TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME
(TEQIP)

(PHASE-II Cycle-2)

INSTITUTIONAL DEVELOPMENT PROPOSAL (REVISED)

for

Sub-component 1.1: Strengthening Institutions to improve Learning Outcomes and Employability of Graduates

COLLEGE OF ENGINEERING KARUNAGAPPALLY

(Managed by IHRD, Established by Govt. of Kerala)
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1 Institutional Basic Information

THE COLLEGE AT A GLANCE

College of Engineering, Karunagappally was established by the Government of Kerala, under the aegis of Institute of Human Resources Development (IHRD) during the year 2000. The College is situated at Thodiyoor Grama Panchayath in the North Western part of Kollam District of Kerala State. The scenic and eco friendly campus spread over in 22 acres provides a serene atmosphere conducive to learning. The basic academic philosophy of the Institution is to offer premier professional training with an eye on the modern developments in Electronics and Information Technology.

This institution is approved by AICTE and is affiliated to the Cochin University of Science & Technology. The college offers the following UG & PG programs.

B. Tech. in Electronics & Communication Engineering

B. Tech. in Computer Science & Engineering

B. Tech. in Information Technology

B. Tech. in Electrical & Electronics Engineering

M. Tech. in Computer Science with specialization in Image Processing

M. Tech. in Signal Processing

The courses offered are designed to cater to the industry's urgent demand for skilled professionals and with a vision to create engineers having the drive, skill, and confidence to become the pioneers of tomorrow. Unique in its structure, methods and goals, the college is strongly rooted in a philosophy of training and research that emphasizes the intimate relationships between knowledge and its application and seeks to promote the creation of an ideal society. The institution is maintaining a healthy pass percentage in the previous years, which is comparable with the other self-financing institutions of Kerala.

College of Engineering Karunagappally is located in the coastal area of Kollam District. The presence of college helps the people to conceive the need of technical education in the modern era and helps them to improve the standard of living. The college has implemented various skill development programs for women in the village, as part of the women empowerment scheme of the Government of Kerala. Through this program, the women were trained for starting new job

preparedness in the field of electronics and computer maintenance and servicing. The college has conducted training programmes for school children in familiarization of electronic equipments, for PWD staff and health department staff in different software skills. Under MODROBS scheme of AICTE the institution had received a grant of Rs.65 lakhs from 2011 to 2014 for modernizing Electronics project lab and Computer lab.

The college has highly competent faculty, comprising of many members with more than 15 years of teaching experience especially in the fields of Electronics and Computer Engineering. Faculty members show keen and sustained interest in enriching their technical and academic capabilities. Students are encouraged to present their research oriented works in various national and international conferences and journals. There are many instances of our students securing top positions in the University. After periodic analysis of the student performances, a team of faculty members provide necessary counselling to the needy students to overcome their difficulties in the areas of study skills, attitudes and emotional intelligence.

The institution is having a built-up area of 6300 m^2 which includes fully equipped state-of-the-art laboratories, for catering to the students' requirements to gain practical knowledge apart from the theoretical knowledge. Construction of another academic block with an area of 3000 m^2 with the financial assistance of NABARD under RIDF scheme will be started soon. There is a vast collection of books for technical reference and knowledge enhancement spanning from the core fields of technology to other miscellaneous areas like management which are constantly updated. Student Chapters of IEEE, ISTE, CSI and technical associations of various departments are effectively functioning through regular activities like technical seminars, symposiums, workshops etc. The Placement Cell is consistently striving to enhance the quality education and placements at the institution. Various seminars are being organized at regular basis for the students to improve their communication skills and personality. The college has a strong and active PTA.

1.1. Institutional Identity

Name of the Institution	: COLLEGE OF ENGINEERING KARUNAGAPPALLY
Is the Institution AICTE approved?	: Yes.
Furnish AICTE approval No	: South-West/1-2017596760/2014/EOA, Dated 04/06/2014.
Type of Institution	: Govt. funded Institutions.
Status of Institution	: Affiliated to Cochin University of Science and Technology.
Name of Head of the Institution	: Prof. Hari V S.

1.2. Academic Information

Engineering UG and PG programmes offered in Academic year 2011-12:

Sl. No	Title of Programmes	Level (UG, PG, PhD)	Duration (Years)	Year of Starting	AICTE sanctioned annual intake (2008-09 onwards)					Total student Strength
					10-11	11-12	12-13	13-14	14-15	
1	Computer Science and Engineering	UG	4	2000	60	60	60	60	60	240
2	Electronics and communication	UG	4	2000	60	60	60	60	60	240
3	Information Technology	UG	4	2000	45	45	45	45	45	120
4	Electrical and Electronics Engineering	UG	4	2011	-	60	60	60	60	120
5	Computer Science (Image processing)	PG	2	2011	-	18	24	24	24	48
6	Electronics (Signal Processing)	PG	2	2012	-	-	24	24	24	48

2. Institutional Development Proposal

2.1 Executive Summary of the IDP

2.1.1 **College of Engineering Karunagappally (CEK)** was established by the Government of Kerala, under the aegis of Institute of Human Resources Development (IHRD) during the year 2000. The basic academic philosophy of the Institution is to offer premier professional training with an eye on the modern developments in Electronics and Information Technology. This institution is approved by AICTE and is affiliated to the Cochin University of Science & Technology. The college offers Under Graduate programmes in Computer Science & Engineering (**CSE),** Electronics & Communication Engineering **(ECE),** Electrical & Electronics Engineering (**EEE**) and Information Technology (**IT**). The Masters Degree Programmes offered by the college are M. Tech. (Electronics) with specialization in **Signal Processing** & M. Tech (Computer Science) with specialization in **Image Processing**. The institution is maintaining a healthy pass percentage in the previous years, which is comparable with the other self-financing institutions of Kerala.

2.1.2 The college has highly competent faculty, comprising of many members with more than 15 years of teaching experience especially in the fields of Electronics and Computer Engineering. Faculty members show keen and sustained interest in enriching their technical and academic capabilities. Fully equipped laboratories, for catering to the students requirements to gain practical knowledge apart from the theoretical have been provided in the college. There is a vast collection of books for technical reference and knowledge enhancement spanning from the core fields of technology to other miscellaneous areas like management which are constantly updated. Further, to improve the overall learning outcomes and employability of graduates it is proposed to give an added emphasis on faculty/staff development and strengthening of laboratories. In addition to this, the central facilities like central computer centre and the central library needs to be modernized with modern hardware, software, learning resources, fast internet connectivity etc.

