



# **MINUTES**

## **16<sup>TH</sup> MEETING OF IQAC (CYCLE 03)**

**2017 June**  
**Internal Quality Assurance Cell (IQAC)**  
**University of Kerala**



**Minutes of the Sixteenth Meeting of IQAC, University of Kerala**  
**1.7.2017**  
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**Minutes of**  
**The Sixteenth Meeting of IQAC, University of Kerala**  
**Venue: VC's Chamber**  
**Date: 01.07.2017**

**Members Present:**

1. Vice - Chancellor (**Chairman**)
2. Convener, Standing Committee of the Syndicate on Depts. & other Insts. of the Uty, UoK.
3. Director, Computer Centre, UoK.
4. Dr. K.P Jaikiran, Programme Director, FLAIR, Kerala State S&T Museum, Tvpm
5. Dr. M. Sarngadharan, UGC Emeritus Prof., UoK 'Saravana', Sreekaryam P.O, Tvpm
6. Dr. Jayachandran R., Associate Professor & Head, Dept. of Hindi, UoK
7. Dr.S.Shifa, Associate Professor, Department of Malayalam, University of Kerala
8. Dr. E. Shaji, Assistant Professor, Dept. of Geology, UoK
9. Dr. Joseph Antony, Associate Professor, Dept. of Political Science, UoK
10. Dr. Bushra Beegom R.K., Assistant Professor, Department of Sociology, UoK.
11. Dr. Divya.C.Senan, Assistant Professor, Department of Education, University of Kerala
12. Dr. Achuthsankar S. Nair (**Director**)

**Members Absent:**

1. Pro Vice - Chancellor (Vice-Chairman)
2. Registrar, UoK
3. Convener, Standing Committee of the Syndicate on Academics & Research, UoK
4. Vice -Chairman, CSS, UoK.
5. Finance Officer, UoK.
6. Chairman, Departments Union, UoK.
7. Shri. Anoop M. Ambika, CEO & M.D, Cognub-Dcision Solutions, Technopark, Tvpm
8. Dr. Mushtaq Ahammed, Assistant Professor, IDE(Commerce), UoK

**Item No.Q3.16.01: Confirmation of the minutes of the Fifteenth IQAC meeting held on 18.04.2017.**-The IQAC Confirmed the Minutes.

**Item No.Q3.16.02: Action Taken Report (ATR) on decisions of the previous meeting:**

<b>Decision</b>	<b>Action Taken</b>
<b>Q3.15.04: Review of Committees appointed by IQAC:</b> IQAC noted that most committees have delivered successfully but some are defunct. It was resolved to authorize the VC to reconstitute committees No. 5, 12, 13 (Dr. Joseph Antony volunteered for this committee and it was also resolved that two administrative staff Jr (Admn.) and JR (Ac.) may be included), 20, 21 (retaining present committee in advisory role), 28, 29, 31, and 36. It was also resolved that follow-up mails shall be issued to members of committee Nos. 32 and 38. It was further resolved that "Save Energy" "Save Water" posters may be issued, Dr. Bushra agreed to take the lead in this	Action Ongoing
<b>Q3.15.05: Research Student Survey:</b> IQAC appreciated the survey report. It was resolved that all Depts. libraries and Kerala University Library and Campus Library be issued hard copies	Hard copies issued
<b>Q3.15.06: University Departments - Open Day:</b> Director, IQAC was authorized to take steps to implement the open day.	Ongoing
<b>Q3.15.07: Department Level Alumni Association:</b> Director, IQAC was authorized to put up proposal for implementing the idea.	Budget announcement has taken up this.
<b>Q3.15.08: Cost of Education (per unit):</b> IQAC agreed to the proposal.	Action Initiated
<b>Q3.15.09: Format for Certificate of Appreciation:</b> IQAC suggested some changes and the revised certificate.	No action pending
<b>Q3.15.10: Online Data Entry:</b> IQAC noted the progress and observed that it would go a long way in documentation of academic activities. It was decided that certificate of appreciation be issued to Dr. Vinod Chandra and Sri. Johnson of KUCC, for the successful implementation.	Certificate of appreciation issued
<b>Q3.15.11: Status of Patenting:</b> IQAC noted satisfaction on the gradual rise in patenting. It was resolved that a meeting of patent applicants may be called to felicitate them. It was also resolving that a meeting of teachers interested in patenting may be held and awareness be given, on the occasion	A meeting of the teachers was convened and certificates were issued to all teachers who have applied for patents

