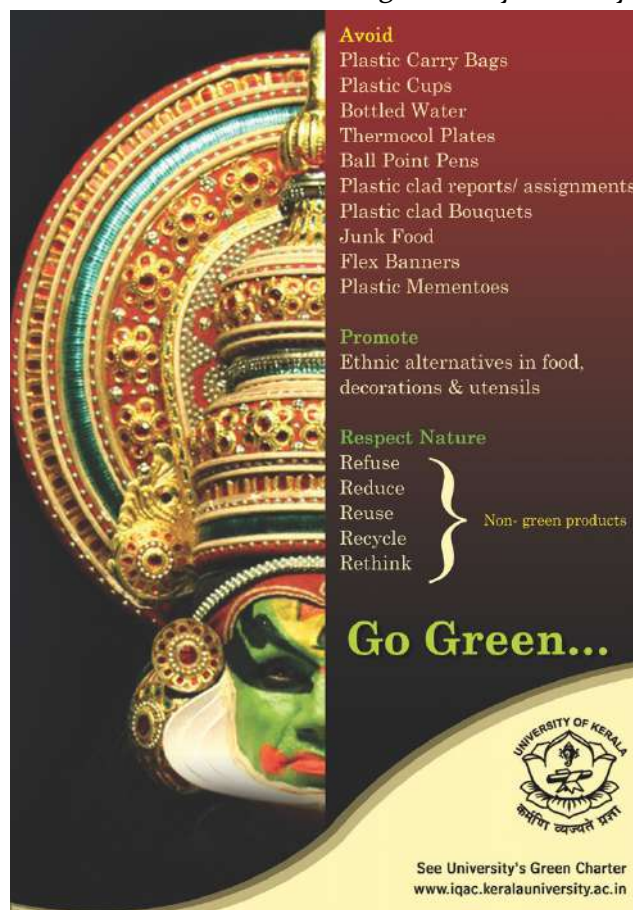
विश्वविद्यालय अनुदान आयोग
University Grants Commission
quality higher education for all

C6. Green Charter

The Green Charter of University of Kerala envisages priorities aimed at, within constraints, the finest accord with nature.

Through education, research and extension services, the University shall promote the principles and practices for sustainable development, especially the 6R's (Reduce, Reuse, Recycle, Refuse, Rethink and Respect).

The University shall seek to address the Global issue through local specific actions and through the creation of a knowledge society thereby striving for environmental education and conservation.



In each and every aspect -academic, research, extension or administrative - the University community shall revolve on the Green Axis.

The University shall issue client specific Green Schedules of Dos and Don'ts for each stake holder. Use of plastic and other polluting substances would be discouraged and that of Green products would be highly encouraged.

A culture of segregation and recycle would be encouraged. A paper recycling unit and facility for producing value added products shall be installed for making use of the waste papers including expired answer scripts with the help of Kudumbashree.

University shall make all efforts to popularize ethnic foods and beverages and discourage the junk ones.

An outlet selling ethnic drinks including sarbath, buttermilk, fresh juice, lime juice etc would be opened in the campus in association with Kudumbashree.

To combat the menace of bottled water, water purifiers would be placed in all buildings or floors based on population density and accessibility.

Monoculture of Acacia in Kariavattom Campus shall be gradually replaced with a variety of trees aimed at preserving and enhancing the biodiversity of the Campus.

E-governance drive shall be initiated to reduce the use of paper. At the same time, awareness would be created about carbon emission associated with emails, search engines and social networking facilities.

Uniform dust bins with Green Messages shall be placed in every nook and corner with CSR support.

All new buildings shall be constructed as Green buildings, which minimize artificial lighting and air-conditioning.



PART D: Learning Resources & Central Facilities

Kerala University Library System

Central Laboratory for Instrumentation and Facilitation (CLIF)

“The privilege of a university education is a great one; the more widely it is extended the better for any country”.
–Winston Churchill

D1. Kerala University Library System



1. Kerala University Library

The Kerala University Library, formerly the Library of the University of Travancore, was established in 1942. The present library building, having a total plinth area of 75283 Sq.feet (6994 Sq. meter), started functioning on 8th September 1962.

1.1 Administration: To begin with, the Library, when established, was placed under the administrative control of the Superintendent of Publications who was given the designation of Officer-in-Charge of the Library. In 1959, the post of professional librarian to be in full administrative charge of the Library was created and Prof. K. A. Issac, Librarian of the Forest Research Institute and College, Dehra Dun, was appointed to the post in August 1959. He was succeeded by Sri. K.C. John from 1980, who had retired in 1989. After his retirement till date (2017), the library is headed by the senior most Deputy Librarian. The present University Library System consists of the Kerala University Library at Palayam, the Campus Library

and the 42 Department Libraries at the Kariavattom Campus and many other libraries including that of Lexicon, ICKS, UITs, UIMs, KUTEC's, UCK and the three Study Centre Libraries at Alappuzha, Pandalam and Kollam.

Total Seating Capacity of the Kerala University Library is 600. Working Hours are from 8 am to 8 pm (Week days), and 2pm to 8 pm (Sundays).

1.2 Organization of the library: For functional convenience, the library is divided into 11 sections- Circulation Section, Acquisition section, Technical section, Reference section, Periodical section, Documentation and Information Services section, The Electronic Resource Centre, Kerala Studies Section, UN & World Bank Section, Research Section, and Maintenance Section (Stack Room).

1.2.1 Property Counter: Members are advised to keep their personal belongings including handbags, hats, attaché cases, printed materials, umbrellas etc in the Property Counter which is on the right side of the entrance. Members will be given a token for keeping their personal belongings which can be taken back on production of the token. Personal belongings kept in the Property Counter have to be taken back on the same day itself and if it is kept beyond one day necessary service charges as fixed by the University has to be paid.

1.2.2 Security Desk: Members have to show their membership card at the security desk and sign the Gate Register at the time of entering the library. Members are requested to hand over the book issued on loan and the token to the security staff on duty. All

materials including files, note books etc taken inside the library are to be given for inspection by the security staff when leaving the library.

Statistics of members joined in Kerala University Library, Palayam			
Sl. No.	Membership Category	Joined from 01/01/2020 to 31/10/2020	Total (Active Members)
1	Students of Affiliated Colleges/ UIT /UIM / KUTEC / UCK /Teaching Departments	345	3733
2	Research Scholars	42	169
3	Teachers	7	61
4	Non-Teaching staff of University	17	346
5	Kerala Uty Library Staff	3	40
6	Eminent Scholars	2	2
7	Institutional Members	-	3
8	Graduate Public	169	965
9	Contract Library Staff	17	17
10	Retired University Staff	4	8
11	Central University(CUKT)	-	2
Total		589	5346

1.2.3 Membership Desk: Enrolment of membership can be done at the Membership Desk from 8 AM to 1 PM and 2 PM to 7.30 PM. Clearance Certificates will be issued for Membership withdrawn/Closed. Temporary Memberships are also issued on payment or permission issued by the University Librarian/Deputy librarian/Senior most library staff on duty. Library is in the final stages of providing RFID enabled smart cards to the members of the library.

1.3 Resources of the Library

Kerala University Library has a rich collection of documentary and non-documentary resources including electronic resources.

1.3.1 Documentary Resources

Types of Document	Total
Total number of Books	3,08,626
Bound Volumes of Periodicals	41,642
Bound Volumes of Newspapers (from 1960-2018)	1,050
PhD Theses	6,313
Periodicals (Indian)	250
Periodicals (Foreign)	22
Popular Magazines	44
Newspapers	23

1.3.1.1 Special Collection

Documentary resources including the following special collection

Sl.No	Collection	Number	Sl. No	Collection	Number
1	Text Books	4,489	7	Women Studies	2,206
2	Reference Books	12,511	8	UN and World Bank Publications	4,300 +Tech.papers
3	Closed Reference	18,500	9	Gandhiana	1,364
4	Kerala Reference	30,800	10	Personal Collections	2,850
5	General Biography	1,950	11	Standards	11
6	Government Publications	2,600	12	Patents	85

The Bound volumes of periodicals including Dissertation Abstracts, Physics Abstracts, Biological Abstracts , Chemical Abstracts, Sociological abstracts and Biological Abstracts.

1.3.2 Electronic Resources

The Electronic Resource Centre of the Kerala University Library was established with the objective of providing IT oriented information services to the user community. This section is looking-after the automation work of the Library and maintains and updates various databases such as books, theses, back volumes of periodicals etc. Koha,, an open source integrated Library Management software, is used for automating different housekeeping operations of the Library. All sections of the library are being interconnected through a Local Area Network (LAN). Kerala University Library website is also maintained by this section. The Kerala University Library Electronic Resource Centre, through UGC E-ShodhSindhu programme, provides access to more than 20,000 electronic journals and 6 other databases accessed through the Electronic Resource Centre. In addition to E-Shodh Sindhu the following e-Resources subscribed by the University of Kerala are available for the users

- i. EBSCO Discovery Services
- ii. EBSCO Host. Library and Information Sc.and Tech. Abstract
- iii. EBSCO Host Social Science with Full text
- iv. Science Direct (12 Subject Collections)
- v. Indian Journals.com- 172 titles
- vi. IEEE Xplore
- vii. Emerald E-journal collection (138 E-journals)
- viii. Scifinder - Chemical Abstracting Service
- ix. Wiley E-journal Collection (908 Wiley e-journal Collection)
- x. IOP Science Journal Collection
- xi. Proquest Dissertation and Thesis
- xii. Royal Society of Chemistry
- xiii. NotNul Hindi Book/Journals Collection
- xiv. EPWRF Database
- xv. Scopus Database
- xvi. Grammarly (Online Writing Assistant)

Kerala University Library has 329 E-Books of the following publishers

- Cambridge Books Online
- Wiley E-Books

1.4 Documentation & Information Services

Documentation and Information Services Section is organized to provide Bibliographical and Information Services to meet the increasing requirements of research scholars and students of University community. Besides books, a lot of literature on Kerala appears in periodicals and journals and it was felt that an indexing journal named KERALA INDEX, would facilitate the location of the widely scattered literature in the periodicals. It has two parts; Malayalam & English. Documentation and Information Services section started functioning in 1986. Compilation of Kerala Index

has regularly being done by this section. From the month of January 2013, Kerala Index is prepared using newly developed software; both in print version and online version. Print version of Kerala Index is available only up to December 2016.

The Online version of Kerala Index is available in the internet from January 2013 onwards in the URL <http://www.keralaindex.keralauniversity.ac.in>. The online version in Malayalam Unicode fonts is with records from popular magazines, dailies weeklies etc starts from 1984, in MYSQL database. The search results are displayed in Rachana & Meera fonts which are capable of rendering traditional character set. Instead of Kerala Index, this section is also engaged in the compilation of bibliographies specific topics on authors up to 2015. The library has so far published 22 bibliographies on several topics. Exhibitions are conducted on particular incidents & occasions to bring the resources of the library to the attention of the users concerned.

1.5 Website of Kerala University Library

1.6 Web enabled On-line Public Access Catalogue (Web-OPAC): The On-line electronic version of the catalogue is being maintained by Electronic Resource Centre. This facility is available in all the sections of the library and to the public through the library website (www.kulib.in). Wi-Fi facility has also been established in the library to enhance accessibility of information. World Bank E-Library service is also provided.

1.7 Kerala Studies Collection: A rare collection of books related to Kerala is maintained by the University Library. These have been digitized partially and now 4597 volumes of Journals (180 titles) and 109 books and Malayalam Newspapers from 1952-1971 are available in digital form in I LIDAS software and can be searched through Google-like search and can take printout @ Rs.2/- per page for the users.

1.8 Acquiring New books: Students may request their teachers to recommend books of their choices to be purchased in Kerala University Library or Campus Library. Based on recommendations of the teachers, and with approval of book purchase committee, such requests are processed. All the books acquired by the library are classified using Colon Classification scheme and card catalogue prepared according to Classified Catalogue Code (CCC). In addition to card catalogue all the books are catalogued in MARC format using the library management software, *Koha*.

1.9 Innovative Services

Kerala University Library is fully equipped with the modern tools and techniques to offer various innovative services to its users. Some of the services initiated and implemented are given below:

1.9.1 Library Digital Archival System (LIDAS)

Library has a digital archival system under the name LIDAS, provides more than 14 lakh full text searchable digital pages of very rare and old books, periodicals and gray literature in a digital library platform. It facilitates to search, download and print the required pages with a nominal charge.

1.9.2. Kerala Index online

Kerala Index started in 1987, with only a retrospective index of articles related to Kerala that have appeared in selected journals received in the library during 1984 and was brought out as an annual. Now it is a unique information product of the Kerala University Library published quarterly containing the keyword indexes with brief annotations of articles related to Kerala appeared in periodicals, magazines and newspapers received by the Kerala University Library. Users can search the index through online (<http://keralaindex.keralauniversity.ac.in/>). The required full text of the article in hardcopy will be made available to the users from the library.

1.9.3. Digital Repository

Kerala University Library has a digital repository of PhD theses. Now more than 3000 theses are digitized and made it available to the users through ShodhGanga of INFLIBNET Centre (<http://shodhganga.inflibnet.ac.in/handle/10603/4168>). At present University of Kerala is on top among the universities in Kerala with respect to the number of PhD theses uploaded in ShodhGanga.

1.9. 4. EBSCO Discovery Service

This service is intended for bringing together all the subscribed contents of the library before the users through a single search window (web portal).

1.9.5 Access to E- Resources

Kerala University Library has more than 15,000+ electronic journals, both subscribed and available through e-Shodh Sindhu Consortium of INFLIBNET Centre. The resources include e-journals of American Chemical Society, Indian Journals.com, Science Direct, Sci-Finder, Institute of Electrical and electronic Engineers (IEEE); Elsevier's 10 subject collection + Earth and Planetary & Environment Science, Library Information Science and Technology Abstract (LISTA), JSTOR, Proquest etc.; J-Gate web portal; and e-books

of Wiley Online library, Cambridge University Press etc. Twenty five computers are exclusively provided to the users in the Kerala University E-Resource Centre and Wi-fi connectivity is enabled for accessing all these electronic resources.

1.9. 6 UN & World Bank Depository

Kerala University Library is the unique and envious distinction of being the only depository of United Nations as well as World Bank publications in Kerala. Around 300 to 400 titles are added to the collection every year including printed and resources in electronic formats also..

1.9..7 Document Delivery Service

Reprints and photocopies of journal articles, which are cited in the current contents and other journals, are collected from the member libraries of INFLIBNET through J-Gate and will be delivered free of cost to students, research scholars and faculty members on demand.

1.9.8 DAISY Books Service

The Library has a good collection of DAISY (Digital Accessible Information System) books for the uses of people have “print disabilities” including visually challenged. It allows users to hear and navigate written materials presented in an audible format (text synchronized with audio).

1.9 9. DELNET Service

Kerala University Library has been admitted to an institutional member of Developing Library Network (DELNET) and hence resources from DELNET can be accessed through www.delnet.nic.in

1.9.10 Plagiarism Checking

Kerala University Library is arranging to the services of plagiarism checking using URKUND, anti- plagiarism software sponsored by INFLIBNET Centre to the Research Scholars and Research Guides/Faculty members of the University of Kerala and its affiliated colleges

1.9.11. RFID (Radio frequency identification detection) Technology Enabled Library Management System

Kerala University Library in in the final stage of the project to implement RFID enabled library services which allow efficient circulation of library documents to the members.

1.9.12. Smart Cards

RFID chip based Smart cards will be issued to all the members of the library. It will facilitate speedy and efficient charging (issuing) and discharging (returning) process and to get more comfort to the users for availing various library services. These cards can be used at self-check-in/ check-out station to issue books independent of any human intervention. It can also be used for access control and payments.

1.9.13. Library and Information services to the visually challenged users

Kerala University Library is in the final stage of establishing an e-learning lab for the visually challenged users with assistive technologies to access various electronic and print resources.

1.10 Other Services

Other services offered by the Kerala University Library are:

Bibliographic services; Current awareness service; Current Content services; Extension services; Indexing services; Inter library loan services; Internet services; Book Lending Service; Reference service; Referral service; Reprographic services; User Education / Information Literacy programmes

1.10 Kerala University Library Promised Services and time required

Sl.No	Name of the Services	Promised time
1	Lending- Issue, Return, Renewal of books	< 5 Minutes
2	Text book Service at Reference Section	< 2 minutes
3	Reference Service(Short Range)	< 3 minutes
4	Reference Services (Long Range)	< 24 hours
5	Referral service	< 2 minutes
6	Bibliographic service	< 7 days
7	Inter Library loan service	< 3 days
8	Reprographic service	< 5 minutes
9	Assistance in the use of Electronic Resources	< 5 minutes
10	Membership and Issue of membership cards	< 30 minutes
11	Smart Cards	< 6 hours
12	Clearance/ Non-liability certificate, if all the cards submitted	< 5 minutes
13	Duplicate cards	< 12 hours
14	Renewal of membership	< 5 minutes
15	Fine payment	< 5 minutes
16	Refund of deposit	< 10 minutes
17	Temporary membership	< 5 minutes
18	Respond to the query either by telephone or by e-mail	< 5 minutes

2. Campus Library at Kariavattom



Campus library, established in 1976, acts as a hub of knowledge sharing for all the teaching and other Departments and Centers in the Kariavattom campus. It functions as a Reference Library, in three shifts from 8 AM to 12 Midnight w.e.f. 01.04.2014. It is the first Library in Kerala to open its doors for users for a span of 16 hours without break. A team of professionally qualified staff and administrative personals, led by to the Deputy Librarian, manages the library. The Library holds

more than 30,000 books, 45 Subject periodicals, 50 popular current periodicals and career magazines, and 23 newspapers in English, Malayalam & Tamil. Back issues of subject journals are kept as bound volumes. University subscribes the most demanded e-journals like IEEE, Pro Quest, Indianjournals.com, Scifinder, J-gate etc. and share UGC-E-Shodh Sindhu consortium. Also a good number of e-books of different publishers are procured. All these are made accessible on IP based search for users in Kariavattom Campus. Wi-Fi Connectivity is available in the campus library. The library has following sections: (1) Acquisition Section: Book ordering, purchasing and accessioning are handled by this section. The average number of books purchased per year is, approximately, 1700. (2) Reference Section: A separate section for Reference Books is housed in the first floor. It is a fully air conditioned hall capable of accommodating 40 students at a time. (3) Researcher's e-learning Centre: 30 seated Computer Lab exclusively for PhD and M-Phil students is functioning in the ground floor. (4) Career Development Area: Large number of reading materials were produced and arranged for the competitive career development purposes. (5) Maintenance Section: Books in different subjects are arranged according to the Dewey Decimal Classification scheme. (6) Technical Section: Cataloguing and Classification process is done using Koha Software. (7) Reprographic Service: The Photocopying service available in the Campus is widely used by the students of the Campus with minimum charge@ 50 paise. Campus Library now act as a centre for coordinating Library Networks of the catalogues of all Department Libraries, Study Centers and Campus Library. This has been achieved through a multilingual integrated open source software called *Koha*. Currently more than 85% of the work related to this is completed. We have an exclusive section for Mathematical Puzzle Library, which contains more than 800 puzzles and its solutions, with a view to develop mathematical and logical development among students.

3. Total number of Books & Periodicals in the Kerala University Library System

Sl.No	Departments	Books	Journals
1	University Library	3,57,631	272
2	Campus Library	29,839	95
3	Aquatic Biology and Fisheries	6,174	8
4	Arabic	10,328	15
5	Archaeology	5,147	0
6	Biochemistry	4,082	10
7	Biotechnology	3,186	8
8	Botany	10,284	10
9	Chemistry	5,360	7
10	Commerce	9,059	32
11	Communication and Journalism	6,473	20
12	Computational Biology & Bioinformatics	3,870	0
13	Computer Science	4,842	0
14	Demography	7,556	2
15	Economics	16,142	8
16	Education	19,282	5
17	Environmental Sciences	2,159	2
18	Future Studies	4,824	9
19	Geology	5,329	3
20	German	11,761	0
21	Hindi	14,708	8
22	History	14,277	0
23	Islamic Studies	7,770	14
24	Kerala Studies	12,731	7
25	Law	5,530	5

26	Library & Information Science	5,575	11
27	Linguistics	10,523	6
28	Malayalam	63,915	12
29	Mathematics	7,879	2
30	Music	2,743	2
31	Nano Science and Nanotechnology	1,565	0
32	Opto Electronics	3,348	8
33	Philosophy	4,443	4
34	Physics	8,527	7
35	Political Science	22,810	20
36	Psychology	8,298	4
37	Russian	16,066	0
38	Sanskrit	16,861	0
39	Sociology	9,744	5
40	Statistics	10,689	10
41	Tamil	31,166	10
42	Zoology	6,249	11
43	Inter University Centre for Evolutionary & Integrative Biology	1,053	0
44	Institute of English	15,594	9
45	Institute of Management in Kerala	16,965	9
46	ORI& Manuscript Library	17,925	8
48	School of Distance Education	28,581	11
49	Study & Research Centre Library, Alappuzha	5,711	1
50	Study Centre Library, Kollam	5,310	1
51	Study Centre, Pandalam	1,874	1
	Total	9,01,758	692

D2. Central Laboratory for Instrumentation and Facilitation (CLIF)



The Instrumentation Facility in the University of Kerala at the Kariyavattom Campus was established as SIIC (Sophisticated Instrumentation and Computation Centre) in 2016 and subsequently was renamed as the Central Laboratory for Instrumentation and Facilitation (CLIF) with major support from Government of India under the Department of Science & Technology (DST) PURSE programme, RUSA, Govt. of Kerala and Kerala Infrastructure Investment Fund Board (KIIFB). The Centre represents one of the largest facilitation Centres in the State with commitments and support to the research activities of the University departments and other institutions under the University of Kerala, Research Institutions and Industrial R & D in the State of Kerala. The centre houses a wide spectrum of the state-of-the-art equipment for performing diverse range of analyses in many areas of modern science and technology. The Centre now is headed by the renowned Academician and Administrator, Prof. (Dr). G. M. Nair, former Advisor to the Kerala Biotechnology Commission and the Institute of Advanced Virology, KSCSTE, Government of Kerala.

The Centre is envisioned to create an excellent research ambience with a world class infrastructure, to facilitate interdisciplinary research and to foster a vibrant community of researchers in the University. The Center is also poised to provide advanced infrastructure and training with a futuristic approach for the scientific community to keep pace with the contemporary scientific developments taking place globally. The facility is open to all students and faculty from the University departments, Colleges, industries and other academic/research institutions with skilled technical backing and support for interpretation of data by an excellent team of scientists from diverse fields. Besides analyses, the centre also organizes short term courses/training programmes/workshops as well as is planning academic courses in Research Methodology and Instrumentation for the benefit of all those who wish to take up scientific research using modern approaches. A smart Seminar Hall is already functional and new supporting laboratories for carrying out all the work associated with using the

instruments and a modern Auditorium with more than 200 seating capacity and the associated facilitation is getting ready. A state-of-the-art digital studio is coming up in the centre for recording/developing video lectures, with sound proof lecture hall, video editing, speech to text conversion etc. VSSC, ISRO, NCESS, CSIR-NIIST, IISER-TVM, Siddha Regional Research Institute, JNTBGRI, CUSAT, Maulana Azad College (Maharashtra), IIST and various affiliated colleges in Kerala and across the country are the major users of this institute.

Contact Details

Director: Prof. (Dr). G. M. Nair; **Phone:** 0471 -2308566; **Email:** siccuok@gmail.com; Request for sample analysis: clifanalyses@keralauniversity.ac.in

Website: <https://kusicc.ac.in>

The various facilities of the centre are listed below:-



Inductively Coupled Plasma Mass Spectrometry [ICP-MS]:] Coupling possible with GC (Gas Chromatography)/ HPLC (High performance Liquid Chromatography)/ C (Ion chromatography)



Make: Thermo Scientific iCAP Qc ICP-MS

Application: (i) Metal content of proteins/enzymes. (ii) Trace metal analysis in bones/ tissues/ urine/ blood. (iii) Trace metal analysis in food, water, beverages, canned products etc. (iv) Monitoring and control of metal impurities in medicinal preparations, Ayurvedic preparations

Advantage: (i) Supersedes other similar techniques like AAS, Optical emission spectroscopy or ICP atomic emission spectroscopy, used for similar analysis in precision, accuracy, speed. (ii) Wide elemental coverage – most metals with first ionisation potential below that of Argon

can be analysed. (iii) Capable of isotope ratio measurement. (iv) Helps determine chemical form of the element in a sample (speciation studies). (v) Laser ablation coupled ICP-MS possible for samples like bone/nails etc.

Charge(s) for University Departments:

- (i) Standard Elements: 790/-
- (ii) Rare Earth Elements: 1365/-

Laser Scanning Spectral Confocal Microscope:



Make: Leica TCS SP8

Application: (i) Widely applicable in cell biology, microbiology, developmental biology. (ii) Imaging, quantitative and qualitative analysis of cells, tissues, fungal elements etc. (iii) Already in use for evaluation of eye diseases, endoscopic procedures etc. (iv) To study cellular localisation of ions, macromolecules (DNA, RNA, proteins),

cytoskeletal elements, cell organelles etc **Advantage:** (i) Imaging live cells and capturing their dynamics is possible. (ii) Image of whole tissues/organs at maximum depth possible at highest resolution

Charge(s) for University Departments:

- (i) Confocal Imaging- 525
- (ii) Live Cell Imaging- 735/-.

Scanning Probe Microscopy [SPM]



Make: Bruker Dimension Edge SPM

Application: (i) Cell studies (cancer, infectious disease). (ii) Distinguish cancer cells and normal cells based on a hardness of cells. (iii) To evaluate interactions between a specific cell and its neighboring cells in a competitive culture system. (iv) Protein imaging and

crystallization, Protein/peptide interaction (v) Virus detection, Bacterial imaging. (vi) Studying dissolution rates of crystalline drugs. (vii) Identifying drug-excipient interactions. (viii) To determine encapsulation efficiency of liposomes **Advantage:** (i) AFM is comparable to SEM for the fact that both are used to analyse surface topography, but AFM is superior to SEM as a 3D image of surface is possible with SPM. (ii) SPM can be used on light-atom (biological or organic) samples without special preparation, which is not possible with SEM (they need conductive surfaces

- metallic or at least metal or semi-metal compounds such as oxides). (iii) AFM can even be used on surfaces under liquid. The resolution limit therefore is solely defined by the sharpness of the tip, that can be in the range of single atoms. Furthermore, the tip can be modified or functionalized with special molecules to really measure different inter-molecular or inter-atomic interactions. (Only dry samples are accepted at our facility).

Charge(s) for University Departments:

AFM imaging – 580 /- for all modes other than AFM – 895/-.

X-Ray Diffractometer includes Powder X-ray Diffraction (Powder XRD), Grazing Incidence X-Ray Diffraction (GI XRD).



Make: Bruker D8 ADVANCE with DAVINCI design

Application: X-ray diffraction (XRD) is a rapid analytical technique primarily used for phase identification of a crystalline material and can provide information on unit cell dimensions. X-ray diffraction is most widely used for the identification of unknown crystalline materials (e.g. minerals, inorganic compounds).

Advantage: Qualitative and quantitative phase analysis, crystallography, Molecular structure, crystallite size and strain, structure and relaxation determination, texture and residual stress investigation.

Charge(s) for University Departments: (i) Powder XRD: 580/- (ii) GI XRD: 895/-

Scanning Electron Microscopy [SEM] includes Energy Dispersive X-Ray Analyser [EDX]



Make: Carl Zeiss EVO 18 Research

Application: Make: Carl Zeiss EVO 18 Research

Mainly for surface morphological and topographical studies and also

for compositional elemental analysis. SEM can detect and analyze surface fractures, provide information in microstructures, examine contaminations, reveal spatial

variations in chemical composition, provide qualitative chemical

analyses and identify crystalline structures. In addition, SEMs have practical industrial and technological applications such as semiconductor inspection, production line of miniscule products and assembly of microchips for computers. SEMs can be essential

research tool in field such as life science, biology, medical and forensic science and metallurgy. Generally unsuitable for wet samples.

Advantage:(i) Detailed morphological and topographical imaging and versatile information generated from different detectors.

(ii) Easy to operate with the proper training and with advances in computer technology. Its software make it user-friendly.

(iii) All samples must be prepared before placed in the vacuum chamber so most samples require minimal preparation action.

Charge(s) for University Departments:

(i) SEM imaging/hour : 790/- (ii) EDX: 630/-

Fourier Transform Infra-Red Spectrophotometer [FT-IR]



Make: Thermoscientific Nicolet iS50

Application: (i) Molecular fingerprint analysis workstation in the areas of pharmaceuticals, forensics, polymers, food, petrochemical industries ranging organic structural studies(ii) Identification of types of chemical bonds(iii) Analysis of trace impurities in mixtures. Integrated with Omnic software

enables frequency domain molecular spectrum with resolution greater than 0.09cm^{-1}

Charge(s) for University Departments:

(i) FTIR/Sample: 210/-

Ultra Violet-Visible Spectrophotometer [UV-Vis]



Make: Agilent Technologies Carry 5000

Application: (i) Non-destructive technique having qualitative and quantitative analysis of compounds with photometric performances like absorbance, reflectance and

transmission. (ii) Quantitative determination of transition metal ions, organic compounds with high degree of conjugation and biological

macromolecules.(iii)Determination of reaction kinetics, defects in solid state, color centers.

The special optical isolation system breaks all the noise barriers and provide better performance integrated by a modular Windows-based Cary Win UV software

Charge(s) for University Departments: UV-VIS-NIR/Sample: 210/-

Nuclear Magnetic Resonance Spectrometer [NMR including ^1H and ^{13}C NMR]



Make: Bruker Avance 400 MHz FT-NMR Spectrometer

Application: (i) Standard instrument for structure determination, qualitative and quantitative analysis of organic molecules. (ii) Only method for atomic resolution of bio macromolecules in aqueous solutions. (iii) Used widely in chemical, food, pharmaceutical and polymer industries.

Analysis Available:

$=^1\text{H}$ or Proton NMR (PMR); $=^{13}\text{C}$ NMR ^{19}F , ^{15}N , ^{31}P can also be analyzed; =2D COSY; =2D HSQC; =2D NOESY; =2D HMBC; =2D HMQC; =DEPT ...etc

Charge(s) for University Departments:

Proton NMR (CDCl_3): Rs. 475/-; Proton NMR (DMSO): Rs. 580/-; Proton NMR (D_2O): Rs. 580/-; Proton NMR (Methanol): Rs. 630/-; Proton NMR (Acetone): Rs. 840/-; Proton NMR (Acetonitrile): Rs. 1000/-; Proton NMR (Toluene): 1050/-; C^{13} NMR (CDCl_3): Rs. 475/-; C^{13} NMR (DMSO): Rs. 580 /-; C^{13} NMR (Methanol): Rs. 790/-; C^{13} NMR (Other solvents): Rs. 1315/-; 2D NMR: Rs. 790/-; NMR of other nuclei: 790/-

CHN(S)/O Analyser



Make: Perkin Elmer 2400 Series II CHNS/O

Application: (i) Reliable and cost effective technique for determining the organic elemental analysis of C,H,N,S contents in solid and liquid matrices which covers a wide range of applications in the areas of pharmaceuticals for confirmatory analysis and purity.(ii)Polymer material characterization,Protein content and Product labeling in food industries, petrochemicals industries.

(iii) Environmental sediments covering C/N ratio in plant material, soil sediments and C/H Ratio of fuel. Operates with a microprocessor unit which controls all system functions integrated to powerful EA 2400 data manager software.

Charges for University Departments:

(i) C, H, N: Rs. 630/-; (ii) C, H, N,S: Rs. 945/-

Liquid Chromatography-Mass Spectrometry (LC MS/MS)



Make: Shimadzu LC-MS/MS 8045

Principle: LC-MS/MS (Liquid chromatography – Mass spectrometry/ Mass spectrometry) is a hyphenated technique in which an HPLC(High Performance Liquid Chromatography) is connected to a mass spectrometer .The technology involves use of an HPLC ,where in the individual components in a mixture are first separated based on their affinity with the mobile phase and stationary phase which is usually a silica based column followed by Ionisation and separation of ions (in MS) based on their mass/charge ratio. The ion source is also depending on nature of analyte i.e., polar or nonpolar. The results will be the mass numbers present in the sample.

Scan Modes

Product Ion Scan

- Q1-fixed
- Q3-scan

Precursor Ion Scan

- Q1-scan
- Q3-fixed

Neutral Loss Scan

- Q1- scan at $m/z = m_{\text{product}}$
- Q3-scan at $m/z = m_{\text{product}} - m_{\text{neutral molecule}}$

Selected Reaction Monitoring

- Q1- fixed at $m/z = m_{\text{precursor}}$
- Q3-scan at $m/z = m_{\text{product}}$

Application: Broad classification includes food, pharmaceutical and environment applications. In detail, screening of phytochemical from plants, analysis of pesticides in plants and water bodies, analysis of drug metabolism & toxicology studies, study of steroid hormones. study of vitamins and related metabolite etc

Charge(s) for University Departments:

1. Qualitative analysis: (i) Single compound LC MS: Rs. 840/-; (ii) Single compound LC MS/MS Triple Quadrapole): Rs. 1315/-; (iii) LC MS crude sample: Rs. 1575/-; (iv) LC MS/MS Triple Quadrapole): Rs. 2100/-

2. Quantitative Analysis

(i) Quantification (LC MS/MS Triple Quadrapole): Rs. 2500/-

High-Performance Thin-Layer Chromatography (HPTLC)



Make: Camag HPTLC

Principle: (i) High Performance Thin Layer Chromatography is capable of separating organic compounds. Principles of HPTLC have similar approach and employ the same physical principles of TLC (adsorption chromatography) i.e. the principle of separation is adsorption. The mobile phase solvent flows through because of capillary action. The components move according to their affinities towards the adsorbent. The component with more affinity towards the stationary phase travels slower. The component with lesser affinity towards the stationary phase travels faster. Thus, the components are separated on a chromatographic plate.