2.1.3 In TEQIP -II, Sub-component 1.1, the proposal envisages to achieve excellence by improving learning outcomes and employability of graduates, thereby fulfilling our

vision to evolve into a contributing center of Excellence in knowledge and Technology.

2.2 Objectives of IDP

To upgrade the institution to a frontline institute and a centre of excellence in order to impart the best knowledge and expertise in the fields of engineering and to produce World class Engineers for converting global challenges through "Value Embedded Quality Technical Education" and also to develop this institution as an academy of higher learning in the field of Engineering and Technology.

❖ **Academic Excellence**

Academic excellence in the field of engineering education is the primary concern. This is intended to achieve by uplifting the present infrastructure and making available highly qualified and competent teaching faculty. The concerned university will be entreated to upgrade the syllabi to meet the new challenges and hence to enhance the academic standard in engineering education.

❖ **Interaction with fellow institution**

One of aims of the IDP is to share expertise and infrastructure with fellow engineering educational institution in order to achieve excellence. This is a give and take policy of high standard education which will be implemented by mutually exchanging teachers and students and by making use of the best infrastructure on both ends.

❖ **Social commitment**

The ultimate is to inculcate professional ethics into the minds of the engineering in order to make them aware of their social commitment. The building engineering students should come out with an enthusiasm to serve the public while serving themselves. Various projects will be initiated to improve the quality of living of the people surrounding the college.

The strategic plan given in this proposal is strongly linked to the specific Strengths, Weakness, Opportunities and Threats of CEK derived by a systematic SWOT analysis. **The key activities proposed to meet the above objectives include:**

- Strengthening of existing PG programmes

- Commencement of new PG programmes
- Up gradation of library and laboratory resources
- Enhancement of industry linkage programmes
- Faculty enrichment by national and international training and qualification up gradation
- Skill development for Students.
- Finishing school to increase employability and to satisfy industry-specific requirements

Specific action plan for all the above activities for the remaining period of the project ie from May 2015 to October 2016 of the project period has been incorporated in the revised proposal. The fund utilization for the remaining project period is scheduled by taking into consideration of the strengths and weakness of the institution. So far an amount of Rs. 5.42 Crores has been spent for various activities and the remaining Rs. 4.58 Crores will be spent as per the following Table. A The estimated financial requirement for the effective implementation of the proposed quality improvement plan is Rs. 10.00 Crores. The Year wise plan is also prepared for the same.

Table A: Fund utilisation for the remaining project period

Financial Year	2015-16	2016-17	Total
Budget (in Rs. Crores)	2.75	1.83	4.58

3. SWOT Analysis

3.1 Procedure for SWOT Analysis

The college realizes the need for strengthening its activities to improve the learning ambience, the teaching learning process, improved interaction with industry, research by faculty and employability of the students. This proposal has been prepared with the objective of elimination of its weakness while further consolidating its strength based on a SWOT exercise. Following the SWOT exercise, an action plan was formulated, keeping in view the TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME- Phase II:

Subcomponent 1.1. framework. The SWOT analysis undertaken earlier has been suitably updated keeping in mind two years of TEQIP-II activities at the institute.

.Methodology

The methodology adopted involved in conducting brainstorming sessions with students, members of faculty and staff. Questionnaires were distributed to assess the strengths, weaknesses, opportunities and threats.

Strengths

- Sufficient land is available for future development.
- State of the art laboratory equipment, good library facilities, smart class rooms.
- Meritorious students admitted through centralized admission process.
- Committed, motivated and trained faculty and staff
- Periodically updated curriculum once in every four years.
- High speed internet connectivity through National Knowledge Network (NKN).
- Harmonious relationship with staff, students and parents.

Weaknesses

- Insufficient fund for Development and Training.
- Low percentage of campus placement.
- Some of the senior faculty positions are vacant.
- Poor alumni interaction.
- Lack of entrepreneur orientation in the existing programs.
- Inefficient quality control measures.
- Less academic freedom. Examinations are conducted by University.
- Sports and other cultural activities to be enhanced.

Opportunities

- Excellent demand from the society for training
- A new block with an area of 3000 sq.m is progressing
- High demand for skill and personality development programmes.
- Opportunity for establishing tie-up with highly recognized research and academic institutions.
- Tie-up and collaboration with industries such as KMML, IRE, IT parks (Kundara and Thiruvananthapuram) and NTPC.
- Strengthening the existing and addition of new PG courses will enhance the scope of research.

- Doctoral degree programme can be started.
- Demand for self employment.

.Threats

- Lack of funds for providing more facilities for innovative research.
- Inability to start innovative and need based programmes.
- Greater competition from the private sector.
- Rising establishment expenses.
- Decreasing demand of Information Technology
- Lack of academic flexibility as the institution is not autonomous

3.2 Strategic Plan

The strategic plan for the development of the institution is derived from the following observations in the SWOT analysis. But lack of funds has been a major hindrance for training, modernization and setting up of new laboratories in College of Engineering, Karunagappally. Limited interaction with industry and less number of faculties with industrial experience are also observed as weakness. Lack of research activities and consultancy services are also regarded as weakness. By analyzing the SWOT, 4 strategies – SO strategy, WO strategy, ST strategy and WT strategy – are developed for the institution and are summarized.

The strategic plans thus identified on the basis of SWOT analysis are given below.

S-O STRATEGIES		W-O STRATEGIES	
1	Emphasis on research both at PG and PhD level.	1	Procure sophisticated equipments and improve lab facilities in thrust areas.
2	Student and faculty exchange programmes	2	Devise avenues to retain academically potential faculty, and enable the use of creative student potential
3	Effective teaching with smart classrooms and more ICT facilities	3	Become an autonomous institution, financially and academically
4	Catering for the demand of industry centric specialized workforce	4	Adequate training programmers for staff and students

5	Active and effective involvement in implementing government programmes for rural development through technical trainings for women and the weaker section of the community	5	Add new UG programs in Core Engineering subjects and PG Programs
S-T STRATEGIES		**W-T STRATEGIES**	
1	Incentive for faculty doing, research and R&D work; conducting remedial classes	1	Library facilities should be improved. Procure more text books and subscribe to more number of online International Journals
2	Academic autonomy should be obtained at the earliest	2	Finishing school should be started to improve the soft skill of students
3	Faculty development for effective teaching and research competence	3	Explore the possibility of entering into collaboration with R&D Institutions and Industry
4	Regular updation of lab cycles and improvisation in lab equipments and the design of new experiments	4	Regular orientation courses on emerging trends in job markets to strengthen the placement activities.
5	Starting of add on courses with practical orientation.	5	Raising funds from government agencies, starting new courses, consultancy and government funded projects.