<b>Q3.15.12: Outreach Activities: Action proposed by designated committee:</b> IQAC commented the initial activities and proposals for school adoption and centralized outreach activities in addition to Dept-level activities were approved for implementation. It was also recommended that local Residents' Associations may also be covered in the outreach.	(See Appendix A3.16.02 for the first programme report.)
<b>Q3.15.13: Innovation Contest:</b> IQAC approved the proposal for implementation.	Innovation Contest conducted.
<b>Q3.15.14: Green Squads:</b> IQAC approved the proposal.	A meeting of the Green Squad was convened .Report appended as appendix A1
<b>Q3.15.15: Report on Innovation Portfolio in UCE:</b> IQAC resolved to issue certificate of appreciation to UCE and resolved further that an innovation portfolio of University Departments be compiled	Action Ongoing.
<b>Q3.15.16: Report on Annual Researchers Survey:</b> Withdrawn	Action complete.
<b>Q3.15.17: NIRF Ranking of University of Kerala:</b> IQAC resolved as follows: (i) IQAC places on record its appreciation of the efforts taken by Dr Shaji Anirudhan, Dr. Vinod Chandra S.S, Dr Anil Chandran S; Smt. Raji Leela, and Smt. Deepthi G. for their excellent efforts in NIRF data compilation and uploading. Certificates of appreciation may accordingly be issued. It was also noted that the office of the Vice-chancellor supported the activity efficiently. (ii) It was resolved that the Vice-chancellor may write a letter of appreciation to all faculty members for the achievement of top ranking from Kerala.	Certificates of Appreciation issued.
<b>Q.3.15.18: Chancellor's Award:</b> IQAC places on record its appreciation of the efforts taken by Dr Shifa, Dr. Binoj, and Dr. Darwin, in data compilation and presentation for the Chancellors Award. It was resolved to request the Vice-chancellor to take up the matter of data submitted by the University being cut down, arguably in an arbitrary manner.	Certificates of Appreciation issued.
<b>Q.3.15.19: Setting up UGC-NET/JRF and Soft Skill Collections in Department Libraries:</b> IQAC approved the proposal.	Letters issued
<b>Q.3.15.20: Industry sponsored research (Tata Steel):</b> IQAC noted the development as an important one involving consultancy and technology transfer. It was recommended that certificate of appreciation be issued accordingly.	Certificate of Appreciation issued.
<b>Q3.13.21: Reporting of the workshop on POGIL:</b> IQAC noted the activity	No action pending.

<b>Q3.15.21: Performance of Depts and Institutions in University Youth Festival, 2017:</b> IQAC noted the coveted achievement in cultural arena. It was recommended that certificate of appreciation be issued accordingly to all winners.	Action Initiated
<b>Q3.15.22: Curriculum Fair 2017:</b> : IQAC noted that the fair has been conducted in a better and bigger manner than last year. It was recommended to continue the event in coming years.	No action pending
<b>Q3.15.23: Young Scientist Award for University Faculty:</b> IQAC noted the coveted achievement by Dr Subodh and placed on record the appreciation of the IQAC. It was recommended that certificate of appreciation may be issued accordingly to all winners.	Certificates of Appreciation issued.
<b>Q3.15.24: Promoting Drug Free campus:</b> IQAC resolved to agree to the following proposals.	Action ongoing.
<b>Q3.15.25: Decision of Academic Council - Reporting:</b>	No action pending

**Decision:** IQAC noted the ATR and resolved as follows:

1. The Vice-Chancellor was authorized to set up a committee to prepare proposals on utilization of solar energy and rain water harvesting.(15.12).
2. A reminder to be sent to all faculty to complete the Innovation Portfolio.(15.15)
3. Preparation for NIRF 2018 be done early. A committee consisting of Dr. Jayachandran R, Dr. Divya C. Senan and Director, Computer Centre to be set up to lead NIRF 2018 data compilation and uploading after analyzing the strength and weakness of the earlier years.

**Item No.Q3.16.03: “The Week” Survey:**

The University of Kerala yet again is ranked top in the state in the Survey by “The Week” and has climbed four positions in the Survey. Details are appended as Appendix A3.16.04. IQAC may note:

**Decision:** Noted.

**Item No.Q3.16.04: Report on Online Examination for B.Ed:**

The University of Kerala has successfully conducted first ever online examination for a section of it's students. The students of Fourth Semester B.Ed. Programme gave their exams from centers spanned across various B.Ed. Colleges in Thiruvananthapuram, Kollam, Pathanamthitta and Alappuzha districts. After comprehensive discussion and deliberation, two subjects which were part of B.Ed. Fourth Semester Curriculum, were selected for the conduct of online examination. The two exams were held on two separate days - 18<sup>th</sup> April, 2017 and 4<sup>th</sup> May, 2017 at various centers, under the supervision of University designated invigilators. As per the plan, the exam was held in batches, so as to accommodate all the students who had registered to give the examination. The students were presented with 50 multiple-choice questions, and they were awarded 75 minutes of time to answer them. It was observed that as the questions were of objective-type, most of the attendees were able to finish the exam within the allotted time. The question bank for each online paper was prepared by the Controller of Examinations, which comprised of multiple sets. Every student in the same batch got the same set of questions; however, these questions were re-arranged and were in no common order for any two students. The options were also re-arranged to rule-out any possibility of malpractice during the course of the examination. The students were presented with a very user-friendly interface for writing the exam which supported text in various regional languages like Malayalam, Tamil, Hindi, Sanskrit and Arabic. The user had the option to jump to any question (irrespective of already attended or not), and change the earlier opted answer. The students also had the choice to mark a question for review, and re-visit their answer at a later point of time. Various security measures were also implemented in the website which prohibited unauthorized access from non-intended users. The invigilators also had a login portal using which they could verify the candidate details, and mark the attendance of participating students. Once the attendance is marked, the invigilator will then have to generate login password for the students. The students will have to use this password (shared by the invigilator) to login to the system. The invigilators also have an option to grant grace time to candidates who were unable to complete the test due to some genuine reason. This could be due to unavailability of electricity, network issue, or any other technical error related to the machine in which the test was conducted. The above is an excellent reform in examination system. IQAC may note.

**Decision:** Noted the major steps in on-line exam conduct, and observed that the administrative steps to complete the logistics were yet to be perfected.

**Item No.Q3.16.05: Proposal on Virtual Room for Students:**

Dr. K.P. Jaikiran, Member, IQAC, has put forward the following proposal. A flipped classroom is learning and teaching approach that turns the traditional classroom on its head, in other words, activities that have traditionally taken place inside the classroom now take place outside the classroom and vice versa. For instance, instead of having lectures during session at college/university, students gather information largely outside of sessions, by reading, watching videos and listening to podcast or other audio format. These resources can be created by their lecturers and posted online or they can be selected from an online repository. When students attend sessions, they do what is typically thought to be homework, working with lecturers or peers to solve problems and apply their learning to new Guidebook on flipped learning, 2016 contexts. Flipped classrooms are synonymous with inverted classroom or reverse classroom. In such an environment the role of lecturer changes from being a presenter of the content/facilitator for learning to a learning coach.

Dr. Vivek P.J., a FLAIR Intern working in the Govt. College, Pattambi and trained through one month FLAIR International Internship at the University of Derby is a resource person in this area. It is proposed that a workshop be organized, inviting Dr. Vivek P. J. as resource person. A typical model of a flipped class room is appended as Appendix A3.16.05. IQAC may advice.

**Decision:** Resolved that a note in this matter be circulated to the departments to seek their inputs and thereafter to design and implement the workshop accordingly.

**Item No.Q3.16.06: Patent Awareness Meet Report:**



A patent awareness meet was held on 09.05.2017 as per IQAC decision Q3.15.11. The Vice-Chancellor and Pro-Vice-Chancellor addressed faculty members of Science & Technology Department. Director of Research and Director of IQAC also spoke. All teachers who had filed or processed patents shared their experiences. Certificate of



appreciation were issued to all of them. Two more enquiries were received by office of the IQAC as a result of the above meeting. IQAC may note.

**Decision:** Resolved that one more awareness event may be organized in 2017.

**Item No.Q3.16.07: Annual Consultancy Statement:**

Annual Consultancy Statement approved by the University is enclosed as appendix A.3.16.07. This year the total income is Rs 40,41,876, compared to Rs. 40,88,747 last year. IQAC may note.

**Decision:** Resolved to reformat the report to group together the services of same kind. (The reformatted report is appended as A3.16.07).

**Item No.Q3.16.08: Academic Audit by Sociology Department:**

Even though IQAC has resolved to hold academic audit once in 2 years, Sociology Department has taken a welcome initiative to hold the Academic audit for 2016. IQAC may consider issuing a letter of appreciation.

**Decision:** Resolved to issue a certificate of Appreciation to the HOD and all the faculty members, and to proceed with the biannual audit as decided earlier.

**Item No.Q3.16.09: New Patent Applications:**

An update on new patent applications in 2017 is given below.