Application: HPTLC is a powerful tool for rapidly comparing several samples in parallel, checking for adulteration, monitoring purity and stability, and quantifying marker compounds. Because of its many benefits the technique is used in various application fields. The analyte includes herbal drug, food, forensic, biotechnology, cosmetics, pharmaceutical, chemical, environmental samples.

Charge(s) for University Departments:

(i) Comparison with Standard: Rs. 1575/- (sample 1 line+ standard 1 line); (ii) Quantification with standard: Rs. 2625/- (1 sample line + standard in 5 line); (iii) HPTLC Fingerprinting: Rs 895/- (1 line)

Simultaneous Thermal Analyzer (TGDTA/DSC)



Make: PerkinElmer STA 8000

Application: (i) It enables real-time measurement and analysis of sample weight change and heat flow in one compact lab instrument. (ii) Applications from the TGA include: compositional analysis, decomposition temperatures, engine oil volatility, flammability studies, lifetime

predictions, measurement of volatiles, oxidative and thermal stabilities, catalyst and coking studies, and hyphenation to identify out-gassing products. (iii) Application from the DSC include: melting and crystallization behavior, glass transition temperatures, specific heat capacity, kinetic studies and transition and reaction enthalpies.

Charge(s) for University Departments:

(i) Temperature up to 800 °C / sample: Rs. 525/-; (ii) Temperature up to 1000 °C / sample: Rs. 1050/-; (iii) Temperature upto 1200 °C / sample: Rs. 1575/-

X-Ray Photoelectron Spectrometer (XPS)



Make: Thermo Scientific™ ESCALAB™ Xi+

Application: (i) X-ray photoelectron spectroscopy (XPS) is a surface-sensitive quantitative spectroscopic technique based on the photoelectric effect that can identify the elements that exist within a material (elemental composition) or are covering its surface, as well as their chemical state, and the overall electronic

structure and density of the electronic states in the material. XPS is a powerful measurement technique because it not only shows what elements are present, but also what other elements they are bonded to. (ii) The technique can be used in line profiling of the elemental composition across the surface, or in depth profiling when paired with ion-beam etching. (iii) It is often applied to study chemical processes in the materials in their as-received state or after cleavage, scraping, exposure to heat, reactive gasses or solutions, ultraviolet light, or during ion implantation. (iv) XPS is routinely used to analyze inorganic compounds, metal alloys, semiconductors, polymers, elements, catalysts, glasses, ceramics, paints, papers, inks, woods, plant parts, make-up, teeth, bones, medical implants, biomaterials, coatings, ion-modified materials and many others

Charge(s) for University Departments:

(i) XPS/sample (Maximum 6 elements only): Rs. 1050/-

Genetic Analyser (DNA Sequencer)



Make: Applied Biosystems 3500

Application: (i) The AB 3500 Genetic Analyzer is a multi-capillary electrophoresis instrument designed to separate amplified DNA product based on size and record the resulting data in a computerized data file capable of being analyzed using specialized software. (ii) Capillary electrophoresis separates DNA fragments based on their size to charge ratio.

The cathode is placed into the sample. An electrical pulse activates the migration and separation of the DNA through the capillary. The negatively charged DNA migrates from the cathode to the anode because of the attraction of opposite charges. Smaller DNA fragments migrate faster than larger fragments thus reaching the detector sooner. The DNA fragments have fluorescently-labelled primers attached so that when the DNA goes past the detection window, a narrow beam of light from the laser excites the dyes. The excitation of the dyes gives off an emission wavelength which is a longer wavelength of light than the laser's excitation wavelength in all directions. Some of this light passes through a diffraction grating, which then sends the light to the CCD detector. The CCD detector can detect the colour based on the wavelength. Along with an internal size standard and allelic ladder, a software program takes these peaks that are detected and give it a specific allele designation for a given locus. The combinations of all of the fluorescent peaks give rise to an electropherogram.

(iii) The 8-capillary 3500 DNA analyzer can be used for traditional DNA sequencing and DNA fragment analysis applications such as microsatellites, AFLP, SNP analysis and mutation detection.

Charge(s) for University Departments:

(i) DNA Sequencing (Capillary Sequencing-Sanger method): Rs. 500/-

(ii) Real Time PCR (Single run): Rs. 200/-

Sophisticated Fluorescence Spectrometer (SFS)



Make: Edinburgh FLS1000-SS-sm

Application: (i) The FLS1000 combined steady state and phosphorescence lifetime spectrometer is a modular system for measuring steady state spectra in the UV-VIS-NIR spectral range, together with phosphorescence decays in the time range between 1 μ s and 10 seconds using the technique of Multi-Channel Scaling. (ii) It is a state-of-the-

art, modular photoluminescence spectrometer for the most demanding applications in Photophysics, Photochemistry, Material Sciences and Life Sciences. The instrument sets the standards in both steady state and time-resolved spectroscopy: The system demonstrates unmatched sensitivity and can be configured for spectral measurements from the ultraviolet to the mid-infrared spectral range, and for lifetime measurements spanning time resolutions over 12 orders of magnitude from picoseconds to seconds.

Charge(s) for University Departments:

(i) PL: Rs. 200/-; (ii) Lifetime: 250/-; (iii) Quantum: Rs. 1250/-

Liquid Nitrogen Facility (LN₂)



Make: Wirac Automation Khione-240 Liquid Nitrogen Plant

Application: The Liquid Nitrogen (LN₂) facility is involved in in-house production of LN₂ and its supply to various departments, universities and industries. The LN₂ facility is used by University departments, colleges, R & D institutes and many other industries.

Capacity: 240 litre/day

Charge(s) for University Departments: 80/- per litre.

Service and Instrumentation support wing

The Service and Instrumentation wing acts as the central hub for all technical support requirements of the university. The major aim of this wing is to provide support to various departments in procurement and fabrication of the scientific equipments,

teaching aids, provide training to teachers, staff, central testing, development of campus networks and its maintenance.

The major activities of this wing are:

Repair of electronic and mechanical equipments: Instruments such as Water bath, Heating Mantle, Magnetic stirrer, pH meter, Spectrophotometer, Centrifuges, Ovens, Distillation units, Monitor, CRO, UPS, Inverters, Stabilizer, Printers. Mechanical machines - such as Vacuum pumps, Sieving machines, Hot water bath shaker, Exhaust systems, rain gauges, Air compressors, Air conditioning AC units, Fridges, Deep freezers, Cold room etc.

Support Activities: Maintenance of Campus LAN comprising of around 2000 computers, switches and routers, WiFi access points, University Clock Tower, Observatory equipments, University Printing press, UITs, University Engineering College, browsing facility in campus library etc.

Fabrication of Water infiltrometer, observatory telescope, under water sediment collector, rain gauge, Scanning Electron microscope sample holder, Exhaust systems, Soil sample collector Sundial, molding die, trolley for press, Sechi disc etc.

Purchase activities: In order to have a best practice in purchases, this facility provides support to various departments in procuring of equipments by formulating and providing specifications, negotiation and evaluation of quotations, inspection for satisfactory operation of the instruments and certification. Equipments that are no more useful are inspected by this facility and auctioned.

Implementation: University CCTV Surveillance system, Internet bandwidth upgradation, Firewalls, WiFi access points, Biometric systems etc

Campus Computing Facility (CCF)

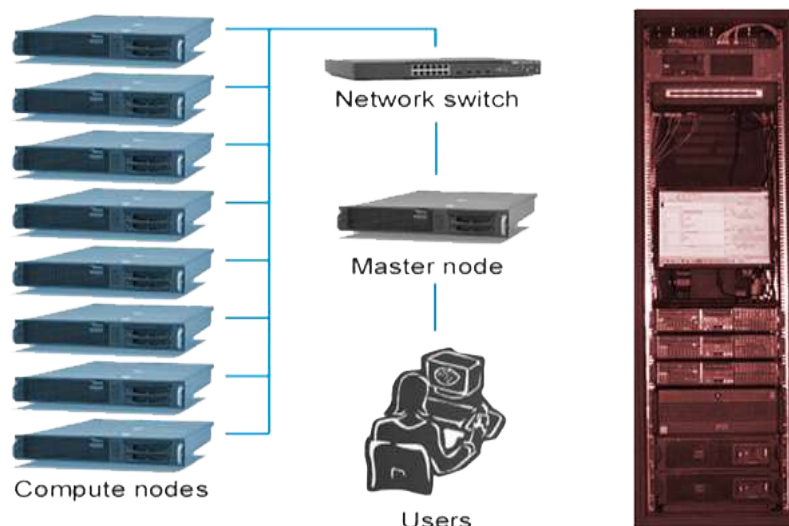


The Campus Computing Facility is a dedicated central computing facility under the DST PURSE programme, which enables faculty and students to use computational methods in their research. It has well equipped computer lab with 50 computers and a server facility that houses various network equipment's like firewall, layer 3 switches which distributes the NKN Internet connectivity to the various departments of the campus through a 10G optic fiber backbone. The user logs in for accessing the Internet are provided upon request from the departments. For easy access and better utilization of these facilities, a series of training programmes and workshop is being carried out on various aspects of scientific computing. The HPC cluster, video conferencing server,

Learning management system (LMS) platform and other solutions are hosted and maintained in this server facility.

The various services provided by CCF are listed below:

High Performance Computing (HPC)



High-performance computing (HPC) is the ability to process data and perform complex calculations at high speeds. One of the best-known types of HPC solutions is the supercomputer. A supercomputer contains thousands of compute nodes that work together to complete one or more tasks. This is called parallel processing. It's similar to

having thousands of PCs networked together, combining compute power to complete tasks faster.

Cluster Architecture: A Rocks cluster (Rocks version 6.2 with Cent OS 6.6-64 bit version) which is an implementation of "Beowulf" cluster, running Sun Grid IBM scheduler for job submissions. It has 5 nodes: - a master node with 64GB of RAM and four Dell compute nodes with 64GB RAM. Each node is a dual six-core Intel®XeonE5645 series 2.40GHz rack server.

Front End Node (master): Front end nodes are where users login in, submit jobs, compile code, etc. These nodes can also act as a router for other cluster nodes by using network address translation (NAT). Disk: 2 TB; Memory Capacity: 64GB; Ethernet: 2 physical ports, one public, one private.

Compute Nodes: These are the workhorse nodes. Rocks management scheme allows the complete OS to be reinstalled on every compute node in a short amount of time (~10 minutes). These nodes are not seen on the public Internet. Disk Capacity: 300 GB; Memory Capacity: 64 GB.

Ethernet: All compute nodes are connected with Ethernet on the private network.

This network is used for administration, monitoring, and basic file sharing. Computational work is submitted from the login/master node to the compute nodes by users via a batch system. The cluster is accessed remotely via SSH. Users authenticate (i.e., login) using an SSH client; after successful authentication a command-line interface is presented. This can be used to submit computational jobs to the *batch system queue*.

MPI Interconnects: The network transport used for MPI messages will depend on the hardware provided with the HPC cluster. This cluster uses gigabit Ethernet

networks for MPI traffic. This network is especially designed to provide the fastest message passing systems available at bandwidths of multiple gigabytes per second.

Shared Data Storage: By using share, the management overhead of a large cluster is significantly reduced as there is no need to copy data to every node in the cluster for running jobs. By default, the following shared storage areas are typically configured on the cluster.

Storage mount point on nodes	File server	Purpose
home/username	Master node	Shared storage area for users
state/partition1	Compute node	Temporary storage area
share/apps	Master node	Shared Application

Chemistry related software

Turbomole 6.4 for quantum chemical application; NWChem ab initio computational chemistry software; Tinker molecular modeling package for molecular mechanics and dynamics; GROMACS (GROningen MAchine for Chemical Simulations) is a molecular dynamics package primarily designed for simulations of proteins lipids and nucleic acids; VMD; Desmond; High-performance molecular dynamics simulations for bimolecular systems

Bio-informatics applications

HMMER; NCBI BLAST; MpiBLAST; Biopython; ClustalW; MrBayes; Coffee Emboss; Phyliip; Fasta; Glimmer; Perl-bioperl

Parallel computing MPI libraries

OpenMPI; MPICH; PVM

Compilers

C; C++; FORTRAN; Perl; Python and ipython interactive shell for python programming

Statistical Analysis

IBM SPSS 20; pspp

Remote Access and Virtual Desktop

FreeNx for ssh based remote login; OpenSSH

Statistical computing and Graphics

R for Statistical computing and Graphics; Gnuplot for 2D and 3D plots; Python-matplotlib 2D plotting library

Mathematical and Numerical Computation

Blas, Atlas, GotoBlas, Openblas linear algebra library; Scilab for numerical numerical computation; Scipy and numpy for mathematical and scientific computing library

Job Queuing system

SGE6.2 Sun Grid Engine (Open Grid Scheduler); Condor High Throughput Computing environment

Cluster monitoring system

Ganglia

Web server

Apache

NVIDIA® Tesla® V100 powered GPU Computing facility



The facility consist of a Dell PowerEdge R740 Rack Server with Intel® Xeon® Gold 6154 3.0G,18 core 512GB RAM with dual NVIDIA Tesla™ V100 GPU 32GB GPU cards. NVIDIA® V100 Tensor Core is the most advanced data center GPU ever built to accelerate AI, high performance computing (HPC), and graphics. It's powered by NVIDIA Volta architecture. It offers the performance of up to 100 CPUs in a single GPU. With 640 Tensor Cores, V100 is the world's first GPU to break the 100 teraFLOPS (TFLOPS) barrier of deep learning performance. AI models that would consume weeks of computing resources on previous systems can now be trained in a few days. With this dramatic reduction in training time, a whole new world of problems will now be solvable with AI.

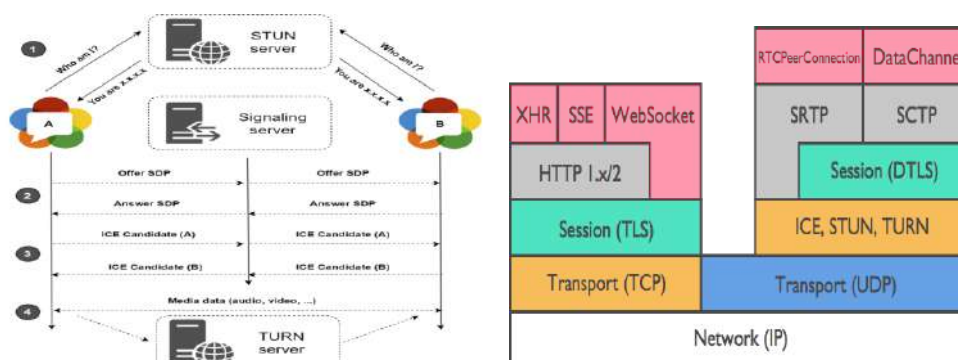
Online LaTeX typesetting system

LaTeX (pronounced LAY-tek or LAH-tek) is a tool used to create professional-looking documents. It is based on the WYSIWYM (what you see is what you mean) idea, meaning you only have focus on the contents of your document and the computer will take care of the formatting. Instead of spacing out text on a page to control formatting, as with Microsoft Word or LibreOffice Writer, users can enter plain text and let LaTeX take care of the rest. It is an online LaTeX editor designed to make the process of writing, editing and producing your research papers and project reports much quicker. It is currently hosted as an intranet resource and will be available only within the University campus (**Resource Link:** <http://tex.ku-latex.ac.in/>)

Learning Management System (LMS)

Learning Management System is based on an open source Moodle which delivers a powerful set of learner-centric tools to build a collaborative learning environment that empowers both teaching and learning. It is designed with a simple and flexible user interface and well-documented resources. It is web-based and features a mobile-compatible interface, making it accessible from anywhere in the world across different web browsers or devices. Its functionality includes features such as discussion forums, chat rooms, wikis, quizzes, assignments, gamification and much more (**Resource Link:** <https://lms.keralauniversity.ac.in>).

WebRTC based Video conferencing system (UoK Meet)

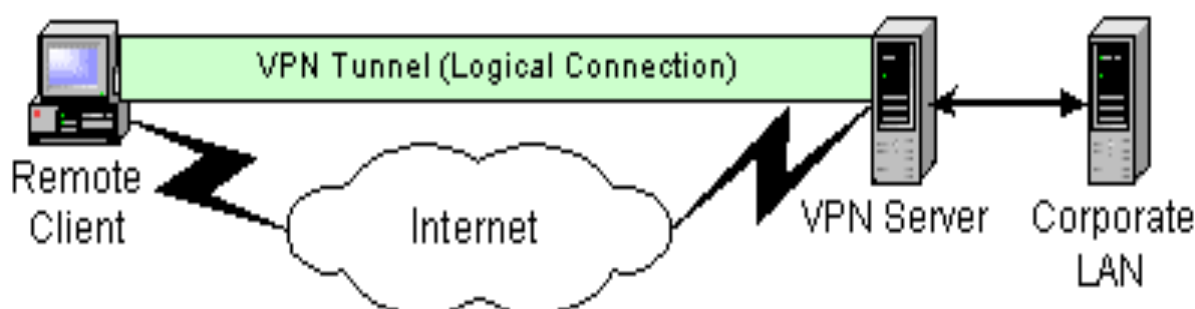


WebRTC is a free, open-source technology that provides browsers and mobile applications with real-time communication (RTC) capabilities through simple application programming interfaces (APIs). UoK Meet is an open source WebRTC based modified version of jitsi video conferencing solution hosted at the Server facility. It is being used by various departments to conduct classes, seminars and other functions (**Resource Link:** <https://live.hpc-ku.in>)

Video on Demand(VOD)

Video on demand (VOD) is an online media distribution system that allows users to access videos without a traditional video playback device. It allows various departments to store educational contents under a single roof (**Resource Link:** <https://vod.hpc-ku.in>).

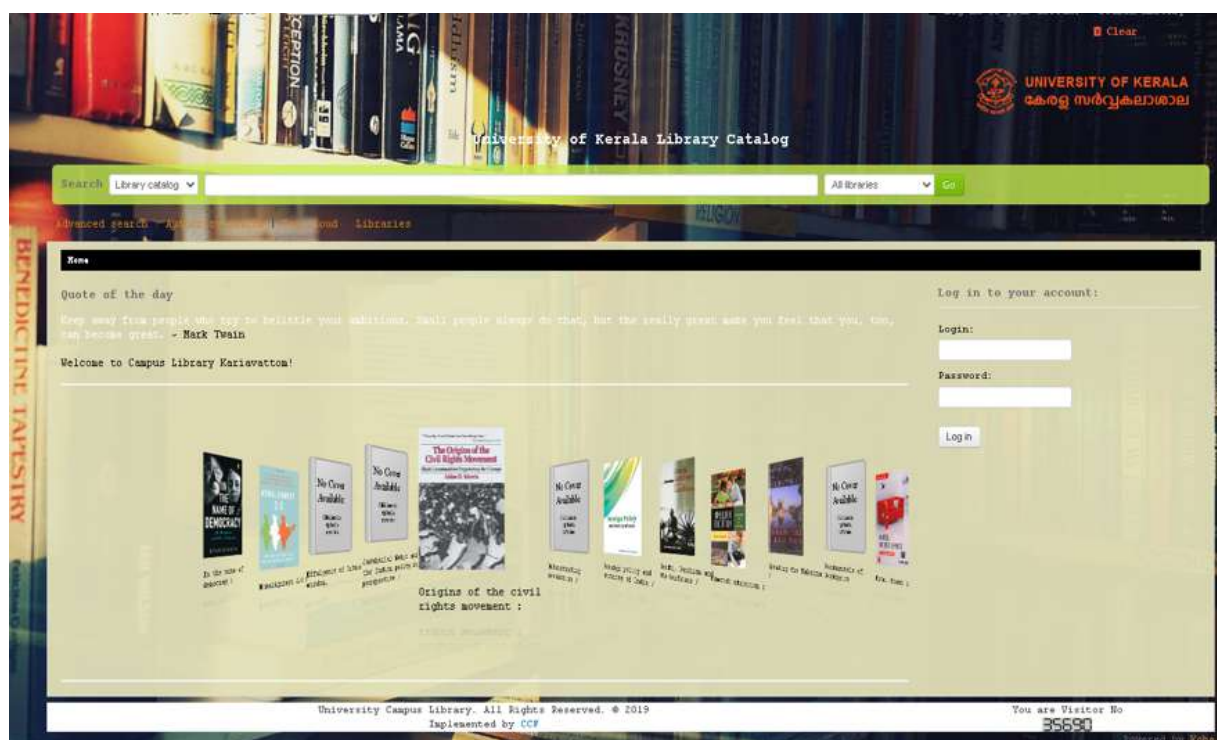
Uni@Home VPN facility



A virtual private network (VPN) extends a private network across a public network and enables users to send and receive data across shared or public networks as if their computing devices were directly connected to the private network. Applications running across a VPN may therefore benefit from the functionality, security, and management of the private network. The Uni@Home VPN server in the CCF enables the faculties and researchers to access the e-resources like university subscribed journals, intranet web pages and other contents available only within the University to be accessible at home.

Configuration Link: <http://kusicc.ac.in/wp-content/uploads/2020/11/vpn.pdf>

Koha integrated library management system



Koha is an opensource library automation software. The online public access catalogue(OPAC) of the University campus library was implemented by the Campus Computing Facility using Koha. It enabled the integration of the various department libraries under a single OPAC.

Resource Link: <http://campuslib.keralauniversity.ac.in/>



PART E: Learning To Learn

Learning Outcomes-based Curriculum Framework

Graduate Attributes of University of Kerala

Learning in Higher Education

Disciplinary boundaries and beyond...

Student Start-up scheme of University of Kerala

The University Finishing School

University Consultancy Cell

Placement Cell

Centre for Adult and Continuing Education & Extension

MOOC and SWAYAM

Internal Quality Assurance Cell (IQAC)

“By education, I mean an all-round drawing of the best in child and man in body, mind and spirit.”

– Mahatma Gandhi

E1. Learning Outcomes-based Curriculum Framework (LOCF)

(as suggested by UGC)

Introduction

A high priority task in the context of future education development agenda in India is fostering quality higher education. Further improvement of quality of higher education is considered critical for enabling effective participation of young people in knowledge production and participation in the knowledge economy, improving national competitiveness in a globalized world and for equipping young people with skills relevant for global and national standards and enhancing the opportunities or social mobility. Sustained initiatives are required for institutionalizing an **outcome-oriented higher education system** and **enhancing employability of graduates through curriculum reform** based on a **learning outcomes-based curriculum framework**, improving/upgrading academic resources and learning environment, raising the quality of teaching and research across all higher education institutions; technology use and integration to improve teaching-learning processes and reach a larger body of students through alternative learning modes such as open and distance learning modes and use of MOOCs.

Other priority areas of action for fostering quality higher education include translation of academic research into innovations for practical use in society and economy, promoting efficient and transparent governance and management of higher education system, enhancing the capacity of the higher education system to govern itself through coordinated regulatory reform and increasing both public and private sector investment in higher education, with special emphasis on targeted and effective equity-related initiatives.

Learning outcomes-based approach to curriculum planning and development

The fundamental premise underlying the learning outcomes-based approach to curriculum planning and development is that higher education qualifications are awarded on the basis of demonstrated achievement of outcomes (expressed in terms of knowledge, understanding, skills, attitudes and values) and academic standards expected of graduates of a programme of study. Learning outcomes specify what graduates completing a particular programme of study are expected to know, understand and be able to do at the end of their programme of study.

The expected learning outcomes are used as reference points that would help formulate graduate attributes, qualification descriptors, programme learning outcomes and course learning outcomes which in turn will help in curriculum planning and development, and in the design, delivery and review of academic programmes. They provide general guidance for articulating the essential learnings associated with programmes of study and courses within a programme.

LOCF allows flexibility and innovation in (i) programme design and syllabi development by higher education institutions (HEIs), (ii) teaching-learning process, (iii) assessment of student learning levels, and (iv) periodic programme review within a

broad framework of agreed expected graduate attributes, qualification descriptors, programme learning outcomes and course learning outcomes.

The overall objectives of the learning outcomes-based curriculum framework are to:

- Help formulate graduate attributes, qualification descriptors, programme learning outcomes and course learning outcomes that are expected to be demonstrated by the holder of a qualification;
- Enable prospective students, parents, employers and others to understand the nature and level of learning outcomes (knowledge, skills, attitudes and values) or attributes a graduate of a programme should be capable of demonstrating on successful completion of the programme of study;
- Maintain national standards and international comparability of learning outcomes and academic standards to ensure global competitiveness, and to facilitate student/graduate mobility; and
- Provide higher education institutions an important point of reference for designing teaching-learning strategies, assessing student learning levels, and periodic review of programmes and academic standards.

Key outcomes underpinning curriculum planning and development

The learning outcomes-based curriculum framework for undergraduate education is a framework based on the expected learning outcomes and academic standards that are expected to be attained by graduates of a programme of study and holder of a qualification. The key outcomes that underpin curriculum planning and development at the undergraduate level include Graduate Attributes, Qualification Descriptors, Programme Learning Outcomes, and Course Learning Outcomes:

Graduate attributes

The graduate attributes reflect the particular quality and feature or characteristics of an individual, including the knowledge, skills, attitudes and values that are expected to be acquired by a graduate through studies at the higher education institution (HEI) such as a college or university. The graduate attributes include capabilities that help strengthen one's abilities for widening current knowledge base and skills, gaining new knowledge and skills, undertaking future studies, performing well in a chosen career and playing a constructive role as a responsible citizen in the society. The graduate attributes define the characteristics of a student's university degree programme(s), and describe a set of characteristics/competencies that are transferable beyond study of a particular subject area and programme contexts in which they have been developed. Graduate attributes are fostered through meaningful learning experiences made available through the curriculum, the total college/university experiences and a process of critical and reflective thinking.

The learning outcomes-based curriculum framework is based on the premise that every student and graduate is unique. Each student or graduate has his/her own characteristics in terms of previous learning levels and experiences, life experiences, learning styles and approaches to future career-related actions. The quality, depth and

breadth of the learning experiences made available to the students while at the higher education institutions help develop their characteristic attributes. The graduate attributes reflect both disciplinary knowledge and understanding, generic skills, including global competencies, that all students in different academic fields of study should acquire/attain and demonstrate.

Some of the characteristic attributes that a graduate should demonstrate are as follows:

Disciplinary knowledge: Capable of demonstrating comprehensive knowledge and understanding of one or more disciplines that form a part of a programme of study.

Communication Skills: Ability to express thoughts and ideas effectively in writing and orally; Communicate with others using appropriate media; confidently share one's views and express herself/himself; demonstrate the ability to listen carefully, read and write analytically, and present complex information in a clear and concise manner to different groups.

Critical thinking: Capability to apply analytic thought to a body of knowledge; analyse and evaluate evidence, arguments, claims, beliefs on the basis of empirical evidence; identify relevant assumptions or implications; formulate coherent arguments; critically evaluate practices, policies and theories by following scientific approach to knowledge development.

Problem solving: Capacity to extrapolate from what one has learned and apply their competencies to solve different kinds of non-familiar problems, rather than replicate curriculum content knowledge; and apply one's learning to real life situations.

Analytical reasoning: Ability to evaluate the reliability and relevance of evidence; identify logical flaws and holes in the arguments of others; analyse and synthesise data from a variety of sources; draw valid conclusions and support them with evidence and examples, and addressing opposing viewpoints.

Research-related skills: A sense of inquiry and capability for asking relevant/appropriate questions, problematising, synthesising and articulating; Ability to recognise cause-and-effect relationships, define problems, formulate hypotheses, test hypotheses, analyse, interpret and draw conclusions from data, establish hypotheses, predict cause-and-effect relationships; ability to plan, execute and report the results of an experiment or investigation.

Cooperation/Team work: Ability to work effectively and respectfully with diverse teams; facilitate cooperative or coordinated effort on the part of a group, and act together as a group or a team in the interests of a common cause and work efficiently as a member of a team.

Scientific reasoning: Ability to analyse, interpret and draw conclusions from quantitative/qualitative data; and critically evaluate ideas, evidence and experiences from an open-minded and reasoned perspective.

Reflective thinking: Critical sensibility to lived experiences, with self-awareness and reflexivity of both self and society.

Information/digital literacy: Capability to use ICT in a variety of learning situations, demonstrate ability to access, evaluate, and use a variety of relevant information sources; and use appropriate software for analysis of data.

Self-directed learning: Ability to work independently, identify appropriate resources required for a project, and manage a project through to completion.

Multicultural competence: Possess knowledge of the values and beliefs of multiple cultures and a global perspective; and capability to effectively engage in a multicultural society and interact respectfully with diverse groups.

Moral and ethical awareness/reasoning: Ability to embrace moral/ethical values in conducting one's life, formulate a position/argument about an ethical issue from multiple perspectives, and use ethical practices in all work. Capable of demonstrating the ability to identify ethical issues related to one's work, avoid unethical behaviour such as fabrication, falsification or misrepresentation of data or committing plagiarism, not adhering to intellectual property rights; appreciating environmental and sustainability issues; and adopting objective, unbiased and truthful actions in all aspects of work.

Leadership readiness/qualities: Capability for mapping out the tasks of a team or an organization, and setting direction, formulating an inspiring vision, building a team who can help achieve the vision, motivating and inspiring team members to engage with that vision, and using management skills to guide people to the right destination, in a smooth and efficient way.

Lifelong learning: Ability to acquire knowledge and skills, including, 'learning how to learn', that are necessary for participating in learning activities throughout life, through self-paced and self-directed learning aimed at personal development, meeting economic, social and cultural objectives, and adapting to changing trades and demands of work place through knowledge/skill development/reskilling.

Qualification descriptors

A qualification descriptor indicates the generic outcomes and attributes expected for the award of a particular type of qualification. The qualification descriptors also describe the academic standard for a specific qualification in terms of the levels of knowledge and understanding, skills and competencies and attitudes and values that the holders of the qualification are expected to attain and demonstrate. These descriptors also indicate the common academic standards for the qualification and help the degree-awarding bodies in designing, approving, assessing and reviewing academic programmes. The learning experiences and assessment procedures are expected to be designed to provide every student with the opportunity to achieve the intended programme learning outcomes. The qualification descriptors reflect both disciplinary knowledge and understanding as well as generic skills, including global competencies, that all students in different academic fields of study should acquire/attain and demonstrate.

For examples some of the expected learning outcomes that a student should be able to demonstrate on completion of a degree-level programme may include the following:

Demonstrate (i) a systematic, extensive and coherent knowledge and understanding of an academic field of study as a whole and its applications, and links to related disciplinary areas/subjects of study; including a critical understanding of the established theories, principles and concepts, and of a number of advanced and emerging issues in the field of study; (ii) procedural knowledge that creates different types of professionals related to the disciplinary/subject area of study, including research and development, teaching and government and public service; (iii) skills in areas related to one's specialization and current developments in the academic field of study, including a critical understanding of the latest developments in the area of specialization, and an ability to use established techniques of analysis and enquiry within the area of specialisation.

Demonstrate comprehensive knowledge about materials, including current research, scholarly, and/or professional literature, relating to essential and advanced learning areas pertaining to the chosen disciplinary areas (s) and field of study, and techniques and skills required for identifying problems and issues relating to the disciplinary area and field of study.

Demonstrate skills in identifying information needs, collection of relevant quantitative and/or qualitative data drawing on a wide range of sources, analysis and interpretation of data using methodologies as appropriate to the subject(s) for formulating evidence-based solutions and arguments;

Use knowledge, understanding and skills for critical assessment of a wide range of ideas and complex problems and issues relating to the chosen field of study.

Communicate the results of studies undertaken in an academic field accurately in a range of different contexts using the main concepts, constructs and techniques of the subject(s) of study;

Address one's own learning needs relating to current and emerging areas of study, making use of research, development and professional materials as appropriate, including those related to new frontiers of knowledge.

Apply one's disciplinary knowledge and transferable skills to new/unfamiliar contexts and to identify and analyse problems and issues and seek solutions to real-life problems.

Demonstrate subject-related and transferable skills that are relevant to some of the job trades and employment opportunities.

Programme learning outcomes

The outcomes and attributes described in qualification descriptors are attained by students through learning acquired on completion of a programme of study. The term 'programme' refers to the entire scheme of study followed by learners leading to a qualification. Individual programmes of study will have defined learning outcomes which must be attained for the award of a specific certificate/diploma/degree. The programme learning outcomes are aligned with the relevant qualification descriptors.

Programme learning outcomes will include subject-specific skills and generic skills, including transferable global skills and competencies, the achievement of which the students of a specific programme of study should be able to demonstrate for the award

of the certificate/Diploma/Degree qualification. The programme learning outcomes would also focus on knowledge and skills that prepare students for further study, employment, and citizenship. They help ensure comparability of learning levels and academic standards across colleges/universities and provide a broad picture of the level of competence of graduates of a given programme of study. A programme of study may be monodisciplinary, multi-disciplinary or inter-disciplinary.

Course learning outcomes

The programme learning outcomes are attained by learners through the essential learnings acquired on completion of selected courses of study within a programme. The term 'course' is used to mean the individual courses of study that make up the scheme of study for a programme. Course learning outcomes are specific to the learning for a given course of study related to a disciplinary or interdisciplinary/multi-disciplinary area. Some programmes of study are highly structured, with a closely laid down progression of compulsory/core courses to be taken at particular phases/stages of learning. Some programmes allow learners much more freedom to take a combination of courses of study according to the preferences of individual student that may be very different from the courses of study pursued by another student of the same programme.

Course-level learning outcomes will be aligned to programme learning outcomes. Course level learning outcomes are specific to a course of study within a given programme of study. The achievement by students of course-level learning outcomes lead to the attainment of the programme learning outcomes. At the course level, each course may well have links to some but not all graduate attributes as these are developed through the totality of student learning experiences across the years of their study.

Teaching - learning process

The Learning Outcomes-Based Approach to curriculum planning and transaction requires that the teaching-learning processes are oriented towards enabling students to attain the defined learning outcomes relating to the courses within a programme. The outcomebased approach, particularly in the context of undergraduate studies, requires a significant shift from teacher-centric to learner-centric pedagogies, and from passive to active/participatory pedagogies. Planning for teaching therein becomes critical. Every programme of study lends itself to well-structured and sequenced acquisition of knowledge and skills. Practical skills, including an appreciation of the link between theory and experiment, will constitute an important aspect of the teaching-learning process. Teaching methods, guided by such a framework, may include: lectures supported by group tutorial work; practicum and field-based learning; the use of prescribed textbooks and e-learning resources and other self-study materials; open-ended project work, some of which may be team-based; activities designed to promote the development of generic/transferable and subject-specific skills; and internship and visits to field sites, and industrial or other research facilities etc.