It is observed in the SWOT analysis that the institution has the opportunity for the enhancement of research. Plans are based on the objectives of the institution and they set up the best procedures for reaching them. Long term plans may cover periods as long as five or ten years. On the other hand, the short-range plans may be for a period of two to three years. The elements included in planning function usually interact with each other and hence require utmost focus. The input in developing strategic plan includes, SWOT analysis, details of physical resources, human resources, budgetary constraints, and also the current trends in the industry.

As far as the current trend in industry is concerned, with the increase in automation, India is emerging as the global hub for the production utilizing the latest electronic technologies. Boom in

infrastructural developmental projects with automated supports and logistics industries based on information technology is noteworthy. This assures under graduate and post graduate students better placements. Another important factor is the demand for more research facilities in Engineering and technology in the state and country to bridge the gap between supply and demand of Engineering Post Graduates and Ph.D's. As the institution is having a pool of well qualified and experienced faculty, the same may be tapped to equip the institution with courses and research opportunities in most demanding areas. Considering all the above inputs along with the SWOT analysis the strategic plans – both short term and long term are developed.

Long Term Plan

Become centre of excellence in the field of

- Electrical and Electronics Engineering
- Signal Processing especially in the nonlinear signal processing
- Computer and Information
- Medical Image processing
- Computer Science
- VLSI and embedded systems
- Cater to the needs of the society in the areas of our expertise
- Establish as a patron of open source computing
- Run UG and PG programmes in the areas relevant to the times.

By 2020, the institution will be in a position to carry out the above specific objectives.

Plan for 2015-2017

- New PG programmes will be started in the fields of
  - VLSI and Embedded systems.
  - Computer and information Science
- More strengthening of existing Laboratories
- Promote research among Faculty, UG & PG students by providing financial aid for
  - Paper presentation and live projects.
  - More Industrial interaction
  - Research oriented Projects.
  - Include students in funded projects.
  - Enhancing the facilities of UG lab to undertake research oriented projects.
  - Furnishing the labs, class rooms and faculty rooms.
  - Training faculty in the areas of pedagogical methods, research methodology, and subject. Knowledge up-gradation and management capacity development.
  - Deputing faculty for Masters / Doctoral programmes.
  - Promoting Publication & patents.

- Developing learning resources.
- Publishing books.
- Obtaining NBA accreditation.
- Setting up of language lab.
- Conducting remedial programmes for weaker students.

After 2017

Revenue generation for the sustainability of established PG and Research Labs by

- Encouraging Faculty to undertake Funded Projects.
- Encouraging faculty to undertake consultancy works.
- Conducting training programmes for other institutions.

- Extending the facilities acquired at nominal rates (rental) to industry/society.
- Empowerment of other institutions in the similar areas of technical Excellence.
- Emerge as a nodal institution to co-ordinate academic activities in the cluster institutions.
- Produce patents and publications in the areas of excellence.
- Create environment for the students to become entrepreneurs.
- Establish an entrepreneurship development cell acting as a launch pad for various start up.

The Strategy of the college is based on utilizing its strengths to harness the opportunities available and to overcome the threats that exist. In this process the college would endeavor to overcome its serious weaknesses. The college should make use of its strengths of good reputation, linkages with industry, good motivated and qualified staff to start new PG programmes. The opportunity of more students seeking PG and research education has to be made use of. It can then motivate some of its good UG students to enroll for PG and research programmes. The proximity of the college to industries and research organizations can be utilised to send the students for project works and internship, thereby minimising the industry-institute gap. The threat of other institutions forging ahead if the college does not focus on research and related activities has been recognized.

With the help of TEQIP fund, we expect the following outcomes:

* By 2015, the institution expects to stabilise PG programmes.

* A strong relation and functional bonds with leading research organisations.

4. Revised IDP

4.1. SPECIFIC OBJECTIVES AND EXPECTED RESULTS

4.1.1 Development of strategic objectives.

Based on the SWOT analysis strategic objectives have been devised to address the weakness and threats identified in the analysis. An operational plan to achieve the objectives is also devised. The specific objectives, expected results at the end of the TEQIP-II project, current status and action plan are detailed below

1. Improving Employability and Learning outcomes of Students	
Specific Objectives	• Improving the pass percentage of the students • Improving the pass percentage of OBC and SC/ST students • Improving the placement rate • Improvement in Higher studies • Enhancement in interacting with the industries and software companies to attract them to the college for the purpose of placement. • Improving technical expertise and soft skills.
Expected Results	• Improvement in pass percentage to 70% • Improvement in placement rate to 70%
Current Status	• The results of higher semesters are improved • IIIC activities improved • More Students qualified for Interviews
Action Plan	• Weak student to be identified on the basis of performances in tests/counselling. • Remedial teaching for weak students. • Grouping the students for active discussions and self learning. • Strengthen the career guidance programme. • Providing language lab and improving the communication skills of the students • High Intensity Programmes

2. Start New PG Programs	
Specific Objectives	• Start new PG programs in high demand areas • Offer teaching assistantship to non-GATE/non sponsored PG students • Modernization of existing lab facilities
Expected Results	• Number of PG to be produced per year: 96 • Number of International Journal to be produced:35
Current Status	• New PG Programmes not started due to policy change of AICTE • Assistantships being given for students of existing PG Programs • Lab Facilities improved • Total International Journal Publications up to current academic year : 21
Action Plan	• Steps being taken to obtain NBA Accreditation to start new academic programmes • Expedite construction of new Academic block

3. Staff Development Programme	
Specific Objectives	• Improving competency of faculty and staff • Creating Technical experts • Empowering faculty for taking up research-consultancy projects. • Improve Management Capacity
Expected Results	• Experts in different fields • More number of research papers • More number of research projects • Increase in IRG • Improvement in Planning and Development
Current Status	• Number of FSD conducted and staff attended training programmes • Principal and HODs attended MDPs • Number of Publications improved • No Incentives for consultancy or R&D at present

	• 8 proposals are ready for submission to external funding agencies
Action Plan	• Sponsoring faculty for attending reputed conferences. • Training in the subject domain. • Training in Academic Administration. • Training for Administrative and support Staff. • Managerial Development Programme for senior faculty members. • Association with professional bodies • Qualification up gradation

