## COLLEGE OF ENGINEERING TRIVANDRUM



कर्म ज्यायोध्य कर्म

COLLEGE OF ENGINEERING

# **INFORMATION BULLETIN**

## Vision

National Level Excellence and International Visibility in Every Facet of Engineering Research and Education.

## **Mission**

- To facilitate quality transformative education in Engineering and Management.
  - To foster innovations in Technology and its application for meeting global challenges.
  - To pursue and disseminate Quality Research.
  - To equip, enrich and transform students to be Responsible Professionals for better service to humanity.

## INFORMATION BULLETIN 2018 - 19



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## COLLEGE OF ENGINEERING TRIVANDRUM INFORMATION BULLETIN

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#### TABLE OF CONTENTS

1.	COL	LEGE AT A GLANCE	1
	1.1	VISION	1
	1.2	MISSION	1
	1.3	BRIEF HISTORY	1
	1.4	ACCREDITATION	2
	1.5	INTERNAL QUALITY ASSURANCE CELL (IQAC-CET)	2
	1.6	PROGRAMMES	4
2.	DEPA	ARTMENTAL PROGRAMMES, FACILITIES AND ACTIVITIES	6
	2.1	DEPARTMENT OF CIVIL ENGINEERING	6
	2.1.1	COURSES	6
	2.1.2	FACILITIES	7
	2.1.3	FIELDS OF CONSULTANCY	7
	2.2	DEPARTMENT OF MECHANICAL ENGINEERING	10
	2.2.1	COURSES	11
	2.2.2	FACILITIES	12
	2.2.3	ACTIVITIES	13
	2.2.4	ONGOING R & D PROJECTS	13
	2.2.5	FIELDS OF CONSULTANCY	14
	2.3	DEPARTMENT OF ELECTRICAL ENGINEERING	15
	2.3.1	COURSES	15
	2.3.2	FACILITIES	16
	2.3.3	ACTIVITIES	17
	2.4	DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGIN 17	NEERING
	2.4.1	COURSES	18
	2.4.2	FACILITIES	19
	2.4.3	ACTIVITIES	21
	2.5	DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING.	23
	2.5.1	COURSES	23
	2.5.2	FACILITIES	24
	2.5.3	ACTIVITIES	25
	2.6	DEPARTMENT OF ARCHITECTURE	26
	2.6.1	COURSES	27
	2.6.2	FACILITIES	27

	2.6.3	ACTIVITIES	
	2.7	DEPARTMENT OF COMPUTER APPLICATIONS	30
	2.7.1	FACILITIES	31
	2.8	CET SCHOOL OF MANAGEMENT	32
	2.8.1	MBA DEGREE COURSE	33
	2.8.2	FACILITIES	33
	2.8.3	Activities	34
	2.9	DEPARTMENT OF MATHEMATICS	35
	2.10	DEPARTMENT OF PHYSICS	36
	2.11	DEPARTMENT OF CHEMISTRY	36
	2.12	DEPARTMENT OF PHYSICAL EDUCATION	37
3.	DISC	IPLINE, CONDUCT AND BEHAVIOUR	38
4. TI	ACA ECHNO	DEMIC CURRICULUM OF APJ ABDUL KALAM KERALA LOGICAL UNIVERISTY	40
	4.1	B.Tech Programme	40
	4.2	B.ARCH PROGRAMME	88
	4.3	RULES:	101
	4.4	M.TECH PROGRAMME	104
	4.5	MCA PROGRAMME	111
	4.6	MBA PROGRAMME	116
	4.7	M.Arch / M.Planning programme	120
5.	FACI	LITIES	124
	5.1	LIBRARY	124
	5.2	CENTRAL COMPUTING FACILITY	124
	5.3	CAREER GUIDANCE AND PLACEMENT UNIT	125
	5.4	RESEARCH PROGRAMMES	129
	5.5	QIP AND STATE HIGHER EDUCATION DEPARTMENT SCHOLARSHIPS.	129
	5.6	CET CENTRE FOR INTERDISCIPLINARY RESEARCH (CCIR)	131
	5.7	VISITING FACULTY SCHEME	131
	5.8	CET - TBI	132
	5.9	SMART CLASS ROOMS	134
	5.10	VIDEO PRODUCTION ROOM	134
	5.11	NPTEL COURSES FROM COLLEGE OF ENGINEERING TRIVANDRU	M 134
	5.12	VIDEO CONFERNCING FACILITY	136
	5.13	EDUSAT FACILITY	136

	5.14	INDO-US EDUSAT SCHEME	136
	5.15	EGRC - CET	136
	5.16	INDIAN SOCIETY FOR TECHNICAL EDUCATION	136
	5.17	IEEE STUDENTS' BRANCH	137
	5.18	IET - CET STUDENTS CHAPTER	138
	5.19	INDUSTRY INSTITUTE INTERACTION CELL (IIIC)	139
	5.20	CENTRE FOR CONTINUING EDUCATION	140
	5.21	ENVIRONMENTAL CLUB	140
	5.22	ENCON CLUB	141
	5.23	ENTREPRENEURSHIP DEVELOPMENT CLUB	141
	5.24	REFRIGERATION AND AIR CONDITIONING MAINTENANCE UNIT.	141
	5.25	KERALA EDUCATION GRID PROJECT	141
	5.26	NATIONAL SERVICE SCHEME	141
	5.27 ASSOCI	CETAA (COLLEGE OF ENGINEERING TRIVANDRUM ALUMNI [ATION]	142
	5.27.1	CETAA Executive Committee Members 2018-19	143
	5.27.2	CETAA AWARDS	144
	5.28	DIAMOND JUBILEE GUEST HOUSE	149
	5.29	FITNESS CENTRE	149
	5.30	STAFF CLUB	149
	5.31	PARENT TEACHER ASSOCIATION	149
	5.31.1	P.T.A EXECUTIVE COMMITTEE MEMBERS (2018-19)	151
	5.32	CAMPUS AUTOMATION SOFTWARE	158
	5.33	SOFTWARE FOR EVALUATION OF INSTRUCTION BY STUDENTS	159
	5.34	INTELLECTUAL PROPERTY RIGHT (IPR) CELL	159
	5.35	MINISTERIAL STAFF CLUB	160
	5.36	ACTIVITY CLUBS 2018-19 - STAFF CO-ORDINATORS	160
	5.37	CENTRE FOR INTERNATIONAL RELATIONS	163
	5.38	INTERNSHIP CELL	164
	5.39 RESEAF	CENTRE FOR INDUSTRIAL TRAINING, CONSULTANCY & SPONSOR RCH (ITC&SR)	ED 165
6.	Colli	EGE UNION MEMBERS 2018-2019	167
7.	AME	NITIES	168
	7.1	COLLEGE HOSTEL	168
	7.2	COLLEGE BUS	168

	7.3	CO-OPERATIVE SOCIETY	170
	7.4	CANTEEN	170
	7.5	POST OFFICE AND BANK	170
	7.6	SUB TREASURY	171
8.	MEM	IBERS OF STAFF	172
	8.1	DEPARTMENT OF CIVIL ENGINEERING	172
	8.2	DEPARTMENT OF MECHANICAL ENGINEERING	177
	8.3	DEPARTMENT OF ELECTRICAL ENGINEERING	183
	8.4 ENGIN	DEPARTMENT OF ELECTRONICS AND COMMUNICATION EERING	188
	8.5	DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING	191
	8.6	DEPARTMENT OF ARCHITECTURE	193
	8.7	DEPARTMENT OF COMPUTER APPLICATIONS	194
	8.8	CET SCHOOL OF MANAGEMENT (CET SOM)	195
	8.9	DEPARTMENT OF MATHEMATICS	196
	8.10	DEPARTMENT OF PHYSICS	198
	8.11	DEPARTMENT OF CHEMISTRY	198
	8.12	DEPARTMENT OF PHYSICAL EDUCATION	199
	8.13	TECHNICAL LIBRARY & DOCUMENTATION CENTRE	199
	8.14	ADMINISTRATIVE DEPARTMENT	200
	8.15	OFFICE OF THE EVENING DEGREE COURSE	203
	8.16	OFFICE OF THE DEANS	203
	8.17	HOSTEL OFFICE	205
	8.18	IMPORTANT TELEPHONE NUMBERS	207

## 1. COLLEGE AT A GLANCE

#### 1.1 VISION

National Level Excellence and International Visibility in Every Facet of Engineering Research and Education.