Assessment methods

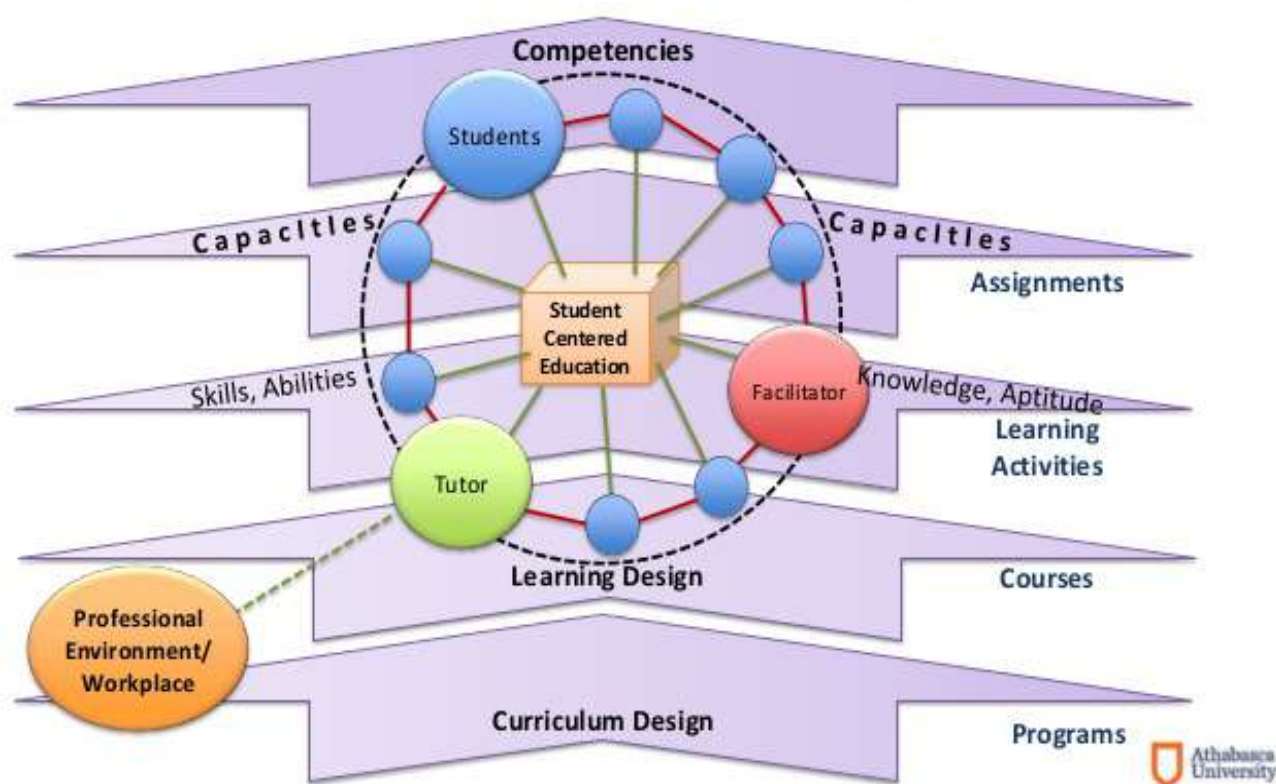
A variety of assessment methods that are appropriate to a given disciplinary/subject area and a programme of study will be used to assess progress towards the course/programme learning outcomes. Priority will be accorded to formative

assessment. Progress towards achievement of learning outcomes will be assessed using the following: time-constrained examinations; closed-book and open-book tests; problem based assignments; practical assignment laboratory reports; observation of practical skills; individual project reports (case-study reports); team project reports; oral presentations, including seminar presentation; viva voce interviews; computerised adaptive testing; peer and self-assessment etc. and any other pedagogic approaches as per the context .

Curriculum and Learning Design for Competencies/Outcomes Based Education: A Systemic View

C/OBE Framework

A Systemic View



Courtesy: Alabama University

E2. Graduate Attributes of University of Kerala

University of Kerala has formulated its Graduate Attribute as follows:

- Continue life-long learning as an autonomous learner
- Continuously strive for excellence in education
- Apply and nurture critical and creative thinking
- Promote sustainable development practices
- Promote co-operation over competition
- Balance rights with responsibilities
- Understand and respect diversity & difference
- Not be prejudiced by gender, age, caste, religion, or nationality.
- Use education as a tool for emancipation and empowerment of humanity

Visualization of graduate attributes can be viewed at:

<http://www.iqac.keralauniversity.ac.in/graduateVdo.php>



E3. Learning in Higher Education

(Compiled by Prof Achuthsankar S Nair)

1. How Learning in Higher Education is different:

Studying in a University is remarkably different from school education. Here are a few points that you may think of:

- Student takes responsibility for learning
- Student is interested in questions, not merely answers
- Student learns from critical debates, not passive listening
- Student attempts to be familiar with current trends
- Student learns from interactions with other students, researchers and scholars
- Student taps variety of knowledge sources, rather than a single “text box”.
- *You may think of more such points.*

In this remaining section, some brief tips under a number of heads are listed. These are to trigger your thoughts. You must evolve your own conclusions rather than limiting yourself to the tips.

2. Think Different: Creative Thinking

- Creative thinking is thinking that is: Richer, Diverse, Unique, Different, Beautiful, Surprising, Attention grabbing, Divergent, Elating, Playful, Spontaneous, Out-of-the-box...
- Creative thinking is the process of generating new and useful ideas in any sector of human activity: arts, science, politics, daily life, human relations, living styles etc.
- Creativity is not restricted to poets, painters, musicians, writers and cinema directors; it is applicable to every single person in any sector.
- Creativity is considered as lying in the right hemisphere of the brain along with feelings, emotions and senses, while logic, reason and numbers lie in the left hemisphere.
- *“To raise new questions, new possibilities, to regard old problems from a new angle, requires creative imagination and marks real advances in science” – Albert Einstein.*

Innovation & Creativity

Innovation is creative thinking to solve problems which have business potential or social value. Improving water taps to reduce loss of water is an innovation with business potential. Communicating how to make home-made bio-pesticide is an innovation with social value.

Creativity & Craft

Craft is the basic skill in a sector, like the skill to sculpt on wood, the skill to sing, the skill to lay bricks. Anyone with these skills need not be creative, but skill is required to express creativity. Mason has craft of house making; Architect has creative skills to visualize new buildings. A singer has the craft for singing, but the music director creates the music. (Of course, there are music directors who are also singers, then craft and creativity exist in one).

Triggering Creative Thinking

- Freely making wild and crazy suggestions.
- Produce 25 different solutions to any problem.
- Not judging ideas as good or bad, early in the process. Fear for bad ideas kill creativity
- Allowing yourself to play with an idea whilst you travel.
- Draw or paint ideas.
- Sit in a different place & think about the problem.
- Listen to different music.
- Interact with different people.
- Ask more questions.
- Ignore what others think about your ideas.
- Try new things. Visit a river side, go to a village, eat from a new restaurant.
- Brainstorm with your family or friends.
- Do yoga/exercise
- Play a game, and then come back to the problem.
- Enjoy nature.
- Do something else for a while (watch a movie), and then go back to your project.

Lateral Thinking

Edward de Bono coined the phrase “lateral thinking” as a counterpoint to conventional or vertical thinking. In conventional thinking people go forward in a predictable, direct fashion. Lateral thinking involves approaching the problem from new directions – literally from the side.

Brain Storming

Brainstorming allows every member of the group to offer suggestions without criticism.

Approaches that skill creativity

Early criticism, company to people who are not excited with new ideas and who begin their responses with “No...” or “But...”, instead of “Wow...”, “Great...”. this does not

mean there should be no criticism. Criticism should be at a stage of selecting and implementing ideas, not in the stage of formation.

3. Think Deep: Critical Thinking

Critical thinking is Logical, “Correct”, Closer to truth, Deep, Understanding, Unbiased, Factual, Scientific, Convergent, Smart... Here are some popular definitions:

- Critical thinking is the art of analysing and evaluating thinking with a view to improving it.
- Critical thinking is the ability to think clearly and rationally about what to do or what to believe. It includes the ability to engage in reflective and independent thinking.
- Critical thinking is thinking that assesses itself” (Center for Critical Thinking, 1996).
- Critical thinking is the ability to think about one’s thinking in such a way as 1. To recognize its strengths and weaknesses and, as a result. 2. To recast the thinking in improved form” (Center for Critical Thinking, 1996).
- Much of our thinking, left to itself, is based, distorted, partial, uninformed or down-right prejudiced. Critical thinking is, self-directed, self-disciplined, self-monitored, and self-corrective thinking. It requires rigorous standards of excellence and mindful command of their use. It entails effective communication and problem solving abilities and a commitment to overcome our native egocentrism and socio-centrism.
- Critical thinking involves asking questions, defining a problem, examining evidence, analyzing assumptions and biases, avoiding emotional reasoning, avoiding oversimplification, considering other interpretations, and tolerating ambiguity, Critical thinkers will change positions when reason leads them to do so.

Critical thinker should have

- **Rationality:** (i) Rely on reason rather than emotion. (ii) Require evidence, ignore no known evidence, and follow evidence where it leads (iii) Are concerned more with finding the best explanation than being right.
- **Self-awareness:** (i) Weigh the influences of motives and bias (ii) Recognize our own assumptions, prejudices, biases, or point of view.
- **Honesty:** Recognize emotional impulses, selfish motives, nefarious purposes, or other modes of self-deception.
- **Open-mindedness:** (i) Evaluate all reasonable inferences (ii) Consider a variety of possible viewpoints or perspectives.(iii)Remain open to alternative interpretations (iii) Accept a new explanation, model, or paradigm because it explains the evidence better, is simpler, or has fewer inconsistencies or covers

more data (iv) Accept new priorities in response to a re-evaluation of the evidence or reassessment of our real interests (v) Do not reject unpopular views out of hand.

- **Discipline** (i) Are precise, meticulous, comprehensive, and exhaustive (ii) Resist manipulation and irrational appeals (iii) Avoid snap judgments.
- **Judgment** (i) Recognize the relevance and/or merit of alternative assumptions & perspectives (ii) Recognize the extent and weight of evidence

A well cultivated critical thinker: (i) Raises vital questions and problems, formulating them clearly and precisely (ii) Gathers and assesses relevant information, using abstract ideas to interpret it effectively (iii) Comes to well-reasoned conclusions and solutions, testing them against relevant criteria and standards (iv) Thinking open mindfully within alternative systems of thought, recognizing and assessing, as need be, their assumptions, implications, and practical consequences (v) Communicates effectively with others in figuring out solutions to complex problems.

By contrast, passive, non-critical thinkers take a simplistic view of the world.

(i) They see things in black & white, without recognizing variety of possible understanding. (ii) They see questions as yes or no with no subtleties. (iii) They fail to see linkages and complexities (iv) They fail to recognize related elements. (v) They take an egotistical view of the world (vi) They take their facts as the only relevant ones. (vii) They take their own perspective as the only sensible one. (viii) They take their goals the only valid one.

Here are some creative questions to ponder over : Think of the world where there is/are:

(i) No Police (ii) No Democracy (iii) No Bees (iv) No Trees (v) No Houses (vi) No Money (vii) No Computer (viii) No Mobile phones (ix) No Electricity (x) No ownership (xi) No Currency (xii) No Gender (xiii) No Universities & Colleges (xiv) No Schools (xv) No Temples/ Churches/Mosques (xvi) No Political Parties (xvii) No Petrol (xviii) No Cement (xix) People have no name



E4. Disciplinary boundaries and beyond...

(Prof Achuthsankar S Nair)

Subjects, Departments, Streams, Faculties....There are many ways for a University student to “distinguish” himself or herself from another student. It is common to hear sectarian stands stereotyping each other with judgmental comments such as : “Scientist have no sense of aesthetics and are far removed from day-to-day problems of society”; “Studying language and literature has no utility and is an arm-chair activity”; “Social Sciences have no rigour or scientific basis”. Perhaps this is not phenomena limited to academics. “Poetry is the anti-thesis of science”, said Coleridge. Malayalam

cinema has the famous character played out by Thilakan in “Sphatikam,” who felt that technology was inferior to Mathematics and that every throb of the Universe arises from mathematics. Such regimented viewpoints of knowledge and innocent prejudices are behind the academic systems that we practice. We often hear of untouchability between subjects, of Physics student not being able to pursue studies in Chemistry, of biotechnology student not being able to teach Botany, of Electronics student not being able to do research in Information Technology, etc. The prevalent modern view of knowledge is definitely not that of ‘untouchability’, between subjects, but one that promotes ‘inter-caste’ marriages.

Knowledge in the academic perspective is often seen as three major streams (there are slight variations in these stream definitions, across Universities and countries):

Stream	Faculties (Subject groups)	Example subjects
1. Science & Technology	Science, Engineering & Technology, Applied Sciences & Technology	Physics, Chemistry, Bio-technology, Ayurveda, Homeopathy, Computer Science, Civil Engineering, Nanotechnology, Electrical Engineering, Geology. Modern Medicine, Alternate Medicine, Agriculture.
2. Social Science	Social Science, Commerce, Education, Management, Physical Education	Economics, Sociology, Management, Accountancy, History, Archaeology, Psychology, Education, Philosophy
3. Arts & Humanities	Arts, Oriental Studies, Fine Arts	Music, Malayalam, Tamil, Russian, Linguistics, Sanskrit, Fashion Design, Interior Design

Science & Technology: This stream deals with understanding and use of natural phenomena. Natural phenomena are in existence in nature irrespective of presence or absence of human society (Apples keep falling down according to law of gravity, even when no humans are there on earth. In contrast, ‘Consumer Surplus’ or ‘Bloom’s

taxonomy' or 'Cinema' does not exist in the absence of human society). Whereas science tries to study universal principles of natural phenomena, applied sciences and technologies tend to use them to solve day-to-day problems like making medicines, computers, bridges, paints and rockets. This distinction need not be so clear cut, except in cases of highly abstract subjects like mathematics. Though sciences try to unravel knowledge for the good of the society, they are often criticized for their lack of human touch and absence of aesthetics, which may be partially true. There are also instances of discoveries in science pursued without full regard to its threats. Genetic modification, dangerous pesticides, nuclear energy are examples

Social Sciences deal with phenomena that arise out of the actions and interactions of human beings (society). If there were no human societies, would there be 'principles of management'? Would there be history, politics, religion, ethics, journalism, marketing, tourism, education, research...? (one could say migrating birds would still 'tour', birds would 'teach' their little ones to fly, animals would have 'jungle raj' politics.... but, surely they are no match for the sophistication that humans have in these areas). Unless social sciences are taught, researched and practiced, human society's understanding of itself will suffer and there will be chaos all around.

Arts and Humanities deal with all that human beings do in the space of imagination, characterized by a sense of beauty (aesthetics). Like social sciences, these cannot be completely taken out of human context. Ability to create a world of imagination distinguishes man from animals. There would be no developed language, literature, humour, sophisticated music, sculptures, cinema, poems etc. without human society. A world without poems, literature, dance, music, painting and sculptures would be a dangerous world where science will be of no use, because people will be no different from animals. Arts and humanities wake up our 'human' self; make us appreciate humanity, beauty, truth, justice, equality, kindness....

A look at the above scenario regarding the three major streams should temper our healthy respect of all the three streams. They are both interdependent and complementary and together establish the modern knowledge landscape.

Signs of falling boundaries

When Darwin proposed theory of evolution, it was widely debated by scientists, religious leaders (creationists) and philosophers. Today the debate has transformed. Anyone can confirm the signs of evolution with an experiment on his/her own blood. From blood, science can derive human DNA and then one can search for similarity of it in the Google of biology -BLAST- and see hits of *Orangutan and Chimpanzee* coming up instantly!

Ethics was once a subject of not much consequence to scientists. But today, science finds as its stumbling block its inability to answer many ethical issues raised by scientific development. Ethical, legal and social issues are of utmost concern to modern science today. The authorship of debated works of Shakespeare or Kalidasa or Bhasa was once a matter resolved through arguments based on history and linguistics. Today such debates are also realm of mathematics. Mathematical measures of literary style have been developed in a field known as *stylometry*.

Today many knowledge emerges in the periphery of existing knowledge. There are many areas which can be pointed out as “inter-disciplinary”:

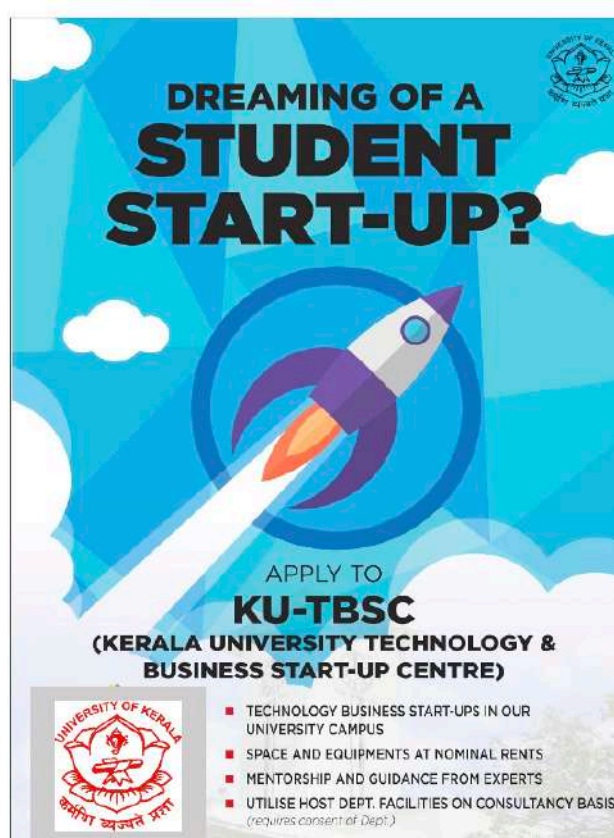
Bio-Chemistry	Biology & Chemistry
Nano-Science	Physics, Chemistry & Botany
Linguistic Computing	Linguistics & Computer Science
Ayur informatics	Ayurveda & IT
Agro-Economics	Agriculture & Economics
Audio Engineering	Music & Technology
Animation	Fine Arts & Software
e-journalism	Journalism & IT
Drug Design Mathematics	Biology, Chemistry, Physics, Physiology,
IPR in Technology Sector	Law, Science & IT
Science Journalism	Science & Journalism.
Machine Translation	Language knowledge & Computing
Bio-ethics	Bio-technology & Philosophy
Sports Medicine	Sports & Medicine

In creating knowledge (research), the give and take between disciplines will add new value. Many examples can be cited:

- Processing knowledge within a discipline using methods peculiar to the discipline: e.g. use of the experimental method to find out new laws in physics; use of the deductive method to prove new propositions in geometry
- Processing of knowledge within a discipline using methods peculiar to another discipline: e.g. use of the experimental method peculiar to the physical sciences for the study of psychology.
- Processing of knowledge outside a discipline using method peculiar to a discipline: e.g. analysis of demographic and census data for testing their argument with known distributions in mathematics and statistics.
- Use of the theoretical models within a discipline to create knowledge within a discipline: e.g. the normal distribution model of abilities in psychology leads to data relating to group differences in mental abilities for the psychologist.
- Use of theoretical models outside a discipline to create new models within a discipline: e.g. use of the kinetic theory of gases in physics to explain the positioning of stellar bodies in astronomy; the use of the theory of evolution in biology to explain the evolution of social institutions by sociologists.

E5. Student Start-up scheme of University of Kerala

The age of start-ups has arrived, no doubt. The 'Start-up village' in Kerala and "Start-up India, Stand-up India" initiative of Central government reconfirms this. There is a concentration of the idea around technological institutions, mainly engineering colleges. The tremendous scope of campus-based start-ups in Universities and Arts and Science colleges remain to be exploited. University of Kerala, a multi-disciplinary University with 43 departments ranging from Sanskrit, Arabic, Sociology and Psychology to Optoelectronics, Bio-technology and Computer Science, presents a very unique eco-system for campus start-ups. A campus which can boast of cutting edge data servers, scanning electron microscopes and drug docking softwares is also known for centuries old Sanskrit palm leaves, garden of medicinal plants and clinical psychology laboratories. The diversity and its synergy present different and unique possibilities.



The University of Kerala started its experiments with start-ups, as early as in 2006, when it established an Industry Incubation Centre (IIC) and successfully incubated a student start-up – Soorya Kiran Bioinformatics Pvt. Ltd. The University has recently re-established the IIC as “KU-TBSC” (Kerala University Technology and Business Start-up Centre). The KU-TBSC scheme mainly provides space and facilities for the start-up to function at a very nominal rate compared to other established incubation centres. Space will be provided, if possible, within the student's respective departments. All facilities and faculty of the department can be advertised by the student start-up as available to them (on a consultancy basis, as per University's Consultancy Guidelines). Our University start-up scheme, unlike most engineering college incubation centres, is not just focusing on technology-based start-ups alone, but encourages the students from every department to enthusiastically think about providing products/ services from their field.

KU-TBSC is working towards a dedicated building, with a corporate front office, complete with a receptionist, seminar/meeting room, waiting area, etc. Start-up offices will be raw work cubicles with all facilities like Wi-Fi, but unfurnished, to keep the costs low.

The following start-ups were registered/applied for registration with the Kerala University Technology and Business Startup Centre (KU-TBSC):

Sl No	Name of the Start-up	Department
1	Sukriti- Skin and Haircare Products	Zoology
2	Pegasus Events- Event Management Company	Hindi
3	Rihla Malabar Arab Travel Solutions- Travel Management of Arabic Clients	Arabic
4	MaD Analytics-Big Data Analytic Company (Registered as Company)	Computational Biology and Bioinformatics
5	DNA's Biocules- Open Source Software and Learning Assistance	Computational Biology and Bioinformatics
6	Waggle Lab- Research oriented Academic Startup	Futures Studies
7	MakLab India- Computational Thinking	Futures Studies
8	Frink Labs- Develop Hardware-Software Oriented Stock Management Product	University College of Engineering
9	Dextro Systems- Develop Free Software and Technology Education	Computer Science
10	Biovent- Analysis Service of Biotechnology	Biotechnology
11	Ayurbitech- Ayurveda and Biotechnology based company	Biotechnology
12	Honeyhill Butterfly gardens- Bringing Butterflies into a Natural System	Biochemistry
13	ITI Technologies-Develop Softwares, mobile applications and digital marketing	Futures Studies
14	Team Kalavara	Linguistics
15	AUGGEN21	Computer Science

Contact: **Dr Manoj Changat**, Director, Kerala University Technology and Business Start-up Centre (Ph: 9446967394; Email: mchangat@gmail.com)

E6. The University Finishing School

Kerala University Finishing School was formed in 2013 with the following objectives:

1. To identify students with skill or competence gaps, with otherwise good potential to excel and bridge their latent skill gaps
2. To address issues relating to employability of students of the University
3. Imparting short term courses, on add-on skills as well as soft skills
4. Undertaking orientation programs, seminars and need based training to bridge the gap between academic content-based knowledge and employability skills as envisaged by the industry
5. Act as a forum for Industry-Institute linkage that helps in identifying skill -gaps
6. Co-ordinate with the Government, Professional bodies and other agencies on associated Finishing School models

Advisory Committee

The Advisory Committee chaired by Hon'ble Vice-Chancellor would meet at least once in a year, chart out programmes of the year and evaluate the progress achieved in terms of objectives set.

The activities of Finishing School are at two level, a). Finishing School level and b). Teaching department level.

Training Programs at Finishing School Level

The School would identify skill deficient students in the final semester of their learning program under different broad disciplines and impart:

1. Three days soft skill training program in batches of 50. It is proposed to undertake separate programs in the disciplines of Social Sciences, Humanities, Languages and Sciences. Thus, four such training batches are proposed every year.
2. Practical need-based training at the learners' centre in collaboration with the Concerned Department/institution.
3. Educative workshops for Faculty Advisors of each teaching department on issues relating to employability, Additional Skill acquisition etc.

The training covers: Personality development, Communication skills; Behavioural skills, Etiquettes, and Interpersonal personal skills and team building besides Cyber laws etc

Training Programme at Department Level

Since it is not possible to train all the students at the Finishing School level, the School helps the teaching departments to start **Students Skill Acquisition Clubs (SSACs)** and monitor its functioning.

Objectives of SSAC

1. Developing soft skills among all students

2. Enhancing learning capabilities, organizational skills and promoting team work
3. Enhancing general awareness among students and supporting in the choice of a career path.
4. Imparting leadership skills

Organization

All Students of the department would be members of this club with one among the faculty members as the Faculty Advisor. Member students to elect the following members as Executive Committee members for SSAC: President, Vice president and Secretary, Exe. Committee members, four members representing different semesters/courses. The Faculty Advisor and HoD will monitor the activities of the SSAC.

Proposed Activities

SSAC may undertake all such activities that help in achieving its objectives. These may include: Newspaper reading and reporting, GDs, Quiz competitions, Discussions and Analysis on events of contemporary relevance, essay writing, student parliament, poster competition, career guidance, debates etc. The list of planned activities could be displayed in a SSAC notice Board.

Activities to be classified as: Regular short duration activities (under 30 Minutes) : Newspaper reading and reporting, GDs Discussions and Analysis on events of contemporary relevance etc on week days during lunch Break.

Week end activities: Debates, Quizzes etc -on Saturdays.

One time TERM events once in a term : Seminars, Workshops.

Documentation and Reporting

All activities of the SSAC should be systematically documented with themes, photographs and outcome notes. A separate register to be maintained for activities and participants in each activity. Annual report of the Club to be forwarded to the Director, Finishing School.



Contact Address: Prof. Sabu Joseph

Mob: 9447453063; Email: jsabu2000@gmail.com, jsabu@keralauniversity.ac.in

E7. University Consultancy Cell (UCC)

The University of Kerala has 43 departments of teaching-cum-research with multiple study centres and about 200 permanent teachers and research guides, and provide a wide range of consultancy services in various domains. Some of the key expertise include elemental analysis, image processing, Laser applications, Nanophotonics, Theranostics, corrosion resistant studies, Computer and Statistical modeling, Medical image analysis, AI, Analysis of big data, NGS data, Water testing analysis, Microbial analysis, River sand auditing, Aquaponics, tissue culture, herbarium, archeological studies, socio-political surveys, election analysis, media graftification, Yoga, Counselling, SWOT Analysis, Towards Business Excellence, Gender Studies, Social auditing, Translation, Interpretation and attestation work etc.

A number of clients including various international and national government, semi-government and non-government organisations, companies, private sectors and common people are coming for Consultancy work with UCC.

The revenue generated from these agencies during the last five years are as follows:

Year	2015	2016	2017	2018	2019
Amount (in Rs.)	40,88,747	43,41,788	21,10,910	24,44,617	28,01,444

Type of Consultancy

1. Routine Consultancy: Consultancy of a routine nature such as material testing, analysis of samples measurement, fabrication, calibration, data collection, data entry, and routine translation. Academic consultancy such as external student projects/internships or peer review etc. entertained in the departments for which fees have been approved shall also come under routine consultancy. The Head of the Dept./Centre shall nominally be considered the consultant for routine consultancy.

2. Non-routine Consultancy : Three types identified under this.

Individual Consultancy: Consultancy that does not involve the use of facilities of the University/Departments/Centres and carried out by a consultant.

Institutional Consultancy: Consultancy that involves the use of facilities in the University/ Departments/Centres such as equipment, computer, laboratory etc.

Sponsored Consultancy: Project sponsored by industry, non-governmental organization or other institutions and involving activities such as analysis, testing, design, survey, field trial and software development etc.

Consultancy Budget Formulation

1. Working budget/direct expenditure – cover all actual expenses
2. Overhead charges/indirect expenses –
3. GST

The UCC chaired by the Hon'ble Vice-Chancellor processes all consultancy projects and the Convenor (Director) of the UCC is empowered to receive all approved consultancy funds and he will disburse it to concerned parties.

Procedure for Getting Consultancy:

A client may approach the Convenor, Consultancy Cell / Registrar/ School Director/ Head of the Department/Centre/ Individual consultant (Faculty/Technical staff of department). The proposal will be forwarded to University Consultancy Cell (UCC) for processing and action.

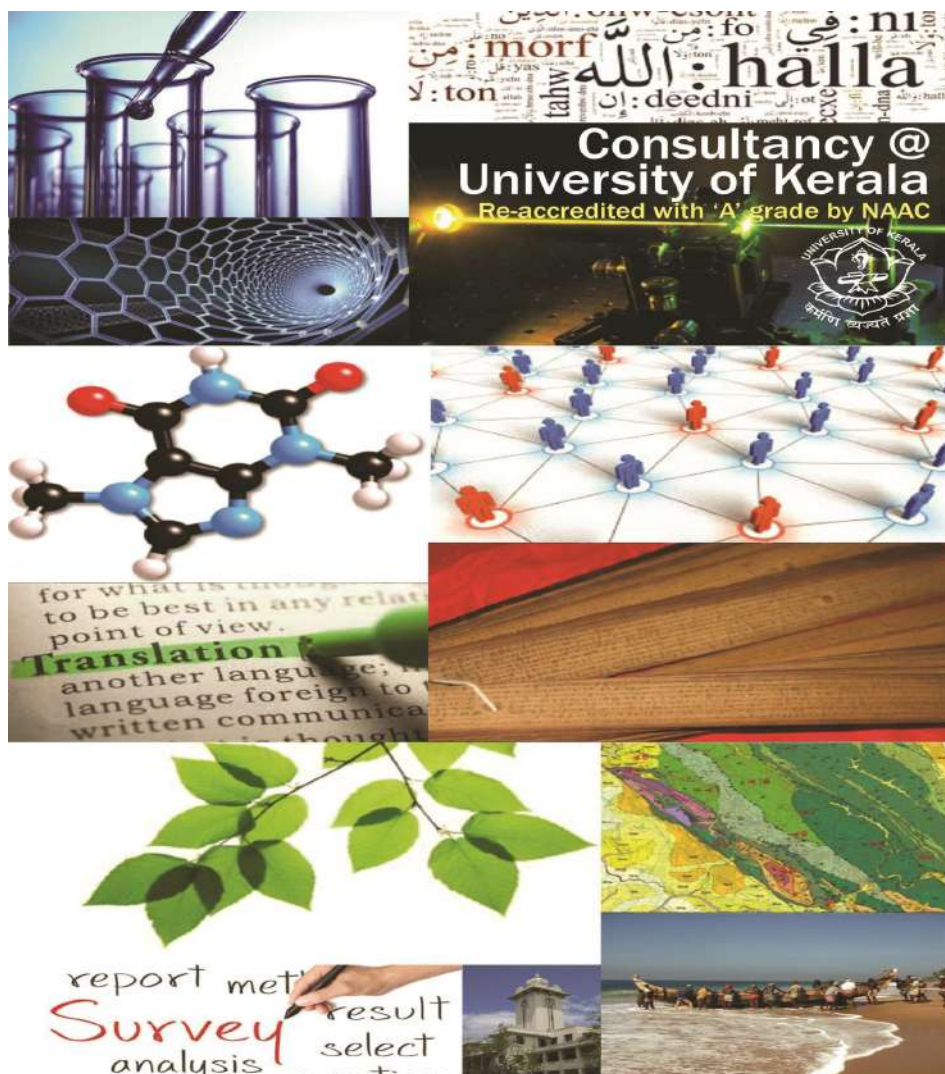
Contact Address:

Prof. Sabu Joseph

Convener, University Consultancy Cell (UCC)

Mob: 9447453063; Email: jsabu2000@gmail.com, jsabu@keralauniversity.ac.in

For consultancy details, you may visit University website: www.keralauniversity.ac.in/consultancy. For department and faculty details, visit: www.keralauniversity.ac.in/department



E8. University Placement Cell

The University of Kerala has a vibrant Placement Cell that brings esteemed organizations and talented students to the same platform. This gives a golden opportunity for the organizations to select the best available talent in the State for a job/internship in their organization. The placement cell also provides an opportunity for the professionals to interact with the best academics of the state.

The University of Kerala has launched the Kerala University Placement Cell to achieve the following specific objectives:

1. To create awareness among students regarding available career options and help them in identifying their career objectives.
2. To guide the students in developing skills and job-search strategies required to achieve their career objectives.
3. To Identify suitable potential employers and help them achieve their hiring goals.
4. To organize activities concerning career planning.
5. To act as a bridge between students, alumni, and employers.
6. To take feedback from the industry and provide inputs for curriculum.

The dedicatedly active placement cell helped its students get better placement after their course of study and research. As per the verified student reviews on Shiksha, some of the top recruiters that visited the campus in 2018 for the MBA batch included Infosys, UST Global, Ernst & Young, amongst others.

The University collaborates with other eminent institutes such as NIIST, SCTIMST, Shastri Indo-Canadian Institute, Regional Research Institute (RRI), and Rajiv Gandhi Centre for Biotechnology (RGCB). This has helped the University to arrange summer internships, on-the-job training, placements, and research activities. The students get valuable corporate exposure during the internships and on the job training.

The University Placement Cell has an Advisory Committee is chaired by Honourable Vice-Chancellor, which would meet at least once a year, chart out programmes of the year and evaluate the progress achieved in terms of objectives set.

The activities of the Placement Cell are at two levels - at the University Placement Cell level and the Teaching department level. Various programmes are planned and executed every year. It includes:

- Orientation programme on the career options for the students in each teaching department of the University;
- Orientation programmes on Personality Development, Communication Skills, Group Discussion, Mock Interview, etc.
- Public Sector Competitive Exams Training (eg: Civil Services, Defense Services, etc.)
- Job Fair for the existing and former students



Inauguration of placement cell



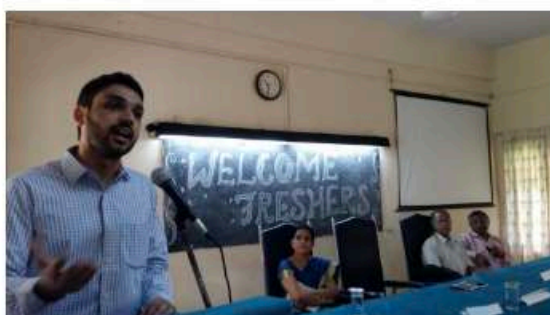
Planning for a Teaching Career- Lecture by Dr. Achuthsankar S Nair



Presentation by Sri. Suresh, Metrohm India Ltd.