4. Boosting Industrial Consultancy and R&D activities	
Specific Objectives	• Undertaking consultancy and sponsored research • Research Center in CS and EC before the end of the project • Undertaking testing and certification work • Internship for students • MoUs with industries
Expected Results	• Innovative R&D and consultancy projects • Increased IRG • Increased number of publications • Increased number of patents • Improved interaction with industry
Current Status	• Seed Money granted – Rs.8 Lakhs • Testing of Lamps is being done • Project proposals for Rs.80 Lakhs will be submitted to funding agencies soon • 6 MoUs signed • Students attended internship • Publications improved
Action Plan	• As followed now, involvement of RGC will be followed • Seed money to faculty • Conduct workshop for awareness on Patent laws and

	Procedures • Establish Research Centre of the newly started Kerala Technological University • Motivate the faculty to do PhD

5. Assuring Equity	
Specific Objectives	• Conduct of remedial classes • Conduct of personality improvement, soft skills development programmes • Strengthening counseling cell • Provide Finance assistance/scholarship for non-GATE students
Expected Results	• Overall personality development of students • Increase in pass percentage and placement of students
Current Status	• Pass percentage of higher semesters improved by conduct of remedial classes for weaker students • Placements improved , Employability improved • Counselling provided for needy students utilizing TEQIP Funds • Non GATE scholarship instituted using TEQIP funds.
Action Plan	• Accommodating students peers in training and academic support with support from professional bodies in college • Practices followed will be continued. • In campus support for competitive examinations • Faculty will be trained in aspects of counselling.

6. Institutional Reforms	
Specific Objectives	• Accreditation of Eligible programmes • Curricular reforms • Performance evaluation of faculty • Obtaining Autonomy

Expected Results	• Accreditation of eligible programmes • Academic Autonomy • ISO Certification
Current Status	• Applied for accreditation of eligible courses • Application forwarded to UGC by CUSAT for autonomy
Action Plan	• Workshops in connection with accreditation • ISO certification • Workshops for curriculum revision

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4.2. Action plan

4.2.1 Improving employability of graduates.

1. Modernizations in courses and labs.

In the existing UG and PG courses four core areas that offer highest employment are listed out as below and the modernizations proposed are listed under each heading.

Software Development.

i. A central computing facility with 200 Intel machines with Windows and Red Hat Enterprise Linux communicating with an IBM X server connected to internet by NKN is to be set up.

ii. MSDN Academic Alliance Campus Agreement and major software tools used in the software industry need be installed.

iii. Students and faculty are to be given training in software development.

2. Improving Soft Skills

It is observed that many students with enough technical knowledge fall behind in selection interview due to their inability in expression. To surmount these difficulties, the following are proposed.

i. Establishment of a language lab in the proposed central computing facility.

ii. Extensive training to students in public speaking, debates and group discussions.

3. **Strengthening of Placement and Training Cell**

The Placement and Training cell is to be strengthened by

i. Furnishing its office.
ii. Providing office equipment like fax machine, photocopier, printer, laptop etc for smooth functioning.
iii. Providing more facilities for conducting interviews, group discussion and debates.

4. **Improved Industry Interaction**

The working environments in the industry can be familiarized to students by

i. Guest lecturers from industry.
ii. Industrial visits.
iii. External projects in industry.

4.2.2 Increased learning outcomes of the students

The learning outcome of the student is specified by the scheme and syllabus of a particular course. Often the end of the course assessment shows a dismal picture of incomplete learning undergone by major share of the students. Thus efforts to improve the learning outcome need to be evolved for the large cross section of student community. The primary intervention required for improving the learning outcome is through effective design of assignments and other course works. Often the course works and assignments are delivered in a conventional mode across most of the branches of the study. The specific interventions proposed to improve the learning outcomes of the students are:

- Identification of weak students.
- Enhanced teaching and learning recourses for better pass percentage.
- Training in key areas for better placement.
- Feedback from students for identification of pitfalls in teaching.
- Implementation of teacher evaluation schemes.

❖ **Modernizing curriculum**

The curricula need to be modified considering the demand of technological advancements, industry requirements and social commitments. So the institution should determine its own curricula, course content, curricula implementation and methods of training. Flexibility in the

choice of elective courses will help the students in getting oriented towards a particular field of interest. The institution will be able to effectively revamp the curricula once it becomes a constituent college of the proposed Technological University.

ICT based learning and e learning techniques are to be included. New techniques like peer learning, group learning, and peer assessment can increase the learning outcomes.

- **Infrastructure improvement**

While restructuring of curricula, modernization of existing laboratories and establishment of new labs becomes essential. Smart digital class rooms are to be developed. With improved campus connectivity, E learning and ICT based learning practices should also be emphasized.

- **Training for faculty**

The teacher training sessions with the significant emphasis on the assessment design and course planning is necessary. These would be able to identify the learning outcomes for every course delivered for each semester/year. All the activities for that particular course could be designed to achieve the proposed learning outcome.

Faculty should also be trained for pedagogy and their area of interest/ specialization. Faculty should be made aware of new learning techniques like self learning, participatory learning and group learning.

- **Innovation workshops for students**

As the students are subjective to conventional classroom learning environment, the teacher plays a critical role in their learning process. Using the innovation workshops, the students would be able to develop skills for critical thinking and evolving innovative self learning exercises to make the engineering education more purposeful.

4.2.3 Obtaining autonomous institution status within 2 years

Presently, the institution is operating in autonomous status under the Institute of Human Resources for Development (IHRD), Govt. of Kerala and the present Board of Governors is common to all the institutions under IHRD. Minister of Education of Kerala State is the Chairman and the State's Higher Education Principal Secretary is the Vice-Chairman of BoG. As per the directions of the SFPU, a separate BoG for implementing the TEQIP project has been constituted as per AICTE/UGC Norms.

The four autonomies to be obtained for the implementation of the project are as follows

(i) **Managerial Autonomy**:

The BoG will delegate suitable Academic, Financial and Administrative powers to the various committees already formed to streamline the running of the institution and frame rules and procedures for accountability at each level. All academic, administrative, financial procedures and decisions shall be taken with the participation of of stakeholders (faculty, staff, students, parents of students, industry, etc.) with transparency

(ii) Administrative Autonomy:

a) All actions of the head of the institution in connection with continuing education programmes, faculty consultancy, faculty development programmes, Industrial consultancy, organisation of seminars and conferences shall be reported to the BoG.

b) BOG will evolve the norms for the deputation of the faculty for attending seminars, conferences, and training programmes

c) Directors will delegate some of his/her administrative powers to the Deans, Heads of Department and Professors.