#### 1.2 MISSION

- To facilitate quality transformative education in engineering and management.
- To foster innovations in technology and its application for meeting global challenges.
- To pursue and disseminate quality research.
- To equip, enrich and transform students to be responsible professionals for better service to humanity.

#### 1.3 BRIEF HISTORY

College of Engineering Trivandrum was established in 1939 as the first engineering college in the then Travancore State. The first classes were started on 3rd July 1939 during the reign of the Travancore King, Sri Chithira Thirunal Balarama Varma. As the head of the then Travancore state, he deserves his share of credit in the establishment of the college. Initially the college was housed in the former office and bungalow of the Chief Engineer (present PMG Office). Maj T.H. Mathewman, a Britisher was the first principal. Started as a constituent college of Travancore University, the college had an initial intake of 21 students each for degree and diploma courses in Civil, Mechanical and Electrical branches. With the establishment of the Directorate of Technical Education in the late fifties, the college administration came under the control of the Government of Kerala. The college was shifted to the present sprawling 125 acres in 1960.

Over the years, the intake of students increased and as of now with eight fullfledged departments offering eight undergraduate, 23 postgraduate and doctoral programmes under the APJ Abdul Kalam Kerala Technological University, the college has around 3500 students, 285 teaching staff and 290 non-teaching staff. B.Tech, B.Arch, M.Tech, M.Arch, M.Plan, MCA and MBA and evening courses are also offered by the college.

Ever since the inception, the college has maintained its eminence as a leading engineering college in India. The college ranks among the top in the country in the quality of its graduates and in the number of top jobs held by its graduates. With

such an eminence in the academic and curricular activities, the college is the most sought-after engineering college by the applicants of engineering degree programmes in the state.

#### 1.4 ACCREDITATION

National Board of Accreditation (NBA) as per orders File.No.26-25/2010/NBA dated 30-10-2013, File.No.26-25/2010/NBA dated 24-12-2013, File.No.26-25/2010/NBA dated 08-02-2013 and File.No.26-25/2010/NBA dated 20-05-2014 has accredited both undergraduate and post-graduate programmes of the college.

Major benefits of the accreditation by NBA include AICTE preferential funding, top preference from companies conducting campus interviews, exemption from undergoing tests for higher studies and employment in foreign countries that have a tie up with NBA.

College of Engineering, Trivandrum was ranked 75th among Engineering colleges and Department of Architecture was ranked 4<sup>th</sup> among Architecture Institutions by the National Institutional Ranking Framework (NIRF) in 2018.

#### 1.5 INTERNAL QUALITY ASSURANCE CELL (IQAC-CET)

#### Vision

To make quality, the defining element of higher education in College of Engineering Trivandrum through a combination of self and external quality evaluation, promotion and sustenance initiatives.

#### Mission

- To develop a system for conscious, consistent and catalytic action to improve the academic and administrative performance of the institution
- To promote measures for institutional functioning towards quality enhancement through internalization of quality culture and institutionalization of best practices

For enhancing quality culture, Internal Quality Assurance Cell starts functioning in College of Engineering Trivandrum. The major functions of IQAC are development and application of quality benchmarks/parameters for various academic and administrative activities of the institution; Facilitating the creation of a learner-centric environment conducive to quality education and faculty maturation to adopt the required knowledge and technology for participatory teaching and learning process; Dissemination of information on various quality higher education; Documentation parameters of of the various programs/activities leading to quality improvement; Acting as a nodal agency of

the Institution for coordinating quality-related activities, including adoption and dissemination of best practices; Development and maintenance of institutional database for the purpose of maintaining/enhancing the institutional quality; Development of quality culture in the institution. Presently, Dr. K Jayaraj and Dr. S A Binoosh of Department of Mechanical Engineering are the coordinators of IQAC-CET.

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16	Member	Union Chairman			
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22	Assistant	Dr. S. A. Binoosh	binoosh@cet.ac.in,
	Coordinator		8547090801
	IQAC		

#### 1.6 PROGRAMMES

-

The college offers the following graduate and post graduate programmes:

Sl. No.	Name of U G Programme(s)	
1	Civil Engineering	
2	Mechanical Engineering	
3	Electrical & Electronics Engineering	
4	Electronics & Communication Engineering	
5	Computer Science & Engineering	
6	Applied Electronics & Instrumentation	
7	Industrial Engineering	
8	Architecture	

Sl. No.	Name of P G Programme(s)
1	Structural Engineering
2	Traffic &Transportation Engineering
3	Hydraulics Engineering
4	Environmental Engineering
5	Geotechnical Engineering
6	Geo Informatics

Sl. No.	Name of P G Programme(s)	
7	Machine Design	
8	Propulsion Engineering	
9	Thermal Sciences	
10	Industrial Engineering	
11	Financial Engineering	
12	Manufacturing & Automation	
13	Control Systems	
14	Power Systems	
15	Guidance & Navigational Control	
16	Electrical Machines	
17	Microwave and TV Engineering	
18	Applied Electronics & Instrumentation	
19	Signal processing	
20	Micro & Nano Electronics	
21	Robotics & Automation	
22	Computer Science & Engineering	
23	Information Security	
24	Urban Design (M. Arch.)	
25	Master of Planning (M. Planning)	
26	Computer Applications (MCA)	
27	Business Administration (MBA)	

### 2018 - 2019 INFORMATION BULLETIN 2. DEPARTMENTAL PROGRAMMES, FACILITIES AND ACTIVITIES

#### 2.1 DEPARTMENT OF CIVIL ENGINEERING

#### Vision

A Centre of Excellence for moulding technically competent and ethically strong Civil Engineering Professionals with global perspective.

#### Mission

- To impart quality education in Civil Engineering by integrating theory, practice and research keeping pace with emerging technologies .
- To equip students with technical expertise so as to take up challenges in the field of Civil Engineering.
- To encourage students for pursuing higher education and research.
- To create competent professionals who are capable of upholding ethical values and principles of sustainable development.

Department of Civil Engineering has been in existence since the inception of CET in 1939 and has grown into a full-fledged department with specialization in all the major areas of Civil Engineering. There are well equipped laboratories attached to the five divisions of the department. These laboratories are well equipped for conducting teaching, research and consultancy activities. The B.Tech and all the M.Tech programmes of the department are accredited for five years by the NBA, AICTE. The department also plays a very active role in consultancy, research, testing and certification and continuing education programmes for the Civil Engineering industry. Many of the alumni hold prestigious positions in Government, leading industries and academic institutions.

#### 2.1.1 COURSES

B.Tech in Civil Engineering (8 semesters) with an intake of 120 per year.

M.Tech in Civil Engineering (4 semesters) with an intake of 18 per year in each of the following specializations.

- 1. Structural Engineering
- 2. Hydraulics Engineering
- 3. Geotechnical Engineering
- 4. Environmental Engineering
- 5. Traffic and Transportation Engineering
- 6. Geoinformatics

Evening Courses

- 1. B.Tech in Civil Engineering (Evening Courses, 8 semesters) with an intake of 40 per year.
- 2. M.Tech. in Civil Engineering (Evening Courses, 6 semesters, two courses are offered at a time with an intake of 18 each per 3 year)

Doctoral level programmes in Civil Engineering.

#### 2.1.2 FACILITIES

- Soil Mechanics and Foundation Engineering Laboratory
- Highway Laboratory
- Traffic Engineering Laboratory
- Strength of Materials Laboratory
- Survey Laboratory
- Environmental Engineering Laboratory
- Structural Engineering Laboratory
- Hydraulics Laboratory
- Coastal Engineering Laboratory
- Hydro informatics Laboratory
- Computer Facility
- Department Library
- Air Pollution Testing Laboratory
- Concrete Lab
- Micro Biology Lab
- Transportation Engineering Research Center

#### 2.1.3 FIELDS OF CONSULTANCY

The services of the expertise of the department, supported by the modernized laboratories, are used to solve various problems of the industries associated with the fields of Civil Engineering.