A view of the selection test



Lecture on Civil Services by Sri. Mir Muhammed Ali, IAS



A view of the audience in the civil service orientation programme

Contact Address: Dr Christabell P.J., Convener (Email: christabell@keralauniversity.ac.in; Ph: 9497850893)

Eg. Centre for Adult and Continuing Education & Extension

The Centre for Adult, Continuing Education and Extension (CACEE) established in 1980, is a premier Centre with academic status under the University of Kerala. The Centre concentrates its activities on all the three dimensions of higher education viz., Teaching, Research and Extension. Currently, CACEE is deeply involved in continuing education and regular courses. CACEE is involved in: (i) Introducing need- based Continuing Education courses to the educated and employed; (ii) Supporting the Literacy movement through academic, research, material development and training programmes; (iii) Ensuring visibility to SC/ST, OBC and Minorities students and youth

through appropriate training programmes and courses; (iv) Reaching out to the community through extension and outreach programme/s and disseminating knowledge; (v) Undertaking research to explore areas of University - Industry, University - community, University - Health interface; (vi) Broadening Lifelong learning perspective through inter-University collaboration and discourses; (vii) Enhances the placement potential of students; (viii) Personal / Telephone Counselling to students, parents and Community.

CACEE offers several certificate and diploma programmes:

For details: CACEE, University of Kerala, Vikas Bhavan P.O. (PMG Jn.), Thiruvananthapuram – 695033. Phone : 0471-2302523; Counselling Cell -0471- 2302524.

<https://www.keralauniversity.ac.in/cont-Education>

E 10. MOOC and SWAYAM

MOOC

Education with technology is considered as most promising development in education. With technology globalization, the concept of learning and teaching has undergone a tremendous change. Technological usage in education provides global learning environment, which allows accessing the course material anytime, anywhere, connect other learners, and get access to the content without considering any geographical boundaries. The significant changes in use of the technology in online education has seen emergence of the concept of Massive Open Online Course (MOOC). MOOC is an online course aimed at unlimited participation and open access via the Web and an excellent way to come out of the syllabus and also to experience contrasting academic cultures and perceptions.

Web sites such as **Coursera**, **Edx**, **Udacity** etc. offer variety of free online courses from world-class Universities. Millions of students are registered for the MOOC courses in hundreds of universities around the world in over 8,000 courses offered by various providers such as, Coursera, edX, Udacity. India is among the leading countries in terms of enrolments in courses offered by many popular MOOC providers referred above. You can choose courses related to your subject of study or interest and also many others of general interest, many of which enhance your soft skills.

SWAYAM

SWAYAM is the indigenous platform of the Ministry of Human Resource Development (MHRD), Government of India, providing an integrated portal and platform for hosting Massive open online courses (MOOCs). Government of India adopted the MOOCs concept to supplement the formal education system in the country from high school to higher education, named aptly as the “Study Webs of Active-Learning for Young Aspiring Minds” (SWAYAM). It hosts various courses based on curriculum, continuing education and skill.

SWAYAM provides an integrated platform and portal for online courses, using information and communication technology (ICT) and covering High School till all

higher education subjects and skill sector courses to ensure that every student benefits from learning material through ICT. It is designed to achieve the three cardinal principles of Education Policy viz., access, equity and quality. The objective of this effort is to take the best teaching learning resources to all, including the most disadvantaged. SWAYAM seeks to bridge the digital divide for students who have hitherto remained untouched by the digital revolution and have not been able to join the mainstream of the knowledge economy.

The courses hosted on SWAYAM are in 4 quadrants – (1) video lecture, (2) specially prepared reading material that can be downloaded/printed (3) self-assessment tests through tests and quizzes and (4) an online discussion forum for clearing the doubts. Steps have been taken to enrich the learning experience by using audio-video and multi-media and state of the art pedagogy / technology.

Courses delivered through SWAYAM are available free of cost to the learners, however learners wanting a SWAYAM certificate should register for the final proctored exams that come at a fee and attend in-person at designated centres on specified dates. Eligibility for the certificate will be announced on the course page and learners will get certificates only if this criteria is matched. Universities/colleges approving credit transfer for these courses can use the marks/certificate obtained in these courses for the same.

SWAYAM is implemented through **National Coordinators (NCs)**, which are the Institutions that have been so designated by the Ministry and assigned with a specific sector to cater to MOOCs. University Grants Commission (UGC) is the NC for the Universities.

Credit Transfer

UGC has issued the **UGC (Credit Framework for online learning courses through SWAYAM) Regulation 2016** advising the Universities to identify courses where credits can be transferred on to the academic record of the students for courses done on SWAYAM. Accordingly, the **PG students in University of Kerala, in any of the four semesters, have to join the SWAYAM courses and the credits earned while completing the course shall be transferred as additional credits to the students by the CSS Office.**

For details: <https://swayam.gov.in/>

Social Media

Social media is hangout place of youth, and fun and friendship reign supreme in the social media. But a part of the space can be also used to further your academic growth. Here are some suggestions to use cyber space to further academics: Contribute at least one article to Wikipedia (in any language); Create an Email group or what's App group on an academic topic.; Make frequent Facebook/Instagram posts on academic topics; create an account in LinkedIn/ <https://www.researchgate.net/> www.academia.edu/ to connect to professionals in your subject; Watch motivating lectures in YouTube. TED talks are short and punchy. They feature a wide range of persons, scientists, physically challenged, scientists, musicians, technologists, business magnets....

E11. Internal Quality Assurance Cell (IQAC)



University of Kerala did set up its own Internal Quality Assurance Cell in the year 2005 as per National Assessment and Accreditation Council (NAAC) guidelines. The objective of IQAC is to address quality concerns in teaching learning and research as well as to support the University in its accreditation process. University of Kerala attained 'A' grade in the NAAC accreditation of 2015 and our National Institutional Ranking Framework (NIRF) ranking in the last three year which as follows

Year	2018	2019	2020
Rank	30	22	23

The above facts indicate our commitment to quality and our efforts to promote the University as a Centre of Excellence.

Goals: (1) To develop a quality system for conscious, consistent and catalytic programmed action to improve the academic and administrative performance; (2) To promote measures for institutional functioning towards quality enhancement through internalization of quality culture and institutionalization of best practices.

Objectives: ♦ Development and application of quality benchmark parameters for various academic and administrative activities of the institution. ♦ Promote and facilitate various academic activities of the University and make them as good practices. Facilitate the creation of a learner centric environment conducive to quality education. ♦ To act as a change agent in the institution so as to ensure quality. Initiate the implementation of feedback responses from all stake holders on quality related institutional processes. ♦ Documentation of the various programmes/ activities leading to quality improvement.

Strategies: ♦ Ensure timely and efficient performance of academic and extracurricular activities. Maintain quality of academic and research activities. Ensure an error free evaluation procedure. ♦ Facilitate the modern methods of teaching and learning. Measures for ensuring quality sustenance and quality enhancement.

Functions: ♦ Formulation and implementation of quality benchmark for various programmes and activities of the university. ♦ Documentation of various activities/ programmes organized in the University. ♦ Organise training programmes on quality related themes. Preparation of Annual Quality Assurance Report (AQAR) to be submitted to NAAC. ♦ Prepare the University for the next cycle of reaccreditation and elevate it to the status of a world class institution.

The present IQAC of University of Kerala has the following composition:

1. Vice - Chancellor, University of Kerala (**Chairman**)
2. Pro Vice - Chancellor, University of Kerala (Vice-Chairman)
3. Convener, Standing Committee of the Syndicate on Academics & Research, University of Kerala
4. Convener, Standing Committee of the Syndicate on Departments & other Institutions of the University, University of Kerala
5. Registrar, University of Kerala
6. Finance Officer, University of Kerala
7. Vice -Chairman, Credit and Semester System, University of Kerala
8. Director, Computer Centre, University of Kerala
9. Chairman Departments' Union, University of Kerala
10. Chairman, Research Students' Union, University of Kerala
11. Dr. Unnikrishnan S. M., Associate Vice – President, International Business & Strategic, Planning, HLL Life care Ltd, Poojappura
12. Dr. Biveesh U. C., Research Officer & Nodal Officer, RUSA State Office, Thiruvananthapuram.
13. Dr. A. K. Prasad, Professor, Department of Economics
14. Dr. K. S. Chandrasekhar, Professor and Head, Institute of Management in Kerala
15. Dr. B. Hariharan, Professor and Head, Institute of English
16. Dr. Jayachandran R., Professor and Head, Department of Hindi
17. Dr. R. B. Binoj Kumar, Professor and Head, Department of Geology
18. Dr. S. Mini, Professor and Head, Department of Biochemistry
19. Dr. S. R. Sheeja, Professor, Department of Economics
20. Dr. S. Aji, Associate Professor, Department of Computer Science
21. Dr. E. Shaji, Associate Professor, Department of Geology (Joint Director, IQAC)
22. Dr. Gabriel Simon Thattil, Director, IQAC

Some of the major initiatives of IQAC, besides the accreditation process are :

- **Conduct of University Level Induction Programme for Students:-** University of Kerala organizes a common Induction Programme for all the students admitted to its various teaching departments in every year. The objective of the programme is to acquaint students with the various academic and co-curricular support services offered by the University.

- **Science Week Celebrations:** University of Kerala is continuously hosting a week-long science week celebration involving public lectures, open house day, workshop on popular science writing, and unique video presentation on the research work undertaken by the scholars.
- **Hosting of University level Annual Interdisciplinary Academic Meet:** A school level academic meet organized by various schools under the University to promote interdisciplinary learning. The objective of the Meet is to strengthen the school system in terms of promoting interdisciplinary learning, interdisciplinary research and innovation, students' start-ups & incubation and better campus infrastructure & support services.
- **Interaction with Eminent Scholars:-** Teaching departments of the University in association with IQAC conducts interactive sessions with eminent scholars under the programme "Interaction with Eminent Scholars". This is done to expose students, teachers and researchers of the University to the learning and research environment prevailing in institutions of repute. Experts from various disciplines interacted with scholars and are enriched in their learning and research activities.
- **Interaction with Nobel Laureates:-** Nobel laureates who visited our campus recently are Prof. Ada E. Yonath and Prof. Michael Levitt.
- **Hosting of Seminars and Workshops:-** We have organized several workshops on NAAC accreditation, quality outcomes, Outcome based education as well as placement and career development.
- **Campus Cleaning Drive:-** University is undertaking week long campus cleaning drive every year with focus on keeping the campus clean and green.
- **Support for Skill Enhancement:-** We are associating with Additional Skill Acquisition Programme (ASAP) in student skilling programmes and training sessions being organized in this line.
- **Student Welfare programmes:-** IQAC is involve in students welfare through support for placement, career guidance, grievance handling, Women's self defence training programme etc.
- **Innovation and startups support:-** University of Kerala is in association with Kerala Development and Innovation Strategic Council (K-DISC) under Young Innovator's Programme (YIP) and Kerala Start-up Mission (KSUM) for innovation and start-up support.
- **Conduct of Academic Audit:-** All the teaching departments of the University do undertake their own academic audit with support from IQAC. The objective is to examine internal academic, research as well as teaching learning processes for betterment and transformation.
- **Online Feedback System:-** We have initiated online feedback system to draw inputs from stake holders.

- **Supporting Colleges in the NAAC Accreditation Process:-** IQAC has supporting several colleges in NAAC accreditation process and does host workshops and training programmes for them.

Contact Address:

Prof. Gabriel Simon Thattil

Director, IQAC, University of Kerala

Senate House Campus, Palayam, Thiruvananthapuram, Kerala – 695 034

team.iqac@gmail.com | +91 471 2303013 | <http://iqac.keralauniversity.ac.in/>

iqac.keralauniversity.ac.in/about

iqac, UNIVERSITY OF KERALA

Department Level Data Capture Teacher Level Data Capture

Structure, Functions and Master Documentation :

- About IQAC
- Members • Meeting Minutes • AQARs • SSR • NAAC Grade Card
- Chancellor's Award • Master Action Plan (MAP)
- Performance of the Institution • News Letters • IQAC Committees
- Peer Team Report • Quality Profile of UoK

General Documentation on University of Kerala (UoK) :

- About UoK
- UGC Recognition • Adoption of UGC Mandate • UoK Brochures and Fact Sheet
- Admission Prospectus • Regulations Handbook • Academic Handbook
- Research Handbook • Graduate Attributes Video • UoK Annual Reports
- Consultancy Brochure • KU Archives

Reports :

- Academic Audit • Gender Audit • PWD Audit • Library Audit
- Environmental/Green Audit • Hostel Audit • Energy Audit
- Annual Student Survey • MOOC Reports • Bench Mark Reports
- Student Feedback Report • Innovations in Teaching
- 3-tier Induction Programme
- Restructuring Kerala Economy: Alternative Perspectives - Policy Document
- Research and Innovation • Accreditation Report • Curriculum Fair
- Policies and Charters • Outreach Activities • Alumni
- Questioning the Questions • Book Release - Five Lectures on Money

Miscellaneous :

- Photo Gallery • Science Week Celebrations 2019
- eBook series • Academic Calendar • Posters • Workshop
- List of MOOC Courses 2016 • University Skill Acquisition Programme
- Procedure to take up GIAN II course • 1000 Wk Lights • University Diary
- KU-TBSC • Student Grievance Redressal • Templates for MOU • Feedback

Powered by Computer Centre
All Rights Reserved © University of Kerala 2021

INTERNAL QUALITY ASSURANCE CELL, UNIVERSITY OF KERALA
Accredited by NAAC with 'A' Grade

ABOUT IQAC

Welcome to the Web page of Internal Quality Assurance Cell (IQAC) of University of Kerala, the oldest University in the state of Kerala. This University is currently re-accredited with 'A' grade by the **National Assessment & Accreditation Agency (NAAC)**.

In pursuance of the National Action Plan of the National Assessment and Accreditation Council (NAAC) for performance evaluation, assessment and accreditation and quality up gradation of institutions of higher education, the NAAC proposes that every accredited institution should establish an Internal Quality Assurance Cell (IQAC) as a post accreditation quality sustenance measure. Since quality enhancement is a continuous process, the IQAC will become a part of an institution's system and work towards realizing the goals of quality enhancement and sustenance.

IQAC of the University of Kerala aims to continuously monitor quality and create quality alerts and propose ways and means of enhancing quality. The motto of the IQAC is to achieve quality through continuous improvement with cooperation of all stake holders. It will channelize and systematize the efforts of the University towards academic excellence. In 2015, the IQAC has drafted a master plan of action covering every sphere of activity of the University. This is to be continuously evolved and acted upon. Using this as the major canvas, the IQAC aims to produce number of quality reports on important parameters of University's activities to enable rational decisions for improvement.

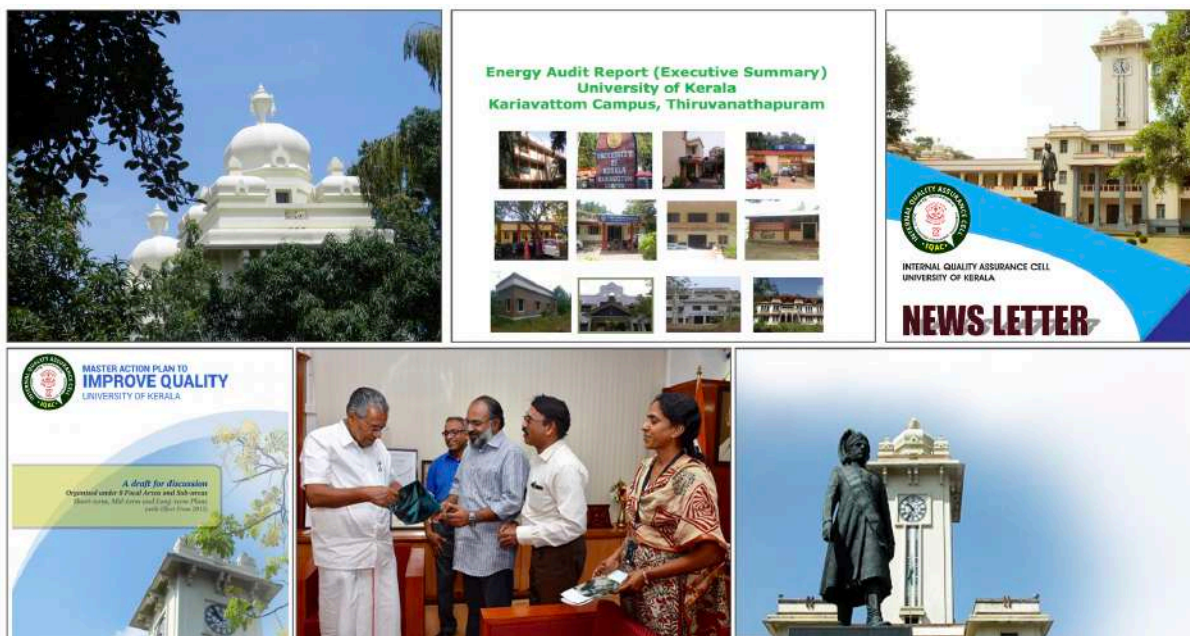
The IQAC welcomes critical remarks and suggestions from both members of the University system and also general public.

Objectives

- Development and application of quality benchmarks/parameters for various academic and administrative activities of the institution.
- Promote and facilitate various academic activities of the University and make them as good practices.
- Facilitate the creation of a learner centric environment conducive to quality education.
- To act as a change agent in the institution so as to ensure quality.
- Initiate the implementation of feedback responses from all stakeholders on quality related institutional processes.
- Documentation of the various programmes/activities leading to quality improvement.

Strategies

- Ensure timely and efficient performance of academic and extra-curricular activities
- Maintain quality of academic and research activities
- Ensure an error free evaluation procedure





PART F: Union, Welfare, Sports, Arts & Service

Students Union

Kerala University Youth Festival

Physical Education

National Service Scheme (NSS)

Student Welfare: Insurance

Student Welfare: Medical Service

University Merit Scholarships for Masters Students

Hostel Facility

*"Knowledge is power. Information is liberating.
Education is the premise of progress,
in every society, in every family."*

—Kofi Annan

F1. Students Union

Kerala University Union is a platform for all University students (of University Departments and also affiliated colleges) to unite and debate and act on issues of concern to students. Kerala University Union is one of the oldest in the country and Dr. P. C. Alexander who later became Governor of Maharashtra was the first President of the Union. Presently the University Union is a democratically elected body. The present office bearers (2019-20) are:

Chairman: A.R. Riyas

General Secretary: G.T. Anju Krishna

Elected Senate members from University of Kerala:

Riyas Vahab (Institute of Management in Kerala, University of Kerala)

N Noufal (Research Scholar, Department of Political Science, University of Kerala)

Students also elect their representatives to both Senate and Academic Council. One student from the senate is elected to the syndicate, the executive body of the University. Student membership in Syndicate was given for the first time in India by University of Kerala.

The Department's Union is a forum for students of University Depts. to get together and solve their problems and use their collective strength to further student welfare, promote co-curricular activities of students, and take up issues of interest to students community. Every year in January/February, student representatives are elected. The present Dept Union members are:



RAMSHAD KHAN R
Chairman (M.Phil.
Islamic History)



SHERINA S
Vice-Chairperson



GAYATHRI SATHYADEV
General Secretary (Mass
Communication and Journalism)



BINDU V.
University Union Councillor
(Sanskrit)



NIBIN BABY
University Union Councillor
(Islamic History)



ASWIN BABU
Magazine Editor
(Political Science)



NITHIN BENJAMIN
Arts Club Secretary
(Archaeology)



ADITYA ANIL
Lady Representative
(Political Science)



GOPIKA N.
Lady Representative
(Environmental Science)



N NOUFAL
Senate Member
(Research Scholar, Political Science)



RIYAS VAHAB
Senate Member
(Research Scholar, IMK)

F2. Kerala University Youth Festival



The objective of education is not just to impart academic knowledge, but also to ensure the overall development of students. Education is complete and achieves its purpose only when the students educational, social and develop themselves in cultural arenas.



The Kerala University Youth Festival, organized annually by the Kerala University Union, provides an unparalleled forum for the students to test their intellectual and artistic prowess. The opportunity that the Youth Festival offers them to exhibit their skills and talents in the field of culture, literary and other activities on a common platform certainly helps to facilitate their overall development. It opens before the students, new vistas of competition and at the same time, shows the strength of camaraderie, the pleasure of participation and the satisfaction of being part of one of the largest celebrations of their student life. What makes the University Youth festival special is that it is an event fully organized by the students themselves. Every moment and activity of the

Festival are planned and carried out by the students, with the guidance and support of the Department of Student Services. The festival is conducted in different locations each year so that the spirit of the celebration reaches all the four districts where the University has its affiliated colleges. The competitions which last for nearly a week, are

conducted simultaneously in at least half a dozen venues, named after the famous artistes and writers of the State.

Though arts festivals were conducted by the Students' Union in the earlier days of the University also, those events had not won the popular appeal that the youth festivals of today enjoy. It was during 1970-71 that the University Youth Festival was reorganized in the present form, in terms of participation. Initially, the student who scored the maximum points was declared Individual champion of the youth festival. In 1984, it was decided that separate individual positions be awarded to the male and female contestants, who are declared **Kalaprathibha** and **Kalathilakam** respectively. In the year 2020 the festival is opened for transgender participation and a special prize for the women's college which score the maximum point in the festival. The institution scoring the highest points is presented with an overall trophy.

The students who won the top positions in the University youth festivals of the recent years have become professional artists, and have made their presence felt in the art and cinema scene of Kerala. In fact, the Kerala University Youth Festival has become the arena that regularly identifies the stars of the future. The Festival venues attract many film makers and patrons of art who step in to identify the stars of the future.

Many film stars, writers, artistes and cultural leaders also grace the event with their presence. Most of them come not as celebrities, but as contestants of yesteryears, just to relive their student days and to feel the pulse of those moments when they too performed on such stages, with a chest number pinned to their dress.

The stars of Kerala University Youth Festival of yester- years continue to shine in the cultural arena prominently. The list includes K S Chithra, Jassi Gift, G Venugopal, Dr B Arundhathi and many more.





Winners Speak ...

"Youth festival competitions were a test runner to the great competition that lay ahead! It prepared the ground for a professional music career. There was just an annual youth festival and little else! Those music lovers who listened to me then and loved my light songs, always remained with me and my film songs!! It was the college level competitions that established me, K.S. Chithra and Arundhati as singers," **G. Venugopal**, noted playback singer, who was Kalaprathibha in the Youth Festivals of 1984 and 1985. (He was a student of

Dept. of Communication and Journalism).

The Kerala University Youth Festival 2010 acquired a dash of international flavour with a German contestant securing the first place in the Wind Instrument (Western) competition. **Karina Miorin**, a third year student at the S.N. Ayurveda College, Puthoor, Kollam, was the cynosure of all eyes at the venue as she arrived to compete along with the other students. Ms. Miorin, who arrived in Kerala in 2003, was impressed by the cultural heritage and the system of Ayurveda during her stay here. The impression grew into a desire to study Ayurveda and with her parents, Brian Hart and Isode, giving the green signal; Ms. Miorin got a seat via the German Embassy at the S.N. Ayurveda College. Though she has performed on stage on numerous occasions back home, the attempt at a University Youth Festival was a first for Ms. Miorin, who went on to bag the first spot as well, surpassing local students. The presence of international talents is a proof that the University Youth Festival is directed towards bringing together talents without barriers.



University Departments' performance in Youth Festivals

The University Departments take part as a single unit in the Youth festival along with colleges. During recent years their performance has been exmplorary. The Departments have stood third in the competitions, in terms of overall points in 2016, 2017 and in 2019 and 2020 the department secured 4th and 5th place respectively.



University Departments With Overall third place 2017-18 Youth Festival



Aparna S. Anil Institute of English, University of Kerala was Kalathilakam in 2016-2017 Youth Festival.:

Aparna S. Anil: *I have been performing in Kerala University Youth Festival since my degree First year onwards. Last year, as i was doing my MA first semester and due to the rigorous curriculum which the Credit and Semester System follows, I only took part in five events. I usually perform dance events including classical performances. But last year due to the lack of time for the practice sessions, I performed only one dance event (folk dance). The other events included Kadhapresangam, Tamil recitation, Fancy Dress and Mono Act. Encountered a healthy competition and with the grace of my parents, teachers and almighty, won first places for Kadhapresangam, Tamil Recitation and Fancy dress and third place for Mono Act. Fingers*

crossed for this year's Youth Festival. Events: Kadhapresangam, Tamil Recitation, Fancy Dress, Mono-Act, Folk Dance, Prizes: Kadhapresangam- First Prize; Tamil Recitation - First Prize; Fancy Dress - First Prize; Mono Act - Third Prize Email id: aparnaanil7179@gmail.com.



Fathima N.: *Inspired by success in KUYF in my degree days, I continued participating and won first prize for English essay writing and first prize for English poetry writing in the consecutive years of my master's. I personify my dreams and imagination into my writing and it defines my most passionate endeavours. Email id: fathimaifathi@gmail.com*

Mohammed Afsal N.K.: *Kerala University Youth Festival in 2016 was my first experience in University Campus life. I tasted it well,*

when I won the first prize in both the competitions of Arabic elocution and Arabic short story writing. I could enjoy this platform only because of my belonging to the Department of Arabic, Kariavattom campus. I firmly believe this kind of extracurricular engagement will boost the talents of students. Arabic elocution first prize & Arabic short story writing first prize. Email id: mdafsalnk@gmail.com



Performance of University Teaching Departments in the University Youth Festival

Kerala University Youth Festival 2019-20			
Sl No.	Name of Item	Name of Student	Prize/Points
1.	Classical Music Female	Gopika.S	6 points, 1 st prize
2.	Hindustani Classic Vocal Male	Ajay Krishna.T	5 points, 2 nd prize
3.	Gazal Male	Ajay Krishna.T.	1 point, 3 rd
4.	Gazal Female	Varsha.S.Nair	5 points, 2 nd prize
5.	Gazal Female	Meera.R	1 point, 3 rd prize
6.	Stringed Instrument Eastern	Amrutha Lekshmi.B	1 point, 3 rd prize
7.	Debate English	Nandana Krishnan.G.S, Sidharth M Joy	6 points, 1 st prize
8.	Debate Malayalam	Harishna.M.U Sidharth M Joy	1 point, 3 rd prize
9.	Elocution Malayalam	Sidharth M Joy	6 points, 1 st prize
10.	Elocution Sanskrit	Asha.E	6 points, 1 st prize
11.	Elocution Arabic	Shamsadali.M	6 points, 1 st prize
12.	Recitation Arabic	Asna Thasneem	1 point, 3 rd prize
13.	Essay Writing English	Nishanth.P	5 points, 2 nd
14.	Short Story Writing English	Arsha Saroj	6 points, 1 st
15.	Short Story Writing Sanskrit	Krishnapriya.S	5 points, 2 nd
16.	Short Story Writing Arabic	Shamsadali.M	6 points, 1 st
17.	Poetry Writing Arabic	Shamsadali.M	5 points, 2 nd
18.	Akshara Slokam Arabic	Fouzia.N	5 points, 2 nd
19.	Folk Dance (Transgender)	Ahmad.E.P	5 points, 2 nd
20.	Classical Music(Transgender)	Ahmad.E.P	6 points, 1 st
21.	Mimicry	Ahmad.E.P	5 points, 2 nd

F3. Physical Education



Kerala University is one among the trailblazers in University sports sector in the country. Among the Universities in India, the Travancore University was the first to start a department of Physical Education. The importance of Physical Education was recognised by the founding fathers of the University. The University committee of 1923 recommended the formation of a University training corps as a part of a programme for the development of physical culture. The year 1939-40 saw the creation of a Board Physical Education to direct and guide the physical education activities of affiliated colleges. The late Col. Goda Varma Raja was the first President of the Board of Physical Education and P.I. Alexander, Director of Physical Education, its secretary. From the year 1940 onwards various activities were organised under the auspices of this department which was initially housed in the old Military Barracks compound (near the present Vikas Bhavan). The Physical Education Department had a Gymnasium looked after by an instructor in indigenous exercises. The University Gymnasium functioned till 1972 in the building adjacent to the present University Student's Centre and opposite to the G.V. Raja Pavilion. The health/medical examination of students of the University was conducted by the Department of Physical Education. The emphasis then was on indigenous exercises, yogic exercise, free hand exercises, rowing and Cricket. These activities were organised on club basis. Medical examination of the members of the club was conducted and records maintained. Competitions were organised in Surya Namaskar and muscle control. Dr. Vineykar and Dr. Paulose were successively in charge of Yogasana since 1941 and T.K Rama Varma from thereon till 1950. In the year 1940-41, the construction of the University Stadium was started under the enthusiastic leadership of Col. G. V. Raja, P.I. Alexander, the Director of Physical Education and P.R.

Parameshwara Panicker, Registrar, University of Travancore. A pavilion of cantilevered balcony and a canopy of R.C.C. Shell, a unique piece of construction, was built in the University Stadium within a short span of one year and the Department of Physical Education was shifted to the pavilion in 1963. The pavilion was named G. V. Raja pavilion by V. V. Giri, the then Governor of Kerala. Then onwards the office of the department of Physical Education has been functioning in this building.



Vision: The vision of the Physical Education department is the development and promotion of sports activities for health, educational, social benefits of student community and public.

Mission: The Dept. has adopted the following mission:

- To provide adequate infrastructure facilities for sports and games so that students choose and participate in the events for which they have flair. To spot out and groom the sports talent.
- To nurture, better human relations through sports and games enjoy a perfect balance between sports performance standards and healthy lifestyle.
- To imbibe discipline, leadership qualities, courage and the sense of belonging through sports activities.
- To produce National & International players, by providing opportunities to develop knowledge, skills and values for the enhancement of performance in a wide range of sports through intercollegiate and inter-university forums.

Organisational Set-up

The Department is presently headed by the Director of Physical Education with an Assistant Director. The activities of the department are guided by an Advisory Committee constituted by the University with Vice-Chancellor as Chairman and the Director of Physical Education as the secretary. It consists of representatives of the Syndicate, senior officers of the University, representatives of the University Union,

Physical Education teachers of various colleges affiliated to the University, experts in the profession and outstanding sportsmen of the State as members.

Sports Infrastructure & Facilities

The University provides a wide range of top quality shared sporting and athletics facilities which will be promoted and available for use by students, colleges, clubs, individuals and other community groups. The University stadium spreads across 8 acres and 40 cents of prime property in the heart of the Trivandrum city. The University

stadium is a multi-purpose stadium is one among the foremost synthetic track athletic stadiums of the country. This multi-purpose flood lighted sports venue is one of the most demanded sports venues which hosted two National games and other national and international events. The stadium has a capacity of 20000. It was the home ground of the Kerala Renji Cricket team till 1980s. In 1984, the stadium hosted India- Australia ODI in 1984 (no result) and India- West Indies ODI 1-1988 (West Indies won). In first class cricket matches legendary cricketer Sunil Gawaskar, Kapil Dev, Mohindar Amarnadh and Ravi Sashtri had played in this stadium. The stadium was also home ground of Chirag United Club in 2011-12 J- league stadium. The stadium has an eight lane athletic track, warming up lanes wrapped inside a football field with throwing sectors, jumping pits, Volleyball court and Basketball court outside, with lush green shade trees around the pavilion.

A **physical fitness centre** is operational at the University stadium in order to gear up for extensive physical activities and sports conditioning workout in the gymnasium. The centre has almost all the requisite instruments and equipment required for exercising.



Greenfield International Stadium, Kariavattom



Green field stadium is a Multi-Purpose Stadium and an exceptional facility for international games of cricket and football. The playing arena in the stadium has been constructed in line with FIFA regulations and International Cricket Council norms. This multi-functional stadium is capable of hosting international cricket and football matches as well as cultural and entertainment events. It also accommodates

facilities for indoor sports like Table Tennis, Basketball, Badminton etc., a gymnasium and spa, a clubhouse with five-star facilities, tennis court, Olympic size swimming pool, open convention cum trade cum exhibition centre, retail outlets, food courts, club facilities, car parking, etc. It has a seating capacity for 55,000 spectators. It is the first stadium in the country made on DBOT (Design-Build-Operate and Transfer) basis. The land has been given on lease by the University for 15 years after which the stadium will be handed over to the University.

Other Arenas

Apart from the aforesaid facilities, the University has a roofed Basketball court in its main campus, adjacent to the senate hall. Incidentally, this court is said to have been the first Tennis Court in Trivandrum. A mini stadium is also there at Kariavattom campus.

Sports Hostel

A sports hostel run by Kerala State Sports Council is functioning in the G.V. Raja Pavilion under the supervision of the Department. The students are provided with free accommodation and food. Regular coaching is given in Football, Athletics and Handball to the students by the coaches of the Kerala State Sports Council.

Programmes/Activities of the Department

A meeting of all Physical Education Teachers of the affiliated colleges of the University is conducted at the beginning of every academic year to prepare and approve the sports calendar as per the AIU schedule for the year and to discuss the matters related to the conduct of inter-collegiate tournaments namely, the nomination of zone conveners (South & North), dates and venues of the inter college tournaments and nomination of selectors for the selection of zone level players. Since there is no physical education teacher in the University Departments interested teachers from the departments may attend the meeting they can get better idea about the departmental activities and coordinate the PG students to participate in the Inter Collegiate Tournaments.

The comprehensive and varied inter-collegiate programme designed to meet the needs and interests of the students generate a spirit of healthy competition and works to encourage a healthy student life environment. Inter-collegiate tournaments are conducted once in a year for the events mentioned below either on single zone or on two zone (South and North) basis depending upon the number of entries. **The teaching departments of the University Campus are considered as one unit and included in the south zone.** After conducting the zone tournaments I, II and III place winners from both zones will qualify to participate in the inter-zone tournaments from where the champions will be decided.