(iii) Financial Autonomy:

For day-to-day functioning adequate financial powers to the Director and other functionaries will be delegated by the BoG.

(iv) Academic Autonomy:

Granting academic autonomy to the institution is a policy decision to be taken by the University and the Govt. of Kerala. The institute will carry out activities which will satisfy all statutory requirements of the University to get autonomy. The Board of governors will be the broad policy making body of the institute. In addition to the Board of Governors the following bodies will be constituted once academic autonomy is granted.

1 **Board of studies**.

The body will contain senior faculty as well as representative from the parent University, industry and R&D organisations. The primary aim of the body would be to frame the curriculum, make rules and regulations etc.

2 **Office of the Controller of Examination**.

Primary aim of this body is to oversee, not only the written examination but the entire evaluation process

3 Academic Council

An academic council will be constituted as per the requirement of the UGC

The following committees comprising of senior faculty in various departments of the institution have been already constituted for formulating the following activities in connection with acquiring academic autonomy.

- Formation of own curricula, course content, curricula implementation and methods of training
- Introduction flexibility in the curriculum with choice of electives
- Add value addition courses as per market demand
- Develop an effective system for faculty evaluation by students
- Start new courses, new programmes and re-orient and restructure or delete existing Programmes
- Depute faculty for academic advancement
- Admission of students based on merit as per the Govt. Policy

Committees as detailed below were also constituted to

- Determine own curricula and to restructure and redesign the courses to suit local needs.
- To prescribe rules for admission in consonance with the reservation policy of state government.
- To evolve methods of assessment of students performance, the conduct of examination and notification of results

4.2.4 Achieving the targets of accreditation of the eligible programmes.

Among the four B.Tech programmes and two M.Tech programmes existing in this college, three B.Tech programmes namely Electronics and Communication Engineering, Computer Science and Engineering and Information Technology are eligible for accreditation. The college is looking forward to enhance the infrastructure and improve the results further to get accredited. The support facilities are being set up and within a period of two years the three UG programmes can

apply for accreditation.

The committed management, dedicated faculties and staff members are confident that all the three UG programmes will be accredited. The main challenges that have to be faced are filling up of senior faculty positions, strengthening of laboratory and library facilities and developing R & D and consultancy projects. With the TEQIP assistance these obstacles can be overcome and through the positive intervention of the committed management and dedicated faculties the courses will be accredited.

4.2.5 Implementation of academic and non academic reforms

Formation of Board of Governers

Vide G.O.(Ms) No EA3/3513/2012/HRD (5) Edn. Dated 18th August 2012 Thiruvananthapuram, Government of Kerala has constituted BoG for College of Engineering Karunagappally with the members as appended below for performing the following functions

- Take all policy decisions with regard to smooth, cost effective and timely implementation of the institutional sub project,
- Form, supervise and guide various committees required for project implementation and internal project monitoring,
- Ensure overall faculty development,
- Enable implementation of all academic and nonacademic institutional reforms,
- Ensure proper utilization of project fund and timely submission of Financial Management Reports (FMR) and Utilization Certificates,
- Ensure compliance with the agreed procedures for procurement of goods, works and services and financial management ,
- Ensure compliance with other fiduciary requirements under the project such as Equity Assurance Plan (EAP), Environment Management Framework (EMF) and Disclosure Management Framework (DMF) , and
- Monitor progress in the carrying out of all the proposed project activities, resolve bottlenecks, and enable the institution to achieve targets for all key indicators.

Establishment of Four Funds

Following four funds will be established for the sustainability of the project

- Corpus Fund
- Faculty development Fund
- Equipment Replacement Fund
- Maintenance Fund

Revenue generation

Revenue generation activities include consultancy projects, sponsored research projects and continuing education programmes.

4.2.6 Improving interaction with industry

Interaction with the industry will be coordinated with the newly formed Industry Institute Interaction Cell (IIIC).

The following activities are envisaged under the cell.

- Formation of industrial consortium
- Joint activities with industry
- Industrial Training of duration one week shall be conducted during the semester breaks of third and fourth year of UG program (Total 2 week's duration).
- Industrial visits shall be conducted during third and fourth year (Minimum four industries)
- Mini projects, if possible, shall be carried out in collaboration with local industries
- Invited talks from Industrial persons shall be conducted for UG program (one talk / semester)
- Special training programs in relevant areas shall be conducted for the benefit of local industry and to generate revenue for the institution.

4.2. 7 Enhancement of research and consultancy activities

- Facilitate submission of projects to funding agencies
- Permitting students to carry out PG thesis in the latest research area
- Financial support / assistantship shall be given for selected research projects of students / faculty

- Financial support / assistantship shall be given for attending, presenting and publishing technical papers of students and faculty in national / international level conference / seminar
- Financial support / assistantship shall be given for attending workshops of relevant and thrust areas of research
- Financial support / assistantship shall be given for attending short term / long term training programs in India and abroad
- Financial support / assistantship shall be given for patenting innovative product / idea / concept

4.3 An action plan for organizing a Finishing School

At present an Equity Action Plan (EAP) cell and a Career Guidance and placement Cell (CGPC) are functioning in the institution. The objective of EAP is to improve weak students' performance and increase pass percentage and employability. EAP identifies weak students; create a panel of expert teachers for core subjects and providing support and individual attention to weak students. As a result of which, a step by step improvement in the pass rate has been achieved. CGPC aims at coordinating placement and training activities of students. It is proposed to organize the finishing school in union with CGPC and EAP activities. Apart from EAP, the quality of the students admitted in the first year can be ascertained by conducting a diagnostic test on basic areas. Based on the results of the test bridge courses can be arranged for needy students.

Finishing school is mainly meant to develop soft/technical skill and thus to improve the employability of students. But along with this endeavor, academically weak students are also to be specially taken care of. In this regard, remedial classes for these students are proposed. Effort is to be taken for identifying the weak students. The newly designed evaluation mechanism will effectively identify the needy students and their area in which special coaching is required. Remedial and skill development classes will be conducted. One faculty in each department will be entrusted with the coordination of special coaching. With effective intervention by the faculty, transition rate and pass rate will be improved, thereby improving their employability.