#### **Facilities in Geotechnical Engineering**

• Subsoil investigation and insitu testing

- Expert recommendation on selection of foundation types and design of foundations
- Analysis and design of slopes, embankments and retaining walls
- Design with Geosynthetics for pavements, slopes, embankments, retaining walls, foundation and erosion protection
- Geometrical testing and testing of Geosynthetics
- Ground improvement and design
- Failure analysis and forensic of Geosynthetics
- Expert advice and design of complex foundation system using Finite Element Analysis
- Soil structure interaction analysis for earthquake condition for important structures
- Tailor made training programme for corporate clients to suit specific requirements

#### **Facilities in Structural Engineering**

- Structural design of all types of concrete and steel structures
- Analysis and design of shell structures
- Design of FRC, FRP, Ferrocement and sandwich structures
- Mix design for standard and high-performance concrete mixes
- Assessment of insitu strength of concrete
- Nondestructive testing of Structural components
- Structural design of seismic resistant structures
- Analysis and design of Composite RCC and Pre-Stressed Structures
- Retrofitting and Rehabilitation of RCC and Pre-Stressed Structures
- Quality assessment of all types of Civil Engineering Structures
- Vibration recording of structures
- Testing and certification of materials

#### **Facilities in Hydraulics Engineering**

- Model studies on Harbor, breakwater, wave attenuation, coastal protection works, etc.
- DAM Break analysis
- Preparation of flood inundation map
- Investigation of Ground water
- Pumping test for bore wells
- Modeling of ground water flow and contaminant transport
- Modeling of salt water intrusion into coastal aquifers
- Risk assessment of water supply systems
- Water resources planning for integrated optimal development of the available water resources of Kerala
- Investigation of the possibilities of lift irrigation in the state
- Run-off characteristics of Kerala catchments
- Model studies of Hydraulic Projects
- Design of Hydraulic structures
- Investigation and design of dams and other related aspects
- Projects based on GIS and remote sensing

#### **Facilities in Environmental Engineering**

- Water and air quality monitoring
- Design of plumbing and sanitary systems
- Design of water supply and sewage systems for cities and townships
- Treatment and disposal of industrial waste
- Testing and certification of water quality
- Tests for heavy metal pollutants in water and waste-water
- Testing for sludge and soil chemical parameters
- Municipal solid waste management
- Water conservation and rain water harvesting
- Eco-friendly and zero waste techniques
- Environmental impact assessment

- Environmental auditing of industries
- Conservation and pollution monitoring of wet land and inland water bodies

#### Surveying

- Accurate determination of the area of land using modern equipment
- Preparation of survey map using advanced survey instruments
- Sub-division of area to serviceable plots
- Determination of quantity of earth work required in leveling. Most modern equipment like electronic total station, automatic levels, DGPS

#### **Facilities in Transportation Engineering**

- Bituminous mix designs, quality control testing of pavement mix samples, mastic asphalt pavement and materials used in pavement construction
- Performance evaluation of pavements
- Solution to Transportation Planning and Traffic Engineering Problems
- Monitoring and quality assessment of roads
- Preparation of DPR for PMGSY road projects
- Co-ordinating Division on the MoUD Project-Centre of Excellence in Urban Transport at IIT Madras
- Confidentiality and Non-Disclosure Agreement on the usage of a Web based software named RSMS for accident analysis with an organization.

#### **Computer Facility**

- Well-equipped Computer Lab
- Training in advanced software packages
- E-Journal facility
- High speed Internet facility
- Development of Laboratory learning resources

#### 2.2 DEPARTMENT OF MECHANICAL ENGINEERING

Vision

*Be among the best mechanical engineering departments in the country providing quality engineering education and promoting research to meet global challenges.* 

Mission

- To deliver quality outcome based education that paves a solid foundation in mechanical engineering and related interdisciplinary fields of engineering to meet global challenges.
- To prepare the students to excel in their professional careers through learning, research, innovation, leadership and entrepreneurship.
- To impart and develop professional responsibility, sustainability and networking skills among the faculty and students to ethically address the needs of society.

Department of Mechanical Engineering has been the heart and spirit of this premier institution right from its inception. Rated very high, this department is the Alma Mater to several technocrats and researchers world over. This is the largest department of the institution in terms of strength of students, technical staff and faculty. The faculty members have published more than 500 papers in National/International Journals/ Conferences during the last 5 years and fetched many awards.

#### 2.2.1 COURSES

B.Tech in Mechanical Engineering (8 semesters) with an intake of 120 per year.

B.Tech in Industrial Engineering (8 semesters) with an intake of 60 per year.

M.Tech in Mechanical Engineering (4 semesters) with an intake of 18 per year in each of the following specializations.

- 1. Thermal Science
- 2. Machine design
- 3. Propulsion Engineering
- 4. Industrial Engineering
- 5. Financial Engineering
- 6. Manufacturing and Automation

#### Evening Courses

- 1. B.Tech in Mechanical Engineering (Evening Courses, 8 semesters) with an intake of 40 per year.
- 2. M.Tech. in Mechanical Engineering (Evening Courses, 6 semesters, two courses are offered at a time with an intake of 18 each per 3 year)

Doctoral Programmes in Mechanical Engineering

#### 2.2.2 FACILITIES

Heat Engines Laboratory has advanced test rigs of several IC Engines, Boilers, Steam Engines, Steam Turbines with different compounding arrangements, Blowers, compressors, Heat Transfer study equipment, Emission Testing and Flue Gas Analyzer. In addition, this lab has facilities for fuel and lubricant testing and computer interfaces for I.C. engines.

Hydraulics and Fluid Power Laboratory has facilities that include Pumps, Turbines, Demonstration rigs, Flow visualization setup, Flumes, Standard unit for calibration of various Hydraulic instruments, Computer interfaced turbines and pumps, Bernoulli's theorem apparatus, Pipe testing rig etc.

Measurements Laboratory has Subsonic wind tunnel, Precision measuring instruments, Engine indicators, Gas chromatography, Instruments of Acoustic studies and Noise level measurements.

Software Laboratory provides practical in Advanced programming languages, AutoCAD, UNIGRAPHICS, Simulation, FEM using NISA, IDEAS, IronCAD, ANSYS, CF Design, FLUENT, ProEngineer, AMPS, TORA, ARENA, VENSIM, STATFIT, SYSTAT,WITNESS, Automation studio 4.0, APM software suit, MATLAB etc.

Machine Shop is equipped with various types of Lathes, Automatic Drilling Machine, Grinding Machines, Milling Machines, Planning Machines, TIG, MIG and Submerged Arc welding facilities.

Quality Control Laboratory has experimental setups for verification of Central limit theorem, construction of variable and attribute control charts, Ultrasonic and Magnetic Crack Detectors etc.

Work Study Laboratory has facilities for conducting experiments on performance rating, Principles of motion economy, Standard time determination, Micro motion study, Method analysis, Facilities layout, Learning effects and eye hand coordination.

PG Laboratories include Metrology and Instrumentation Lab, Metallurgy Lab and Vibration Lab.

Computational Fluid Dynamics Laboratory provides software for analysis of the fluid flow, heat transfer and combustion. The software available include FLUENT, CF DESIGN and In-house packages.

R&AC Maintenance Wing is functioning in the Heat Engines laboratory which caters to the internal needs as well as the needs of nearby organizations.

Mechanical Maintenance Wing is functioning under Mechanical Workshop with experienced and skilled staff.

CIM Laboratory facilities include CNC machining centre, CNC lathe, Five axes robot, Mechatronics trainer system, Vision inspection system, CNC simulator and PLC, sensor Technology package.

Machine Dynamics Laboratory facilities include Journal bearing apparatus, Wear and friction tester, Universal vibration rig, whirling of shafts, Cam rig and governors.

Simulation and optimization Lab provide facility for system simulation and optimization with software such as TORA, ARENA, VENSIM, STATFIT, SYSTAT, WITNESS and Automation studio etc.

#### 2.2.3 ACTIVITIES

The department offers consultancy services to various Industries, governmental and non-governmental organizations. The department has MoUs with many prominent industries and research organizations. The department has several ongoing external sponsored projects funded by DST, CERD, KSCSTE and AICTE.

Apart from the academic and research activities, the department conducts courses on FEM, CNC programming, piping engineering etc. for the industries and professionals. The department also offers skill development programmes on Advanced welding, Aluminium fabrication, Carpentry and Machine tools, Conventional machining, Plumbing & Sanitation etc., as part of the community development programme. Orientation programmes are organized for students belonging to weaker section under the Step4U initiatives by Government of Kerala.

#### 2.2.4 ONGOING R & D PROJECTS

- Investigations on Cooling of IC chips on PCBs.
- Setting up of High Enthalpy Test Facility.
- Flow & Mixing in clover nozzles.
- Fatigue analysis of prosthetic implants.
- Investigations on Sterling Engine.

