INTERNAL QUALITY ASSURANCE CELL

QUALITY THROUGH CONTINUOUS IMPROVEMENT

UNIVERSITY OF KERALA

75+ YEARS

★ IQAC ★

MINUTES
14TH MEETING OF IQAC (CYCLE 03)

2017 February
Internal Quality Assurance Cell (IQAC)
University of Kerala

Minutes of the Thirteenth Meeting of IQAC, University of Kerala
Contents

Meeting of IQAC, University of Kerala
Venue: Vice-Chancellor's Chamber
Date: 03.02.2017

Members Present:
1. Vice - Chancellor **(Chairman)**
2. Pro Vice - Chancellor (Vice-Chairman)
3. Convener, Standing Committee of the Syndicate on Academics & Research
4. Director, Computer Centre
5. Anoop M. Ambika, CEO & M.D, Cognub-Decision Solutions Pvt. Ltd., Technopark, Tvpm
6. Dr. K.P Jaikiran, Programme Director, FLAIR, Kerala State Sci. and Tech. Museum, Tvpm
7. Dr. Jayachandran R**.,** Associate Professor & Head, Dept. of Hindi, UoK
8. Dr. K.S Chandrasekhar, Professor, Institute of Management in Kerala, UoK
9. Dr. E. Shaji, Assistant Professor, Dept. of Geology, UoK
10. Dr. Mushtaq Ahammed**,** Assistant Professor, IDE(Commerce), UoK
11. Dr. Bushra Beegom R.K., Assistant Professor, Department of Sociology
12. Dr. Shaji A., Assistant Professor, School of Distance Education
13. Dr. Achuthsankar S. Nair **(Director)**

Members Absent:

1. Convener, Standing Committee of the Syndicate on Depts. & other Insts. of the Uty
2. Registrar
3. Finance Officer
4. Vice -Chairman, CSS
5. Chairman, Departments' Union
6. Dr. M. Sarngadharan, UGC Emeritus Professor, 'Saravana', Sreekaryam P.O, Tvpm
7. Dr. Joseph Antony, Associate Professor, Dept. of Political Science, UoK

Item No.Q3.14.01: **Approval of the minutes of the Thirteenth IQAC meeting held on 05.12.2016:** The minutes of the thirteenth IQAC meeting held on 05.12.2016 as electronically circulated to the members, may be approved.

Decision: Approved.

Item No.Q3.14.02: **Action Taken Report (ATR) on decisions of the previous meeting:** As this meeting is called to consider the approval of AQAR for 2016, urgently the action taken report is deferred for the next meeting. IQAC may kindly approve.

Decision: Approved.

Item No.Q3.14.03: <u>Consideration of Annual Quality Assurance Report (AQAR) for the Year 2016</u>: As per the guidelines of the NAAC, IQAC is to compile an Annual Quality Assurance Report (AQAR) and place it before the statutory bodies of the University for approval. The report has been duly compiled and is now placed before the IQAC for its consideration and approval. It may be noted that due to the streamlined data collection system implemented by the IQAC last year, the AQAR compilation was possible without large scale fresh data collection. The AQAR has been verified by the Standing Committee of IQAC. It is placed before the IQAC for discussion and consideration of the approval.

 Decision: IQAC reviewed the AQAR and authorized the standing sub-committee to finalise the AQAR incorporating comments from the members, within 7 days and submit it to the Vice-chancellor for further action.

Item No.Q3.14.04: <u>Reporting of Research Impact of Teachers & Researchers during 2016</u>: <u>Reporting of Research Impact of Teachers & Researchers during 2016</u>: Data on impact factors have been compiled for 2016. The total impact factor shows almost 100% increase. Meanwhile instances of Impact Factor computed by non-reputed agencies have cropped up. IQAC may advise on this matter.