The finishing school activities will be conducted using the existing and improved facilities in the college. Expertise from and outside the institution will be used in the effective functioning of the school.

4.4 Action plan for strengthening of PG programmes and starting of new PG programmes.

- Improvising the labs viz. Image processing lab, digital signal processing lab, advanced signal processing lab for the existing PG courses in image processing and signal processing.
- Provide teaching assistantship to more PG students.
- Converting existing class room to smart class rooms and proving more furniture to handle the enhanced intake.
- New PG programmes in Computer Science and information Science, Communication Systems, Applied Electronics, VLSI and Embedded Systems and Power Electronics will be started.
- New PG labs and smart class room will be set up.
- Research oriented PG projects will be undertaken both within the institution and with industrial collaboration.

4.5 Faculty Development Programme based on Training Needs Analysis

TNA METHODOLOGY.

The methodology adopted for Training Needs Analysis was by distributing questionnaire to teaching and technical faculty and consolidating their responses. The main points arising from responses are

- Majority of teaching faculty attended short term training programmes of more than one week duration that deal with subject areas.
- Most technical courses were laden with theory sessions.
- Only six attended orientation training programmes aimed at improving pedagogical skills.
- Only three teaching faculty attended short workshops.
- Most technical staff did not attend any training programme.
- It is concluded that there is an overall deficiency in training to staff. This need be corrected by conducting more in house courses that are rich with hands on sessions.

Sl. No	Department /Section	Name of suitable faculty for training/ development	Area of Training/ development	Duration (Days)	Tentative date of training/ development programme	Trainer organization
1	Principal	Hari. V. S	Recent Trends in Embedded computing	15	May 2015	Sree Ramakrishna Engg. College, Coimbatore
			pedagogy	3		IIT Madras
			Nonlinear signal Processing	7	January 2015	IITs/NITs which are offering training programmes in the area
2	Electronics Engineering	C V AnilKumar	Antenna analysis	3	May 2015	IIT Kharagpur
			pedagogy	3		IIT Madras
			5G Technologies	2	June 2015	IEEE Bangalore
3	Electronics Engineering	Deepa V S	pedagogy	3		IIT Madras
			Management development programme	3	September2015	IIM Calicut
4	Electronics Engineering	Gopakumar	pedagogy	3		IIT Madras
			Antenna analysis	3	May 2015	IIT Kharagpur
5	Electronics Engineering	Shiny C	pedagogy	3		IIT Madras
			Image Processing	3	June 2015	NIT Kurukshethra
6	Electronics Engineering	Sylish S V	pedagogy	3		IIT Madras
			Optoelectronic	3	Aug 2015	IITs/NITs offering training programmes in the area
			Image Processing	3	June 2015	NIT Kurukshethra
7	Electronics Engineering	Reji Thankachan	pedagogy	3		IIT Madras
			Image Processing	3	June 2015	NIT Kurukshethra

8	Electronics Engineering	Deepa A K	pedagogy	3		IIT Madras
9	Electronics Engineering	Anuja V Nair	pedagogy	3		IIT Madras
			Image Processing	3	June 2015	NIT Kurukshethra
10	Electronics Engineering	Deepa T R	Embedded system Design	3	Nov 2015	IITs/NITs , CDAC, NIELT
11	Electronics Engineering	Mili Roseline Mathews	Image Processing	3	June 2015	NIT Kurukshethra
12	Electronics Engineering	Kuryachan T D	PCB Design and manufacturing Workshop	7	December 2015	NITTTR
13	Computer Engineering	Binu V P	Teaching applied mathematics for Post Graduate Students	3	May13-May15 2015	IIT Bombay
14	Computer Engineering	Smitha.P	Research Methodology for science Engineering and Management	6	May25-May30 2015	NIT Calicut
15	Computer Engineering	Jyothi.R.L	Summer school on image processing	5	June8-june12 2015	NIT Kurushetra

16	Computer Engineering	Vinod.R	Summer school on image processing	5	June8-june12 2015	NIT Kurushetra
17	Computer Engineering	Remya.R.S	Summer school on image processing	5	June8-june12 2015	NIT Kurushetra
18	Electrical Engineering	Libi A	Pedagogy	3	June 2015	IIT Madras
			Micro processors & Micro controllers	3	Aug2015	IIT/NIT
			Research Methodology for Science Engg. & Management	5	May 2015	NIT Calicut
			Creative thinking & Decision Making	3	Jan 2016	IIIM
			Advanced Control System	3	oct2015	IIT/NIT
`19	Electrical Engg	Haseena P Y	*Research Methodology for Science Engg. & Management*	5	May 2015	NIT Calicut
			Pedagogy	3	June 2015	IIT Madras
			Advanced Control System	3	oct2015	IIT/NIT
20	Electrical Engg	Raju A	*Power Electronics for Grid connected renewable energy system*	3	May 2015	NIT Calicut
			Smart grid & Energy management	3	Jan 2016	IITs/NITs
21	Mechanical Engg	AjilKumar A	Expo Info Design	3	July 23-25	IIT Bombay

22	Mechanical Engg	Baiju V	Conflict Management & Decision Making	3	July 2015	ESCI, Hyderabad
			Advances in cryocooler Technology	5	Oct 2015	IIT Bombay
23	Mechanical Engg	Revikumaran Thampy	Conflict Management & Decision Making	3	July 2015	ESCI, Hyderabad
24	Mechanical Engg	Premnath G	Expo Info Design	3	July 23-25	IIT Bombay
			Advances in cryocooler Technology	5	Oct 2015	IIT Bombay
25	Mechanical Engg	Jayadeep Kumar J	Advances in cryocooler Technology	5	Oct 2015	IIT Bombay

Other In-House Programmes Planned

Sl.No	Department /Section	Name of faculty for training/ development	Area of Training/ development	Duration (Days)	Tentative date of training/ development programme	Trainer organization
1	EEE	Libi A Haseena P Y	1. Control Engineering	5	July 2015	In house programme with resource persons from NITs/IITs
2	EEE	Raju M Libi A	Power System Softwares – E TAP & PSCAD	5	November 2015	In house programme with resource persons from software field
3	EEE	Haseena P Y Raju M	Special Machines & Control	5	March 2016	In house programme with resource persons from NITs/IITs
4	EC	C V AnilKumar	Energy Conservation & renewable Energy sources	3	July 2015	
5	EC	Deepa T R	Training on Layout Design Tools	3	Aug 2015	
6	EC	Gopakumar	Website Development	2	Sept 2015	

7	EC	Shiny C	VLSI in SignalProcessing	3	Oct 2015	
8	ME	Revikumaran Thampy	Accreditation Process	3	July 2015	

No	Name	Course	Tentative date	Type	Duration
1	Remya R S Jyothi R L	Image and Video security and Compression	July 2015	Training	5 Days
2	Vinod R	Simulation of computer Networks Algorithms	June 2015	Training	3Days

In addition, trainings/workshops are required in common areas such as Personality development, Communication skills, Motivation etc will be more beneficial and may be arranged in house.