Inter Collegiate Competitions are held in the following sports and games events: Aquatics; Archery; Athletics; Badminton; Ball Badminton; Baseball; Basketball; Best Physique (Men only); Boxing; Canoeing & Kayaking; Chess; Cricket; Cross Country races; Cycling Track; Cycling Road; Fencing; Football; Gymnastics; Handball; Half Marathon; Hockey; Judo; Kabaddi; Kho-Kho; Netball; Power lifting; Roll Ball; Rowing; Rugby; Softball; Squash; Table Tennis; Taekwondo; Tennis; Volleyball; Weight Lifting; Wrestling; Wushu; Yatching; Yogasana.

University Team Selections: The University teams are selected for participation in the All India Inter-University tournaments. For games which are run on zonal and interzonal basis, a preliminary selection is done at the zonal level by a zonal level selection committee for each game. The final selection is made by a committee constituted by the Director on the occasion of the inter-zonal tournaments. For games and sports run on the single zone basis, direct selection is made by a committee specially

constituted for the purpose by the Director of Physical Education. In addition to the players of the three qualified teams from each zone, the outstanding performers at the zone level tournaments are also eligible to participate in the inter-zone selection trials. The total number of such players selected must be limited to the total number of players allowed to represent a team. The selected teams are put to special intensive coaching under the supervision of the coaches. The camps provide opportunities for practice training and competition.

Incentives to Sports Person

Sports Kit for Players: University Players are accorded with uniforms, tracksuits and sports accessories.

Sports Scholarships

Sports scholarships have been revised and renamed as “Kerala University Sports Scholarship” (UO No AD.D1/DPE/33714/2017 dated 14/11/2017)

AI India Inter University competitions

First Position Rs. 10000/-, Second Position Rs. 8000/-, Third Position Rs. 6000/-

South Zone Inter University competitions

First Position Rs. 5000/-, Second Position Rs. 4000/- Third Position Rs. 3000/- Fourth Position Rs.2000/-

Grace marks: Grace Marks are awarded to sports persons who excel in University, State, National and International sports and games competitions. The awarding of grace marks are monitored by the Department of Physical Education. For UG Degree Programmes, a maximum of 25% and for Professional and PG Degree Programmes, a maximum of 8% marks shall be awarded on the basis of their performance as per the University orders. (Ad.D1.1.1276/Sports/Gace Marks/2007 dated 07/09/2007 & 26/09/2016)

Yoga: The yoga practice encourages people to develop health, problem-solving and decision-making skills, concentration, determination and control of emotions. Therapeutic applications of Yoga practices are to restore balance and health to the whole person. In working therapeutically, one keeps in mind the condition of the person physically, emotionally, mentally and from the holistic perspective.

EXTENSION ACTIVITIES

The Department has envisaged some extension activities other than routine work to ensure its social commitment which includes Annual Summer Coaching Camp for School Students and Yoga Training programme for the general public.

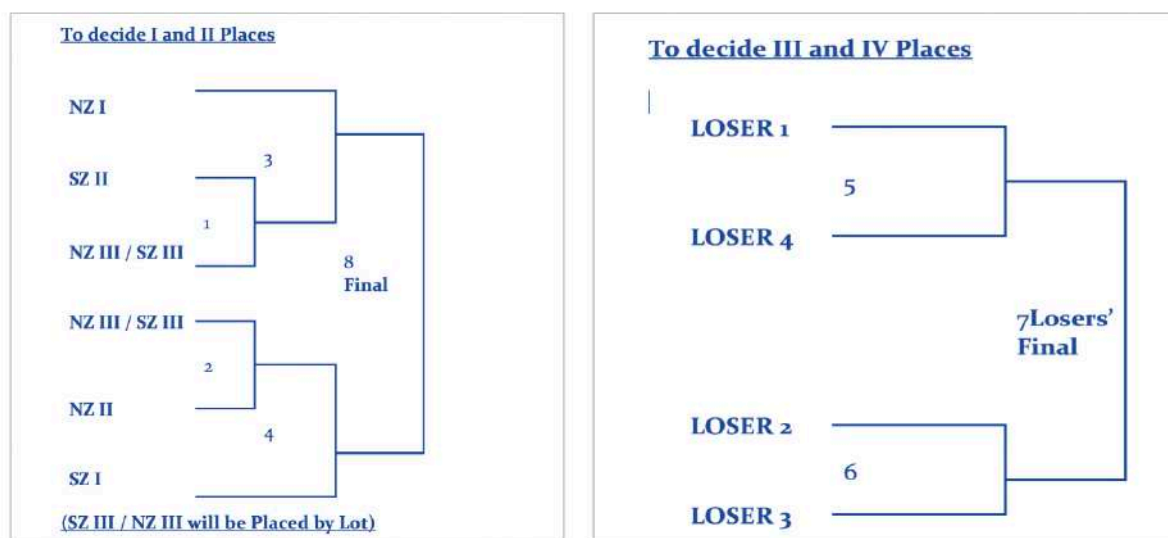
Annual Summer Coaching Camps are regularly conducted at the University Stadium every year to impart basic training and inspire school children in the sports and games as a part of extension service. Basic training was given to the school children in Athletics, Football, Kho-Kho and Kabaddi during the camp. Refreshments were provided to every child after the completion of every session. T-Shirt and Certificates were presented to

the children who had successfully completed the coaching camp. Around 350 students participated in this programme.

Rules & Regulations for Intercollegiate Tournaments

1. The Inter Collegiate Tournament shall be conducted as **knock out basis**.
2. All events except Football (M), Volleyball (M) Cricket (M), Shuttle Badminton (M) and Kabaddi (M) shall be played as Single Zone.
3. The South Zone and North Zone conveners are entrusted to draw the fixtures in Football (M), Volleyball (M) Cricket (M), Shuttle Badminton (M) and Kabaddi (M) by considering the previous year positions at zonal level.
4. After conducting the North and South Zone Tournaments, I, II, and III place winners from both zones will qualify to participate in the Inter Zone Tournaments.
5. The Matches for the Inter Zone Competitions are arranged as shown below except Shuttle badminton

Kerala University Intercollegiate Inter Zone Fixture Format



6. In Single Zone tournaments, while drawing fixtures, previous year's **First and Fourth place** colleges will be placed in the **Lower Half** and **Second and Third place** colleges in the **Upper Half** of the fixtures so that they shall meet only at the semifinal stage.
7. If any among the 4 winners of the preceding year does not turn up for the championship, the ranking shall be rewritten without disturbing the previous rankings.
8. For the conduct of any Inter Collegiate Individual events with four medals (1 Gold, 1 Silver and 2 Bronze), a minimum requirement of five participants are mandatory.

9. For the conduct of any Inter Collegiate Individual events with three medals (1 Gold, 1 Silver and 1 Bronze), a minimum requirement of four participants are mandatory.
10. For conducting a tournament (Team Games), there shall be a minimum of 3 entries from different colleges and the event will be conducted as league tournament to decide the first, second and third positions.
11. For conducting individual events, there shall be a minimum of 3 entries from different colleges and they should compete in the event to decide the first, second and third positions.
12. Merely giving entries or weighing (Weight Category Events) for the event, will not be considered for deciding positions and giving certificates.
13. However, in case of an event having lesser entries than the required minimum, only the selection trials shall be conducted for the sake of forming university team.
14. For Weight category events, a college in any two-weight categories can make double entry.
15. Badminton/Tennis University team selection shall be conducted in Swiss Method format. If any change in the selection process, the selection committee must intimate pattern of selection to the players and managers in advance. The selection committee shall seek an affidavit, from the managers regarding the agreement of any change in the selection pattern.
16. Only fight event shall be conducted in Wushu championship.
17. No Individual championships shall be conducted for Racket games
18. Protest should be filed within 30 minutes after the completion of the match/ event with a protest fee Rs.1000/- in the name of Director of Physical Education University of Kerala to the Convener /Sub-convener of the tournament/ championship. If the protest is upheld, the fee will be reimbursed. The protest fee will be forfeited to the University in case of turned down protests.
19. Only the manager mentioned in the eligibility proforma of the team is competent to lodge a protest.
20. The protesting team manager should authenticate protest on eligibility with the proof of the person's eligibility details.
21. If any unwanted incident (Fighting each other, Indiscipline, Misbehaviour etc) occurs during the match/ tournaments, the players involved in the incident will be debarred from participating in the intercollegiate tournaments for proceeding two years.
22. The Director of Physical Education has the authority to change the venue of Inter collegiate tournaments/ championships, if any emergency occurs.

23. The Convener / Sub Conveners/organising colleges must ensure minimum facilities like Dress changing facilities, Drinking water, Team benches, Toilet facilities, Shamiyanas etc during the Inter Collegiate tournaments.
24. The Team Managers of all participating teams shall be present at the time of drawing fixtures, conducted as per schedule given/conveyed in advance by the convener/organising college/ sub convener in single zone events.
25. In case the Team Manager of the participating team does not report at the venue for drawing fixtures beyond the scheduled time of reporting, the convener/organising college/ the sub convener shall conduct the drawing of fixtures and start the match as per the schedule.
26. If the match/tournament is disrupted or abandoned owing to crowd invasion, rowdyism during a tournament, the host college shall be held responsible for failure to control the situation. The said college venue shall also be debarred from holding any Inter Collegiate Tournaments (ICT) for the next two years.
27. The Director of Physical Education shall assign an Observer if found necessary to monitor the conduct of Inter Collegiate events.

Eligibility Proforma from the colleges

- **Eligibility proforma** from the Colleges/ Departments shall be submitted **through online** (<https://pe.keralauniversity.ac.in>) and it is **compulsory**.
- No College/ Department teams shall be permitted to participate in the inter collegiate championship/tournament without proper eligibility submitted online. If participated, the responsibility purely lies with the organising college/Sub Convener.
- The Principals/Head of the Departments and the Head of the Department of Physical Education of colleges shall ensure that all applicable columns in the eligibility proforma are carefully and correctly filled up/entered before submitting online. If not, the sole responsibility lies only with the concerned colleges.
- No subsequent changes / additions / replacements shall be allowed in the list of players once submitted to the organisers through online mode.
- The sole responsibility lies with the concerned colleges/Departments, if any mistakes occur in the entries made in the eligibility form/detailed entries.
- A hard copy of online-submitted eligibility proforma duly signed by the Principal, Head of the Departments, Head of the Department of Physical Education must be submitted by the team manager before their first appearance in the tournament to the convener.
- **In any case, the total number of players in the eligibility document shall not exceed the maximum number permissible as per rule for each sport.**
- The verification of the eligibility certificate, attested copy of the Plus Two certificate and College ID Cards of students shall be done by the Zone Convener / Sub Convener or any competent person authorized by either of the two.

Discrepancies relating any Member / Members / Team / Entry, if any, should be clarified before their first competition or match.

- A team photo shall be taken by the convener or any competent person at the beginning of every match to identify the players in the later hours as a record and shall be kept till the end of the competition.
- If any discrepancies are found during the match in connection with eligibility of any student, the team will be disqualified from the tournament then and there but other eligible players can take part only for zonal / university selection trials.

Team Manager

- All participating teams must be accompanied by Physical Education Teachers of concerned college or Faculty from departments as Manager, without which they will not be allowed to take part in tournaments.
- If the Physical Education Teacher/Department Faculty is not accompanying the participating team, any person whose nomination as manager shall be forwarded through a letter or by an e-mail from the Principal/Head of the Departments/ Head of the Physical Education Department to the organising college/ convener / Sub-convener /Department of physical education, University of Kerala.
- If the Physical Education teacher/Department faculty is not in a position to accompany the team as Manager or cannot nominate a member of the college staffs, they shall nominate any Physical Education Teacher, who is willing to take the responsibility, as the Manager. The respective Principal/Head of the Department/ Physical Education teacher of the college in writing /e-mail should intimate this to the organising college / Convener / Sub-convener of the tournament /Department of Physical education, University of Kerala.

Jury of Appeal

- Zone Convener/s, Sub Convener and experts for deciding protests and issues in a single zone / Inter Zone tournaments / championship, if any, related to the competitions will form a jury of appeal.
- Separate jury of appeal has to be formed by the Zone Conveners in each zone consisting of three members including zone convener for deciding protests and issues, if any, related to the competitions.
- The two zonal level jury of appeal are empowered to change the venue of the zonal tournament for the smooth, safe and successful conduct of any zonal championship.

The Selection committee for Zonal level

- Organising Secretary /Convener/ Sub-Convener of the zone tournament (Ex-officio Member)
- Two/Three Physical Education Teachers from the colleges/ Coaches/ Experts nominated by the Director of Physical Education.

The Selection committee for Inter-Zonal Level

- Two among the Four Zone Selectors, one from each zone nominated by The Director of Physical Education.
- Physical Education Teachers/Coaches/ Experts nominated by the Director of Physical Education

The Selection committee for Single Zone / Direct Selection trials

- Organising Secretary/ Convener / Sub-Convener of the zone tournament (Ex-officio Member)
- Physical Education Teachers of colleges/Coaches/Experts nominated by the Director of Physical Education.

General Guidelines for selectors and conveners:

- The University team selectors/ Zone selectors assigned must be present in the venue till the end of the tournament/championship for keen observation of the performance of the players.
- In addition to the players of the three qualified teams from each zone, the selected outstanding performers at the zone level tournaments are also eligible to participate in the inter-zone selection trials.
- The total number of such players selected must be limited to the total number of players allowed to represent a team.
- The results of the zone tournaments, the list of players selected from the zone to participate in the inter zone selection trials and a brief report of the tournament shall be submitted by the zone conveners to the Director of Physical Education immediately after the zone tournaments.
- Outstanding sports persons, who could not participate in the zone selection trials due to late admission / participating in competitions or coaching camps (International / National / State) shall be allowed to take part in the Inter-zone selection trials on production of the request letter from the student/s of the college/Departments concerned and duly forwarded by the head of the department of the concerned college/Department to the Director of Physical Education in advance before the inter zone selection trials.
- No player can be selected to the University team without his / her participation in the selection trials.
- However, if the selection committee desires, it may include any player of International (Senior or Junior) / National (Senior or Junior) team even if such player has not participated in the selection trials, due to their participation in official sports events such as National team / coaching camps / tournaments. It is mandatory for such players to inform the Director of Physical Education through their Principal /Head of the Department/ Head of the Department of Physical Education of the College in advance by e mail/letter.
- It is mandatory for all the selected players to attend the preparatory coaching camp conducted by the university, otherwise, the reserve player may be called for

the camp. However, any player of International (Senior or Junior) / National (Senior or Junior) / State (Senior) team could not attend the coaching camp due to their participation in official sports events such as International / National / State team coaching camps / tournaments are allowed to join the team at least one day before the team leaves the home station. It is mandatory for such players to inform the Director of Physical Education through their Principal / Head of the Departments/Head of the Department of Physical Education of the College in advance by e mail/letter.

- The Teams / Individuals whose performance are not up to the Inter University competing level/standard, as per the remarks of the Selection Committee based on Technical Aspects/Performance in selection trials/ inter collegiate tournaments/championship, shall not be sent to participate in the Inter University Competitions. Such teams shall be issued a Non-Participation Certificate from the Department of Physical Education.
- Winning the First, Second and Third positions in the individual events shall not stand as the criteria to be included in the University team for Inter University competitions. The selection committee has the responsibility to select the Inter University teams based on the technical aspects / performance of the team/ individual.
- On receiving the intimation regarding selection of students to University teams, sent to their respective Colleges, the selected students shall report to the Department of Physical Education on the date mentioned in the intimation. If they fail to report on time mentioned in the intimation letter, the next reserve player shall be intimated to join the University team without further notice.
- If a player is not willing to go with the University team to participate in Inter University Competitions, the concerned principal/Department/college Physical Education Teacher shall inform the matter to the Director of Physical Education immediately through e mail/ letter, so that reserve player can be intimated to attend the university camp.
- In case of inability of selected players to report to the Department of Physical Education due to emergencies, the matter shall be intimated to the Director of Physical Education through e-mail/ request letter duly forwarded by the principal/Head of the Departments/ Head of the Department of Physical Education of the concerned colleges.
- If a selected player reports in the Department of Physical Education and in due course he/she is not willing to go with the University team, the next reserve player shall be intimated to report and in case the team is not sent for Inter University competitions due to any emergencies/reasons, the player who was not willing to go with the team shall not be issued non participation certificate and only others, including the reserve player who reported, shall be eligible to get the certificate.
- The teams with better performance shall be given due consideration in all respects, including the duration of coaching camp.

- The announcement of list of players selected to represent the university team shall be done by the Director of Physical Education or by the person authorized by the Director of Physical Education, on his/her absence, preferably at the venue itself.
- The Director of Physical Education shall decide the venue for the Inter University team coaching camp.

Important Note to the Managers and Coaches of Inter University Teams

- The preference with regard to the assigning of duty as accompanying Coach/Manager of the University Team shall be Coaches of the University, Physical Education Faculty of Affiliated Colleges, Coaches of SAI, Coaches of Kerala State Sports Council, Physical Education Teachers from Schools, Experts respectively.
- The team managers/coaches must ensure to get all the documents duly signed by the Director of Physical Education in connection with the interuniversity competition before leaving from Department of Physical Education to the competition venue.
- The team managers must travel along with the students to the Inter University tournaments/championships.
- The managers/coaches has the full responsibility of the team from the time of coaching camp and until the team returns after the competition.
- The team managers/coaches should submit a detailed report about the coaching camp and performance of the team / individual, in connection with the inter university competitions, to the Director of Physical Education at the time of settling the amount.
- The team managers/coaches must ensure that they get the Relieving Certificate, Counter Signed Eligibility from the organizing University.
- The team manager / coach should settle the accounts (Two copies of Bills and Vouchers) related to the coaching camp and participation of the team in the inter university competitions within 10 days after the inter university competitions including original Train Tickets and Players ID cards.
- Strict disciplinary actions will be taken against the player/s, who misbehaves during the coaching camp, journey, at the competition venue and during inter university competitions.
- The team manager/coach must give a detailed report regarding the misbehavior of player/s to the Director of Physical Education immediately after the return of the team/during the period of competition/coaching camp/journey.
- If such misbehavior of any player/s reported he/she will be debarred from the university team for the next immediate year.

Guidelines for Participation in Intercollegiate Tournaments

All eligible students while participating in Intercollegiate tournaments shall fulfill the following essential conditions:-

1. The teams should report at the venue at least half an hour before their respective matches.
2. Teams reporting without manager, proper eligibility certificate, identity card from college, proper uniform and safety gadgets wherever necessary will not be allowed to take part in the competition.
3. Shorter versions (duration of the match, sets of match, points etc.) may be applied in the preliminary rounds of all the tournaments or for entire tournament. The managers are requested to seek information from the Zone Conveners / Sub conveners regarding such changes in advance.
4. Preliminary rounds of Cricket tournament will be of 15 overs a side.
5. Four-piece cricket balls of tournament standard such as Famex, SG, BDM Ambassador, and London wood etc. shall be brought by the college for every Cricket match.
6. Base balls super pus bhaseen/ Spartan shall be brought by the college for every baseball match.
PU+ Graphite core/ Spartan/Bhaseen balls of tournament standard shall be brought by the college for every Softball match.
7. Yonex AS2 and above/ RSL4 shuttle cocks must be brought for participating in Badminton tournament by all participating teams.
8. Table Tennis balls of tournament standard shall be brought by the college for every Table Tennis match.
9. Tennis balls of tournament standard shall be brought by the college for every Tennis match.
10. For body weighing events, team managers can observe the entire weighing procedures and in case of women performers lady managers can observe the entire procedure.
11. For participating in the Taekwondo competitions, all the participants must have qualified Green Belt and they should produce the Certificate issued by the Taekwondo Federation at the time of weighing.
12. The presence of manager in the venue is compulsory at all the time of competitions in compact games and sport. If any accident occurs during the compact events, the manager must take care of their player/s at the venue.

ASSOCIATION OF INDIAN UNIVERSITIES (Sports Board)

Revised Eligibility Rules for National University Games with effect from 28/07/2017

1. The matter with regard to revised Eligibility Rules was considered and discussed thread-bare in the meeting. Sports Board decided to adopt and approve the decision of International University Sports Federation (FISU) regarding the amendment/change in "Age Limit" for participation of student athletes in FISU sporting competitions from 2017-18 onwards. Accordingly, the new approved

“Age Limit” from 17 to 25 years shall be applicable for participation of Indian Universities contingent/teams in all the sporting events, including the discipline of Basketball organized by the FISU.

2. Lot of queries have been pouring in AIU office from the member universities regarding Revised Eligibility Rules as these are mandatory for the purpose of admission and selection of teams for participation at zonal and Inter Zonal(National) tournaments.
3. Further, it was also decided to implement the above Age limit from 17 to 25 years along with existing “eligibility conditions” put in place for participation of bonafide and full time (regular) students, for participation in National University Games from 2017-18 onwards alongwith following additional terms and conditions:
4. Accordingly, a copy of Revised Eligibility Rules is uploaded on our website **www.aiu.ac.in** for advance information and necessary action of all the stakeholders. Further, a copy of the same is being circulated to all member universities for advance information of all the stakeholders in due course of time.
 - Age limit of the students shall be minimum-17 years and maximum upto 25 years.
 - Only a bonafide, full time student, who is enrolled for a course of the University, which is of a minimum duration of one academic year, and whose examination is conducted by the university, shall be eligible to participate in the Inter-University tournaments.
 - Students of open Universities shall be considered to be bonafied students and shall be eligible to participate provided they fulfill other conditions.
 - Ph.D., M. Phil, Compartment, etc. students will be eligible to participate only if in terms of the concerned university rules they are regarded to be bonafide students and fulfill other conditions ‘laid down in this behalf. All students participating in the inter University Tournaments shall fulfill the following conditions: Not more than 8 years have elapsed since a student passed the examination qualifying him/her for first admission to a university or college affiliated to a university. The 8 year period mentioned above shall be distributed as below: Not more than 5 years after passing 10+2 or equivalent while pursuing graduate Courses/studies; Not more than 3 years after passing Graduation or equivalent while pursuing post graduate course/studies. Irrespective of any other conditions like change of class/course/faculty, joining lower class from higher, changing academic to professional courses or vice versa, provided that students admitted, after passing +2 examination, to graduate courses of more than 3 years duration like Medical, Engineering, Agriculture, Pharmacy etc. shall be eligible to participate in the inter-University tournaments for the actual length of such graduate courses/studies.

- Only students, who are less than 25 years of age as on First July of the academic year in which the tournament is held, can participate.
- Students shall not be full-time employees of Public or Private sector as the case may be.
- A student shall not be allowed to represent more than one University during a single academic year.
- Provisional admission to a course or University shall not make the student eligible to represent the University.
- In case of a student migrating from one University to another, his/her migration case will be considered eligible only after his/her admission in the new university is regularized and he/she is admitted as a bonafide student by the new university.
- No Objection Certificate (NOC) is mandatory to be eligible for participation for those students, who received or receiving stipend/financial support for pursuing excellence in competitive sports as career from Public or Private Sector to support their studies, as the case may be.

Note: As per existing practice, the comments and queries with regard to the Revised Eligibility Rules received from member universities, if any, will be reported to the next Sports Board Meeting for consideration.

Contact Address:

Dr. Jayarajan David, Assistant Director (On Deputation) (Ph: 9447133001; Email: jayarajdavid@gmail.com)



F4. National Service Scheme (NSS)



Personality Development through Community Service

National Service Scheme (NSS) was introduced in 1969 with the primary objective of developing the personality and character of the student youth through voluntary community service. Initially it was launched in 37 Universities involving about 40,000 volunteers. However, with the passage of time and as a Pan Indian programme, the number of educational institutions covered under NSS has been increasing year after year. Currently more than 36.5 lakh volunteers are enrolled in 39,695 NSS units spread over 391 Universities/ +2 Councils, 16,278 Colleges and Technical Institutions and 12,483 Senior Secondary Schools. Since its inception, over 4.78 crore students have benefited from NSS.

Each NSS volunteer is required to put in minimum 120 hours of service per year for two years, i.e., total 240 hours. This work is undertaken in villages/ slums adopted by NSS unit or in school/ college campuses usually after study hours or during weekends/ vacations. Besides, Each NSS unit organises a Special Camp of 7 days' duration in adopted villages or urban slums during vacations, with some specific projects, by involving the local communities. Each volunteer is required to participate in the Special Camp once during the 2-year period. Thus, about 50 percent of the NSS volunteers in a Unit participate in a particular Special Camp.

NSS units can take up any activity that has relevant to the community. The activities continue to evolve in response to the needs of the community. The core activities could be in the field of education and literacy, health, family welfare and nutrition, sanitation and cleanliness, environment conservation, social service programmes, programmes for improving status of women, production-oriented programmes, disaster relief and rehabilitation, campaigning against social evils, creating awareness about Flagship Programmes of the Government like Digital India, Skill India, and Promotion of Yoga. The main purpose of the National Service Scheme is the personality development of students through community service. Hence the NSS Cells of the Universities and Directorates are supposed to provide opportunities for trainings/workshops/ symposia/ competitions etc. for the development of the personality of NSS volunteers. Since the Government of India is allotting grants only for the regular activities and special camps of the NSS units, it is necessary to seek the financial assistance of other government bodies and funding agencies to meet the expenditure of such activities.

NSS is a student centric programme. Both students and teachers, through their combined participation in social service, get a sense of involvement in the tasks of national development. Besides, the students may also obtain work experience which might help them in finding avenues of self-employment at the end of their University career.

Objectives of NSS

- understand the community in which they work
- understand themselves in relation to their community
- identify the needs and problems of the community and involve them in problem solving
- develop among themselves a sense of social and civic responsibility
- utilize their knowledge in finding practical solutions to individual and community problems
- develop competence required for group-living and sharing of responsibilities
- gain skills in mobilizing community participation
- acquire leadership qualities and democratic attitudes
- develop capacity to meet emergencies and natural disasters
- practice national integration and social harmony

NSS Day: NSS was formally launched on 24th September, 1969, in the birth centenary year of the Father of Nation. Therefore, 24th September is celebrated every year as the NSS Day with different programmes and activities.

Motto: The Motto of NSS "Not Me but You" reflects the essence of democratic living and upholds the need for selfless service. NSS enable the students to appreciate the other person's point of view and show consideration to fellow human beings.

Symbol: The symbol of NSS is designed based on the giant Rath Wheel of the world famous Konark Sun Temple (The Black Pagoda) situated in Orissa, India. The wheel portrays the cycle of creation, preservation and release and signifies the movement in life across time and space, the symbol thus stands for continuity as well as change and implies the continuous striving of NSS for social change.

Badge: The NSS Symbol is embossed on the badge. The eight bars in the wheel represent the 24 hours of a day. The red colour indicates that the volunteer is full of young blood that is lively, active, energetic and full of high spirit. The navy blue colour indicates the cosmos of which the NSS is a tiny part, ready to contribute its share for the welfare of the mankind.

NSS Activities in the University of Kerala

There are 164 units for National Service Scheme, University of Kerala and has a volunteer strength of 16400. An NSS Unit may consist of 100 Volunteers and the maximum number of units permissible to one individual college is 2 units. The NSS units of the University of Kerala are situated in the four southern districts of Kerala namely Thiruvananthapuram, Kollam, Alappuzha and Pathanamthitta. For coordination each NSS unit there will be one Programme Officer who is supposed to be a teaching faculty member of the college.

The external agencies associating with the implementation of the action plans include Kerala State Suchitva Mission, Mritasanjeevani (A Government of Kerala initiative), Sree

Chitra Institute of Medical Sciences and Technology, Nehru Yuva Kendra, Social Forestry wing of the Forest department of Kerala, Medical College Hospital, Thiruvananthapuram, Kerala State Biodiversity Board, Institute of Land and Disaster Management, Kerala State Excise Department, National Rural Health Mission, Red cross Society, Kerala State Aids Control Society, National Human Rights Commission, Kerala Women's Commission, Kerala State Disaster Management Authority, High Power Committee on River Protection, Government of Kerala etc. ***At present the Programme Coordinator of National Service Scheme is Dr. Shaji A., Professor of History, School of Distance Education, University of Kerala (Ph: 9447324831).***

Activities of NSS Kariavattom Campus Unit

There are two units of NSS functioning in the Kariavattom Campus. In addition to these units one unit of NSS, University College of Engineering is also functioning at Kariavattom campus. Dr. Jayakumar, Faculty member, Department of Sociology is the Programme Officer in charge of the NSS Unit for teaching Departments in the Campus. NSS volunteers of Kariavattom camps participated in the National Integration camp, Pre-RD camp, National Youth Festival and national Adventure camp etc.

Every year, NSS Unit of Kariavattom campus organize 'Seven Day Annual Camps' for NSS volunteers in the campus. Sometimes these camps are jointly organized with the help of the colleges under the University where NSS Units are active. These camps offer a good platform for the NSS volunteers from Campus to interact with the volunteers from other NSS Units and generally turn out to be an arena for socialization also. During the camp, volunteers learn the art of doing things by sharing. By dividing themselves into small groups, they undertake various activities collectively. They engage in different sorts of community service programmes and sometimes even organize field trips to those places where their service is most needed, upon the instruction from the camp Programme Officers. Generally, the camps organized by NSS are different in many ways from the camps organized by other agencies and organizations because of its social service content and the commitment of the campers towards addressing social issues. At the end of the camp, all campers would be presented with certificates which have high academic value also when they apply for higher courses inside and outside Kerala.

NSS Unit of Kariavattom Campus has always shown interest in organizing Lectures of eminent personalities with the objective of providing more awareness to NSS Volunteers on different social issues. The volunteers from the teaching departments of Kariavattom actively participated in the Mega projects introduced by the National Service Scheme like river protection, flood relief and rehabilitation, anti-alcohol, palliative care, home for homeless etc.

Apart from all these, NSS always takes pride in organizing blood donation camps and other charitable activities in the campus premises. NSS volunteers of Kariavattom Unit have donated blood for patients voluntarily in many emergency situations and they treat it as part of their duty. Similarly, when natural calamities occur, NSS volunteers reach in help of the victims. In the past few years, when natural disasters occurred in different places, particularly during the time of Nepal earth quake and Chennai floods, NSS volunteers from Campus had mobilized funds and other relief materials for those victims of calamities.

NSS activities are not limited to education and community service alone; but also extended to personality development of students and the promotion of their extracurricular activities. The National Youth Festivals organized by NSS is an excellent platform for the young talented students from campus to showcase their talents. Many NSS volunteers have benefited from national level training camps and national youth festivals as it facilitate them to get national level exposure and training. In the past few years, NSS volunteers have won many prizes in the interuniversity competitions and national youth festivals and thereby bringing more laurels to the University.

Operation of NSS Unit: The strength of a NSS unit is 100 volunteers normally. In the Kariavattom campus of the University of Kerala there are 200 volunteers actively engaging in social interventions.

Enrolment to NSS: To become a member in NSS, generally preference is given to those students who have already worked as NSS volunteers in their colleges. Students belonging to minority communities, scheduled castes and scheduled tribes are also highly encouraged to participate in NSS. They will be given due representation. Foreign students are also encouraged to join NSS so that they can share the experiences of their community work with other members. NSS volunteers cannot participate in NCC or any other youth organisation as long as they remain enrolled in NSS. Students who wish to become members in NSS must fill up the given application form and submit it to the concerned Programme Officer.

Programme Officer and Student Volunteers: A teacher who is having high level of motivation, inclination and aptitude for community service and above all very good rapport with students is usually appointed as Programme Officer of NSS. A Programme Officer is expected to motivate the students to understand the values and philosophy of NSS. The overall function of Programme Officer is to help the students to plan, implement, and evaluate the activities of NSS and give proper guidance and directions to student volunteers to perform their duties. A Programme Officer performs the role of an organiser, educator, coordinator, supervisor, administrator, and public relation officer. In order to assist the Programme Officers in the campus, there will be two student co-ordinators (one male and one female). Student Co-ordinators are generally nominated by the NSS volunteers themselves. However, if there is more number of candidates for the post of student co-ordinator, office bearers will be selected on the basis of secret ballot voting.

Implementing Machinery: NSS works under the Ministry of Youth Affairs and Sports. There is a NSS Advisory Committee in each State under the Chairmanship of State Education Minister to formulate guidelines for the implementation of the scheme in every State. A University level NSS Advisory Committee is chaired by the Vice-Chancellor, and it directs the University on policy matters related to the functioning of NSS.

NSS Certificate: A volunteer is entitled to receive NSS certificate upon rendering 240 hours of community service in two consecutive years and after participation in 7 days special camp (day and night). Those who successfully complete this requirement would be given 2% marks by way of relaxation or as weightage for admission in higher courses

For any further enquiries related to NSS enrolment in Kariavattom Campus, students can contact the Programme Officer: Dr.M.S jayakumar, Mob: 9847564447, Email: jayanmadhavan@gmail.com



UNIVERSITY OF KERALA NATIONAL SERVICE SCHEME



NAME OF COLLEGE:

ENROLLMENT FORM- 20.... -20....

Affix
Passport
Size Photo

1. NAME [In block letters :
- As entered in SSLC] [leave space between Names and initials]
2. DATE OF BIRTH :
3. CLASS WITH SUBJECT :
4. COMMUNITY : SC ☐ ST ☐ OBC ☐ GEN ☐
5. BLOOD GROUP :
6. RESIDENTIAL ADDRESS :
7. YEAR OF JOINING NSS :
8. WHETHER YOU WERE : YES ☐ NO ☐
- NSS VOLUNTEERS IN PLUS TWO LEVEL
9. NAME OF FATHER/MOTHER :
- (as entered in SSLC)
10. CONTACT NUMBER :
11. AREAS OF INTEREST : Health/Educn./Gender/Agriculture/Environment/ Rural etc.

DECLARATION

I do hereby declare that I shall abide by the rules and regulations of NSS and work imbibing the spirit of the Scheme.

DATE:

PLACE:

Signature of the Applicant

For Office Use only

Date of enrolment :
Enrolment No :
Remarks if any :

Signature of the Programme Officer



F5. Student Welfare: Insurance

There are different schemes, in which the students of the University get benefit of Insurance caused by both for treatment of serious ailment or accident and death. The revised nomenclature is resolved by the university in this regard.