Dept.	Faculty	Impact Factor	Total
Future Studies (9)	Dr. K. Satheesh Kumar (3)	3.40, 2.16, 3.04 = **8.6**	**16.61**
	Dr. Manoj Changat (5)	2.74, 0.32, 0.87, 0.72, 0.62 = **5.27**	
	Tahra Prabhakaran(1)	**2.74**	
Chemistry(32)	Dr. S.M.A. Shibli (6)	3.59, 2.1, 3.59, 3.01, 5, 1.94 = **19.23**	**97.13**
	Dr. T.S. Anirudhan (15)	1.86, 1.49, 3.22, 4.68, 5.31, 4.38, 1.97, 3.78, 4.18, 4.23, 5.64, 1.97, 3.22, 4.69, 3.78 = **54.4**	
	Dr. G. Sony (2)	4.83, 0.69 = **5.52**	
	Dr. Jayasree (1)	**1.4**	
	Dr. A. Deepthi (2)	0.47, 1.16 = **1.63**	
	Dr. Suneesh .C.V (1)	**1.16**	
	Dr. K.N. Rajasekharan (4)	3.29, 0.3, 1.19, 5.4 = **10.18**	
	Dr. K. Mohanan (1)	**3.61**	
Aquatic Bio.(5)	Dr. A. Biju Kumar (5)	1.9, 0.28, 0.99, 2.41, 5.28[*1]	**10.86**
Botany(29)	Dr. S. Suhara Beevi (5)	1.84, 0.99, 1.46, 6.24, 5.3 =**15.83**	**86.19**
	Dr. Radhamany P.M (6)	5.12, 1.79, 5.21, 5.21,2.32, 5.33 = **24.98**	
	Dr. Swapna T.S (4)	6.22, 0.25[*], 5.33, 3.63 = **15.43**	
	Dr. Siril E.A (3)	0.54, 0.5, 2.39 = **3.43**	
	Dr. Bindu R.N (5)	0.5, 0.5, 1.63, 2.37, 2.60 =**7.6**	
	Dr. Ganga Prasad A. (5)	3.45,0.83, 5.33, 0.74, 3.45= **13.8**	
	Rajalakshmi R. (1)	**5.12**	