Sl No.	Name of Inventors & Title of Invention	U.O No.	Date of Filing	Filing Agency
1	Dr.S.M.A Shibili and Ms Archana S.R: Composite inco-operated Highly efficient and Boi Foulaing resistive Sacrificial Anode	U.O No.IQAC/ P5/318/2016 Dt.19/04/17	4/17	KSCSTE
2	Siji K. Mary and Rekha Rose Koshy: Novel Method of Preparation of Nano Chitin whisker and the Fabrication of Polysacchaired/Protein bionanocomposites (Affiliated College)	NOC issued	04/17	IUCIPRS
3	Dr. V.P. Mahadevan Pillai: Methods for performance enhancement in Excitonic Solar Cells by Plasmonic Blocking Layer.	U.O No.IQAC/ P6/318/2016 dt. 24/05/17	06/17	Puthran & Associates
4	Mrs. Juna Beegom G.R., Dept. of Botany: Anti-HCV Activity of Boerhavia diffusa L.	U.O. No.IQAC/P7/318/2016 dated 27.06.2017	06/17	Not decided.

**Decision:** Noted.

**Item No.Q3.16.10: Report on Hostel Audit:**

A comprehensive Audit of the Hostels has been carried out by IQAC. The report will be tabled. IQAC may approve.

**Decision:** Resolved that the audit report be approved and that the members would point out errors/corrections if any, within 7 days, for incorporation.

**Item No.Q3.16.11: Report on Green Meet:**

As per the decision vide item No. Q3.15.14, Green Squads were formed in each department and a meeting of the same was convened on the 5<sup>th</sup> of May 2017 at Kariavattom Campus. The meeting was a highly successful one and pragmatic action points have been evolved during the same. Report of the meeting is appended as A.3.15.12. IQAC may note.

**Decision:** Resolved that “SUCHITWA” should also be taken up as slogan and that an audit of basic amenities like toilets and restrooms be done.

**Item No.Q3.16.12: Report of First Meeting of Innovation Council:**

Innovation Council set up based on IQAC vide decision Q3.14.08 held its first meeting on 03.02.2017. The minutes will be tabled. Many suggestions have been acted upon. IQAC may note.

**Decision:** Noted.

**Item No.Q3.16.13: Proposal on Starting Community Radio Service:**

The Community Radios are small (lower power) FM radio stations with coverage area of around 10-15 Km radius. Ministry of Information and broadcasting is mandated to grant permissions for setting up Community Radio Stations. Locating CRS in education institutes/Universities can play a symbolic role, mutually benefitting each other. Many prominent Government education centers like IIT Kanpur; University of Agricultural Sciences; Karnataka; Mumbai University, Maharashtra; Sardar Patel University, Gujarat; Jadavpur University, West Bengal; University of Delhi, Delhi and Punjab University, Chandigarh are successfully utilizing this new medium of communication. It has proved to be an effective tool not only for communication with the students, faculty and staff members and their family members within the campus but also with the community surrounding the campus. CR has proved to be immensely helpful to the educational institutions in their academic curriculum as well as towards helping them discharge social responsibility towards the surrounding community. CRS have immense potential to bring about a very significant positive social change at the community level. They cater to the information needs of the people in the local languages and in community decided formats, and also facilitate development within the community members on relevant local issues.

It takes around Rs.24000/- to apply for CR station, the cost of infrastructure is around Rs.10 Lakhs and Govt. can give a grant of up to Rs.7.5 lakhs for purchasing equipment's. Spectrum is a scarce resource and only 3 bands are allotted for Community Radio Service for setting up a CR station. Thus if a University/Educational institution misses out on spectrum allocation, it would not be available for the next 10-15 years.

IQAC may consider steps to be taken to utilize CR station for University of Kerala.

**Decision:** Resolved to authorize the Vice-Chancellor to form a committee<sup>1</sup> to submit a proposal.

**Item No.Q3.16:14: Reporting DSIR Recognition and Steps to be taken:**

The University of Kerala, Thiruvananthapuram is registered with Department of Scientific and Industrial Research (DSIR) vide letter from DSIR No. TU/V/RG-CDE(364)/2016 dated 23<sup>rd</sup> September 2016 for the purposes of availing customs duty exemption in terms of Government notification No. 51/96-Customs dated 23 July, 1996 and Central Excise duty exemption in terms of Government Notification No. 10/97-Central Excise duty dated 1 March, 1997 as amended from time to time. Some of the conditions are as under:

- The institution should have a broad based research advisory committee (RAC), which should meet at regular intervals for approving, guiding and monitoring the ongoing and future research projects.
- The institution should have separate budget for research.
- The institutions should introduce a chapter in its Annual Report dealing with the research & development work. This could contain the on-going research projects, achievements during the year, publications, patents, if any, etc. The R&D income & expenditure should be separately shown in an annexure/schedule in the statement of accounts in the Annual Report.