UNIVERSITY OF KERALA
(Abstract)

Department of Student Services -Change in nomenclature of Students Insurance Scheme as Students Welfare Scheme -Budget Proposal--Refix Policy Premium--Syndicate Resolution -- Sanctioned -- Orders issued.

ADMINISTRATION 'D.I' SECTION

No.Ad.D.I/DSS/SWS/2019 Thiruvananthapuram, Dated 06.05.2019

Read: - 1. Budget Speech 2019-20
2. Minutes of the Meeting of Syndicate Held on 30.04.2019, Special Item No:1
3. Finance Endorsement FOS 813/Finance I dated 06.05:2019.

ORDER

MAIPS Scheme covering medical expenses arising due to accidents and deaths was implemented to regular students under University of Kerala for 2017 admission. But the policy was not completely beneficial to students. Budget Proposal vide read as (1) above, it was proposed to change the scheme to Students Welfare Scheme, which will be implemented directly by the University itself.

Vide paper read as (2) above, the Syndicate at its meeting held on 30.04.2019, Special Item No:1 has resolved to Change the nomenclature of MAIPS as Students Welfare Scheme and to re-fix the policy of premium at of Rs.100/- only per year, (to be collected as one time payment) ie. Rs 300/- for UG and Rs.200/- for PG programmes.

Sanction has therefore been accorded by the Vice-Chancellor to Change the nomenclature of MAIPS as Students Welfare Scheme and to re-fix the policy of premium at of Rs.100/- only per year, (to be collected as one time payment ie. Rs 300/- for UG and Rs.200/- for PG programmes.

The expenditure on this account shall be met from the head of account "Part I Non Plan M.H. 58-Students Services-4/4995-"Students Welfare Scheme", provided in the Current Year's Budget Estimates of the University.

The details regarding the policy will be published separately.

Orders are issued accordingly.

sd/-
Bindu .B
Deputy Registrar (Admn. II)
For Registrar

To

1. The Director , Department of Student Services.
2. The Department of Students Services.
3. Finance I /Audit V/Cash II
4. The Government Auditor.
5. The Stock File/File copy.

Forwarded/By Order

SECTION OFFICER

UNIVERSITY OF KERALA

(Abstract)

Department of Student Services – cancellation of U.O. regarding Renewal of Medical cum Accident Insurance Policy for Students to 2nd year of 2017 Admission and 1st year of 2018 Admission & introduction of "Student Welfare Scheme" for the benefit of students 2017 and 2018 admissions covering entire duration of Course– Sanctioned – Orders issued.

ADMINISTRATION ' D.I ' SECTION

No.Ad.D.I.2/MAIPS/2018

Thiruvananthapuram, Dated: 29.12.2018

- Read:- 1) Minutes of the meeting of the Syndicate held on 12.05.2017 (27.87 Additional Item No.1)
- 2) U.O. No.Ad DI/DSS/2017 dtd 07.06.2017.
- 3) Minutes of the Meeting of the Syndicate held on 10.05.2018 (Item No.35.90).
- 4) U.O. of even No. Dtd 01.06.2018.
- 5) Minutes of the Meeting of the Syndicate held on 31.08.2018 (Item No. 04.81).
- 6) Minutes of the Meeting of the Syndicate held on 16.11.2018 (Item No. 07.79.01).
- 7) U.O.No.Ad BII/10756/12/2018 dtd 28.12.2018.

ORDER

The Syndicate vide paper read as (1) above resolved to collect the premium amount of Rs.240/-per student for the first year for the proposed Medical cum Accident Insurance Policy for Students (MAIPS) at the time of on-line admission 2017 and U.O.cited (2) was issued accordingly.

The Syndicate, vide paper read as (3) above, resolved to continue the Medical cum Accident Insurance Policy (MAIPS) for the second year of 2017 admission and also for 2018 admission and the same was implemented vide U.O. read as (4) above.

The Syndicate vide paper read as (5) above, resolved to discontinue proceeding with MAIPS and continue with SGPAIS, the scheme already in force upto 2016 admission. Also resolved that since the 2018 batch of students have already remitted their insurance premium (ie.,Rs.240/-) to the KUF, this amount be utilised to revamp the SGPAIS and provide a coverage for both the current (2018) and 2017 batch students.

The Syndicate vide paper read as (6) above, resolved that the recommendation of the Combined Meeting of the Standing Committee of the Syndicate on Finance & Students Services held on 15.11.2018, that the amount already collected under MAIPS shall be used under the new scheme "Student



"Welfare Scheme" instead of SGPAIS for the benefit of students admitted during 2017-18 and 2018-19 covering entire duration of course be approved. The Coverage of scheme is as follows:

Sl.No.	Medical Cover	Amount
1	Death	Rs.3,00,000/-
2	Accidental Hospitalization	Rs.50,000/- per person
3	Hospitalization due to illness	Maximum Rs.50,000/- per person subject to a limit of Rs.20,000/- per illness/treatment

Sanction has therefore been accorded by the Vice-Chancellor to implement the above decision of the Syndicate.

Sanction has been accorded by the Vice Chancellor, vide U.O.read as (7) above, to open a new subhead "4/4995-Students Welfare Scheme" under "part I NP MH 58-Students Services" and to provide an amount of Rs.50,00,000/- (Rupees Fifty Lakhs Only) under the newly created subhead by re-appropriation from the subhead '4/4960-Medical cum Accident Insurance Policy for Students" under the same Major Head provided in the current year's Budget Estimate of the University.

Orders are issued in the light of Finance Endorsement No. FOS 3790/Finance I/dtd 26.12.2018.

The U.O. read as (4) above stands cancelled.

Sd/-
Bindu .B
DEPUTY REGISTRAR(Admn.II)
For Registrar

To

1. Convenor, Standing Committee of the Syndicate on Finance
2. Convenor, Standing Committee of the Syndicate on Students' Services
3. The Controller of Examinations / Finance Officer / Director, Dept.of Student Services/Director, Computer Centre
4. Finance I / Audit V / Cash II / Ac.H/Ac G/Ac L/Ac D/Ad A VII
5. Concerned sections/Departments.
6. The P.S. to Vice Chancellor/ Pro-Vice Chancellor/ P.A. to Registrar
7. The Government Auditor
8. Stock File / File copy

Forwarded/By Order

SECTION OFFICER

UNIVERSITY OF KERALA

(Abstract)

Department of Student Services – *Renewal of Medical cum Accident Insurance Policy for Students to 2nd year*– Sanctioned – Orders issued.

ADMINISTRATION ' D.I ' SECTION

No.Ad.D.1.2/MAIPS/2018

Thiruvananthapuram, Dated 01.06.2018

Read:- 1) Minutes of the meeting of the Syndicate held on 12.05.2017 (27.87 Additional Item No.1)

2) U.O.NoAd D I/DSS/2017 dtd 07.06.2017

3) Minutes of the Meeting of the Syndicate held on 10.05.2018 (Item No.35.90).

ORDER

The Syndicate vide paper read as (1) above resolved to collect the first year premium amount of Rs.240/- per student for the proposed Medical cum Accident Insurance Policy for Students at the time of on-line admission and U.O.dtd (2) was issued.

As per the U.O.read as (2) above, sanction has been accorded by the Vice-Chancellor, to introduce Medical cum Accident Insurance Policy for students (MAIPS), which covers upto Rs.50,000/- (Rupees Fifty Thousand Only) for Medical Treatments and Rs.3,00,000/- (Rupees Three Lakhs Only) for deaths happening due to accidents, through a Public Sector Insurance Company, viz. M/s New India Assurance Co.Ltd. and to collect the first year premium amount of Rs.240/- at the time of on-line admission.

The Syndicate vide paper read as (3) above, resolved to follow the scheme as done in the previous years and further resolved to entrust the Convenors of the Standing Committees of the Syndicate on Finance and Students Services to examine the present proposal for renewal of MAIPS for 2nd & 3rd year.

Sanction has therefore been accorded by the Vice-Chancellor to implement the above decision of the Syndicate to continue the Medical cum Accident Insurance Policy (MAIPS) for the second year also and for 2018 admission.

Orders are issued in the light of Finance Endorsement No.FOS 958/Finance I/dtd 29.05.2018.

Sd/-
Bindu B
DEPUTY REGISTRAR (Admin.II)
For Registrar



F6. Student Welfare: Medical Service

University Health Centre acts as a hub for all health related activities, with a focus for the uplift of physical, mental and environmental health of the campus community. The centre comprises the following staff members:

- Medical officer
- Health Information Officer
- Clinical Psychologist
- Nurse
- Lab Technician
- Radiographer

Any student or member of the campus community can approach the centre for all their health issues. The clinical psychologist is available for interaction especially for the management of stress related issues of students who come from different social and economic strata. The Health Information Officer serves as a bridge between the centre and the beneficiary campus community. Frequent interaction with the students is being conducted by the centre at various departments and hostels. During these interactions, all issues related to health of the campus community are given particular importance. The centre also has charted out a novel programme of reaching to every student regularly, by frequent interactions to all departments.

During these interactions, students can share all issues pertaining to their health and clear off their doubts about the same. So also, during these interactions, special care will be given for the practice of simple measures for the prevention of diseases, especially for the maintenance of a healthy environment to keep off many common but dangerous diseases.

A health centre works in the Karyavattom campus with basic amenities and is open for free of charge to all students. The following personnel are available for consultation.

- (1) Medical Officer who possess both Allopathic and Ayurveda medical post graduate Degrees (Mobile No. 8547631691)
- (2) Health Information Officer. (Mobile No. 8547607433)
- (3) Clinical Psychologist on Mondays and Fridays each week between 12 PM to 2 PM (Mobile No. 9446100164); Office No: 0471-2308976 E mail ID: rmouhc @gmail.com

F7. University Merit Scholarships for Masters Students

Merit Scholarships of the value of Rs. 3000 each per annum are available for masters students. The subject wise distribution of the scholarship is as follows:

MSc

Actuarial Science: 2; Analytical chemistry: 2; Applied Chemistry: 2; Applied Electronics: 5; Aquatic Biology & Fisheries: 2; Biochemistry: 2; Biotechnology: 2; Botany: 10; Botany (G&PB): 2; Chemistry: 11; Computational Biology & Bioinformatics: 2; Computer Science: 3; Demography: 2; Environmental Science: 1; Geology : 2; Home Science: 2; Mathematics: 11; Physics: 10; Psychology: 2; Statistics; 3; Zoology; 8.

MA, MBA, MSW, MCJ, MCom

Arabic: 2; Archaeology; 1; Economics: 10; English: 10; Geography: 2; Hindi: 6; History: 5; Islamic History: 1; Linguistics: 2; Philosophy: 3; Political science: 5; Malayalam: 10; Music: 2; Sanskrit: 4; Sociology: 2; Tamil: 1; Commerce (M.Com): 10; MBA: 3; MSW: 2; MCJ: 2

Rules Regarding University Merit Scholarship

Candidates for the award of the scholarships should possess a First-Class Bachelor's Degree obtained at the University Examinations held immediately preceding the award of the scholarship. In the absence of eligible candidates from the immediately preceding University Examination, candidates who had obtained first class in a previous examination at the first appearance may also be considered. 3. These scholarships shall be awarded annually by the Syndicate on the basis of Cumulative Grade Point Average of Specialised subjects, CGPA (s), of the qualifying examination. A weightage of 0.08GP each may be given to those who secure a grade point of 2.4 or more in English language course and Additional Language course and a weightage of 0.04 GP each to those who secure 2 or less than 2.4 GP in English Language Course and Additional Language Course. But in Post Graduate course in languages where candidates are admitted on the basis of their performance in Part I or II of the 3 year Degree Examination, in the absence of candidates with First Class in Part III, those with First Class in the concerned Language (under Part I or II as the case may be) shall also be considered.

These Scholarships shall be awarded for both Arts & Science stream in the ratio 50:50 provided admission to the PG courses are made on 50:50 basis for Science & Non-Science graduates.

The Scholarships are tenable for a period of two (2) years.

If a scholarship awarded to any student falls vacant, the vacant scholarship shall be awarded to the candidate next in rank in the subject concerned, as per rules. In the event of there being no candidate eligible for the award in any one or more subjects in a year, those scholarships may be re-allotted by the Syndicate for other subject for that year.

In deciding the cases of awards of Scholarships to students who obtain the same total marks, their performance at the immediately preceding University Examination shall be taken into consideration.

The HODs shall be drawing officers for disbursement of the above Scholarships. The annual value of the scholarships shall be paid on a quarterly basis in advance to the Principals concerned. The Principals shall forward to this Office the payee's receipts for the First quarter along with the bills for the second quarter and so on. The bills for the four quarters shall be forwarded by the Principals and payments made to them by the University in the months of June, September, December and March every year. The principals shall retain the amounts with them and make payments in arrears to the students at the close of each month. It shall be the responsibility of the Principals to see that the disbursements are made strictly in accordance with the rules. Any unspent balance left with the Principals at the end of each quarter shall be remitted to the Kerala University Fund.

Students who belong to the Kerala State and are studying in any of the Colleges affiliated to the University of Kerala or in any University Department immediately after passing the qualifying examination conducted by the University of Kerala alone are eligible for the awards.

The Scholarships shall not be held concurrently with any other scholarships except welfare scholarships offered by State/Central Government. The continuance of the scholarship for each year shall depend upon the satisfactory progress and conduct of the holders thereof.

The scholarships shall not be held for more than one year in the same class and shall be discontinued in the event of the failure at a University Examination.

The scholarships may be held along with fee concessions, if any, enjoyed by the holders. Any change in these Rules shall be made by the Syndicate (Acad III Section).



F8. Hostel Facility



University of Kerala provides hostel facility to residential students (both - men and women) at UG/PG/MPhil/Research level, at nominal rates.

There are six major hostels functioning under University of Kerala out of which 3 are special hostels.

- University Researchers Hostel for Women, Kariavattom (Capacity 129)
- University Women's Hostel, Kariavattom (PG – old block) (Capacity 163)
- University Women's Hostel, Kariavattom (PG– new block) (Capacity 207)
- PG Men's Hostel, Kariavattom (Capacity 110)
- Researcher's Hostel for Men, Kariavattom (Capacity 83)
- University Women's Hostel, Thycaud* (Capacity 354)

Special Hostels

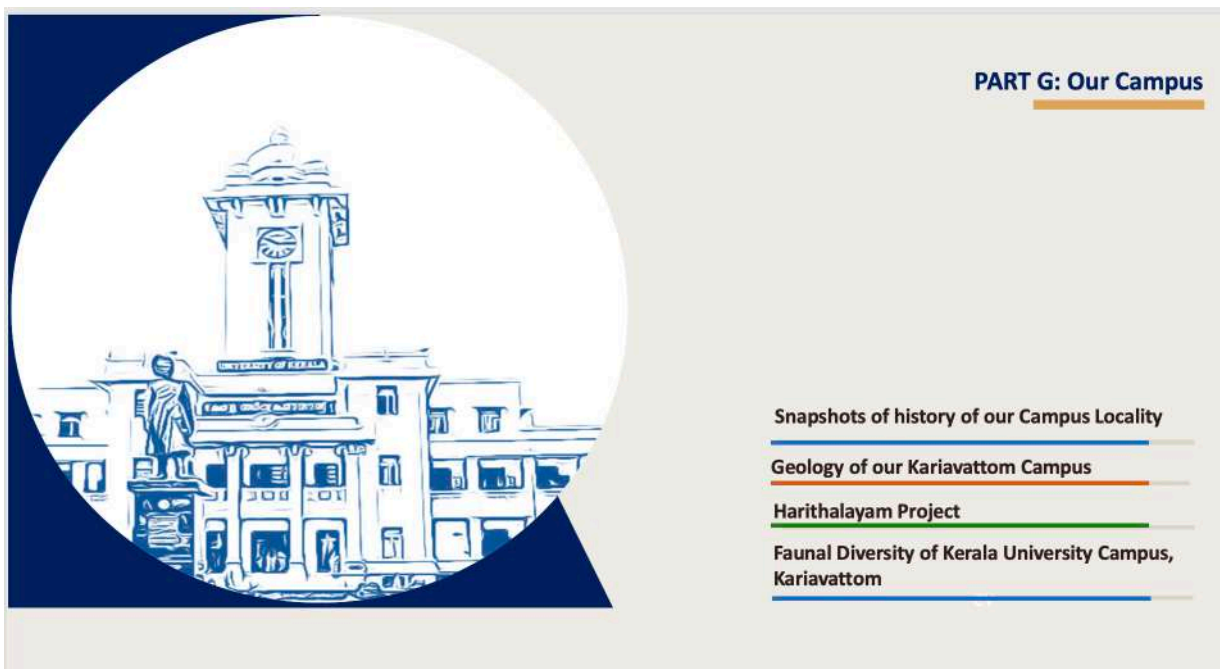
- University Teachers Hostel, Kariavattom (Capacity 25)
- International Youth Hostel, Near Student's Centre, PMG (Capacity 110)
- Sports Hostel, GV Raja Pavilion, PMG, (on Sports Council nomination)

** Accommodates students from affiliated colleges and University Depts*

The Hostels in Kariavattom Campus together provide accommodation for 670 students and researchers and 25 Teachers. All hostels run in full capacity. Students living at least 40 Km away from the campus may only apply.

Contact Address: Kariavattom Men's Hostel: Dr Rajesh: 9497078573

Contact Address: Kariavattom Women's Hostel: Smt Omana: 7561865209



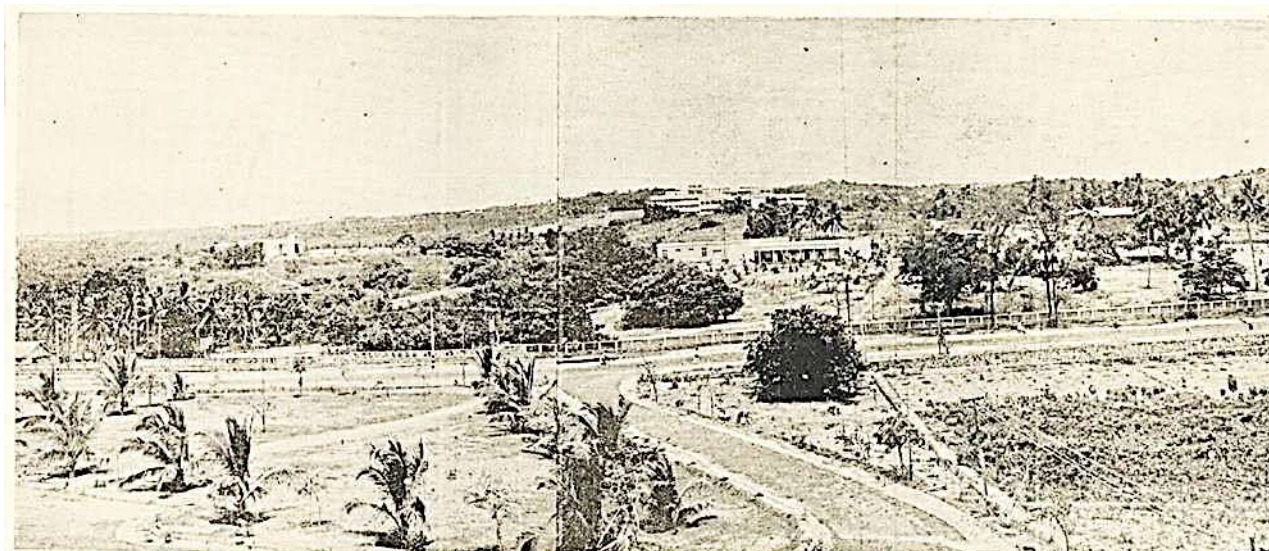
“Education is the ability to listen to almost anything without losing your temper or your self-confidence.”

— **Robert Frost**

G1. Snapshots of history of our Campus Locality

(Prof Achuthsankar S Nair)

Karyavattom, second home to the University academic community, was once in the outskirts of Trivandrum city. As the wheels of development rolled, Kariyavattom and adjacent Kazhakuttom became a part of the techno city or satellite city of Trivandrum. Like all new cities that appear like a flash mob, most of its inhabitants are unaware of the local history and are fast creating a new history for the future.



A BIRD'S EYE VIEW OF THE KARIAVATTOM CAMPUS

Is Kariavattom a place where people sat in a 'vattom'(round) to chat ('Kaaryam parayan')?. Totally unlikely. The name 'Kariavattom' arguably originates from the word "Kaaryakkar", a reference to temple employees. Personnel associated with Kazhakkootam Mahadeva temple/Thrippadapuram Temple near the campus may have created settlements near the temple. The 'karyam' in Karyavattom is seen embedded in other nearby place names also such as "Sreekaaryam" and "Kariyam". (Sreekaaryakkaran = the superintendent of a temple –Herman Gundert). There is also an argument that "Kari" refers to farmlands as in Ramankari in Kuttanad.

'Kazhakkootam' may have originated from "Kazhaka Koottam", *kazhakam* being a reference to temple authorities (A temple chiefly considered in its political bearingHerman Gundert). Kazhakkootam temple is ancient and lends credibility to the above arguments. There are other theories for the place name, "Kazha" could be timber used for construction or ship building. In Mathiliakam Records (Churuna No. 2490, Ola no. 410) of 1770 AD, the place is mentioned as "Kazhai Koottam". Dense plantation (koottam) of kazha could have been there in the place. One of the traditional houses in the area (near Arasinmoodu) bears the name 'Kootta thengu'. Yet another explanation is that there could have been a "Kazhaki" temple (village goddess) during sangam period. V.V.K Valath opines that "Kazhaki Koottam", gathering in front of 'Kazhaki', could have become Kazhakkootam. There is an Amman shrine near the Kazhakuttom shiva temple

to lend credibility to this argument. Naduvattam Gopala Krishnan (who hails from Naduvattom, but is settled in Karyavattom) mentions that 'Shuka Sandesham', a work of 13th century, refers to travel from Trivandrum to Quilon through a place full of 'Kazhukan' (eagles). He opines it could be 'Kazhuka Koottam' that became Kazhakkoottam. (The travel from Trivandrum to Quilon could also have been through the sea-side instead of the national highway we see now). There is then the belief that the temple was consecrated by Kalakkode Maharshi (who lived near to Kumizh Theertham, a pond a few kilometers away from the eastern part of the temple, extant even today), and the place was named after him as Kalakkode. That Kalakkode could transform to Kazhakkoottam is not tenable. Also, if we go by modern style, the name 'Kalakkode Maharshi' can be argued as carrying a place name itself. Among all explanations, one tracing Kazhakuttom to 'Kazhakam' of Mahadeva temple seems most tenable.



Ward and Conner (1818) refer to Kazhakkootam temple along with the major temples in Trivandrum. He also says *Cullicoottum is a populous village on the high road 7 ½ miles N.W. by ½ W of Trivandrum; a pagoda stands on the North of the road, the roof covered with plates of brass, having a gilded minaret on the top. An agarum lies to the South of it dedicated to the Goddess Mahadavee, where a festival is annually*

celebrated and attended by the Rajah, who has a palace on the bank of the reservoir East of it ". Dept. of History of University of Kerala has done studies on the origin of Mahadeva temple in Kazhakkootam. The M.A. dissertation by Jathin jith (2004) dates its origin as 800-1004.

Area in and around Kariyavattom and Kazhakuttom are believed to have been Buddhist/Jain viharas. Many place names are cited as the first evidence. 'Pothencode' is claimed to have been 'Budhen code'. So is 'Puthenthope'. Place name such as: 'Ambalathinkra' and 'Kallampalli' are also counted Buddhist by many due to the words 'Ambalm' and 'Palli' in them. The Kazhakuttom Mahadava temple is itself argued as a Budha vihar in older times. It is said that the sastha shrine bordering the N.H, which is curiously kept outside the main compound of the temple, could have been the original Budha idol in the main temple. The Madavoor Para rock temple near Chenkottukonam (which, by the way, is *not* related to Kottukonam Mangoes), is also traced back to Jain/Buddhist origins.

Dated back to 850 AD, the Madavaoorpara Temple has a Peedom (seat) and Siva Linga, carved in the rock with inner perambulatory space. Two images, one of Muruga and the other of Ganpathy are also carved on the walls. There is a Vattezhuth inscription in the temple. The temple and the Sivalinga are carved in stone. The height of Madvaoorpara is about 1800 feet and the temple is situated 50 meters above ground level. Dr Shaji of Dept of Geology opines that the Madavoor para is made of metamorphic rocks (Khondalite) formed approximately 2000 million years ago. The rock was formed approximately 18 km down the earth and subsequently uplifted to the surface by tectonic

forces. The rock has got a particular foliation (alignment). The alignment helped people to make caves.

Kazhakkoottam is famous as home to one of the 8 petty chieftains who formed a syndicate to capture power from Marthanda Varma about 285 years ago.

Kazhakkoottathu Pillai was one of the Ettuveetil Pillamaar who revolted against the king in waiting, Marthandavarma, and ended up losers. The pond that you see on the right as you enter the bye-pass road from Kazhahoottam junction is argued as the spot where house of Kazhakootathu Pillai was. It was razed down and a pond was dug (puthukkulam), bringing up the phrase “kudumbam kulam thonduka”. The females of this family were sold to fishermen to the nearby coastal areas i.e., Puthenthope. Valiathura, Puthukuirichi. In repentance to his actions he constructed a small Shrine of Vishnu near to the pond locally known as Kulangara Sri Krishan Swami temple and also built a palace known as Kulangara Kottaram (Kulangara Palace).



Venad historian Sivasankaran Nair gives the name of Kazhakkoottam Pillai, who was killed by Marthanda Varma as ‘Kazhakkoottathu Kanakku Raman Iswaran’ and says that his family has more than two hundred years of history as the honest servants of Venad rulers. Sivasankaran Nair quotes Mathilakam Churna (904-930), ola 34-38), ME 914, which describes the trial of the Ettuveetilpillais. Marthanda Varma is seen asking “*Ningalkku ithinvannam okkeyum thonnuvan sangathi enthanu*”, “*Ithinvannam thonnathakkavannam naam ningalude nere enthu cheithu?*” (What is the reason for you to think like this, what did I do to you making you think like this? [ie., to conspire to kill me])?

Marthanda Varma’s fame is also related to his victory over the Dutch at Kolachel. Interestingly Kazhakuttom has a Dutch connection even today. One of the first companies in Technopark manages the traffic in the Dutch streets, sitting far away in Kazhakuttom, place of attention of its 3-centuary old enemy.

Before the first (unreliable) census was taken in Travancore during 1830s, Ward and Conner who had completed a survey of Travancore in 1820s, gives glimpses of population

in Travancore,. These may possibly be estimates rather than data arrived at through enumeration. This data indicate that Kazhakuttom had a population of around 2500 only in 1820. There were about 1000 houses, about 250 cattles, 250 reservoirs or wells, 18 religious buildings and 4 public buildings. While Kulathoor and Pallippuram had around 25 toddy/arrack shops each, in Kazhakuttom they were conspicuously absent. The demography transformed gradually and by 1960s when the area started to develop with the opening of the Kariyavattom Campus. The establishment of the Campus saw major re-settlement (Sobha who now does casual work in the campus was born in the campus. She remembers that they were evicted in a police vehicle and put up in 5 cent land in Kazhakuttom).

Ettuveetil Pillai is of course of no contemporary interest. There are other historic personalities in and around Kazhakkootam who have made a mark in the modern times. Saint and social reformer Sree Narayana Guru hails from Chempazhanthi about 5 km South of Kazhakkootam. The 'Vayalvaram' house where he was born is still preserved intact. Sreenarayana Guru has other presence in the area. Guru consecrated a Shiva at Kolathukara near Kazhakuttom following the revolutionary consecration at Aruvippuram. He also composed a hymn (Kolatheesava sthavam). He also stayed in the temple and did some writings. The place where he stayed is now memorial building housing his furniture. He blessed a library started in 1920 by his disciples Sasthivilakam Kesavan and Venth Vilakom Narayan. In 1925, the saint visited the library which now exists in a modern building as "Kulathoor Sreenarayana Memorial Library".

In the road to north, in Thonnakkal, we can find the home of renaissance poet Kumaran Asan, who was also close associate of Narayana Guru. Asan chose to settle down in Thonnakkal towards the end of his life. He also established Saradalayam Book Depot. He lived only a couple of years in this place. Thonnakkal Devi temple is famous for hosting the famous musician Shadkala Govinda Marar almost two centuries ago. A few kilometers ahead of Thonnakkal is Pallippuram where the CRPF camp is situated and the Technocity is coming up. Pallipuram is famous as home to Barrister G.P. Pillai, (born 26 February 1864, died 21 October 1903) a mentor figure to Mahatama Gandhi and is often reckoned as father of political agitation in Travancore. There are many prominent people who do not find mention in the chronicle of the history. Boniface, a member of the fisherman community of St. Andrews area, was an INA hero who collaborated with Vakkom Abdul Khader in freedom struggle.

There were two wetlands in the campus, one is south and one is north, both served by perennial ponds, both abandoned now. In 1960s and 70s, the University had a farm officer and loads of rice were sold each year after harvest. There is no doubt that the whole area was a vast farm land, remains of which can be seen today directly or through place names. The farm area begins from Palippuram and was named 'Pallippuram Ela', said to be second only to Kuttanad. The farm land ran right up to the city of Trivandrum. Ward and Conner says: "*Pulleapooram, an extensive village on the high road 9 miles N. W by N.O.5 of Trivandrum on the skirts of an extensive valley of paddy, is divided by narrow lanes; the houses in compounds stocked with coconut trees, about the center is a mosque. A road goes off from it to Anjengo. ½ At the upper end of the village on the West of the high road is a Vishnu pagoda and chuttram. There is a Agrum for Brahmins also at*

Cuddanancolum". About Kazhakoottam, Ward and Conner mentions "On the N.E. is a spring issuing from the declivity of an eminence, discharges itself in a cistern of about 12 feet square, this water descends through a subterranean channel for about forty five feet, into another basin so contrived as to retain from five to six feet water throughout the year, the superabundant waters running out at two spouts, into a field".

It was naturally served by many ponds and canals, many of which today face decay. The large "Ana Thazhum Chira" near Pallippuram, is an instance. You can see the very rare 'Kandal Cher', semi fossilized kandal waste which emits smoke (sulphur, according to some scientists). Elephants are said to be fond of sulphur springs and the name "Ana Thazhum Chira" assumes significance. Other important water bodies are Chenkottukonam Chira, Thudathil Chira, Mangattukonam Chira, Chanthavila Chira, Sasthavattom Chira, Ulloorkonam Chira, Madavoorpara, Thenguvila Kulam, Pothencode, Malayakonam Chira, Chittikkara Paramada, Ayiroorppara (Madathil Kulangara Chira) Thengnamcode Chira and Thettiyar. Thettiyar runs through Andoorkonam, Pothencode & Kazhakuttom Panchayath areas and releases itself into Veli Kayal, before passing through all three phase of technopark. The Kazhakoottam beach is a few Kilometers from the campus. There are ponds in and around the Karyavattom campus. Pullekonam Chira is South Campus and Kundettukonam Chira in North Campus. In the vicinity of the campus are "Echilott Kulam" and "Kottoor Kolla", the later said to be formed during Monsoon flash flood.

1961 report of the University mentions that the Trivandrum Centre is "about 345 acres of land between 8th and 9th mile stones on the Trivandrum – Quilon Road". It was during the tenure of the Pattom Thanupillai, as Chief Minister of Kerala, that the land was acquired. The annual report for 1965 puts the total area of acquired land at 512 acres and a sum of 31 lakh rupees was paid as compensation to individuals. The campus falls in the panchayats of Kazhakkootam, Sreekariam and Attipra. The campus was inaugurated by Dr. S. Radhakrishnan on 31 September 1963 and the marble plaque remains abandoned even today. First buildings to come up were Engineering Unit, Gandhi Bhavan, Social Science Block and the Botany Block. The original campus plan was designed by Piran Amid Davis, a Madras based architect. Later a new master plan was designed by J.C. Alexander. Total acquired area now stands at 600 acres, of which 50 acres were given to LNCPE, 50 acres to technopark, 50 cents to Telephone exchange and a few cents were given on lease to Madrasa and Road Research Institute.

The campus also had the myth of its own, the spirit of Hymavathy, which refuses to go away! Not many know that Hymavathy is a mere imagination of a former student of the Malayalam department who wrote a novel in which his imaginary character Hymavathy commits suicide.

G2. Geology of our Kariavattom Campus

(Prof. E Shaji, Dept of Geology)

The University campus at Kariavattom falls in the Survey of India toposheet No.58 D/14 with the co-ordinates E 76°32'30" and N 8°34'00". The total area of Kariavattom campus is around 400 acres. The campus is a rugged terrain with an altitude ranging from 15 to 48 m amsl. In general, the area is covered by fairly steep hillocks with narrow valleys in the western side. The valley portion is sloping towards south and southwest. This area is drained by Kolathur stream and its tributaries, flowing from north to south and northeast to southwest directions. Two prominent valleys exist in the campus, one located on the western side of the campus trending N-S, near Haimavathikulam and second one behind the botany building and near the international stadium. These valleys are the channel ways for the surface and groundwater discharge from the campus. The area enjoys a tropical monsoon climate and the rainfall is fairly well distributed. The area receives an average rainfall of 1826 mm. The rainfall is distributed throughout the year the maximum rainy days during June and minimum is during the months of January and February. Temperature of the campus ranges from 39° (April-May) to 20° (December) with a humidity of 60- 90%. The potential evapotranspiration rate is 64 mm/month and average wind speed is 4.3 km/hr. The dominant soil of the area is lateritic and clay loam. The low-lying areas are covered with alluvium mixed with clay. The area is underlined by laterites, sandstones and clays belonging to Warkali formation. The sedimentary formations are observed in the dug well at Kariavattom Campus are mainly composed of sandstones, thick Kaolinite clay, clayey sandstones and carbonaceous clay (Photo 1). The Kariavattom area is comprised of sedimentary formation of Tertiary age (interval of geologic time lasting from approximately 23 million to 2.6 million years ago) over a basement of metamorphic crystalline rock of Pre-Cambrian age (>540 million years). The sedimentary formation consists of ferruginous sandstone, pale red clay, white clay, carbonaceous clay lignite seam and clayey sand. The basement rock is garnetiferous quartzo-feldspathic gneiss (leptynite) and khondalite.