Comp. Biology & Bioinformatics (8)	Dr. Achuthsankar S. Nair (3)	1.44, 0.56, 0.5 = **2.5**	**16.09**
	Dr. P.R. Sudhakaran (3)	3.12, 0.56, 3.44 = **7.12**	
	Biju V.C (2)	2.52, 3.95=**6.47**	
Zoology(2)	Dr. G. Prasad (1)	**0.55**	**3.27**
	Dr. M.C. Subhash Peter (1)	**2.72**	
Computer Sci.(4)	Madhu S. Nair(4)	0.67, 0.81, 1.1, 1	**3.58**
Geology(22)	Dr. Jyothi Kumari (1)	**2.32**	**49.61**
	Dr. E. Shaji (6)	8.23, 2.74, 2.74, 2.74, 4.03, 4.03= **24.51**	
	Dr. K.S. Sajin Kumar(2)	0.83, 0.6 = **1.43**	
	Dr. A.P. Pradeep Kumar (2)	2.74, 1.24 = **3.98**	
	Dr. V. Prasanna Kumar (4)	2.74, 0.59, 0.59, 3.05 = **6.97**	
	Dr. Rajesh Reghunath (1)	**0.59**	
	Dr. C. Vikas(2)	2.74, 0.59 = **3.33**	
	Dr. P. Pratheesh (2)	2.74, 0.59 = **3.33**	
	Dr. Ajith Govind (2)	0.83, 2.32 = **3.15**	
Statistics (14)	Dr. Yageen Thomas (3)	0.3, 0.3, 0.3 = **0.9**	**7.64**
	Dr. C. Satheesh Kumar (4)	0.3, 0.39, 0.3, 0.78, 0.41 = **2.19**	
	Dr. Manoj Chacko (3)	0.77, 0.3, 0.59 =**1.66**	
	Dr. E.I. Abdul Sathar (2)	2.29, 0.3 = **2.59**	
	Dr. S. Mini Mol (1)	**0.3**	
Environmental Science (6)	Dr. Sabu Joseph (4)	0.5, 1.68, 0.5, 2.07 = **4.75**	**10.62**
	Dr. Salom Gnana Thanga V (2)	2.07, 3.8 = **5.87**	
Physics (6)	Dr. Biju V (3)	4.45, 2.11, 1.90 = **8.47**	**14.74**
	Dr. Subodh (1)	**2.76**	
	Dr. C.I. Muneera (1)	**2.1**	
	Dr. G. Renuka (1)	**1.41**	
Education (3)	Dr. Asha J.V. (3)	0.87, 0.29, 0.29 = **1.45**	**1.45**
Biotechnology (5)	Dr. A. Jayakumaran Nair (4)	0.38, 0.38, 0.38, 1.69 = **2.83**	**4.52**
	Others (1)	**1.69**	
Biochemistry (20)	Dr. Annie Abraham (7)	3.29, 3.05, 2.62, 2.62, 2.32, 2.68, 1.6= **18.18**	**45.11**
	Dr. Mini. S (5)	3.97, 2.32, 2.27, 1.98, 1.2= **11.74**	
	Dr. Helen (5)	2.61, 2.39, 1.98, 2.32, 2.78 = **12.08**	
	Dr. M. Indira (2)	1.24, 0.63 = **1.87**	
	Dr. Aruna Rauf (1)	**1.24**	
Opto Electronics (16)	Dr. V. P. Madhavan Pillai (11)	6.19, 2.05, 3.28, 3.15, 2.02, 1.25, 1.96, 2.32, 2.02, 0.87, 0.74=**25.87**	**35.07**
	Dr. K. G. Gopchandran (4)	3.29, 2.11, 0.97, 2.09 = **8.46**	
	Dr. Sudheer. S. K (1)	**0.743**	
Mathematics(2)	Dr. G. Suresh singh (2)	3.454, 5.09 (IC value)*= **8.54**	**8.54**

All Depts.		183 Papers	411.03
Average			2.24

*Impact factor, GIF taken ICV IF: 5.52; *1 NAAS impact factor; * Mentioned on journal site as IC value instead of impact factor.*

Decision: IQAC resolved to authorize a committee consisting of Director, Computer centre, Dr. K.P. Jaikiran and Dr. E. Shaji to study the matter and submit a revised statement.

Item No.Q3.14.05: <u>Scopus Data on University of Kerala:</u> The data from Scopus for State Universities is placed before IQAC for discussion related to the research performance of University of Kerala. Scopus is the largest abstract and citation database of peer-reviewed literature: scientific journals, books and conference proceedings.

Sl. No.		Kerala	CUSAT	MG	Calicut	Kannur
1	Avg. No. of papers/year(2012-14)	238	336	168	102	51
2	Articles	76.8	73.4	79.6	85.3	72.2
3	Conference Paper	16.2	21.8	10.6	10.2	21.1
4	Book Chapter	1.3	1.8	3.4	1.1	1.3
5	Review	2.29				
Subject Area						
a. Material Science		6.3	16.1	19.3	17.9	11
b. Engineering		8.8	15.5	10.9	5.9	13.7
c. Physics & Astronomy		5.6	15	10.3	17.9	26.9
d. Computer Science		9.1	9.1	3.9	3.2	25.1
e. Chemistry		7.3	8.4	1.3	14	15
f. Mathematics		4.9	5	4.3	3.2	88.1
g. Earth & Planetary Sciences		4.7	4.4	2.9	3.2	3
h. Agricultural & Biology Sciences		6.5	3.7	3	14	3.5
i. Environmental Science		6.3	3.6	5.5	2.6	4.9
j. Biochemistry, Genetic & Molecular Biology		10.2	3.5	6	6.7	18.9

| k. Chemical Engineering | 4.7 | 3.4 | 5 | 0.05 | 9.3 |

Decision: Noted.