- Conjugate heat transfer analysis of LH2 turbine stage.
- Application of Nature inspired algorithm for optimization.
- Setting up Micro/Nano fluid research lab.
- Best research grant-2014, CERD(Dr. K Krishnakumar)

#### 2.2.5 FIELDS OF CONSULTANCY

- Design of Gears
- Testing of Pipes
- Calibration of Pressure gauges
- Master Testing centre for vehicle pollution
- Acoustic problems
- Projects formulation
- Total Quality Management
- Testing of fuels and lubricating oils
- Refrigeration and Air conditioning
- Transportation problems
- Productivity Studies Work study
- Office Management and Modernization
- Personality development and counseling
- Wind farm installation
- Energy conservation and Auditing
- Combustion Kinetics
- Emission prediction and control
- New Energy Sources

#### 2.3 DEPARTMENT OF ELECTRICAL ENGINEERING

Vision

Be a centre of excellence and higher learning in Electrical Engineering and allied areas

Mission

Produce professionally competent, ethically sound and service oriented Electrical Engineers with leadership qualities, aptitude for higher studies and research

The department of Electrical Engineering is one of the first departments of College of Engineering Trivandrum. Right from its inception, the department has been rated very high in academic circles. The graduates from this department include many renowned technocrats, researchers and academicians, the world over. The department has been accredited by the National Board of Accreditation of All India Council for Technical Education (AICTE). The department is proud to have well qualified and experienced faculty and an equally zealous technical team. Most students of this department get placement in leading industries or organizations and get admission in reputed institutions in India & abroad for their higher studies.

#### 2.3.1 COURSES

B.Tech in Electrical & Electronics Engineering (8 semesters) with an intake of 120 per year.

M.Tech in Electrical & Electronics Engineering (4 semesters) with an intake of 18 per year in each of the following specializations.

- 1. Control System
- 2. Guidance & Navigational Control
- 3. Power System
- 4. Electrical Machines

Evening Courses

- 1. B.Tech in Electrical & Electronics Engineering (Evening Courses, 8 semesters) with an intake of 40 per year.
- 2. M.Tech. in Electrical & Electronics Engineering (Evening Courses, 6 semesters, one course is offered with an intake of 18 per 3 years)

Doctoral Programmes in Electrical & Electronics Engineering

#### 2.3.2 FACILITIES Laboratories

- Electrical Machines Laboratory has around 50 machines which include DC generators, motors, synchronous motors, alternators and transformers.
- Power System lab includes the High-voltage lab and Relay Testing lab. It has facilities for oil testing, insulation testing of cables and also high-voltage frequency testing and impulse voltage testing.
- Electrical Measurements and Standards Lab is well equipped for the measurement of various electrical quantities with sufficient number of standards and measuring equipment.
- Electric Drives Lab has state of the act facilities for control of dc and ac motors. The lab is used by B.Tech and M.Tech students and Ph.D scholars.
- The Electrical & Electronics workshop gives practice on different types of domestic, commercial and industrial wiring.
- Electronics Circuits Lab and Digital Circuits Lab has all basic testing facilities for basic circuit realization, testing and trouble shooting. Also provides the facilities for doing Project work for UG students.
- System and Control Lab has the facilities for enabling UG students to design and conduct simulations and experiments on basic Control System.
- Advanced Control System Laboratory provides facilities for the PG students, for the design and conduct of advanced control experiments, mini project and thesis work.
- Other labs in the department include Power electronics lab, software lab and microprocessor lab.

#### Department Library

The Department library has a large collection of books which includes all the text books prescribed in the syllabus, reference books, IEEE journals, periodicals and copies of manuals of experiments done in various laboratories.

#### **Electrical Maintenance Wing**

The Electrical Maintenance Wing undertakes the electrical repair and maintenance of the whole college and also provides adequate and uninterrupted lighting facilities for evening classes.

#### Software Lab

The software lab includes application software like MATLAB with 19 tool boxes, MAXWELL - 3D, ORACD and PSIM.

#### 2.3.3 ACTIVITIES R & D Projects / Research work

Research works are going on in the areas of control of micro grid, development of real time expert system for power plants, position control of piezo electric actuation of space structures, development of controller for drive system, witricity and image processing etc. The department has at present research projects funded by ISRO, KESEB and DRDO.

#### Consultancy

Consultancy works are regularly undertaken in the areas related to energy management, calibration of measuring instruments, high-voltage equipment, lightning protection equipment etc.

#### **Testing Centre**

The testing centre of the department has been accredited by the Bureau of Indian Standards (BIS) and the revenue generated by this centre is at an average of Rs.12 lakhs/annum. This facility is availed by many of the leading manufacturers of cables and meters in the country and also public sector undertakings like K.S.E.B, Municipal Corporation etc.

#### 2.4 DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

#### Our Vision

Our vision is to collectively emerge as a competent group of professionals committed to the welfare of the society at large, drawing inspiration from achievements of science, technology and humanity.

Our Mission

To develop and pursue teaching process that inspire and motivate budding engineers to indulge in research, innovation and technology development for the benefit of the society so as to equip them to meet challenges in the ever-growing field of electronics with professionalism.

The Department of Electronics and Communication was started in the year 1965 with an intake of 33 students. Currently it offers B.Tech degree program in Electronics & Communication Engineering and Applied Electronics & Instrumentation Engineering, and M.Tech degree program in Microwave & Television Engineering, Applied Electronics & instrumentation, Signal Processing, Micro & Nano Electronics and Robotics & Automation Engineering. The faculty of the department consists of 5 Professors, 10 Associate Professors and 26 Assistant Professors. There are two First Grade Instructors, three workshop instructors, nine Trade Instructors and Seven Tradesman working as supporting staff. The B.Tech degree programmes in Electronics and Communication Engineering and Applied Electronics and Instrumentation Engineering, and M.Tech degree program in Microwave and Television Engineering, Applied Electronics and instrumentation, Signal Processing are NBA accredited

Placement record of students is remarkable and students are encouraged to go for higher studies in India and abroad.

#### 2.4.1 COURSES

B.Tech in Electronics& Communication Engineering (8 semesters) with an intake of 60 per year.

B.Tech in Applied Electronics & Instrumentation (8 semesters) with an intake of 60 per year

M.Tech in Electronics Engineering (4 semesters) with an intake of 18 per year in each of the following specializations.

- 1. Microwave & Television Engineering
- 2. Applied Electronics &Instrumentation
- 3. Signal Processing
- 4. Micro & Nano Electronics

5. Robotics & Automation

Evening Courses

- 1. B.Tech in Electronics & Communication Engineering (Evening Courses, 8 semesters) with an intake of 40 per year.
- 2. M.Tech. in Electronics Engineering (Evening Courses, 6 semesters, two courses are offered at a time with an intake of 18 per 3 years)

Doctoral Programmes in Electronics Engineering

#### 2.4.2 FACILITIES Laboratories

- The Department has well equipped laboratories, which includes
- Electronic circuits lab
- Communication lab
- Digital lab
- Biomedical lab
- Process control lab
- Microprocessor lab
- Microwave lab
- Power Electronics lab
- Measurements Lab
- Computer lab
- Digital Signal Processing lab (UG)
- Digital Signal Processing lab (PG)
- Embedded Systems lab
- Fiber Optics lab
- VLSI lab
- Advanced Communication lab
- Electronics Workshop
- Control System Lab
- Network Operations Centre
- Power Electronics Research Lab

- MEMS Lab
- Advanced Process Control lab
- Computer Vision Lab
- IOT Lab
- Advanced Research Lab on Information Systems Security

#### Library

The Department Library is one of the best of its kind with a collection of 7500 books, about 1000 learning materials. It has an excellent reference section, which contains a large number of hand books, data books etc. The library also keeps reports of Mini Projects, Final year Projects, and Seminar. A number of video cassettes and CD ROMS of lectures delivered by eminent professors are also available. The Department has access to all IEEE journals and conference proceedings, Science Direct, ACM and Springer ejournals..

#### LAN and Internet Facility

Entire Department including class rooms, labs, faculty rooms and library have been provided with 200 computer nodes. They are interconnected using wired as well as wireless networks. The whole Department is WIFI (wireless) connected using 12 wireless access points.

#### **Computing Facility**

The department has excellent computing facility which includes desktop computers in all UG/PG labs and workstation in PG & Research labs. The following software help students to do practical classes, projects and research works.