IQAC may advice action.

**Decision:** Resolved to authorize the Vice-Chancellor to constitute a committee<sup>2</sup> for submitting a proposal in this regard.

**Item No.Q3.16:15: AQAR Uploading:**

AQAR has been uploaded and acknowledgement received vide email No. NAAC/AQAR ACK/APRIL/2017 dated 22.04.2017. IQAC may note.

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<sup>1</sup>Members: Dr, K.S. Sarosh A.P., Dept. of Communication & Journalism, Sri. Lal Mohan A.P., Dept.of Communication & Journalism, Dr. Sindhu Thualseedharan, Dept. of Law

<sup>2</sup>Members: Director of Research, Finance Officer, Dr. Manju S. Nair, Dept. of Economics, Dr. S. Rasia Beegam, Dept. of Commerce

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**AQAR - University of Kerala - 2016**

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CAPU AQAR <capuaqar@gmail.com>

To: "Dr. Achuthsankar S. Nair" <sankar.achuth@gmail.com>

NAAC/AQAR ACK/ APRIL / 2017/

University of Kerala  
Senate House Campus, Palayam  
Thiruvananthapuram  
Kerala

**Subject: Acknowledgement of AQAR**

We are acknowledging the receipt of Online Submission of **Annual Quality Assurance Report** (AQAR) for the year : 2016.

For any queries related to AQAR, you may kindly contact [capuaqar@gmail.com](mailto:capuaqar@gmail.com) or 080-23005165 (Aqar direct help line).

Wishing you success in your quality enhancement process.

THANKS WITH REGARDS  
CAPU-AQAR  
(CENTRAL APPLICATION PROCESSING UNIT)  
080-23005125 / 24  
{Quoted text hidden}

**Decision:** Noted.

**Item No.Q3.16:16: Library Audit 2016.**

The second Library Audit for the year 2016 has been carried out by the Library staff under the guidance of Deputy Librarian (i/c). The report is tabled. IQAC may approve.

**Decision:** IQAC approved the audit. IQAC decided the deputy Librarian i/c of University Library to include Library Utilization Index in the audit next time. It was resolved to send out hard copies of the report to all Libraries. It was also resolved to request the librarian in charge to organize readership promotion activities, especially when Library Utilization is seen low from Library Audit.

**Item No.Q3.16:17: Faculty Development programme for Contract Lecturers.**

There are nearly 50 contract lecturers in the University departments and it is proposed that a one-day FDP be held for them. IQAC may consider and advice.

**Decision:** It was decided that a 2 day FDP be conducted for contract lecturers and a 1 day FDP be conducted for newly recruited faculty members

**Item No.Q3.16:18: Innovation Contest:**

Innovation Contest has been conducted and entries have been received on 10 items. It is proposed that an expert committee to be appointed to evaluate the entries and decide on top 3 positions in each item. IQAC may consider.

**Decision:** IQAC approved the proposal.



## Appendices

### Appendix A3:16:02: Report on Extension Activity

The University Level Committee on extension activities formed by IQAC had resolved to make arrangements for School students to visit University Departments. In this connection a flyer was released by the IQAC for the Schools. The first application in this regard was received from the Principal of Govt. U.P.S, Kariavattom, requesting to make arrangements for the students of the school to visit Oriental Research Institute & Manuscripts Library.

As a result they were invited to visit the university on the 20.06.2017. Transport facility was made available using the University bus service. The students were picked from the school at 10:30 P.M. and were provided with tea and snacks at the Department premises. They were given a warm welcome by the Department authorities lead by Dr. Sainaba M. the HoD of the ORIML. The visit came to an end at 12:30 P.M. and the students were issued with story books, and again dropped at the school in the University bus itself.









## Appendix A3.16.04: The Week Best University Survey Ranklist

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**MULTI-DISCIPLINARY  
UNIVERSITIES**