Item No.Q3.14.06: <u>**Compilation of Booklet on Scientific Infrastructure**</u>**:** IQAC has compiled a booklet on Scientific Infrastructure of University of Kerala. The same shall be tabled for consideration of approval.

Decision: IQAC approved the report.

Item No.Q3.14.07: <u>**Audit on Persons With Disability (PWD):**</u> IQAC has compiled an audit report on persons with Disability (both students & staff). The same shall be tabled for consideration of approval.

Decision: IQAC suggested that the report may include photographs of facilities such as ramps. The Pro-vice-chancellor suggested the term "Differently Abled" in preference to "Disability." Director, IQAC was authorised to incorporate changes and finalise the report.

Item No.Q3.14.08: <u>**Innovation Council:**</u> IQAC has started some initiatives to promote innovation in University. These include (i) publishing an eBook on "Innovation in University of Kerala" (ii) Designing Kerala University Grand Challenge (it is awaiting confirmation of prize money from Govt. of   Kerala) (iii) Drawing up Innovation and Start up policy (Appendix **A1**). During data collection from teachers (dockets), students (Annual student's survey), research scholars (research student's survey), feedback on innovation is taken. Innovation is yet to catch up as a key word of pride and attention of the academic community as compared to concepts of "Quality", "Research impact", "Extension", "Research funding" etc. It is therefore proposed that a "Kerala University Innovation Council" be formed to lead initiatives to promote innovation. Innovation Council may be formed with following membership:

*Vice- Chancellor (Chairperson), **Pro-Vice-Chancellor** (Vice- Chairperson)*

- *4 Teachers (to be nominated by the Vice-Chancellor after calling expression of interest).*
- *3 innovation activist from outside the University, (to be nominated by the Vice-Chancellor).*
- *3 research scholars (to be nominated by the Vice-Chancellor after calling expression of interest).*

Director, IQAC shall be convener of the Innovation Council. The council may advice IQAC on steps to be taken to promote innovation. IQAC may consider the above proposal for implementation.

Decision: Dr. K.S. Chandrasekhar suggested that an IPR expert as well as a couple of PG students who show promise in innovative projects may be included in the council. Sri. Anoop Ambika offered to provide inputs to the innovation activities. It was also suggested

that guidelines, if any , issued by UGC regarding innovation may be studied. IQAC resolved to authorise the VC to constitute the council taking into account the above points.

Item No.Q3.14.09: <u>Award for Best Faculty Web page</u>: The 12th meeting of the IQAC held on 22.10.2016 decided to constitute an award for the Best Faculty Webpage. In this regard, Circular No. IQAC/1/350/2016 dated 05.01.2017 was issued which invited applications for the same. IQAC has received only one application which will be tabled. IQAC may advice further action.

Decision: IQAC resolved to accept the single nomination as the best faculty page for 2016 and issue a certificate of appreciation. In view of the need felt to enhance faculty web pages, it was recommended the IQAC should organize an IT awareness programe for the faculty, without overprescribing IT in teaching.

Item No.Q3.14.10: <u>Award for Innovation in Teaching</u>: The 13th meeting of IQAC held on 05.12.2016 had resolved to constitute an award for Innovation in Teaching. In this regard, Circular No. IQAC/001/(B)/2017 dated 05.01.2017 was issued. IQAC has received two applications from Dr. Sajin Kumar K.S, Dept. of Geology and Dr. Sreejith Parameshwara Panicker of Dept. of Zoology. IQAC may advice further action.

Decision: The Vice-Chancellor was authorised to nominate a 3 member committee[1] consisting of the members external to the University to decide on the best innovation in teaching**.**

Item No.Q3.14.11: <u>IQAC News Letter:</u> The draft newsletter for the year 2016 was presented before the IQAC. It was resolved that the members may give corrections/suggestions within 7 days.

Decision: It was resolved that the newsletter may be printed in full color. The Director was authorised to submit the proposal for printing to the Vice-Chancellor.