- MATLAB Version R2018b
- Mentor Graphics Digital Design Tools
- Microwave Office, HFSS, 4NEC2
- TI Development Platform for DSP Lab
- Silvaco Atlas tools

- FPGA Design Tools
- Tanner Tools for VLSI Layout and Design Simulation, DSPACE
- The computer facility is available for students from 9 am to 7 pm on all working days.

#### Self-Maintenance Cell (SMC)

Under the project IMPACT, the department has taken the initiative of setting up a Self-Maintenance Cell (SMC). This Cell looks after the maintenance of electronic equipment by utilizing the service of faculty and supporting staff. The Institute also utilizes the Self Maintenance Cell (SMC) for conducting training of engineers and technicians from the industry.

#### Seminar Hall & Conference Hall

The Department has three Seminar Halls. The main Seminar Hall and two Mini Seminar Halls have seating capacity of 100, 40 and 30 respectively. The conference room has a seating capacity of 25.

#### 2.4.3 ACTIVITIES

#### **Continuing Engineering Education Programme (CEEP)**

The Department conducts coaching classes for GATE preparation every year.

#### **Industrial Training Programme**

The students are encouraged to participate in internship programmes in academic and research institutions and industries during the semester breaks.

#### Research

The Department of Electronics & Communication is an approved research centre under University of Kerala. The Department was also approved as a new Quality Improvement Programme Centre in 2012. There are 9 full-time research scholars currently pursuing their Ph.D. opportunities exist for candidates to do full-time as well as part-time research in the college with registration under Kerala University.

Fellowships are awarded to research scholars under the scheme of Centre for Engineering Research & Development (CERD), Speed-IT and Higher Education Department of the State Government, apart from QIP and NDF.

Advance research laboratories like PERL (Power Electronics & Research Lab), ARLISS (Advanced Research Laboratory on Information Systems Security), Computer Vision Lab and MEMS Lab has been setup to enhance research and consultation. Financial assistance is sanctioned from KSCSTE for sponsored research in the field of Cyber Security in the Advanced Research Laboratory on Information Systems Security.

## The Golden Jubilee Activities of the Department of Electronics and Communication

The department celebrated its Golden Jubilee in the academic year 2015-16. Various activities including the Construction of a new PG and Research Block are in progress as part of the golden jubilee celebrations:

- 1. Construction of a new PG and Research Block
- 2. Faculty/Student development programs
- 3. Golden jubilee lecture series
- 4. Alumni lecture series
- 5. Open hardware initiative Kerala
- 6. Focus on Industry/International Collaboration
- 7. Strengthening of laboratories
- 8. Alumni networking
- 9. Preparation of Vision document 2025
- 10. Golden jubilee souvenir
- 11. Golden jubilee alumni meet

#### 2.5 DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

#### Vision

*To be a centre of excellence in education and research in the frontier areas of Computer Science and Engineering.* 

#### Mission

- To facilitate quality transformative education in Computer Science and Engineering.
- To promote quality research and innovation in technology for meeting global challenges.
- To transform students to competent professionals to cater to the needs of the society.

Department of Computer Science and Engineering was started in the year 1984 with an intake of 15 students. It is one of the youngest departments in the institution. From its humble beginnings, the department has grown tremendously and has evolved into one of the foremost units of the college. The department presently offers one regular B.Tech programme, one part time B.Tech programme and two M.Tech programmes. The faculty strength of the department is 21, comprising of two Professors, four Associate Professors, nine Assistant Professors, five contract staff and one adjunct faculty. The department has the fortune of getting some of the best students of the state. Their academic excellence is reflected in the high placement record of the department, as well as the significant number of students gaining admissions for higher studies in prestigious institutions of national and international repute like the IITs and the IIMs. The department has a long tradition of producing technically competent graduates and the alumni of the department are often high achievers, occupying prominent positions in the industry as well as the academia in India and abroad.

#### 2.5.1 COURSES

B.Tech in Computer Science and Engineering (8 semesters) with an intake of 60 per year.

M.Tech (4 semesters) with an intake of 18 per year in each of the following specializations.

- 1. Computer Science and Engineering
- 2. Information Security

Evening Courses

1. B.Tech in Computer Science and Engineering with an intake of 40 per year.

Doctoral Programmes in Computer Science & Engineering

#### 2.5.2 FACILITIES

The department houses nine laboratories (Programming, Digital/Microprocessor, Networking etc.), eight class rooms which include two studio class rooms for graduate students, a seminar hall , a conference hall and a well-stocked library. The department is furnished with high speed wired and wirless LAN and internet connectivity.

#### Laboratories

Laboratories are used for conducting laboratory assignments and project work to satisfy the academic needs of undergraduate,graduate and research students. Each of the BTech labs have 40 machines and Mtech labs have 20 machines. Three server machines host a variety of softwares required by the students. The department actively promotes the use of open source softwares. The computing nodes and the servers predominantly use Linux and another open source softwares.

All the labs are well equipped with all the softwares and hardwares which are necessary for the academic curriculum. Softwares such as Oracle, Visual Studio .NET, Java, Borland C++, and MATLAB are available to the students for practical classes and projects. Apple iMac machines as well as a high-performance 3D graphics workstation is also available in the lab.

Other than the softwares, the Networking lab is also equipped with advanced networking equipments such as Checkpoint UTM firewall, network analyzers and LAN trainer kits . The Digital/Microprocessor laboratory has facilities for experiments in digital circuits design, microprocessors and interfacing and embedded system development. It is equipped with microprocessor trainer kits, in-circuit emulators, oscilloscopes, microcontroller kits, embedded system development kits etc.

#### 2018 - 2019 INFORMATION BULLETIN Classrooms

The department has eight fully furnished smart classrooms used to conduct classes for the undergraduate and graduate students. Besides, there are two studio classrooms for graduate students, each equipped with 20 computers, which the students can use for their thesis and research work. All the classrooms are networked and are provided with LCD projectors.

#### Seminar Hall

The department owns a seminar hall with a seating capacity of 70, and is used for conducting student seminars, classes and meetings. It is equipped with network connectivity.

#### Library

The department library occupies a unique place in the academic activities. The library has 6840 volumes and 4457 titles of books .It also maintains the final year project reports and seminar reports , journals and periodicals, as well as copies of user and reference manuals of the equipment in the department. Library has facility to access e-journals like IEEE, Science Direct, Springer, ACM Digital Library, NPTEL and various e-books. It is fully automated with online access to library catalogue.

#### 2.5.3 ACTIVITIES

#### **Research and Development**

The department actively promotes an environment that stimulates research activities. The department is an approved research centre under APJ Abdul Kalam Technological University. The students and the faculty members of the department conduct research in several contemporary topics of Computer Science like Cloud Computing, Image Processing, Databases, Computer Networks,Information Security etc. Opportunities exist for candidates to do fulltime as well as part-time research work. Many of the faculties in the department are recognized research guides under various universities.

#### Management of the Central Computing Facility (CCF)

The daily operations of the Central Computing Facility in the institution are managed by the department. This includes the management of the campus networking infrastructure, campus mail system, the upkeep of numerous computers and server machines housed in several labs associated with CCF such as Sree Chithirathirunal Centre for Computing. The daily activities of the Center for Training in Software Engineering (CTSE) which is a part of the CCF, is also managed by department staff. The server machines host several applications such as Campusoft, CET web site etc., and are monitored and maintained by the technical staff of the department. Besides, the faculty members and technical staff of the department often assist in the procurement and troubleshooting of computing and networking equipment in the various departments and offices of the institution.

#### Short Term courses

The department regularly organizes short term courses on topics such as modern programming languages (C, C++, Java, Python, R etc.), maintenance and troubleshooting of computer hardware, AutoCAD, REVIT Architecture, open source software like Linux etc. The courses are in high demand, with significant number of participants enrolling from within and outside the institution.

#### 2.6 DEPARTMENT OF ARCHITECTURE

Vision

National level excellence and international visibility in every facet of architectural education

Mission

To facilitate comprehensive architectural education and research to build professionals with creativity and critical thinking for providing innovative and sustainable architectural solutions for the society

Architectural Education in Kerala started in College of Engineering Trivandrum in the year 1964. The department has been the sole torch bearer of Architecture Education in the state and instrumental in shaping up modern architecture in Kerala. The department celebrated its Golden Jubilee in the year 2014. The

Department presently offers Bachelors programme in Architecture and two Masters programmes (Planning and Urban Design) affiliated to the University of Kerala. The B. Arch. Programme comprises of ten semesters and is conducted as per the norms of the Council of Architecture, New Delhi. The Masters programme comprises of four semesters. The M. Planning (Housing) programme is recognized by the Institute of Town Planners, India (ITPI) and the M.Arch programme in Urban Design is conducted as per the norms of the Council of Architecture, New Delhi.