Rank 2017	Rank 2016	University	City	University Score (out of 1000)
1	1	University of Delhi	Delhi	682
2	2	Jawaharlal Nehru University	Delhi	670
3	3	Banaras Hindu University	Varanasi	620
4	4	University of Hyderabad	Hyderabad	570
5	6	Osmania University	Hyderabad	542
6	7	Aligarh Muslim University	Aligarh	541
7	8	Jadavpur University	Kolkata	540
8	5	University of Calcutta	Kolkata	535
9	10	Jamia Millia Islamia	Delhi	491
10	12	Savitribai Phule Pune University	Pune	479
11	11	Panjab University	Chandigarh	474
12	13	Andhra University	Visakhapatnam	459
13	9	University of Madras	Chennai	455
14	15	Bangalore University	Bengaluru	453
15	16	University of Mysore	Mysuru	445
16	18	Annamalai University	Chidambaram	439
17	14	University of Mumbai	Mumbai	438
18	17	Madurai Kamaraj University	Madurai	436
19	19	Pondicherry University	Puducherry	433
20	20	Manipal University	Manipal	430
21	21	University of Rajasthan	Jaipur	407
22	22	Amity University	Noida	405
23	24	Guru Nanak Dev University	Amritsar	397
24	28	University of Kerala	Thiruvananthapuram	379
25	24	Karnatak University	Dharwad	378
26	26	Visva Bharati	Santiniketan	376
27	27	University of Allahabad	Allahabad	374

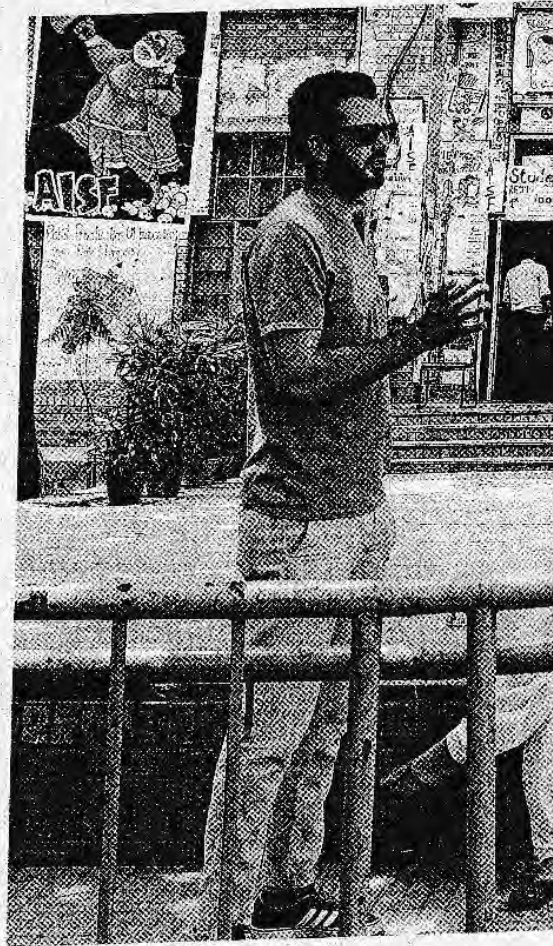
Rank 2017	Rank 2016	University	City	University Score (out of 1000)
28	42	Amrita Vishwa Vidyapeetham	Coimbatore	367
29	23	SYMBIOSIS International University	Pune	363
30	29	Kurukshetra University	Kurukshetra	361
31	33	Banasthali Vidyapeeth University	Banasthali	358
32	31	Gujarat University	Ahmedabad	355
33	30	North-Eastern Hill University	Shillong	354
34	32	Mangalore University	Mangaluru	353
35	34	Dr. Harisingh Gour University	Sagar	352
36	35	Utkal University	Bhubaneswar	351
37	35	Bharathidasan University	Tiruchirappalli	350
38	35	University of Jammu	Jammu	348
39	42	SRM University	Chennai	347
40	39	SNDT Women's University	Mumbai	345
40	38	Guru Gobind Singh Indraprastha University	Delhi	345
40	39	University of Lucknow	Lucknow	345
43	47	Bharathiar University	Coimbatore	344
44	41	Alagappa University	Karaikudi	343
44	46	Goa University	Goa	343
46	42	Sri Venkateswara University	Tirupati	341
47	48	The Maharaja Sayajirao University of Baroda	Vadodara	339
48	51	Kakatiya University	Warangal	337
49	49	The University of Burdwan	Bardhaman	331
50	50	SVKM's NMIMS University	Mumbai	327
51	52	University of Calicut	Malappuram	323
52	53	Shivaji University	Kolhapur	321
52	45	Christ University	Bengaluru	321