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[1] Dr. C.P. Aravindakshan, Former Principal, Women's college, Dr. K.P. Jaikiran, Programe Director FLAIR,

Appendix A1

Innovation and Start-up policy

Background: In ordinary parlance, innovation is producing "effective products, processes, services, technologies or ideas that are readily available to markets, governments and society" 8. Science, Technology & Innovation Policy of Govt. of India (2013) says: Scientific research utilizes money to generate knowledge and by providing solutions, innovation converts knowledge into wealth and/or value. Innovation thus implies S&T- based solutions that are successfully deployed in the economy or the society. Today many Engineering Colleges across the State are vigorously promoting incubation of industries in the campus. The startup village is coming up in a big way and Kerala is becoming a role model for the country. University of Kerala has a proud land mark in 2006 itself, with a student start-up company successfully incubated in Kariavattom Campus. The rich experience that the University gained and the highly pragmatic scheme that it evolved, are required to be evolved further and strengthened. Being a multi-faculty University focusing on post-graduate teaching and research, the University needs to have a different approach towards innovation and start-ups compared to engineering colleges and specialized Universities. University of Kerala, through its post-graduate research programmes, generates new knowledge which includes invention of new technologies, materials, processes and ideas. The new knowledge is reported in thesis and/or journals. University of Kerala recognizes that efforts are required to create culture of translating them into use, which can potentially create wealth by adding value, solving problems, and creating jobs. This requires subtle efforts and effective plans to identify, encourage and support innovation from ideation to translation. The aim of this policy is to make innovation an integral part of educational practice and embed it in the DNA of University. This is done by creating an ecosystem which enables innovation outcomes in terms of 1) utility driven research 2) industry transferable learning 3) learning collaborations, 4) sustaining start-ups, 5) patents, socially relevant research, and 6) other useful knowledge outputs. For these to achieve, the policy document has architecture of innovation and flowchart for start-ups. Points 1 to 15 of this policy provides for Architecture of Innovation and the rest of the points relate to support for start-ups.

Policy

1. The University shall establish linkages through MOUs with nationally and internationally reputed organizations to create synergy in research efforts. This will horizontally stretch the research activities of the University, opening newer avenues.

2. The University shall compile requirements of industries, organizations and business houses and make the same available to research community to encourage them to take 9

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Drafted by a committee of three members: Prof. J. Rajan, Prof. Ashalatha S. Nair & Prof. Achuthsankar S. Nair. Inputs received from Mr. SanjayVijyakumar, CEO, Startup Village and Dr. Salil S, Education Officer, University Grants Commission New Delhi and Dr. Girish Kumar, Member, Syndicate is acknowledged. 8 Wikipedia accessed on 1 July 2015 Policies and Charters 18 up problems from these. This way, when research efforts produce solutions for real problems, its adoption by industries will be automatic.

3. Each Dept. shall meticulously identify list of client industries/institutions/business organizations/Govt. Departments that might even be remotely interested in utilizing the project/research results of the Department. Every year, an edited summary of all projects at MSc, MPhil & PhD level shall be produced and sent out to these clients.

4. Though every Department can innovate, it is more likely in Science and Technology Departments and also some non-science Departments like Management and Journalism. The initiative to promote innovation shall start with focus on minimal selected Departments, before spreading it to others, to ensure concentrated attention.

5. The approach to processing patents as per IP policy shall be followed in letter and spirit: "University level decision on patenting shall be made liberal to encourage every kind of new idea so that inventers are not inhibited in putting up a proposal for patenting". The University shall take extra care to handle innovative idea generation. Fear for bad ideas and failure, can stifle innovation. Adopting a traditional fault-finding critical attitude can also switch off less-confident innovative thinkers. Teachers shall be trained in this regard. A suitable programme shall be offered in Academic Staff College.