#### 2.6.1 COURSES

B.Arch (10 semester course) with an intake of 40.

M. Planning (Housing) (4 semesters) with an intake of 18 per year.

M.Arch (Urban Design) (4 semesters) with an intake of 18 per year.

### 2.6.2 FACILITIES

#### Department library and material museum

The department library is equipped with a large collection of books, thesis reports, periodicals and journals. The project reports and work done by the students of the various classes in the undergraduate level and postgraduate level are also kept in the library for reference.

The library is also equipped with private collections of books of the staff members of the department given as contribution. The material museum is equipped with samples of various materials used in building construction, furnishing materials, fixtures and fittings.

#### **Building Acoustic Laboratory**

The building acoustic laboratory is equipped with modern equipment like sound level meter, real time acoustic analysers, power amplifier, noise dose meter and software for analysing building acoustic parameters and noise levels. A good collection of reference books and standards on acoustics are also available. An acoustic chamber with low noise level for accurate measurement is part of the laboratory.

#### Architectural Graphics Laboratory

The graphics laboratory is equipped with 43 PC-workstations with internet facilities, 8 printers, one A0 Scanner, two A4 scanners and one A0 plotter. It has

software for computer graphics, 3D modelling and estimating. Some of the software are AutoCAD, 3D Max, Photoshop, PageMaker, etc. The laboratory facilitates in carrying out works related to architecture and graphics.

#### Seminar Hall

The seminar hall can accommodate 150 persons and is equipped for seminars, lecture classes, video shows, slide shows etc. Overhead projector, slide projector, television with DVD player, LCD projector and amplifiers are available for presentation of various types. It is also equipped with a collection of slides of architectural monuments worldwide.

#### Workshop

A workshop for clay modelling and model making in Plaster of Paris and mount board is functioning in the department. Painting using various media such as water colour, poster colours and oil paint is also done here.

#### **Consultancy Cell**

Department has been actively involved in the consultancy works for various governmental and non-governmental organizations.

#### **Digital Photography Lab**

The Digital Photography lab is equipped with state of the art digital SLR cameras, lenses, software's and other modern tools for photography. Though it was setup primarily to cater to the architectural photography subject in the B.Arch course syllabus, the Departmental photography club also offers on and off-site photography workshops, under eminent specialists.

#### 2.6.3 ACTIVITIES Research and Development
Research oriented housing projects have been taken by the department. Apart from the study of housing in multi-storeyed buildings, housing for economically weaker sections, etc. have been taken in PG level.

### **Industry Institute Interaction**

Professionals from the industry conduct guest lectures and interaction programs with the department. Practicing architects are given opportunity to visit the department frequently and interact with the students and faculty to update the knowledge.

### Short Term Course

A number of short-term courses are being conducted by the department. Short term courses on Interior Design (evening programme), AutoCAD and Architectural Sketching are being conducted by the department under the Continuing Education Programme.

### **Student Activities**

The Society of Student Architects (SSA) is an in-house student body of the department. The activities of the SSA include organizing guest lectures, demonstrations, slide shows etc.

#### **Consultancy Service**

Consultancy service of government and nongovernmental projects through department consultancy cell are under taken. The National Aptitude Test in Architecture for admission to B.Arch course is also being conducted by the department.

### 2.7 DEPARTMENT OF COMPUTER APPLICATIONS

Vision

*To uplift our nation to the forefront of international society by way of advanced computer education.* 

#### Mission

• To provide quality education and promote academic growth by offering state-of-the-art postgraduate programme with world class facilities to students from all sections of the society.

• *To provide a bridging programme for science and commerce graduates to transform them into competent IT professionals.* 

• To create an ambience which nurtures human values, sense of accountability and commitment to serve the society.

Department of Computer Applications was started in the year 1986 under the initiative of the Department of Electronics, Government of India. The department offers three-year full-time MCA program, which focuses on providing sound theoretical background as well as a good practical exposure to the students in the relevant areas. It constantly keeps its individuals in track with state-of-the art computer technologies and is dedicated in providing a cutting-edge, industry-oriented education in applied computer science. It aims that producing individuals, who can successfully meet the rigorous demands of the Information Age. It aids scholars to evolve academic strategies and work toward academic goals rooted in human value for knowledge-based achievements in Information Technology.

MCA programme is a three-year full time post graduate course comprising of six semesters. The sixth semester is completely dedicated for project. MCA programme has current annual intake of 60 students. MCA programme from 2016 admission onwards is affiliated to the A P J Abdul Kalam Technological University.

The department is credited with the development of campus automation software "Campusoft" which is currently running in the campus. Software support activities like attendance monitoring, student records management and the complete admission process. The department is also credited with the development of software for online processing of M.Tech applications and generating the allotment list. M.Tech admissions have been conducted using this software during the last seven years. The students of the department have also developed software applications for various government departments and agencies like Information Kerala Mission, IT@school, Rajiv Gandhi Centre for

Biotechnology etc. Software for online transfer and posting of school teachers was done with the help of software developed by the students of the MCA department. The department also undertakes consultancy and software development activities for industry and other institutions.

The department has formed an association of students named 'Association of Students of Computer Applications (ASCA)'. It aims to motivate the students to enhance their software development skills, soft skills, personality development etc.

# 2.7.1 FACILITIES Software Lab

The Department has a well-equipped software lab. The software lab has state of the art blade and rack servers based on Intel Xeon quad core dual processor with RAID capability. It has over 90 workstations.

### Video and Image Processing Lab

The Department has an advanced video and image processing lab with high end Xeon based graphic workstations with K5200 NVIDIA graphics card and Sony HXR-MC2500 movie camera.

### Microprocessor Lab

The Department has an advanced microprocessor lab with Intel Atom processorbased Edison kits, Arduino kits and servo motors in addition to microprocessor kits.

### Database Lab

The Department has a database lab with a high-end Dual Xeon processor-based IBM server running oracle 11g and more than 30 desktop clients. This lab was funded by AICTE.

### **Department Library**

The Department also has a very good library that would cater to the needs of the students and faculty of the department. The library has over 2000 books which include the text books prescribed in the syllabus, reference books, journals and periodicals. The library has lending as well as reference facilities.

### 2.8 CET SCHOOL OF MANAGEMENT

#### Vision

National Level Excellence and International Visibility in Every Facet of Management Education.

#### Mission

To contribute to the efficient management of resources for the economic growth and social development by providing the skills and knowledge to manage and by upgrading the body of knowledge through research and linkages with academicians, practising managers and business houses.

CET School of Management (CETSOM) is Business Administration Department of College of Engineering Trivandrum. The MBA program was started as a part-time programme in 1985. This is the second oldest MBA Programme in the state. This programme was well received by the practicing management fraternity and continues to be in the forefront of management education. The department of current status was started in 2000 with commencement of full time MBA programme. It was affiliated to the University of Kerala till 2014 admissions. From 2015 onwards, the MBA program is affiliated to APJ Abdul Kalam Technological University. The first batch of MBA students to pass out from the then nascent A P J Abdul Kalam Technological University was from CETSOM, CET, in 2017. Duration of the program is two years for full time, and, two years and eight months for part time. MBA Programme follows trimester system. Areas for specialization available are Marketing, Finance, Systems, Human Resources Management and Operations Management. The number of seats approved for the full time and part time programmes are 120 and 30, respectively. The MBA programme was accredited by National Board of Accreditation (NBA) in 2013. The part-time programme of the department is also affiliated to the A P J Abdul Kalam Technological University with an annual intake of 20 students. Foreign students are also eligible to apply for MBA Part Time Programme. Students with full time eligibility also can secure admission to MBA Part Time Programme.

The CET School of Management (CET-SOM) maintains a departmental library with more than 5000 titles. The school also subscribes to around 50 national and international journals apart from e-journals and e-books. The department has its own computing facility with business software like SPSS, TALLY, SYSTAT, Project and PROWESS, an Online Corporate database. CETSOM also subscribes for IIM Ahmedabad Case Centre for accessing Case Material for Class Room teaching and

student access. The School is an approved research centre since 2005. Research scholars from within and outside the country are eligible for carrying out research on full-time as well as on part-time basis. Research papers are regularly published in national and international journals and presented national and international conferences by the faculty, scholars and students.