4.6 Action Plan for training of Technical & Office Staff

Sl. No.	*Name*	*Department*	*Designation*	*Area of training needed*
1.	Anil kumar V	EEE	Tradesman	Power system software, PSCAD
2.	Praveesh	EEE	Demonstrator	Power system software, PSCAD, Matlab, Earthing and protection
3	Kuriachan T D	EC	Foreman	PCB Fabrication, Hardware Maintenance

Administrative Staff

Sl.No.	Name	Designation	Requirement
1	Abdul Jaleel E	Administrative Officer	Training in Tally, Academic matters, Department Training
2	Abdul Rahman Kunju	Superintendent	
3	Vinod Kumar R	HC	
4	Vidya J	Senior Office	

		Assistant	
5	Sheeja S	Senior Office Assistant	
6	Sandhya Murali P	Senior Office Assistant	

4.7 Institutional project budget (Revised)

Sl. No.	Activities	Total Revised Allocation (in lakhs)	Amount spent as on 31/03/15 (in lakhs)	Expenditure Committed as on 31/03/15 (Rs Lakhs)	Amount to be utilised in remaining months
1	Infrastructure improvement for teaching, Training & Learning	550	413.5	107.45	29.5
2	Providing Teaching and Research Assistantships	120	35.99	15.8	68.21
3	Enhancement of R&D and institutional consultancy Activities	20	8.75	5.5	5.75
4	Faculty and Staff Development	110	41.49	6.3	62.21
5	Enhanced Interaction with Industry	40	3.99	2	34.01
6	Institutional Management Capacity Enhancement	30	3.81	1.5	9.22
7	Implementation of Institutional Reforms	20	8.99	1	24.61
8	Academic Support for Weak Students	40	4.53	2.5	32.97
9	Incremental Operating Cost	70	26.63	2.5	40.87

	Total	1000	548.75	142.5	308.75

Institutional Project Budget for Sub-Component 1.1

4.8 Targets against the deliverables

S. No	Deliverables	Baseline		Targets to be achieved in Oct 2016		Status on today
		2010 -11	2011 -12	At the end of 2 years of joining the Project	By project closing	
1	Number of students registered for a) Masters in Engineering Programme. b) Doctoral programme in. Engineering.	Nil	18 Nil	96	96	48
2	Revenue from externally funded R&D projects and consultancies in total revenue (Rs. in lakh).	Nil	Nil	0.5Cr	0.75Cr	Nil
3	Number of publications in refereed journals a) National. b) International.	Nil 1	Nil 1	18 8	25 40	0 21
4	IRG as % of total annual recurring expenditure.	92	90	100	100	91
5	Number of co-authored publications in refereed journals a) National. b) International.	Nil Nil	Nil Nil	8 5	25 35	Nil 12
6	Student credentials a) campus placement rate of • UG students. • PG students. b) average salary of placement package for (Rs. in lakh). • UG students. • PG students.	60 * 2.8 *	62 * 2.9 *	70 90 3.0 4.2	80 50 3.2 4.2	24 10 2.94 3.2
7	Number of collaborative programmes with Industry.	Nil	Nil	5	15	10
8	Accreditation status (obtained plus applied for)	Nil	Nil	50% of UG + PG	80% UG + PG programme	Applied for

9	Faculty position filled.	100% with 30% guest	100% with 48 % guest	100% with 75% on regular appointment and remaining on 11 months or longer contracts	100% with at least 80% on regular appointment and remaining on 11 months or longer contracts)	51% regular
10	Percentage of regular faculty having a Masters Degree or a Doctorate Degree in Engineering disciplines.	48%	50%	70%	100%	91%
11	Transit rate from 1 to 2 year for the following: • All Students • SC and ST Students • OBC Students • Women Students	43% 20% 38% 65	**	70 40 55 70	80 60 65 75	35
12	Autonomy status	Nil	Nil	Academic	Academic autonomy	Applied
13	Enrolment of faculty with only Bachelor Degree for qualification up gradation	52%	50%	30%	0	5%
14	Any other academic deliverables (maximum 3)					
(i						
(ii)						
(iii						

4.9 Committed Expenditure Details

Fund Received	900 Lakhs
Expenditure as on31 March 2015	548.75 Lakhs
Committed Expenditure	342.46 Lakhs

Committed Activities

No	Activity	Expenditure Rs. In Lakhs
1	Procurement of Goods	107.45
2	Teaching Assistsntship	68.51
3	Enhancement of R and D	5.5
4	Faculty and Staff Develeopment	65
5	Enhanced Interaction with Industry	18
6	Institutional management Capacity	14
7	Implementation of reforms, ISO	6
8	Academic Support for weak students	26
9	Incremental Operating Cost (Salary, Consumables, Meetings)	32
Total Committed Expenditure		**342.46**

4.10 Revised Procurement plan

A.1 MODERNIZATION AND STRENGTHENING OF LABORATORIES

Package No.	Sl No.	Activities	Description of works/goods	Estimated Cost(Rs) Lakhs	Method of Procurement	Design/ Investigation Completion/Specification Finalisation(Date)	Estimate Sanctioned (Date and Value)	Preparation of Bid Document(Date)	Receipt of Bank's No Objection to Bidding Document (Date)**	Invitation(Date)	Opening(Date)	Contract Award	Date of completion of contract
TEQIP II /KL1G18/170	1	Infrastructure Improvement for teaching, training and learning facilities	DreamSpark	1.7	NS	Oct-2014	Nov-2014	Nov-2014	NA	Nov-2014	Nov-2014	Mar 2015	June 2015
TEQIP II /KL1G18/171	2	Infrastructure Improvement for teaching, training and learning facilities	APFC(Automatic Power Factor Correction Panel)	2.0	NS	Oct-2014	OCt-2014	Nov-2014	NA	Mar - 2015	Apr-2015	Apr-2015	June 2015