6. Training a selected team of faculty members in Entrepreneurship Development Institute of India (EDI) Ahmadabad and Indian School of Business (ISB) Hyderabad shall be considered. They shall also be enabled to visit Start-up village, Kochi, Indian Institute of Management (IIM) Bengaluru and Centre for Innovation Incubation and Entrepreneurship (CIIE) of IIM Ahmadabad which have incubated more than 100 Companies in a short span of time.

7. Research guides and students shall be trained and encouraged to generate 'useful' knowledge instead of generating unplanned academic new knowledge, to enhance the potential of the University. The University shall provide an effective awareness and training programme in innovation to all faculty, researchers and students. This shall not be limited to scholarly lectures, but involve actionable knowledge like TRIZ problem solving methodology, creative thinking, patent process, patent claim writing etc.

8. In due course, the University shall also engage itself with new ideas of innovation such as open innovation.

9. Most post-graduate researchers and PhD scholars aim for research publications and not patents. They shall be given effective awareness about patenting and the benefits it offers in a knowledge economy. Also, as soon as patent is filed, they can publish also. Other methods of promoting patent culture by reckoning them in evaluation shall be considered.

10. The University shall identify even remotest scope for innovation in MSc, MPhil, PhD projects of last 3 years. The students and/or guides shall be supported to try patenting them. Budget shall be ear-marked for them and single-window, time-bound processing shall be implemented.

11. A panel of patent Attorneys shall be drawn up by the University. Rates shall be negotiated with them and the details communicated to the Departments, so that they can engage any one of them for the filing process. The expenses for filing shall be met from DDF/Project funds, if available; otherwise University shall provide the same. Annual budgetary provision shall be made for this. Similarly, panel of chartered accountants, legal advisors and management experts with consultancy rates shall be drawn up.

12. In addition to linking up with industries and transferring technologies and solutions to them, researchers and students of the University shall be encouraged to launch student start-ups in the campus with support from the University. The University of Kerala has an Industry Incubation Cell (IIC) launched in 2006 (PlA/418/2006 dated: 14/06/06), it shall be reviewed and strengthened. A full time Director for IIC or "Technology Business Start-up Center" and a dedicated full-time team to administer it shall be provided.

13. Students interested in entrepreneurship shall be identified through a survey in the beginning of their studies and research and they shall be encouraged to orient their studies and project.

14. The University Entrepreneurship Development Cell shall provide entrepreneurship training to needy students. The cell shall also run such training programmes for alumni of the university, in addition to programmes open to the public.

15. Under the Choice-based credit system, encouragement shall be given to all students to take electives such as entrepreneurship or on subjects related to their business plans. Negotiated electives shall be implemented for this. Recognizing MOOC credits also shall be considered by the University.

16. The University shall enable students to develop their ideas and their products at recognized Technology Business Incubators (TBIs) in Kerala, approved by National

Science & Technology Entrepreneurship Development Board (NSTEDB), Department of Science and Technology(TBSC), Govt of India: Technopark TBI, Thiruvananthapuram, NITK-TBI, Kozhikode, ITIH TBI (Start-up Village), Kochi, College of Engineering TBI, Thiruvananthapuram, Amritha TBI, Kollam, Central Institute for Fisheries Technology TBI, Kochi, NRI TBI, Kollam, Kochi & Kozhikode

17. The Kerala University IIC shall seek the status of Technology Business Incubator (TBI) with Department of Science & Technology, Government of India, at the earliest.

18. Students shall be enabled to visit TBIs and also connect or base their project, seminars etc. at TBIs.

19. The IIC shall provide support to every Dept to take up student start-up proposals. Each Dept shall provide space for student-start up in their own premises until IIC builds up a central facility