Teaching methodology includes class room lecturers, discussions, case study presentations, mini projects, PROWESS based projects, role plays, web-based assignments, term papers, group activities etc. In addition, students are given knowledge on the dynamic business environment through constant interaction and linkages with the industry, initiatives for talent development and soft-skill development and by improving the organizing capacity of students through exposure to real-life situations in the industry as well as the society. As part of the MBA program, students are to undergo 45 days of internship in companies and organizations of repute. The students get opportunity to interact with academics, drawn from leading academic institutions in India and abroad as well as other departments in the college.

### 2.8.1 MBA DEGREE COURSE

Educational qualification for admission to the programme is a pass in the degree examination with 50% marks in aggregate. For BA, BSc and B Com students, a pass in the examination with 50% marks in Part III is the eligible qualification. For SC/ST candidates, a pass in qualifying examination is sufficient and for SEBC (OBC) candidates 45% of aggregate marks in the qualifying examination is mandatory. Applicants for the programme must have a valid score in CAT / CMAT / KMAT. The tuition fee payable for the two-year programme is Rs. 1,50,000. Other fees payable is (i) Admission fee: Rs. 1000, (ii) Caution deposit: Rs. 5000 (refundable) and (iii) Miscellaneous fees: Rs. 4000 per year.

#### 2.8.2 Facilities Computer Lab

The department has a well-equipped computer lab with several workstations installed with software such as SPSS, TALLY, SYSTAT and online access to Prowess and IIM Ahmedabad Case Centre for downloading cases. There is WIFI networking across the whole building with multiple access points.

### **Conference Hall**

The department has well-furnished and air-conditioned theatre-style smart conference hall with a seating capacity of 60.

### Seminar hall

The department has a well-furnished smart seminar hall with a seating capacity of 120.

### Language Lab

The department has a language lab that caters to the language improvement initiatives of the students.

### Library

The department library houses over 5000 book and has over 484 back volumes of journals, with subscriptions to both international and national journals. It is also equipped with online access for e-journals and e-books.

#### 2.8.3 Activities

### **Industry Institute Interaction**

Professionals from the industry conduct guest lectures and interaction programs with the students every week at CETSOM. It also encourages student chapter activities of Trivandrum Management Associations, Young Indians of CII, and more.

#### Consultancy

CETSOM takes up consultancy on a regular basis from various governmental and non-governmental organisations. Most of the faculty at CETSOM have undergone training programmes either at top notch Institutes in the country or abroad. Some have teaching experience abroad and are well equipped to undertake management consultancy from any industry on a need by need basis. All consultancy assignments are taken up through ITC & SR Centre functioning at the College of Engineering Trivandrum. CETSOM has the capability to undertake consultancy in all functional areas of management.

### Training

CETSOM regularly takes up training for faculty members of other colleges as well as for industry on a regular basis through ITC & SR Centre established at the College of Engineering Trivandrum. It has run nearly 40 courses under Centre for Faculty and Staff Development itself funded by the Directorate of Technical Education. Also, CETSOM has completed nearly 10 training programmes exclusively on self-financing basis for the benefit of executives from industry in association with Indian Institution of Industrial Engineering.

#### **Outreach Programmes**

The department students and faculty are regularly involved in organising and conducting visits to the nearby orphanages and old-age homes to enhance the spirit of being socially responsible. Also extend support to such organizations in all possible means. This helps CETSOM inculcate students' value of being socially responsible and to develop such sensitivity in them.

#### Conferences

The organizing ability of the faculty at CETSOM could attract to entrust with them the conduct of leading national as well as international conferences. CETSOM has conducted one national conference and two international conferences fully on selffinancing basis in association with professional bodies of international repute such as Production and Operations Management Society (USA), International Ergonomics Association head quartered at Geneva, Indian Institution of Industrial Engineering, Indian Society of Ergonomics and more.

The students are also enthusiastic participants and contributors to the activities of Trivandrum Management Association student Chapter and Young Indians Chapter, bagging prizes at many events and setting quite a high benchmark for subsequent batches of students.

#### 2.9 DEPARTMENT OF MATHEMATICS

The Department of Mathematics, College of Engineering, Trivandrum holds the unique distinction of being the largest among the mathematics departments of Engineering Colleges in Kerala. The Department with 17 qualified and dedicated faculty, constantly strives to equip the students with concepts of mathematics relevant to various engineering disciplines. The Department offers 30 papers at the PG and UG level, catering to the needs of the various branches of engineering courses.

The Department has an own library consisting of about 500 books, mostly related to Engineering Mathematics. The Department conducts workshops / Seminars to update both the faculty and students of CET and other Engineering Colleges in

traditional as well as newly emerging areas of mathematics which are relevant to engineering studies.

Many of the faculty members are engaged in active research and have published papers in national and international journals of high impact factor and some of them are also reviewers of international journals like IEEE Transactions. Department has four Ph.D holders. The areas of research pursued include Nonlinear Dynamics, Space Dynamics, Chaos Theory, Coding Theory, Information theory, Quantum computing, Discrete Element Methods, Wavelets, modeling and simulation of suspensions etc. Some of the faculty members also give invited lectures at seminars/ workshops in CET and other institutions.

#### 2.10 DEPARTMENT OF PHYSICS

Technology can exist only on the strong foundation of science. Technology owes its practical successes to discoveries done by scientists. So, it is necessary for the engineering students to have a strong background in basic science. Most of the engineering disciplines are rooted in Physics. In fact, a good engineer is more or less an Applied Physicist. So, there is no wonder that the Department of Physics of CET came into existence on the very year of inception of the College in 1939. Since then, the mandate of the Department is to conduct Physics classes for the engineering students with the intention to motivate and inspire them to have a strong background in Physics. The active and qualified faculty members strive hard to feed these budding engineers with the fine aspects of Physics, which make them to understand, exploit, innovate and contribute to the technological advancement of tomorrow. The Department has a well-equipped laboratory which fulfills the requirements of experiments in Physics for both undergraduate and post graduate studies. At present, Indian Institute of Science Education and Research (IISER) is also making use of the facilities of this Laboratory.

#### 2.11 DEPARTMENT OF CHEMISTRY

The Department of Chemistry provides world class education in Chemistry to Engineering students in an exciting research environment. The Department is an approved research centre of the University of Kerala and is one of the oldest Departments of this institution. The Department has produced three Ph.D.'s and has one approved research guide as Faculty member. The Department is honored to have experienced and well qualified Faculty and it caters to the needs of both Under-Graduate and Post-Graduate students. Faculty members are engaged in active research and are actively participating in National and International Conferences, publishing research articles in journals of National and International

repute. The research areas include synthetic organic chemistry, phytochemistry and drug design and development. The Chemistry Laboratory has been shared by Indian Institute of Science Education and Research (IISER-TVM) since August 2008. Chemical consultancy works are undertaken by the department. The Department is gearing up to meet the demands of a lead institution under the Kerala Technological University.

### 2.12 DEPARTMENT OF PHYSICAL EDUCATION

The department in a span of 75 years has established itself as a reputed and recognized department in the institute. The department offers various training programmes in Sports and Games, Fitness activities programme to all students and staff. The department has the bonus of having a well-equipped fitness centre which is the first of its kind, and has benefited a large number of students and staff. (The fitness centre is open on all working days from 12 pm to 2 pm for girls and 4 pm to 6 pm to Boys). The infrastructure facilities include an Indoor Flood lit stadium with synthetic flooring for playing shuttle badminton, Table Tennis, Basketball etc, outdoor playing fields (Football, Cricket, Volleyball, Softball, Baseball, Athletics etc and two cricket practice Nets (concreted) with net covering. Apart from fitness centers in Indoor stadium, Men's Hostel and Ladies Hostel are also having well equipped fitness centers in the hostels. Our students are participating in International, National, State, All India Inter University District, Inter-collegiate level tournaments throughout the academic year as per the various schedules of tournaments. The department is also organizing many tournaments at Inter Department, Intercollegiate, State and District level for various games. The college teams are also registered for the Trivandrum district league tournaments for various Games and Sports.