The top portions of the sedimentary sequence are lateritised and form a blanket. The sedimentary formation is known as Warkali (Varkala) formation. Varkala is a coastal



town situated about 55 km NW of Trivandrum. The most important attraction of the place is the beach and the presence of beautiful wave-cut cliffs. Varkala is the only place in southern Kerala where such cliffs are found adjacent to the Arabian Sea. This cliff formation is a unique geological feature on the otherwise flat Kerala coast, and is known among geologists as Warkali Formation. There are

numerous water spouts and spas on the sides of these cliffs. The Geological Survey of India is in the

process of getting it declared as a 'geological monument'. Varkala will soon enter into the UNESCO's world map of geoheritage sites and the global geotourism will be benefitted. *Picture shows the subsurface lithology of campus.*

G2 (a) Water Management Initiatives of University Of Kerala

Introduction

The University of Kerala, has two campuses. (1) The Palayam Senate house campus (administrative wing) and the Kariavattom campus. The Palayam campus is located in the heart of the Thiruvananthapuram city and falls in Survey of India toposheet number 58 D/14. The Palayam campus spreads around in an area of about 17 acres and there are about 25 buildings in the campus. The water requirement of the Palayam campus is about 1,50,000 liters/per day. The Kerala Water Authority is providing nearly 50% of the water and remaining is met from dug well located near the Guest House.

The Kariavattom campus is located 12 km Northwest of Thiruvananthapuram city on the side of NH-47 near Kazhakuttom city. It falls in Survey of India toposheet No.58 D/14 with the Co-ordinates $76^{\circ}32'30''$ - $8^{\circ}34'00''$. The total area of Kariavattom campus is 400 acres. The University campus at Kariavattom is a rugged terrain with an altitude ranging from 15 to 48 m amsl. In general, the area is covered by fairly steep hillocks with narrow valleys in the western side. The valley portion is sloping towards south and southwest. This area is drained by Kolathur thodu and its tributaries. They are flowing from north to south and northeast to southwestern direction. The water requirement of the university campus is 10 to 15 lakhs liters per day. The Kerala Water Authority is providing 2 lakhs litres/day and remaining is met from dug wells located within the Campus. This campus is a mini watershed of Kulathur thodu. Kariavattom campus is a mini watershed and is one of the ideal watersheds for the Artificial recharge schemes. Rain water harvesting and artificial recharge to ground water efforts are basically aimed at augmentation of the natural movement of surface water into ground water reservoir through suitable engineering construction techniques. Such techniques inter-relate and integrate the source water to ground water reservoir and are dependent on the soil, topography and hydrogeological situation of an area.

Water Harvesting Schemes Implemented By The University Of Kerala

Artificial recharge scheme for the campus

1. Percolation Tank - renovation of Haimavathikulam

Percolation tank is one of the effective artificial recharge structures proposed for utilisation of the surplus monsoon runoff in the campus. In this area 40% of the total surplus surface water resources have been considered for storage in the percolation tanks. In this watershed Haimavathikulam is a semi percolation tank. The pond has been restored and desilted. After modification, now the percolation tank has a filling capacity of 1 MCM. It can actually store 200% of its capacity due to multiple filling during the monsoon. Thus an average gross storage capacity of 2 MCM has been considered. The photo of the renovated pond is given below (figure 1).



Figure 1. Percolation tank (Haimavathikulam)

2. Large diameter wells constructed to store groundwater and to arrest the base flow

Two large diameter Dug wells were constructed in the Kariavattom campus: One near the pond behind Botany building (north campus) and another one behind the aquatic biology building (south campus). These two wells can store 5 lakhs litres of groundwater and these wells prevent the base flow of groundwater from the campus. These wells are catering the water needs of the departments as well as hostel and quarters. These wells can be treated as one of the recharge to groundwater model wells and may be first of its kind among Universities of Kerala. Photo of one of the wells is given in figure 2. Gutters and pits were provided to reach the surface water generated during rainy season to the wells. This is one of the best methods of water conservation.



Figure 2. Large diameter recharge well.

3. Roof Top Rain Water Harvesting for Kariavattom Campus

There are two types of rainwater harvesting methods, one is roof top rainwater harvesting and other one is artificial recharge to groundwater. Both types of rainwater harvesting schemes are implemented in the campus. Roof top rainwater harvesting scheme is implemented in Botany department, quarters and students' hostel. Total three rainwater harvesting structures were implemented in the campus.

Model schemes implemented with the help of State Groundwater Department

Roof top rainwater harvesting schemes have been implemented by IIUCNRM (Prof. Rajesh Reghunath) with the support of GWD at two locations in the Karyavattom campus – one at the premises of the Researcher's Hostel and the other at the F-type residential quarters. In the first case, the roof top water from the terrace of the Researcher's hostel is collected through drain pipes and stored in a percolation pit of nearly 14 m depth and 2m diameter. The percolation pit has been excavated adjacent to an open well. In the second case, the roof top water from two quarter building has been diverted to a percolation pit of nearly 14 m depth and 2m diameter. The percolation pit is instrumental in bringing enough recharge to the adjacent open well. Earlier the two dug wells were used to become dry during peak summer, however, after implementing the system the water levels in the wells picked up considerably. Photo of one of the wells is shown in figure 3.



Figure 3. Roof top recharge well (courtesy: Prof Rajesh Reghunath).

4. Revival of wetland for paddy cultivation- “Harithalayam” agricultural project

5 hectares of abandoned wetland was converted into paddy and vegetable field as part of the ‘Harithalayam’ scheme. The Harithalayam agricultural project implemented by the University of Kerala is in good progress. The paddy field has regained its green spirit after a gap of years, with 1000 coconut saplings growing in various parts of the campus, along with the removal of acacia trees that once dominated the campus. Acacia is an endangered species that has grazed the entire campus, draining its water resources and destroying the fertility of the soil. Therefore, University of Kerala implemented this prestigious scheme called “Harithalayam”. This is one of the best schemes of water retention and recharge to groundwater. One of the latest photographs is shown in figure 4.



Figure 4. Abandoned wet land of the campus converted into paddy field under Harithalayam. (Photo courtesy: Prof. P P Ajayakumar, Pro-Vice-Chancellor)

5. Revival of an abandoned well at Senate house campus.

A dug well located near the Senate house campus was closed with a concrete slab. This well was opened and cleaned. At most care was taken while removing and cleaning the well. Now the well is equipped for recharge of groundwater from the roof top of the Senate house building.

UNIVERSITY OF KERALA

MAP OF PALAYAM CAMPUS (16.61 acre)
(NOT EXACTLY TO SCALE)

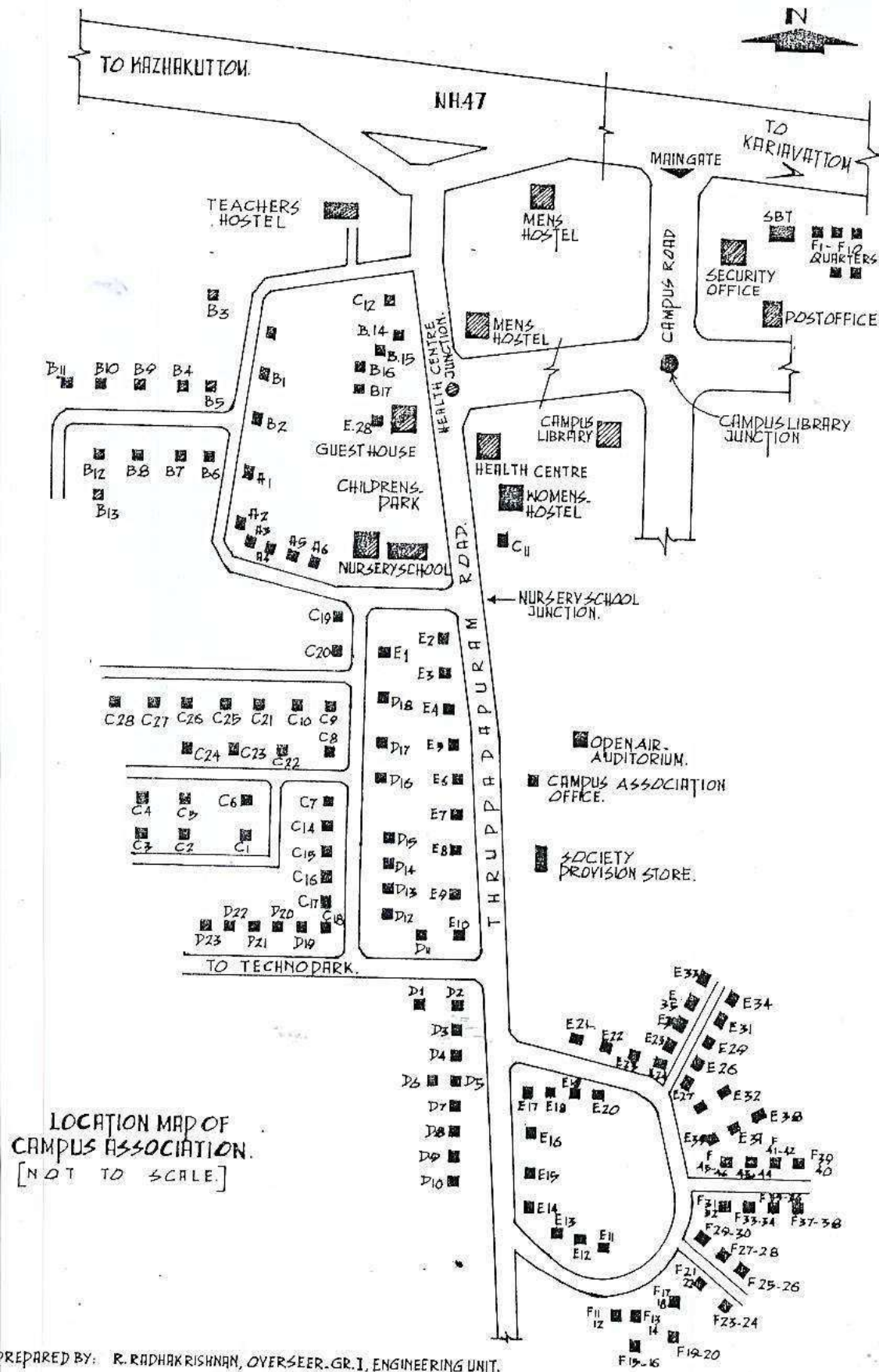


MAP OF KARIAVATTOM CAMPUS
(NOT EXACTLY TO SCALE)

- NORTH CAMPUS**
60. SCIENCE BLOCK I (Zoology, Botany, Communication & Journalism)
61. GREEN HOUSE
62. GAMA SHINE UNIT
63. ANIMAL HOUSE
64. OPEN STAGE
65. BIOINFORMATICS BLOCK
66. O.H. TANK
67. MAIN PIMP HOUSE



- (A) UPPANNIKONAM THOPE
 (B) NIRAPPIL (C) PATTANI KUNNU
 (D) PULLUNATTA VILA (E) PULLEKONAM
 (F) PESHKAR KUNNU (G) VAIDYAN KUNNU



G3. Harithalayam Project

(An initiative of University of Kerala to promote 'Subhiksha Keralam' project of Govt. of Kerala)

(Prof. A Gangaprasad, Chief Co-ordinator, Harithalayam Project)

Harithalayam Project is one of the University of Kerala's ambitious programmes, aims to farm in fallow land. Hon'ble Chief Minister of Kerala Shri. Pinarayi Vijayan inaugurated the 'Harithalayam' project through video conference on 5th June 2020. Launched on World Environment Day, Teachers, students, and other staff members are making an effort to increase the green cover on campuses and give a message of self-sufficiency and food security.

Major Activities of the Project

1. Forest Tree Plantation (In collaboration with Dept. of Forests, Govt. of Kerala)

In the 1970s, the Karyavattom campus was flourished with native trees including fruit trees and medicinal plants, often became extinct due to outside interference and grazing. The exotic plant Acacia (*Acacia auriculiformis*) was planted in open space on campus in the early 1980s as part of the World Bank's Kerala Forestry Program. These Acacias have later dominated the campus and became an obstacle to the survival of other indigenous species. The University of Kerala has made discussions with the Forest Department and decided to phase out the Acacia under in a step by step manner and plant native trees and plants in the area, including fruit trees. The Social forestry division, Thiruvananthapuram is associating with Kerala University's Harithalayam project, to replace Acacia trees which have been causing environmental damage, with fruit-bearing trees and medicinal trees. The removal of Acacia and its replacement with Indigenous fruit trees are progressing in a phased manner in the campus.



2. Coconut Plantation

A total of 1000 coconut saplings were planted in various locations of Kariavattom campus.

3. Banana Cultivation

The Banana cultivation project work has been initiated on 22th July as part of the Harithalayam project. Suckers were procured from State Agriculture Farm and planted.



4. Cultivation of vegetables, banana and tuber crops in Biodiversity Plot and Andaman Nicobar Plant species conservatory plot in the Department of Botany

Vegetable cultivation project started on June 5, 2020, in the Department of Botany as part of Harithalayam project. Short term vegetables and tubers like brinjal, Bhindi (lady's finger), cowpea, tomato, chilly, cucumber, Colocasia, tapioca, Chinese potato, pineapple, yam, sweet potato were planted as part of the project.

The harvest festival of vegetable cultivated in the Andaman Nicobar Plant Conservatory plot was conducted on 20th August, 2020 by the Hon. Vice-Chancellor Prof. V P Mahadevan Pillai in the presence of Syndicate members, Teachers, non-Teaching staff and Students.



5. Rice cultivation (Nelkrishi)

Under Harithalayam project rice cultivation was inaugurated by the Hon. State Agriculture Minister, Mr. V.S. Sunil Kumar on June 5, 2020. Cultivation of rice was initiated in a 12.5-acre restored paddy field near Haimavathy pond. The rice variety developed by the Kerala Agricultural University, Mannuthy, “Manurathna” – a short duration variety, has been cultivated and was harvested on 8th September 2020 and was inaugurated through video conferencing by Hon. Minister of Agriculture, Adv. V.S. Sunil Kumar. Hon. Vice-Chancellor Prof. V P Mahadevan Pilla, Syndicate Members, Pro Vice-Chancellor, Registrar, Teachers, Non-teaching staff, Students actively participated in the field level harvest ceremony. The project launched with the technical support of Kerala State Agricultural Mechanization Mission.



6. Fish Culture in Haimavathy Pond

As part of the Harithalayam Project, stocking of fish seeds was inaugurated by Shri. V.S. Sunil Kumar, Minister for Agriculture on 5th June, 2020. Nursery cages were constructed with the support of fish farmers in Perumathura and were installed in July. About 2000 Chitralada variety of Tilapia and 1000 nos. of Monosex Tilapia (MST) were stocked in the nursery cages. 20 kg of Growell Fish Feed was also procured. Currently, the fishes are growing well in the nursery cages and are fed twice a day. As they grow, they will be sorted and stocked in grow-out cages.



7. Students Fellowship

Kerala University is the first and foremost university of its kind to implement a student's fellowship program, a novel venture adopted to enhance agricultural skills and social commitments among the students. The inauguration of the program was done by the Hon. Vice-Chancellor Prof. V P Mahadevan Pilla in the presence of Syndicate members, Teachers, non-Teaching staff and Students on 17th August 2020 (Chingam 1). The registered student's fellows were actively engaging in planting, weeding and other cultural activities.



G4. Faunal Diversity of Kerala University Campus, Kariavattom

[Prof. G. Prasad¹, Nishath HP², Vishnu H², Anupa K Antony¹, Asima A, Merin Elizabeth George¹, Anjanadevi VR¹ and Joseph Roy; Department of Zoology, and ² Department of Aquatic Biology and Fisheries, University of Kerala]

The Kerala University Campus at Kariavattom is an urban area close to the Technopark and is famous for its biodiversity owing to the semi forest type vegetation and climate. The area is about 14km north of Thiruvananthapuram city, distributed on either side of the NH 66 connecting Thiruvananthapuram and Kollam Districts. The total area of the campus is about 330Ha with numerous ecosystems and habitats such as thick forests, aquatic ecosystems, marshy lands and associated wetlands, grass lands, gardens and much other man-made ecosystems. The campus experiences warm and humid tropical climate with moderate winds from ocean and the elevation is about 56m above mean sea level. The buildings in the campus are traversed by gardens, trees, bushes and grass land which provide excellent habitats for animals of all groups. The Department of Zoology has been monitoring and documenting the biodiversity, particularly animals of the campus, from 2014. The results for the details study of diversity of various animal groups are completed and given below:

Birds in Kariavattom Campus



62 species of birds belonging to 14 orders and 32 families have been spotted from Kariavattom campus; Among orders, Passeriforms and among species, *Crocor splendens* dominate. *Avicedaleuphotes*, *Spizaetus cirrhatus*, *Cyornis rubeculoides*, *Terpsiphone paradise*, *Streptopelia chinensis*, *Chalcophaps indica*, *Tyto alba* and *Pavocristatus* were the uncommon species and the most interesting sightings from the campus. The South-west region of the campus supported maximum number of birds. The birds are evenly distributed in Hymavathi pond and associated wetlands and Eastern side of campus supported the least. The abundance and richness of birds is seen to increase along with the abundance of floral species and habitat diversity. The avian fauna of Kariavattom campus are sufficiently rich in species diversity. The patches of undisturbed areas, mixed

vegetation and the presence of wetlands in the campus could be the factors which support the bird diversity.

Amphibians and Reptiles

We documented 28 species of Herpetofauna (8 Amphibians 20 Reptiles) from the University campus during the course of the study. Family Colubridae is found to be the most dominant family with 8 species. The Family Bufonidae, Viperidae, Typhlopidae, Microhylidae and Geoemydidae are the least dominant families (1 species). Indian bullfrog is the dominant amphibian and the Asian house gecko is dominant reptile.

Mammals

We found six species of mammals present in the Campus, The Indian crested porcupine (*Hystrix indica*), Indian grey mongoose (*Herpestes edwardsi*), Indian flying fox, brown rat (*Rattus norvegicus*), Indian mole-rat (*Bandicota bengalensis*) and Asian palm civet (*Paradoxurus hermaphroditus*). More species of mammals may be present in the interior of the campus.

Butterflies in Kariavattom Campus

A total of 110 species of butterflies belonging to five families have been identified from the Kerala University Campus, including three species that are endemic to the Western Ghats and twenty-one species protected under various schedules of the Indian Wildlife Protection Act, 1972. The total number of butterflies was recorded highest in the month of June (490 individuals) and lowest in the month of April (126 individuals). The monthly abundance of each butterfly families showed higher values in the month of May and June when compared to March and April. Out of 110 species of butterflies recorded from the Campus, 21 species came under the Wild Life Protection Act. The campus provides favourable ecological factors and habitat for butterflies.



Spiders

Spiders make up a considerable portion of the animal life of this vast and diversified land. They are a highly species rich group of invertebrates and are widespread and found in all types of habitats and occupy a few niches in virtually all the earth's biomes. Total 116 species of spiders belonging to 20 families were reported from the Kariavattom

Campus, University of Kerala. The classification of observed species revealed that, the family Salticidae is the dominant family, among the 63 identified species, 19 species belongs to Salticidae. The family Araneidae ranks the second with 10 species, followed by the family Thomisidae with 5 species. The family Lycosidae and Tetragnathidae have four species each. The family Theridiidae and Oxiopidae have three species. The family Corinnidae, Pholcidae, Sparassidae and Uloboridae have two species each. The least common families are Erisidae, Gnaphosidae, Hersilidae, Miturgidae, Philodromidae and Theraphosidae represented with single species.



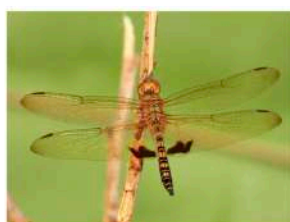
Ants

Ants are one of the most ecologically important species. They act as ecosystem engineers, seed dispersal agents, indicators of biomass restoration, and indicators of climate change. They are found in plenty in the campus. Currently, 68 species from 6 subfamilies have been found in the campus. Ants belonging to the families Dolichoderinae, Formicinae, Myrmicinae, Ponerinae, Pseudomyrmicinae, and Dorylinae. The subfamily with the most species of ants were Myrmicinae with 34 species and 51.5% of the ants collected. This was followed by Formicinae with 14 species and Ponerinae with 9 species. There have been 9 new species records to Kerala, *Trichomyrmex abberens*, *Carebara spinata*, *Strumigenys aduncomala*, *Crematogaster rothneyi civa*, *Crematogaster anthracina*, *Crematogaster biroi*, *Nylanderia indica*, *Pheidole peguensis* and *Strumigenys membranifera* were reported in the campus. We have also reported range extensions in *Lophomyrmex quadrispinosus*, *Monomorium dichroum*, *Tetramorium bicarinatum* and *Tetramorium bicarinatum* to Thiruvananthapuram. *Camponotus invidus*, *Cardiocondyla parvinoda*, *Carebara spinata*, *Strumigenys aduncomala*, and *Tetramorium rossi* are endemic species found in the campus. The North Campus has been found to have more diversity of ants perhaps due to low human interference.

Odonates

Odonates play crucial role in both the terrestrial and aquatic ecosystem. Their predatory nature and habitat specificity makes them an integral part of environment. A total of 48 species in 31 genera and 7 families were recorded from the campus. Suborder Anisoptera (Dragonflies) dominates with 31 species in 23 genera and 4 families where as 17 species in 8 Genera and 3 families were observed from suborder Zygoptera (Damselflies). Out of 7 families Libellulidae (Anisoptera) represented maximum number of species (27) and genera (19) followed by Coenagrionidae (Zygoptera) comprising 12 species in 5 genera. Family Lestidae and Platycnemididae within Zygoptera suborder constitutes 3 (1 genera) and 2 species (2 genera) respectively. Gomphidae family of Anisoptera is represented 2 species in 2 genera. Least number of species was found in Aeshnidae and Macromiidae, single species each.

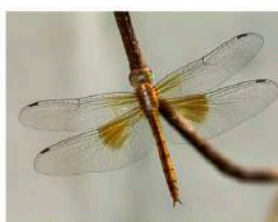
The increasing urbanization affects biological diversity because it radically modifies the ecology and landscape and contributes to habitat alteration. The Kerala University Campus at Kariavattom is expanding with the addition of new infrastructures and it is the duty of the University community to conserve the existing biodiversity of the campus since it consists of many rare and endemic species of both vertebrates and invertebrates. This green urban ecosystem is important for the human community interacting with the campus every day. An integrated design approach to promote green structures according to contemporary social needs and grounded on a deep understanding of urban ecosystems is required for the conservation of the biodiversity in the campus. Such approaches can let humans, plants and animals share public spaces with least possible conflict and threat.



Hydrobasileus croceus - Male
(Amber-Winged Marsh Glider)



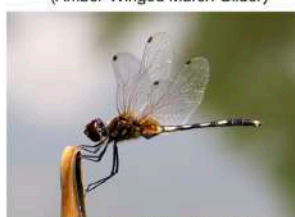
Ictinogomphus rapax - Male
(Indian Common Clubtail)



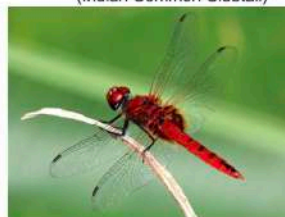
Tholymis tillarga - Female
(Coral-Tailed Cloudwing)



Trithemis aurora - Male
(Crimson Marsh Glider)



Trithemis pallidinervis - Male
(Long-Legged Marsh Glider)



Urothemis signata - Male
(Greater Crimson Glider)



Ischnura senegalensis - Male
(Senegal Golden Dartlet)



Ceriagrion cerinorubellum - Male
(Orange-tailed Marsh Dart)

**PART H: Appendix****Academic Calendar****Special Information for Non-Kerala Students**

"Education is the most powerful weapon which
you can use to change the world".

- Nelson Mandela

H1. Academic Calendar

Annual Academic & Examination Calendar (2020-21)

A : General Academic Calendar (2020-21)

Month & Working days	University Teaching Departments	Month & Working days	Affiliated Colleges & UIT, UIM etc.	Month	Ph. D
June '20 22 days	June 10: PG S3 starts	June '20 22 days		June'20	Course Work Notification : 12.06.2020
July '20 21 days		July '20 21 days		July'20	
Aug '20 18 days	28.08.2020: Onam holidays starting	Aug'20 19 days	28.08.2020 : Onam holidays starting	Aug'20	Last date of Application: 24.08.2020
Sept'20 16 days	Sep 7: re open after onam holidays	Sept'20 1 days	Sep 7: re open after onam holidays	Sept'20	
Oct '20 20 days		Oct'20 20 days		Oct'20	
Nov '20 21 days	Nov.2: PG S3 ESE starts Nov.18: PG S1 starts Nov 23 : PG S4 Starts	Nov'20 21 days		Nov'20	Dates of Examinations : 16.11.2020 to 18.11.2020
Dec '20 17 days	X mas holidays: 18.12.2020 to 27.12.2020	Dec' 20 17 days	X mas holidays: 18.12.2020 to 27.12.2020	Dec' 20	
Jan '21 19 days	Jan 18: M.Phil S1 starts	Jan' 21 19 days		Jan' 21	Publication of Results(July 2020 Session): 08.01.2021 Date of Notification (December 2020 session): 13.01.2021
Feb '21 20 days		Feb' 21 20 days		Feb' 21	Last date of Application: 01.02.2021 Dates of Examinations: 24.02.2021 to 26.02.2021
Mar '21 22 days		Mar' 21 22 days	III week: University Youth Festival.	Mar' 21	
Apr '21 19 days	April 15: PG S1 ESE April 21 PG S4 ESE	Apr' 21 19 days		Apr'21	Publication of Results : 07.04.2021
May '21 20 days	May 3: PG S2 starts	May'21 20 days		May'21	
June'21 23 days	July 12: M.Phil S2 starts				

Notes : 1. Principals of Colleges should ascertain minimum 90 working days in each semester.
2. The days spent for College Union Election, Union Inauguration, Arts and Sports Festivals and College Day Celebrations are to be treated as working days since the University Act and Statutes provide for the same. The days lost due to student strikes, drought, flood and unforeseen holidays shall be compensated.

B1 : PG DEPARTMENTS & M. Phil (Departments & University College) ADMISSION PLANNER 2020 –

21

Month	Masters (CSS)	M. Phil (CSS)
Jan '20	Notification with Entrance dates : 01.02.2020. Advertisements in National Dailies announcement via AIR Features in Newspapers by PRO Posters sent out by IQAC SMS to students by KUCC	
Feb '20		
Mar '20		
April '20		
May '20		
June '20		
July '20		
Aug '20		
Sept '20	Closing date for Application: 21.09.2020	
Oct '20	Entrance Exams commences at TVM/Kollam/Alpza/Ekm/PTA/Palaghat/Kottayam/Kozh ikode/Kannur: 08.10.2020 to 12.10.2020 CV Camp Valuation: 13.10.2020 to 30.10.2020	Notification with Entrance dates : 14.10.2020. Advertisements in National Dailies Announcement via AIR Features in Newspapers by PRO Posters sent out by IQAC SMS to students by KUCC
Nov '20	Publication of ranklist : 02.11.2020 Interview I st Allotment : 10.11.2020 II Allotment : 16.11.2020 Classes commence : 18.11.2020	Closing Date for Application : 02.11.2020 Entrance Exams at Tvpm : 12.11.2020- 16.11.2020 CV Camp : 17.11.2020 – 23.11.2020 Uploading of Marks of Masters : 20.11.2020 to 08.12.2020 Interview : 30.11.2020 to 03.12.2020
Dec '20	Admission Closes : 31.12.2020	Final Ranklist : 16.12.2020 I Allotment & Admission : 30.12.2020 Commencement of Classes : 31.12.2020
Jan 2021		II Allotment : 01.01.2021 Closure of Admission : 15.01.2021

B2 : University Departments: PG 2020 Admission: S1

	2020 November	2020 December	2021 January	2021 February	2021 March	2021 April
S	1					
M	2			1 46.	1 66.	
T	3	1 10		2 47	2 67.assign Sub	
W	4	2 11.EDE meeting of HoDs		3 48.EDE	3 68.Test paper/EDE	
T	5	3 12.		4 49.	4 69.	1 Maundy Thursday
F	6	4 13	1 27	5 50	5 70.II DCM	2 Good Friday
S	7	5	2	6	6	3
S	8	6	3	7	7	4
M	9	7 14.	4 28.	8 51.	8 71.	5 88.
Tu	10	8 15.	5 29.	9 52.	9 72.	6 89.Approval of Panel of Examiners VC
W	11	9 16.EDE	6 30.EDE	10 53.EDE	10 73.EDE	7 90.EDE
Th	12	10 17.	7 31.	11 54.	11 Shiva Ratri	8 91.Attendance Display in the Notice Board
F	13	11 18.	8 32. IDCM	12 55.	12 74.Test paper	9 92.EDE
Sa	14	12	9	13	13	10
Su	15	13	10	14	14	11
M	16	14 19.	11 33.	15 56.	15 75.Test paper	12 93.INT Feedback
Tu	17	15 20.	12 34. Reg forms to CSS	16 57.MSE	16 76.INT.Seminar	13 94.IIDCM
W	18 1.PG S1 Classes start	16 21.EDE	13 35.EDE	17 58.MSE/EDE	17 77.EDE	14 Vishu/Ambedkar Jayanthi
Th	19 2.	17 22.	14 Thaipongal	18 59.MSE	18 78.Publication of MSE Results	15 95.ESE
F	20 3.	18 Christmas Vacation starts	15 36	19 60.MSE	19 79.	16 96.ESE
S	21	19	16	20	20	17
S	22	20	17	21	21	18
M	23 4.	21	18 37.	22 61.MSE	22 80.	19 97.ESE
T	24 5	22	19 38. Test paper	23 62.	23 81.	20 98.ESE
W	25 6	23	20 39. Test paper/EDE	24 63.EDE	24 82.EDE	21 99.ESE
Th	26 7	24	21 40.	25 64.Assign Sub	25 83.	22 100.ESE
F	27 8	25	22 41.	26 65.EDE	26 84.	23 101.ESE
Sa	28	26	23	27	27	24
Su	29	27	24	28	28	25
M	30 9	28 23. Reopens	25 42.		29 85.	26 102.ESE
Tu		29 24.	26 Republic Day		30 86.INT Seminar	27 103.ESE
W		30 25.EDE	27 43.EDE		31 87.EDE	28 104.ESE
T		31. 26.	28 44.Proposal of ESE to CSS			29 105.ESE
F			29 45.			30 106.ESE
S			30			
S			31			
M						
Tu						

Remarks: MSE: Mid Semester Examination; ESE: End Semester Examination; EDE: Extra Departmental Elective; DCM: Department Council Meeting; Departments close for X mas Holidays on 17/12/2020 Evening and re open on 28.12.2020

B3 : University Departments: PG 2020 Admission S2

	2021 May	2021 June	2021 July	2021 August	2021 September	2021 October
Sa	1 Labour Day					
Su	2			1		
M	3 1.PG S2 Starts			2 63.		
Tu	4 2.S1 CV Camp starts	1 21		3 64.Internal Seminar		
W	5 3.	2 22.EDE		4 65.EDE	1 78.EDE	
Th	6 4.EDE Meeting of HoDs	3 23	1 42.Seminar Presentation	5 66.	2 79.	
F	7 5.	4 24.	2 43.Seminar Presentation	6 67.	3 80.GD/Presentation	1 99.S2 ESE
Sa	8	5	3	7	4	2 Gandhi Jayanthi
Su	9	6	4	8	5	3
M	10 6.	7 25.	5 44.Proposals for ESE to CSS	9 68.	6 81.	4 100.S2 ESE
Tu	11 7.	8 26.	6 45.	10 69.	7 82.	5 101.S2 ESE
W	12 8.EDE	9 27.Sub.of forms 3 & 5 to CSS & SDE	7 46.EDE/Test paper	11 Sreekrishna Jayanthi	8 83.EDE	6 102 S2 ESE
Th	13 14-UL-Fr	10 28.	8 47.Test paper	12 70. Publication of MSE Results	9 84.	7 103.S2 ESE
F	14 9	11 29.	9 48.	13 71.Int.Feed Back	10 85.	8 104. S2 ESE
Sa	15	12	10	14	11	9
Su	16	13	11	15 Independence Day	12	10
M	17 10.	14 30.	12 49.	16 72.	13 86.	11 105 S2 ESE
Tu	18 11	15 31.	13 50.	17 73.Approval of panel of Examiners from VC	14 87.	12 106 S2 ESE
W	19 12.EDE	16 32.EDE	14 51.EDE	18 74.EDE	15 88.EDE	13 107.S2 ESE
Th	20 13	17 33.	15 52.	19 75.	16 89.	14 Mahanavami
F	21 14.I DCM	18 34.	16 53.	20	17 90.	15 Vijayadasami
Sa	22	19 MUharram	17	21	18	16
Su	23	20	18	22	19	17
M	24 15	21 35.Assignment Submission	19 54.II DCM	23	20 91.Attendance display in the NB/EDE	18
Tu	25 16.	22 36.Assignment Submission	20 Bakrid	24	21 Sree Narayana Guru Samadhi	19
W	26 17.EDE	23 37.EDE	21 55.EDE	25	22 92.	20
Th	27 18	24	22 56.MSE	26	23 93	21
F	28 19.Reg.Forums to CSS	25 38.	23 57.MSE	27	24 94.	22
Sa	29	26	24	28	25	23
Su	30	27	25	29	26	24
Mo	31 20.Publication of S1 results in NB	28 39.Issue of Sem I marklist	26 58.MSE	30 76.	27 95.	25
Tu		29 40.	27 59	31 77.	28 96.III DCM	26
W		30 41.EDE	28 60.EDE		29 97	27
Th			29 61.		30 98.S2 ESE	28
F			30 62.			29
Sa			31			30
Su						31

Remarks: MSE: Mid Semester Examination; ESE: End Semester Examination; EDE: Extra Departmental Elective; DCM: Department Council Meeting; GD : Group Discussion . Departments close for Onam Holidays on 19.08.2021 evening and re open on 30.08.2021

B4 : University Departments: PG 2019 Admissions: S3

2020 June			2020 July		2020 August		2020 September		2020 October		2020 November	
Su											1	
Mo	1										2	91. ESE
Tu	2						1				3	92. ESE
W	3		1	16. EDE			2				4	93. ESE
Th	4		2	17. Pub. Of S2 results in NB			3		1	72	5	94. ESE
Fr	5		3	18.			4		2	Gandhi jayanthi	6	95. ESE
Sa	6		4		1		5		3		7	
Su	7		5		2		6		4		8	
Mo	8		6	19. Test paper	3	37.	7	56. Reopens	5	73	9	96. ESE
Tu	9		7	20. Test paper	4	38.	8	57. Int. Seminar	6	74.	10	97. ESE
We	10	1. PG S3 Start	8	21. EDE	5	39. EDE	9	58. EDE	7	75. EDE	11	98. ESE
Th	11	2.	9	22.	6	40. MSE	10	Sreekrishna Jayanthi	8	76.	12	99. ESE
Fr	12	3. I DCM	10	23. II DCM	7	41. MSE	11	59.	9	77.	13	100. ESE
Sa	13		11		8		12		10		14	Deepavali
Su	14		12		9		13		11		15	
Mo	15	4. EDE meeting of HoDs	13	24. Sub. of Form 3 & 5 to CSS	10	42. MSE	14	60. Test paper	12	78.	16	101. ESE
Tu	16	5.	14	25.	11	43 MSE	15	61. Test paper	13	79.	17	102. ESE
W	17	6. EDE	15	26. EDE	12	44. EDE	16	62. EDE	14	80. EDE	18	103. ESE
Th	18	7.	16	27.	13	45.	17	63.	15	81.	19	104. ESE
Fr	19	8.	17	28.	14	46.	18	64.	16	82.	20	105. ESE
Sa	20		18		15							
Su	21		19	-	16		20		18		22	
Mo	22	9. Sub. of S3 reg forms to CSS	20	Karkkidaka Vavu	17	47. Proposal of dates for ESE to CSS/ Issue of S2 mark list	21	Sreenarayana guru samadhi	19	83. Attendance display in the Notice Board	23	1. S4 starts S3, CV camp starts
Tu	23	10.	21	29.	18	48.	22	65.	20	84.	24	
W	24	11. EDE	22	30. EDE	19	49. EDE	23	66. EDE	21	85.	25	
Th	25	12.	23	31. Assignment Sub.	20	50.	24	67.	22	86.III DCM	26	
Fr	26	13.	24	32. Assignment Sub.	21	51.	25	68.	23	87.	27	
Sa	27		25		22		26		24	mahanavami	28	
Su	28		26		23		27		25		29	
Mo	29	14.	27	33.	24	52. Pub. of MSE results	28	69. Approval of panel by VC	26	vijayadhasami	30	
Tu	30	15.	28	34.	25	53. Int. Feedback	29	70.	27	88.		
W			29	35. EDE	26	54. EDE	30	71. EDE	28	89.		
Th			30	36.	27	55.			29	Nabidinam		
fri			31.	Bakrid	28	Onam vacation			30	90.		
Sa					29				31			
Su					30							
mo					31.							