TEQIP II /KL1G18/172	3	Infrastructure Improvement for teaching, training and learning facilities	IEEE e journal	3.8	DC	OCt-2014	OCt-2014	Nov-2014	N A	Feb-2015	Mar-2015	Mar-2015	June 2015
TEQIP II /KL1G18/173	4	Infrastructure Improvement for teaching, training and learning facilities	Science Direct E journal	5.0	DC	OCt-2014	OCt-2014	Nov-2014	N A	Feb-2015	Mar-2015	Mar-2015	June 2015
TEQIP II /KL1G18/174	5	Infrastructure Improvement for teaching, training and learning facilities	Springer E journal	2.07	DC	OCt-2014	OCt-2014	Nov-2014	N A	May -2015	May -2015	June -2015	Aug 2015

TEQIP II /KL1G18/175	6	Infrastructure Improvement for teaching, training and learning facilities	Furniture Library	0.62	NS	OCt-2014	OCt-2014	Nov-2014	N A	May -2015	May -2015	June -2015	Aug 2015
TEQIP II /KL1G18/176	7	Infrastructure Improvement for teaching, training and learning facilities	Portable Hardware Device	0.42	NS	OCt-2014	OCt-2014	Nov-2014	N A	May -2015	May -2015	June -2015	Aug 2015
TEQIP II /KL1G18/177	8	Infrastructure Improvement for teaching, training and learning facilities	HF PCB Manufacturing Facility	0.45	NS	OCt-2014	OCt-2014	Nov-2014	N A	May -2015	May -2015	June -2015	Aug 2015

TEQIP II /KL1G18/178	9	Infrastructure Improvement for teaching, training and learning facilities	Analog meters	0.25	DC	OCt-2014	OCt-2014	Nov-2014	N A	May -2015	May -2015	June -2015	Aug 2015
TEQIP II /KL1G18/179	10	Infrastructure Improvement for teaching, training and learning facilities	Microwave Test Benches	1.95	NS	OCt-2014	OCt-2014	Nov-2014	N A	May -2015	May -2015	June -2015	Aug 2015
TEQIP II /KL1G18/181	11	Infrastructure Improvement for teaching, training and learning facilities	Tools for Foundry Shop	1.18725	NS	OCt-2014	OCt-2014	Nov-2014	N A	May -2015	May -2015	June -2015	Aug 2015

TEQIP II /KL1G18/182	12	Infrastructure Improvement for teaching, training and learning facilities	Satellite Receiver set	0.06	DC	OCt-2014	OCt-2014	Nov-2014	N A	May -2015	May -2015	June -2015	Aug 2015
TEQIP II /KL1G18/183	13	Infrastructure Improvement for teaching, training and learning facilities	PLC Trainer	1.6	NS	OCt-2014	OCt-2014	Nov-2014	N A	May-2015	June - 2015	July -2015	Sep-2015
TEQIP II /KL1G18/184	14	Infrastructure Improvement for teaching, training and learning facilities	Moderna Chair		NS	OCt-2014	OCt-2014	Nov-2014	N A	May-2015	June - 2015	July -2015	Sep-2015

TEQIP II /KL1G18/185	15	Infrastructure Improvement for teaching, training and learning facilities	Furniture Chair Table Almirah	8.512	NS	OCt-2014	OCt-2014	Nov-2014	N A	May-2015	June - 2015	July -2015	Sep-2015
TEQIP II /KL1G18/186	16	Infrastructure Improvement for teaching, training and learning facilities	Computer table	1.274	NS	OCt-2014	OCt-2014	Nov-2014	N A	May-2015	June - 2015	July -2015	Sep-2015
TEQIP II /KL1G18/187	17	Infrastructure Improvement for teaching, training and learning facilities	3D Printer	1.5	NS	OCt-2014	OCt-2014	Nov-2014	N A	May-2015	June - 2015	July -2015	Sep-2015

TEQIP II /KL1G18/188	18	Infrastructure Improvement for teaching, training and learning facilities	Currency counter	.01	DC	OCt-2014	OCt-2014	Nov-2014	N A	June-2015	July -2015	July -2015	Sep-2015
TEQIP II /KL1G18/189	19	Infrastructure Improvement for teaching, training and learning facilities	Corridor surveillance system	1.0	NS	OCt-2014	OCt-2014	Nov-2014	N A	June-2015	July -2015	July -2015	Sep-2015
TEQIP II /KL1G18/190	20	Infrastructure Improvement for teaching, training and learning facilities	Keil development tools	1.4	NS	OCt-2014	OCt-2014	Nov-2014	N A	June-2015	July -2015	July -2015	Sep-2015

TEQIP II /KL1G18/191	21	Infrastructure Improvement for teaching, training and learning facilities	Electronic Private Automatic Branch Exchange	2.0	NS	OCt-2014	OCt-2014	Nov-2014	N A	June-2015	July -2015	July -2015	Sep-2015
TEQIP II /KL1G18/137	22	Infrastructure Improvement for teaching, training and learning facilities	Furniture Desk Bench Stool	5.62	NS	OCt-2014	OCt-2014	Nov-2014	N A	June-2015	July -2015	July -2015	Sep-2015
TEQIP II /KL1G18/108	23	Infrastructure Improvement for teaching, training and learning facilities	Books for Competitive Exams	1.0981	NS	OCt-2014	OCt-2014	Nov-2014	N A	Mar-2015	Apr -2015	Apr-2015	June-2015

TEQIP II /KL1G1 8/113	24	Infrastructure Improvement for teaching, training and learning facilities	Library EC2	1.738 80	NS	OCt-2014	OCt-2014	Nov-2014	N A	June-2015	July -2015	July -2015	Sep-2015

Total Rs. 46,57,015.00

A.2 Civil works

Package No.	**Sl No.**	**Activities**	**Description of works/goods**	**Estimated Cost(Rs) Lakhs**	**Method of Procurement**	**Design/ Investigation Completion/Specification Finalisation(Date)**	**Estimate Sanctioned (Date and Value)**	**Preparation of Bid Document(Date)**	**Receipt of Bank's No Objection to Bidding Document (Date)****	**Invitation(Date)**	**Opening(Date)**	**Contract Award**	**Date of completion of contract**
TEQIP II /KL1G1 8/180	1	Infrastructure Improvement for teaching, training and learning facilities	Electrical work in Library and Office	**0.79**	NS	Oct-2014	Nov-2014	Nov-2014	NA	Nov-2014	Nov-2014	Mar 2015	June 2015

Total Rs. 79,000.00