GRAPHICS: SYAM KRISHNAN



## BEST UNIVERSITIES SURVEY 2017

Rank 2017 2016		University	City	Score (out of 1000)
52	53	KIIT University	Bhubaneswar	321
55	55	Mahatma Gandhi University	Kottayam	320
56	55	Dr. Babasaheb Ambedkar Marathwada University	Aurangabad	319
57	57	North Maharashtra University	Jalgaon	318
58	57	Jain University	Bengaluru	314
59	57	Dr. D. Y. Patil Vidyapeeth	Pune	313
60	62	Nirma University	Ahmedabad	312
61	60	Bharati Vidyapeeth University	Pune	311
62	63	K L University	Guntur	308
63	60	SASTRA University	Thanjavur	307
64	64	University of Kashmir	Srinagar	304
65	65	Saurashtra University	Rajkot	303
66	67	Jiwaji University	Gwalior	302
67	65	Patna University	Patna	301
68	68	Maharaja Krishnakumarsinghi Bhavnagar University	Bhavnagar	300
68	68	Gauhati University	Guwahati	300
70	72	NITTE University	Mangaluru	299
71	70	Rashtrasant Tukadoji Maharaj Nagpur University	Nagpur	298
72	73	Devi Ahilya Vishwavidyalaya	Indore	285
73	71	Shri Mata Vaishno Devi University	Katra	277
74	75	Babasaheb Bhimrao Ambedkar University	Lucknow	273
75	-	Manav Rachna International University	Faridabad	266
76	74	Chitkara University	Patiala	249



INDIAN  
UNIVERSITIES  
ASPIRE TO BE  
COUNTED AMONG  
THE GLOBAL  
BEST. THEY SEEM  
TO BE ON THE  
RIGHT PATH TO  
ACHIEVE IT

BY VANDANA



## **Appendix A3.16.05: A model of the flipped classroom.**

### **Sample 1:**

## **A model of the flipped classroom planned for an hour session for I Semester B. Sc Botany students of Calicut University, Kerala**

FIRST SEMESTER B. Sc. BOTANY DEGREE PROGRAMME  
CORE COURSE 1- ANGIOSPERM ANATOMY

Code: BOT1B01T

[Total 72 hours: Theory 36, Practical 36]

### **ANGIOSPERM ANATOMY**

Theory –36 Hrs. [2 hours per week]

#### **Module - I.**

##### **1. Plant Cell- Structure**

- A. Cell wall – fine structure of primary and secondary wall; cell wall thickening; Pits - simple, bordered; Plasmodesmata- their structure and function.
- B. Growth of cell wall - Apposition, Intussusception
- C. Extra cell wall materials - lignin, cutin, suberin, callose, wax.
- D. Cell wall properties. 5 hrs.

**Topic:** Plant cell wall, fine structure of primary and secondary wall; plasmodesmata

#### **Outside the class session:**

- Learning resource for students will be provided. For this purpose as an initial approach, a video of a class on plant cell wall from Khan Academy (<https://www.youtube.com/watch?v=zdvKhaQxvag>) was downloaded and will be mailed to all the 25 students of my class.
  - They will be provided with enough time to watch the videos at their own pace or time or wish.
  - Make sure that everybody has the facilities for watching the video.
  - For those lacking internet access at home, it can be done with flash-drives or CDs.
  - In case of those where both the above strategies fail, the video can be made available through Departmental facilities or college computer centre facilities.
- Guidebook on flipped learning, 2016
- Give training for students regarding, how to interpret with the content of the video.
  - Length of the video is sufficient, it is a little over 7 minutes only which is not high for a first year undergraduate student (4-6 minutes is optimum)

#### **During class session:**

- Safeguard that students had watched the videos. It can be checked with some direct question from videos (5 min)
- Make arrangements for somebody not watched yet (5 min)

- Activity 1: Group students into small groups of 4 or 5 and ask individual students to come up with a poster about what they learned from the video. The teacher should guide the progress of each group (15 min).
- Presentation of individual groups and assessment. Assessment of each group is done by the peer group as well as the teaching faculty (25). Format attached.
- Feedback of the seminar (Teacher feedback and peer group feedback) and a small reflection about this approach from students as well (10 min)

**Outside the classroom:**

- Students can utilize the library articles, refer books or can watch more videos for deeper understanding
- Can engage in relevant discussions also

**Appendix A3.16.07:**  
**University Consultancy Cell, University of Kerala**  
**Consolidated consultancy statement for the year 2016**

*To be submitted to the Registrar, FO and IQAC every year, for the previous year by January 31<sup>st</sup>*