20. Student start-ups shall be processed as per the following flow chart:

Student entrepreneur(s) have a potential idea to launch a business operation. Initial focus is on Knowledge-based industries.
They approach the Industry Incubation Centre with an informal statement of purpose, after brain storming & consultations at their own level.
An expert committee consisting of technocrats, subject experts, management experts, company secretaries does brainstorming with proposers.
A comprehensive project proposal is evolved with free assistance from consultants arranged by the Industry Incubation Centre
After approval by the expert committee, the entrepreneur is given approval to move into minimal incubation facility at Industry Incubation Centre at token rent, where they can enhance the proposal, conduct further market survey, draw up detailed business plan and also explore venture funding
Registration of the company and MOU with University finalized with assistance from Industry Incubation Centres consultants
Company starts operations at Industry Incubation Centre. It shall, on an MOU with University utilize University's facilities and also outsource work to University Departments.
As company matures, rental is increased in steps to market rates. Companies may choose to come out of Industry Incubation Centre and operate outside.

21. Students Start-ups shall be registered as per applicable laws of the land. The students/their assignees shall enter into an agreement with the University to the effect that (i) They shall abide by all terms and conditions to be stipulated by the

University in this regard (ii) They shall not involve the University in any legal dispute or financial liability arising out of the business operations (iii) all intellectual property issues shall be mutually agreed on (in case of usage of any facilities other than unfurnished space), failing which such intellectual property shall vest with the University.

22. Student start-ups can, based on the MOU with the University, have at their disposal the services of any faculty member of the University or any instrumentation or other service facility as per consultancy guidelines of the University. The student start-ups can claim the availability of these facilities in their promotional literature and websites.

23. The University shall fix a nominal rental for the incubation facility which shall be maximum of 25% of the existing average commercial rates (excluding Technopark), for the first 6 months of operations. The rates are to be enhanced to be on par with the existing average commercial rates (excluding Technopark), for the next one year of operations, and for each year thereafter, the rates shall be enhanced unilaterally by the University (the idea being to encourage the startups to move out). Electricity, Water and Net charges shall be borne by the business concern. For any other facility of the University used by the companies, mutually agreed rates were to be arrived at first before utilization and the same was to be remitted to the university on a monthly basis.

24. If the company has been in existence for more than 3 years, and has mode a working profit in the 3rd year, it was to remit to the University twice the difference in rent from commercial rates for the first 6 months, or 25% of its net profit, whichever is higher. For the first 5 years during the operations within the campus and/or outside the campus, the business concern was required to undertake to train/permit project work of the sponsoring Departments or institutions, for a mutually agreed number of students, for no charges, except consumables.

25. "A Manual of Enterprise Creation and Scaling up of Start-ups" shall be drawn up, to deal with start-ups and its relationship with university, association with other professional bodies, norms of financial commitment and other similar details. Financial matters including cost-sharing, revenue-sharing, and loss-bearing scaling up, form of company etc. In addition to current students, alumni who had their studies/research within the last 3 years shall also be eligible for start-ups.

26. To encourage women founders for start-ups, university shall devise special incentives. When faculty identifies entrepreneurial female students, they shall be encouraged to consider entrepreneurship as a rewarding career path. Partnering with women mentors in respective fields, conducting workshops on women entrepreneurships,

exclusive women business competition, easier access for funding and sponsored programs for basics of setting up business shall be considered for this.

27. The University shall provide 4% grace marks (already implemented-see Appendix 1) to students involved in start-up in the prescribed manner, as per guidelines of the entrepreneurship promotion scheme of Govt. of Kerala.

28. The University shall consider giving leave for students and research scholars and faculty who wish to spend full-time on student start-ups.

29. The IIC shall take steps to support student entrepreneurs to utilize the enabling schemes and facilities offered by Govt of Kerala as per its startup policy (These are appended to this policy-Appendix 2). In particular, the schemes offered by Start-up Village and Technology Incubators shall be supported.

30. The University shall document all attempts at innovation & start up to share experience for future players. The University shall maintain a Start-up pad in its web page with Policies and Charters 22 reading materials, a few case studies, basics of financials for start-up, general pitfall, links to relevant free MOOCs from Couresra and Edx and few video links like TED.

31. The University shall make effective interventions in curriculum development processes so as to ensure that the whole curriculum dovetails with this policy.