Remarks: MSE: Mid Semester Examination; ESE: End Semester Examination; EDE: Extra Departmental Elective;
DCM: Department Council Meeting; Departments close for Onam Holidays on 27.08.2020 and re open on 07.09.2020

B5 : University Departments: PG 2019 Admissions: S4

	2020 December	2021 January	2021 February	2021 March	2021 April	2021 May
Sat						1
Su	-			-	-	2
Mo			1 24. sub. of CSS 3 & 5 forms of S3 to CSS	1 44.		3 85. Attendance Display in the Notice Board
Tu	1		2 25	2 45.		4 86.
We	2		3 26	3 46. MSE		5 87.
Th	3		4 27.	4 47. MSE	1 Maundy Thursday	6 88.
Fr	4	1 5	5 28. Reg. forms to CSS	5 48. MSE	2 Good Friday	7 89. III DCM
Sa	5	2	6 -	6 -	3	8
Su	6	3	7 -	7 -	4	9
Mo	7	4 6.	8 29.	8 49.	5 66. Test paper	10 90.
Tu	8	5 7.	9 30. Test Paper	9 50.	6 67. Test paper	11 91.
We	9	6 8.	10 31. Test Paper	10 51.	7 68.	12 92. Dissertation/ Project Submission
Th	10	7 9.	11 32.	11 Sivarathri	8 69.	13 Ramzan
Fr	11	8 10.	12 33.	12 52.	9 70.	14 93. Dissertation/ Project Submission
Sa	12	9	13 -	13 -	10	15
Su	13	10	14 -	14 -	11	16
Mo	14	11 11. I DCM	15 34. Issue of S3 mark list	15 53.	12 71.	17 94. Dissertation/ Project Submission
Tu	15	12 12. I DCM	16 35.	16 54.	13 72.	18 95.
We	16	13 13.	17 36.	17 55.	14 vishu /Ambedkar	19 96. ESE
Th	17	14 Thaiponkal	18 37.	18 56.	15 73.	20 97. ESE
Fr	18	15 14.	19 38.	19	16 74.	21 98. ESE
Sa	19	16	20 -	20	17	22
Su	20	17	21 -	21	18	23
Mo	21	18 15.	22 39. II DCM	22	19 75. Publication of MSE results	24 99. ESE
Tu	22	19 16.	23 40. II DCM	23	20 76.	25 100. ESE
We	23	20 17.	24 41.	24	21 77. Int. Feedback	26 101. ESE
Th	24	21 18.	25 42.	25	22 78.	27 102. ESE
Fr	25	22 19. Publication of S3 results in NB	26 43. Assignment Submission.	26	23 79.	28 103. ESE
Sa	26	23	27 -	27	24	29
Su	27	24	28 -	28	25	30
Mo	28 1.S4- Starts	25 20.		29 63.	26 80.	31 104. ESE
Tu	29 2.	26 Republic day		30 64.	27 81.	
We	30 3.	27 21.		31 65.	28 82.	
Th	31 4.	28 22.			29 83.	
Fr		29 23.			30 84.	
Sa	-	30				
Su		31				

Remarks: MSE: Mid Semester Examination; ESE: End Semester Examination; DCM: Department Council Meeting ; GD:Group Discussion
 Departments close for X mas Holidays on 17.12.2020 evening and re open on 28.12.2020
 Practical examinations should be conducted before 05.05.2021 submission of dissertation on 12/14/17 May 2021
 Sub of CSS S3 & 5 forms to CSS on 01.02.2021
 Publication of Result : June 2021

B6 : M.Phil Admission 2020-21: S1

	2021 January	2021 February	2021 March	2021 April	2021 May	2021 June	2021 July
Sa					1		
Su					2		
Mo		1 6.	1 26.Sub.Registration forms to CSS		3 67.		
Tu		2 7.	2 27.Sub.Registration forms to CSS		4 68.Assignment Submission	1 87.	
We		3 8.	3 28.		5 69.assignment Submission	2 88.	
Th		4 9.	4 29	1 Maundy Thursday	6 70.	3 89.	1 109.
Fr	1	5 10.	5 30. Proposal of I Sem Exams to CSS	2 Good Friday	7 71.	4 90.	2 110.
Sa	2	6	6	3	8	5	3
Su	3	7	7	4	9	6	4
Mo	4	8 11.	8 31.	5 48.	10 72.	7 91.	5 111.Sem Exam
Tu	5	9 12.	9 32	6 49.	11 73.	8 92.	6 112.Sem Exam
We	6	10 13.I DCM	10 33.	7 50.	12 74.	9 93.	7 113.Sem Exam
Th	7	11 14.I DCM	11 Shivarathri	8 51.	13 Idul Fitre	10 94.	8 114.Sem Exam
Fr	8	12 15.	12 34.	9 52.	14 75.	11 95.	9 115.Sem Exam
Sa	9	13	13	10	15	12	10
Su	10	14	14	11	16	13	11
Mo	11	15 16.	15 35.	12 53.	17 76.Seminar Presentation	14 96.	12
Tu	12	16 17.	16 36.	13 54.	18 77.Seminar Presentation	15 97.	13
We	13	17 18.	17 37.	14 Vishu/Ambedkar Jayanthi	19 78.	16 98.	14
Th	14	18 19.	18 38.	15 55 II DCM	20 79.	17 99.	15
Fr	15	19 20.	19 39.	16 56 II DCM	21 80.	18 100.	16
Sa	16	20	20	17	22	19	17
Su	17	21	21	18	23	20	18
Mo	18 1.Classes Commence	22 21.	22 40.	19 57.	24 81.	21 101.Attendance Display in NB	19
Tu	19 2.	23 22.	23 41. Seminar Presentation	20 58.Term Paper	25 82.	22 102.	20
We	20 3.	24 23.	24 42.Seminar presentation	21 58. Term Paper	26 83.	23 103. III DCM	21
Th	21 4.	25 24.	25 43.	22 60.Approval of panel of Examiners from VC	27 84.	24 104.III DCM	22
Fr	22 5.	26 25.	26 44.	23 61.	28 85.	25 105.	23
Sa	23	27	27	24	29	26	24
Su	24	28	28	25	30	27	25
Mo	25		29 45.	26 62.	31 86.	28 106.	26
Tu	26 Republic Day		30 46.	27 63.		29 107.	27
We	27		31 47.	28 64.		30 108.	28
Th	28			29 65.		31	29
Fr	29			30 66.			30
Sa	30						31
Su	31						
Mo							

B7 : M.Phil Admission 2020-2021: S2

2021 July			2021 August		2021 September		2021 October		2021 November		2021 December	
Su			1									
Mo			2	15.					1	68.		
Tu			3	16.					2	69.		
W			4	17.	1	29. II DCM			3	70.	1	89.
Th	1		5	18.	2	30.			4	71.	2	90.
Fr	2		6	19.	3	31.	1	50.	5	72.	3	91.
Sa	3		7		4		2		6		4	
Su	4		8		5		3		7		5	
Mo	5		9	20.	6	32.	4	51.	8	73.	6	92. List of students with title of dissertation to CSS
Tu	6		10	21.	7	33.	5	52.	9	74.	7	93. List of students with title of dissertation to CSS
We	7		11	22.	8	34.	6	53.	10	75.	8	94. Viva Voce
Th	8		12	23.	9	35.	7	54.	11	76.	9	95.
Fr	9		13	24.	10	36.	8	55.	12	77.	10	96.
Sa	10		14		11		9		13		11	
Su	11		15		12		10		14		12	
Mo	12	1. II Sem Class Starts	16	25.	13	37.	11	56.	15	78.	13	97.
Tu	13	2.	17	26.	14	38.	12	57.	16	79.	14	98.
W	14	3.	18	27.	15	39.	13	58.	17	80.	15	99.
Th	15	4.	19	Onam Holidays	16	40.	14	Mahanavami	18	81.	16	100. Notification for last date of submission
Fr	16	5.	20		17	41.	15	Vijayadasami	19	82.	17	101. Attendance Display in NB
Sa	17		21		18		16		20		18	
Su	18		22		19		17		21		19	
Mo	19	6.	23		20	42.	18	59.	22	83.	20	101.
Tu	20	Bakrid	24		21	Sree narayana Guru Samadhi	19	Nabidinam	23		21	102.
W	21	7.. I DCM	25		22	43.	20	60	24	84.	22	103. III DCM
Th	22	8. I DCM	26		23	44.	21	61.	25	85.	23	104. III DCM
Fr	23	9	27		24	45	22		26	86.	24	105. Approval of panel of Examiner by VC
Sa	24		28		25		23		27		25	
Su	25		29		26		24	63.	28		26	
Mo	26	10	30		27	46.	25	64.	29	87. III DCM	27	106.
Tu	27	11	31.	28. Reopens II DCM	28	47.	26	65.	30	88. III DCM	28	107.
W	28	12			29	48	27	66.			29	108
Th	29	13			30	49. II DCM	28	67.			30	109. Despatch of thesis to CSS
fri	30	14					29				31.	110. Despatch of thesis to CSS
Sa							30					
Su												
mo												

Departments close for Onam Holidays on 18.08.2021 evening and reopen on 31.08.2021

Conduct of open defence not later than one month from dispatch of thesis

Results to be finalized and communicated to CSS Office not later than one week after viva voce

Publication of Result : 15.01.2022

C : Ph.D Registration, Entrance Exams & Course Work

Months	PhD Entrance	PhD Registration	PhD Course Work
May 2020			
June 2020			Date of Notification(July 2020 session) : 12.06.2020
July 2020			
August 2020			Last Date of Application : 24.08.2020
September 2020			
October 2020			
November 2020			Dates of Examinations :16.11.2020 to 18.11.2020
December 2020	20.12.2020		
January 2021		01.01.2021 to 15.01.2021	Publication of results(July 2020 session): 08.01.2021 Date of Notification(December 2020 session) : 13.01.2021
February 2021			Last Date of Application :01.02.2021 Dates of Examinations: 24.02.2021 to 26.02.2021
March 2021			
April 2021			Publication of Results: 07.04.2021

F2: M.Ed Programme (2020-21 Admission)

Semester -1	
Commencement of Classes : 01.12.2020	Exam Notification:
Exam Commencement : 19.04.2021	Exam Conclusion : 26.04.2021
Publication of Result :	
Semester -2	
Commencement of Classes : 01.06.2021	Exam Notification :
Exam Commencement : 25.10.2021	Exam Conclusion : 29.10.2021
Publication of Result :	
Semester - 3	
Commencement of Classes : 01.11.2021	Exam Notification:
Exam Commencement : 24.03.2022	Exam Conclusion : 30.03.2022
Publication of Result :	
Semester - 4	
Commencement of Classes : 01.06.2022	Exam Notification:
Exam Commencement :19.10.2022	Exam Conclusion : 21.10.2022
Publication of Result :	

H2. Special Information for Non-Kerala/Foreign Students

Malayalam Language: Malayalam is the official language and mother tongue of most of the people of Kerala. The '**mala**' indicates 'hill', '**alam**' indicates 'closeness or edge'; together means the 'place of the hills'. It belongs to the Dravidian family of languages. Reception, accommodation and convergence of different streams of people, culture and languages from different parts of the world by the people of Kerala have resulted in borrowing of phonological, grammatical features and heavy lexicons from different languages. Malayalam has elements of Sanskrit and Tamil. It is a pitch based language which makes use of retroflex sounds. Malayalam has case inflections but is not sensitive to changes in gender, number. Presence of six nasal sounds is one of the peculiar phonological features of Malayalam.

Its history goes back to 9th century AD, the first literary text is dated 12th century AD, titled Ramacaritham and the first grammar text is Lilatilakam, dated 14th century. The high rate of literacy and mass education has resulted in a vibrant literary sphere in Malayalam, with a good number of Malayalam newspapers and magazines, more than any other languages in India. There exists a rich literary tradition in all genre of literature with an exceptional presence of entire current literary trends like modernism, romanticism, existentialism and post-modernism etc. It is one of the languages in South Asia in to which almost all classical literary works in the major world languages have been translated, sold and read at large. It has been granted the status of a Classical language by the Government of India. Non-Kerala students are welcome to learn Malayalam by choosing special electives/courses offered by Department of Malayalam/Linguistics.

Vowels (Swaram)														
അ	ആ	ഇ	ഈ	ഉ	ഊ	ഋ	എ	ഐ	ഐ	ഒ	ഓ	ഔ	അം	അഃ
A	Aa	E	Ee	U	Uu	Er	Ea	Eaa	Ai	O	Oh	Oau	Aum	Ah
Consonants (Vyanjanam)														
ക	ഖ	ഗ	ഘ	ങ	ച	ഛ	ജ	ഝ	ഞ					
Ka	Kha	Ga	Gha	inga	Cha	chha	Ja	Jha	inha					
ട	ത	ഡ	ഢ	ണ	ത	ഥ	ദ	ധ	ന					
Ta	Tta	Da	Dda	Na	Tha	Thha	Dha	Dhha	Na					
പ	ഫ	ബ	ഭ	മ	യ	ര	ല	വ	ശ					
Pa	Ffa	Ba	Fa	Ma	Ya	Ra	La	Va	Sha					
		ഷ		സ	ഹ	ള	ഴ	റ						
		Shha		Sa	Ha	Lha	zha	Rha						
	ി		ൻ	ർ		ൽ		ൺ						
	ilh		in	irr		ill		Inh						

Malayalam Survival Kit: Here are some simple phrases. Please note that many a times the English phrases (especially indicated by *) are equally or more appropriate in current times.

Afternoon	ucha	Mother	amma
Awesome	adipoli	Near	adutth
Bad	mosham	Night	raathry
Banana	pazham	No	alla
Boy	aankutty	No Problem	saaramilla
Bus	bess	Open	thurakkuka
Car	kaar	Outside	purath
Coffee	kaappi	Sir	saar
Cold	thanuppu	Slow	pathuke
Day	pakal	Snack	kadi
Down	thazhe	Tea	chaaya
Elder Brother	chettan	Thanks*	nandi
Elder Sister	chechy	There	avide
Evening	vaikunneram	Today	innu
Far	akale	Tomorrow	naale
Fast	vegam	Train	train
Father	achan	Up	mukalil
Food	aaaharam	Water	vellam
Girl	penkutty	Way	vazhi
Good	nallath	Welcome!*	swaagatham
Hello! *	namaskaram	What	enthu
Help*	sahayam	When	eppol
Here	ivide	Where	evide
Hot	choodu	Which	ethu
House	veedu	Who	aaaru
Inside	akath	Why	enthu
Left*	idath	Woman	sthree
Lunch	oonu	Yes*	athe
Man	purushan	Yesterday	innale
Me	njan	Younger Sister	aniyathi
Mine	ente	Younger Brother	aniyan

Morning	ravile		
Could I have your phone number please	phone number tharamo?		
Could you please repeat in English?	englishil parayamo?		
Could you show how to get to this place?	ee	sthalatheykulla	vazhi kanichutharamo?
Do not know Malayalam!	malayalam ariyilla !		
Do you know English?	english ariyamo?		
How many?	ethra ennam?		
How much?	ethra aayi?		
I do not want	venda		
I want	venam		
I am leaving	njan irangukayanu		
will be right back	njan udane ethum		
May I know your name please?	peru parayaamo		
Numbers: Onnu (1); Randu (2); Moonnu (3); Naalu (4); Anju (5); Aaaru (6); Ezhu (7); Ettu (8); Onpathu (9); Patthu (10); Anpathu (50); Nooru (100); Aaayiram (1000).			

Local Tourism

Beaches: Trivandrum is a coastal city and has a long stretch of beaches, the most famous being the Kovalam beach. The stretch of beaches are: Poovar, Aazhimala, Vizhinjam (beach, adjacent port and harbor), Kovalam, Eve's beach, Pozhikkara (estuary), Poonthura, Valiathura, Sanghumukham, Veli, Pallithura, St. Andrews, Perumathura (Muthalappozhi estuary).

Kovalam: Kovalam is an internationally renowned beach, 12km south of Trivandrum with three adjacent crescent beaches. It has been a favourite haunt of tourists, since the 1930s. A massive rocky promontory on the beach has created a beautiful bay of calm waters ideal for sea bathing. Sunbathing, swimming, herbal body toning massages, special cultural programmes and catamaran cruising are some of the attractions. The tropical sun acts so fast that one can see the faint blush of coppery tan on the skin in a matter of minutes. The Halcyon castle, the Rajiv Gandhi Convention Centre are near the beach. The leading hotels here are the Kovalam Ashok (ITDC) built in giant terraces down the face of the cliff and the Samudra on a promontory at the other end of the beach.

Shanghumugham Beach: Shanghumugham beach is very near to the International Airport and is easily accessible from the Kovalam Beach, Veli and Akkulam Tourist Villages. The sculpture of Jalakanyaka - Mermaid is a landmark.

Azhimala Beach: Azhimala is a quiet beach near to Kovalam, around 20 km from Trivandrum city. Azhimala is known for Ayurvedic Resorts.

Chowara Beach: A beautiful beach, which can be seen from a cliff overlooking it, is a real treat.

St. Andrews Beach: This is another newly developed tourist place located near Kazhakuttom, quite close to the Karyavattom Campus.

Vizhinjam: About two km south of Kovalam, Vizhinjam is believed to have been an ancient port. Now, Vizhinjam is a fishing harbour, with a light house. The Portuguese and the Dutch had commercial establishments here. This place is being developed into an International Deep Water Container Trans-shipment Terminal.

Veli Lagoon: On the outskirts of Trivandrum (8km from the city) by the side of the placid waters of Veli lake lies the Tourist Village and Boat Club where the Veli Lake merges with the Arabian Sea. The lagoon here is separated from the sea by a narrow sand bar. An 18 acre waterfront park with a floating bridge connecting the village to the beach and a floating restaurant are the main attractions. There is an enchanting lagoon for swimming. Pedal boats, paddle-boats and speed boats can be hired to explore the lagoon.

Akkulam: Akkulam is an extension of the Veli Lake. The Boat Club operates speed, safari, pedal and rowboats from Akkulam to Veli Tourist Village. A traditional style Kettuvallam (house boat) is available for overnight stay. The swimming pool at Akkulam is equipped with glider and other playing facilities. A musical fountain is an added attraction.

Poovar: Poovar, 29 km from the city, beautiful place to visit, with backwaters, beaches and an island.

Pozhiyoor: The Estuary of Neyyar River, is a place to watch the river and the sea in a constant, playful battle.

Varkala Papanasam Beach: Varkala is 51 km north of Trivandrum city. The Samadhi of Sree Narayana Guru, the great social reformer and philosopher, attracts devotees in thousands. The cliffs and mineral water springs at the Papanasam beach are tourist attractions. The inland waterways system connecting Kollam in the north with Thiruvananthapuram in the south, passes through two tunnels in the hills.

Aruvikkara: This place is 16km north of Trivandrum city, gifted with lavish scenic beauty. Trivandrum city gets its water supply from the Aruvikkara reservoir. There is an ancient temple dedicated to Durga, on the rocky banks of the river.

Peppara: Peppara is 50 km from the city on the way to Ponmudi. The sanctuary there, with its rich mammalian fauna and avifauna is emerging as a big attraction to wild life enthusiasts and ornithologists. It was established in 1938 over an area of 53 km², on the Western Ghats. Elephants, sambars, leopards, lion-tailed macaques, barking deer, wild boars, tigers, nilgiri langurs and leopards are found here. The area has a variety of moths and butterflies, and cormorants. The Peppara Wildlife Sanctuary is composed of the dense forests and the Peppara dam constructed across the Karamana River. Parts of the Palode and Kottoor reserves form part of this sanctuary. This area is dotted with large hills and numerous hillocks with forests and Eucalyptus plantations. The sanctuary is home to.

Neyyar dam: This dam on the Neyyar River is located at the foot of the Western Ghats, about 30 km from Thiruvananthapuram. It has Lion safari park, Boating, Deer park,

Crocodile park, Miniature wild life sanctuary, Lake garden, Swimming pool, Watch tower and Elephant riding. A three-hour climb over the hills across the reservoir affords the thrill of hiking. There are two beautiful waterfalls on the way.

Ponmudi: Ponmudi is a hill station located 61 km north-east of Trivandrum city at an altitude of about 1000m. It is a part of the Western Ghats mountain range that runs parallel to the Arabian Sea. Kallar, situated en route to Ponmudi, is a river well known for its abundance of attractive, round-shaped boulders and pebbles. A hill tribe called Kani live in the surrounding areas. Ponmudi has a deer park.

Meenmutty Falls: This fall is one of the main attraction located near by Ponmudi hills and is around 45 km from Thiruvananthapuram city. The main attractions are waterfalls and the small natural pools and rocks located beside the way to the water fall. In order to reach the place, one has to take a long trek that passes through dense forests, upon taking special permission from the Forest Department. Facilities for trekking are available. Kombaikani waterfalls is 2km from Meenmutty.

Agasthyakoodam: Agasthyarkoodam is 70km from Thiruvananthapuram. Agasthyarkoodam is a 1,868- metre tall peak within Neyyar Wildlife Sanctuary in the Western Ghats in Kerala Tamil Nadu border. This peak is a part of Agasthyamala Biosphere Reserve. The perennial Thamrabarni river originates from the eastern side of the range. The place is famous for its abundant ayurvedic herbs and medicinal plants. Another major attraction is the Neelakurinji, a flower which blooms only once in twelve years. Agasthyarkoodam is 32 km from Neyyar Dam and 23 km from Bonacaud, near Ponmudi. The nearest railway station is Ambasamudram, Tirunelveli District, Tamil Nadu. The trekking path, nearly 35 km, is from Bonacaud. Kalakkad Mundanthurai Tiger Reserve is part of the Agasthyarkoodam range.

Kerala Museum of History and Heritage: This museum exhibits include the archaeological evidences of Neolithic age, burial urns of the Iron Age, sculptures in bronze, wood and stone, coins (the Roman Dinari, which proves Kerala's maritime contacts with the Roman Empire), 17th Century murals and Stone celts.

Tropical Botanic Garden: Jawaharlal Nehru Tropical Botanic Garden and

Research Institute (JNTBGRI) is set up for conservation and sustainable utilization of the tropical plant genetic resources, particularly of Western Ghats. It maintains a 300 acre conservatory garden for the wild tropical plant genetic resources of the country. The Herbarium of TBGRI has 20,500 specimens of flowering plants and 10,000 of mushroom group.

Kerala Soil Museum: The museum on the premises of Central Soil Analytical Laboratory at Parottukonam, 7 km from the city, displays the diverse types of soil in Kerala. It is arguably the world's largest soil museum, which has a set of 82 soil monoliths, each 1.5 metres tall.

Kerala Legislative Assembly Golden Jubilee Memorial Museum: This museum functioning in the Legislative building, features the model of Assembly Hall, a mini theatre, research centre, multimedia hall, touch screen kiosk etc.

Napier Museum, Zoo and Art Gallery: The Museum building itself is an architectural splendor (established in 1855, Chisholm, its British architect, combined Kerala, Mughal, Chinese and Italian styles of architecture in his design). The Napier Museum, the Natural History Museum, the Reptile House, butterfly park and the Shri Chitra Art Gallery are all within the Zoo complex amidst a well laid-out garden and park. There is a lake and a boat club. The Lion-tailed Macaque, Nilgiri Langur, Nilgiri Tahr, Manipur deer, Indian Rhino, Asiatic Lion and the Royal Bengal Tiger are prominent among the indigenous endangered fauna, while Giraffe, Hippo, Zebra and Cape buffalo are guests from the African region. Napier Museum houses a rare collection of archaeological and historic artifacts, bronze idols, ancient ornaments, a temple chariot, ivory carvings and life-size Kathakali dancers.

Sree Chitra Art Gallery: The Sri Chitra Art Gallery, near the Napier Museum, has on display a century old world famous paintings of Raja Ravi Varma. The gallery also has a good collection of miniature paintings from the Mughal and Rajasthani schools, Roerich paintings, paintings from China, Japan, Tibet and Bali and copies of murals. The four hundred year old Tanjore miniature paintings encrusted with semi-precious stones are also on display at the gallery.

Magic Planet: A magic museum has been set up by the Magic Academy in KINFRA film and Video Park in Kazhakuttom very near Karyavattom.

Mitraniketan: Mitraniketan Vishwavidyapeetam for Open Learning & Total Development is a Non-governmental organization located at Vellanad, which is 25 km away from Thiruvananthapuram. The organization focuses on alternative education mode for development.

Koyikkal Palace, Folklore/Numismatics Museum: The Koyikkal Palace, situated 18 km from the city, was built for Umayamma Rani (17th century). The palace houses a Folklore Museum and a Numismatics Museum. The Folklore Museum is a treasure house of quaint musical instruments, occupational implements, household utensils, models of folk arts etc (Chandravalayam, Nanthuni). Wooden kitchenware, brass/copperware etc. representing the lifestyle of the Keralites during different periods, Thaalayola (old manuscripts), Chilambu (a sort of anklet) used by Umayamma Rani and Maravuri (dress made of the bark of trees) etc. are well preserved here. Oorakkudukku a device for intellectual exercise used by the Yogis as a pastime. The Numismatics Museum : displays the coins belonging to different parts of the world, a vestige of the trade relation of Kerala in the bygone ages. Some of the oldest coins of Kerala, Ottaputhen, Erattaputhen, Kaliyugarayan Panam etc, and a Venetian coin named Amaida, believed to have been presented to Jesus Christ, is also a property of this museum. Indian coin Karsha, nearly 2500 years old, Rasi, the world's smallest coin. Rasi Palaka (the coin board) - a wooden board with small niches used to count small coins, Roman gold coins (depicting Venus, Hercules, Mars) and rulers like Hardin (AD 117 - 138) are also among the collection. The museum also has coins used by Tipu Sultan, Hyder Ali, etc.

Kuthiramalika Palace Museum: Kuthiramalika Palace or Puthenmalika (the new mansion) is situated on the south-eastern side of the Sree Padmanabhaswamy Temple inside East Fort in Thiruvananthapuram. This wooden architectural delight was built

by King SwathiThirunal. Kuthiramalika, which literally means Horse Palace, takes its name from the roof beams that are carved to resemble the faces of horses. A portion of the palace is converted into a museum which has on display paintings, ornaments and artifacts of the royal family. Swathi Thirunal's ivory throne, marble idols, Chinese artifacts and rare musical instruments are kept in the museum.

Kerala State Science and Technology Museum: The Kerala State Science and Technology Museum, established in 1984, is situated close to Postmaster General's Office in Vikasbhavan. Various engineering galleries with educative multimedia exhibits and interactive working models are among exhibits. Priyadarshini planetarium is one of the most versatile planetariums in the country. The main GM11 star field projector here can project almost all the constituents of the visible universe. It can also simulate the star-studded night sky over any location on the earth, on any day up to 12,500 years back or 12,500 years into the future. A part of the museum is housed in a more-than century old bungalow of British period.

Anchuthengu: Situated 40 km north of Trivandrum city, along the sea coast, Anchuthengu is a place of historic importance. It was here that the first settlement of the English East India Company was established in 1764 A.D. The remains of the old English Fort, which had withstood many a siege, can be seen here. There is an ancient Christian church in Mampally, which was built in 15th century by St. Francis Xavier. From here one can sail across the river to Veli by boat.

Balaramapuram: Balaramapuram is famous for its hand-spun cloth. Weaving is a cottage industry here as a cooperative activity. One can see traditional weaving mills in use here. It is 13 km south of the city towards Kanyakumari on National Highway

Neyyattinkara: Neyyattinkara is an ancient town, situated about 20 km south-east of Trivandrum city is situated beside the bank of Neyyar River. In the premises of the temple, there is a historic jack tree, known as Ammachi Plavu, in the hollow of which King Marthanda Varma is believed to have hid himself and escaped death at the hands of his enemies. Aruvippuram is about 7km from Neyyattinkara and 24km from the city. A Siva temple founded by Sree Narayana Guru attracts a large number of worshippers during the Sivarathri festival.

Madavoorpaara Rock-Cut Temple: Madavoorpaara, an ancient rock-cut cave temple, which is about 4km from the Karyavattom Campus. A 1300-year-old cave temple, a perennial stream forming a small pond, and the enchanting view from the 600m tall hill are the attractions.

Vizhinjam Rock-Cut Temple: Perhaps the oldest historic monument in Trivandrum city - the rock temple in Vizhinjam, from the Ay Dynasty period, now under Archeological Survey of India.

Thirumala Rock Temple: Thirumala is on the Kattakkada – Neyyar Dam Road, about 6 km from the city. An ancient temple called Paarakovil (Thrichakrapuram) exists on top of Thirumala hill. Panoramic view of the city can be seen from here. The large piece of rockslab used in Sree Padmanabha Swamy Temple was cut from here. On the way one can see Vazhiyamabalam (old traveller's rest house).

Chempazhanthi Gurukulam: This a village (close to Sreekaryam) is about 7 km from the city towards north all about same distance from Karyavattom Campus, towards south. Sree Narayan Guru, saint and one of the most successful social reformers of the state was born in the small thatched hut “Vayalvaram”, which is maintained intact in this place.

Santhigiri Ashram: Santhigiri Ashram is a renowned spiritual center founded in 1964. Santhigiri Ashram has been following a three-pronged philosophy of giving free food, spiritual knowledge and holistic healthcare to the masses. The ashram is also home to the Lotus Parnasala, a lotus-shaped marble monument dedicated in memory of its founder.

Thiruvallam: Thiruvallam is about 6km south of the city, on the Thiruvananthapuram-Kovalam road. There is an ancient temple here on the banks of the Karamana River.

SMSM Institute: This is a State owned handicrafts emporium, an ideal place to pick up ethnic curios and other articles.

Happy Land Water Theme Park: Happy Land Water Theme Park is located a few kilometers away from Thiruvananthapuram, at Vembayam. It spreads over a larger area on hillside blended with architectural and natural beauty.

Asaan Smarakam: About 10km towards the north from the Karyavattom campus, in a spacious lawn, one can see the old-style thatched-roof traditional Kerala house of Poet Kumaranasan.

Ranga Vilasam: This newly started museum inside the Fort has paintings and photographs from 20th century, mostly related to the erstwhile royal family of Travancore.

Christ Church: One of the earliest churches in the city established in early 19th century has a tombstone of many historic personalities, including Britishers who served Travancore.

War memorial & Martyr memorial: Both these are in the vicinity of the Chandrasekharan Nair Stadium at Palayam, the first one commemorating the martyrs of the first world war and the second, that of the freedom struggle.

Maruthamkuzhi Ana: The centuries old small dam which uses granite work to hold water can be seen at Maruthankuzhi, across the Killy river.

CENTR FOR GLOBAL ACADEMICS (CGA)

The matters regarding foreign students are handled by CGA.

Contact: Dr. Sabu Joseph, Director, CGA and Professor, Dept. of Environmental Sciences

Phone: +91-471-2308146 (O), +91-471-2413006 (R), +91 9447453063 (MOB)

jsabu2020@gmail.com; jsabu@keralauniversity.ac.in