Non-Routine						
Sl. No	ID	Consultant	Client	Budget	Income	Remarks
1	2015 C2	Dr. M.S. Jayakumar	GIFT	1,37,400	51,300	Sociology
		Dr. Suhara Beevi		15,000	6,375	Botany
2	2015 C4	Dr. Resia Beegum	Federal Bank	1,12,118	28,030	Commerce
3	2016 C1	Dr. Pramod Kiran	Koffolk, Israel	USD 5000	28,050	Aq. Biology
4	2016C1	Dr. Achuthsankar S. Nair	Ayurveda College	75,000	10,870	Bio Inf
5	2016 C4	Dr. K.S. Chandrasekhar	ASC	5,09,520		IMK
6	2016 C15	Dr. Vinod Chandra	Kannur Uty	25,00,000	25,00,000	
Total					26,18,250	
Routine						
Sl. No	Departments	Client				Amount
1	Computer Centre	AIR				17,922
2	Computer Centre	FLAIR				9000
3	Botany	Various clients (plants identification)				-
4	Bioinformatics	39 Academic Consultancies				91,000
5	Env. Scince	14 Water testing				30,124
6	Arabic	33 Translation				18,800
7	Optoelectronics	304 Field Emission SEM				4,45,700
		229 Energy Dispersion Spectroscopy				88,400
		29 Micro Raman				19,000
		3 UV Visible Spectrometer				600
8	SICC	SPM Lab (Client: Depts)				52,800
		SPM Lab (Client: Colleges)				6500
		SPM Lab (Client: Colleges)				6000
		SPM Lab-RCC				1500
		SPM Lab -IISER Trivandrum				30,500
		SPM Lab - Director, IIST				2000
		ICP-MS Lab (Client: Depts)				95,500
		ICP-MS Lab-JNTBGRI				30,000
		ICP-MS Lab-NIIST-TVM				18,000
		ICP-MS Lab-IISER				2000
		ICP-MS Lab-VSSC				64,680
		ICP-MS Lab (Client: Colleges)				54000
		X-Ray Diffraction Facility (Client: Colleges)				1,00,500
		X-Ray Diffraction Facility (Client: Depts)				1,83,100
		X-Ray Diffraction Facility-IIST				23,000
		X-Ray Diffraction Facility-IISER				6000
		X-Ray Diffraction Facility-Govt. Ayurveda College-TVM				3000
		X-Ray Diffraction Facility-Govt. Ayurveda College-Kannur				4000
		X-Ray Diffraction Facility-NIU				14,000
		X-Ray Diffraction Facility-NIIST				6000
Total					14,23,626	

### **Appendix A3.16.12: Report of Green Squad Meeting**



The 15<sup>th</sup> meeting of IQAC resolved to form GREEN SQUADS in every department to monitor the implementation of Green Charter of the University. All Department were requested to form the Green Squads, nominating members from Students, Researchers, Teaching and Non-Teaching Staff. A meeting of the Green Squad members was organised at the Seminar Hall of the Botany Department on the 5<sup>th</sup> of May 2017. The IQAC had planned the event so as to be an example of how an event can be conducted in a green manner. Recycled envelopes were used for sending out invitations. Tea and Snacks served were ethnic and served in green leaves with no waste caused. Posters made in a very cost effective manner using biodegradable items, without sacrificing appeal, were showcased. As one of the most serious issue that the campus was facing was the heavy usage of polyvinyl flexes, a number of alternatives for flexes were displayed. Color printed paper posters (inkjet printed), Photo glossy color printed papers (digital printed), cloth printed posters and a hand drawn poster (with printed colorful stickers used in minimal areas) were displayed. Mementos to the speakers were wrapped in colorful cloth and tied with cloth ribbons. Bouquets of the traditional style were used.

The meeting was inaugurated by Dr. Joseph Antony Member, IQAC. Dr. Shaji Anirudhan, Member IQAC, and the Director, IQAC spoke. It was followed by sharing of green thoughts by invitees which included Dr. Bushra Beegom (Asst. Professor, Dept. of Sociology and member, IQAC), Sri. R. Dileep (the Joint Registrar, Campus Admn.) Sri. D.N Ajay and Sri. C.K Suresh Kumar, Union leaders representing the Administrative staff of the University, and Sri. Prabhakaran K and Ghosh K.S. representing the student Unions. The afternoon session had a invited talk by Sri. Shibu K. Nair, Programme Director, Thanal and Member, Technical Committee, Tvpm Corporation.



The meeting resolved the following action points:

### Green Action Points:

Avoid: Plastic Files, Plastic Momentos, Plastic Wrapping of Momentos, Plastic Ribbons, Bottled Water, Thermocol Plates, Plastic & paper cups, Snacks brought in Plastic Packing (like biscuits), Packet drinks (like frooti), Costly printed posters, Flex banners, plastic cover for assignments.

### Use:

Banners in cloth, paper, hand-made banners in materials such as jute, thatched leaf, traditional bouquets or handful of Jasmine.

### Green Squad in Departments:

To persuade the above in

- Open defenses
- Seminars
- Get together