### 3. DISCIPLINE, CONDUCT AND BEHAVIOUR

- 1. All students should be properly and neatly dressed
- 2. The behaviour of the students, both within and outside the college premises should be decent and befitting to a professional institution
- 3. The student shall move silently when preceding from one class to another so as not to disturb classes at work. Students are advised not to bring mobile phones in class rooms. Mobile phones, if any, with the students must be in switch off condition during class hours.
- 4. No student shall leave the class before the class is dispersed without the permission of the teacher in charge of the class.
- 5. Hanging out in the hallways during class hours, even when classes are not in session is not permitted.
- 6. Students are prohibited from organizing or attending meetings in the college, distributing notices and collecting money for any purpose, without the permission of the principal.
- 7. Students shall wear their ID card around their neck so as to clearly display their identity within the campus and may be required to surrender them on demand by authorities.
- 8. Students are responsible for any unwanted activities that occur in their hostel rooms and the shared living spaces
- 9. Students should not remain in their hostel rooms during class hours except on permitted medical reasons
- 10. Smoking is strictly prohibited anywhere in the campus premises

- 11. Consumption and possession of alcoholic beverages and any form of substance abuse is strictly prohibited and will be severely dealt with.
- 12. Any student:
  - Who is persistently insubordinate,
  - Who is habitually irregular in attendance or inattentive to his work in classes,
  - Who is repeatedly or wilfully mischievous, or obscene in words or act,
  - Who is guilty of fraud or malpractices at examinations,
  - Who indulges in movements which lead to communal ill feeling or enmity,
  - Who indulges in ragging junior students will be liable to be punished according to the decision of the College Council.
- 13. Students must work quietly while in the library or spend time in such a way as not to cause any interference with the work of others.
- 14. Scribbling or etching on drawing boards and desks, writing or pasting notices on the walls etc. are strictly prohibited.
- 15. Students are prohibited from displacing articles or furniture from their places in the classrooms or laboratories.
- 16. Students must not bring their vehicles inside the college campus under any circumstances.
- 17. Under any circumstance no student or staff or any one from outside is permitted to enter the classroom while the classes are going on without the permission of the staff member concerned.
- 18. Day scholars who would like to bring motor vehicles to college shall register the vehicles with the PTA office. They shall collect the student's entry pass to the parking space provided in front of the college campus by showing their ID card, vehicle's RC book and their driving license at the PTA office.

### 4. ACADEMIC CURRICULUM OF APJ ABDUL KALAM KERALA TECHNOLOGICAL UNIVERISTY

#### 4.1 B.Tech Programme

B.Tech is a credit based programme having a normal duration of four academic years, spanning eight semesters. The maximum duration for a student to complete the programme is six academic years spanning twelve semesters. Students completing the required credits and meeting the conditions stipulated by the University will be awarded B.Tech Degree. On meeting additional requirements, a student can also get a B.Tech (Honours) Degree.

#### 1. Programme Structure

- i The programme in all branches of study is structured on a credit-based system following the semester pattern with continuous evaluation allowing flexibility for students to decide on the duration of programme completion.
- ii Each semester shall have 72 instructional days, followed by end semester examinations.
- iii There is provision for a student to opt for B.Tech (Honours) at the end of the fourth semester, under specific conditions that are given later.
- iv The curriculum of any branch of the B.Tech programme is designed to have a minimum of 180 academic credits and 2 additional pass/fail credits, for the award of the degree. Credits are assigned to courses based on the following general pattern.
  - a. One credit for each lecture hour per week for one semester
  - b. One credit for each tutorial hour per week for one semester
  - c. One credit for each laboratory/ practical session of 2 or 3 hrs, per

week for one semester.

- v Lectures, Tutorials and Practical are indicated in the curriculum as L T P followed by the Credits for them. If L T P is 3 1 0 the credit is 4; Likewise, for 2 0 2 the credit is 3 and for 0 0 3 the credit is 1.
- vi In a semester normally up to six lectures-based courses and two laboratory/practical courses, carrying a maximum credit of 26, could be offered.
- vii The University may allow students to transfer credits they have earned at other Universities and Academic Institutions with its approval.
- viii *Student Activities Points:* In addition to academics, students have to actively engage in co-curricular and extra-curricular activities. Points are allotted for such activities. On getting a minimum of 100 activity points the student passes the course and earns 2 credits. The 2 credits earned as mentioned above are not counted for the CGPA, but is mandatory for the award of the degree. (More details later)

#### 2. Curriculum, List of Courses and Syllabi

- Every branch of study in the B.Tech programme will have a curriculum, list of courses, syllabi and course plans approved by the Academic Committee of the University.
- ii Courses are categorized as Core Theory (CT), Core Practice (CP) and Electives (EL).
- iii Each course has a course code that includes the offering department or knowledge segment code and a three-digit number. Knowledge segment code is used when a course is offered by any one or more departments with the same course content and syllabus.
- iv Each course is given an Examination Slot (A, B, C.....) in the curriculum. This is for simplifying the End-Semester examination schedule. The semester examination schedule will give only the date and the corresponding slot, not the courses. All courses that are listed under Slot

A will have the examination on that day.

v Core courses, Prerequisites and Electives: All courses listed in the curriculum, other than the electives, are core courses. Earning credits in the core courses is mandatory for the B. Tech. degree. If a student fails in an elective course, he/she can change the elective course with the permission of the faculty advisor concerned. For some courses there could be a prerequisite course completion/registration requirement.

#### 3. Faculty Advisor/Counsellor

All students will have faculty advisors whose role will be: -

- i To guide and help students on academics
- ii To monitor their progress in academics and advise them
- iii To counsel them and hand-hold them in any difficulty

#### 4. Course Registration and Enrolment

It is mandatory for students to register for the courses they want

to attend in a semester. Students admitted freshly to the first semester, are advised to register for all courses listed for the semester. However they do not have to enrol for the semester. All other students are required to register and enrol for the courses they desire to take in the semester. They have to enrol for these courses for appearing in the examinations. Students can drop courses already registered for, at the time of enrolment. Students should clear all dues including any fees to be paid before enrolment and should not have any disciplinary issues pending. They have to remit examination fee as mentioned in section 6 (b) at the time of registration/enrolment. The dates for registration and enrolment will be given in the academic calendar. Any late registration or enrolment, allowed up to 7 working days from the stipulated date, will attract a late fee. A student can withdraw from a course or substitute one already registered by another on valid reasons with the approval of the faculty advisor. However, this has to be done within *seven* working days from the commencement of the semester. The maximum number of credits a student

can register in a semester is limited to 28.

#### 5. Course Completion and Earning of Credits

Students registered and later enrolled for a course have to attend the course regularly and meet the attendance rules of the University and appear for all the internal evaluation procedures and end semester examination for the completion of the course. Credits for the course are earned only on getting a pass grade in the composite evaluation (i.e., internal evaluation + end semester exam). For students admitted under lateral entry scheme, credits for the first and second semester courses are deemed to have been earned from the Diploma programme. Their eligibility criteria for registering for higher semester courses will be same as that for the B.Tech programme.

#### 6. Summer Courses

Students who could not earn the required minimum credits at the end of the second or fourth semester have two options to continue with the studies.

- i They can register again for the courses, when they are offered in the next academic year.
- ii There is also a provision to attend summer courses in failed courses for these students.
- iii The students who have failed in any course due to lack of eligibility can register for summer courses provided the attendance in regular course was above 50% and Internal Assessment marks were more than or equal to 35%. Make up test will be conducted for such students and IA marks will be revised on the basis of marks obtained in the makeup test. Students should have 75% attendance in the summer course and IA marks should be 45% or more to become eligible to write the examination
- iv Summer courses will be conducted for a minimum of 20 contact hours for each course. Summer courses will be offered only at the end of the second and fourth semesters for the courses covered till that semester.
  - v The summer courses shall be considered as independent

course and students have to register for this course. This provision of summer courses may be extended to students who have got FE grade due to (i) shortage of attendance (ie. having attendance less than 75%) and (ii) shortage of internal evaluation marks (ie. having IA marks less than 45%) with the following conditions:

(i) The students shall have minimum 50% attendance in the specified course of the regular semester. They have to register for the summer course and obtain 75% attendance.

(ii) The students shall have a minimum 35% IA marks in the regular semester. During the summer course the student will get a chance to improve the IA marks by writing one IA make up test during the summer course. This will replace the lower of the two marks got in the regular semester. However the IA marks shall be limited to 50%

Details of summer courses planned will be announced by the colleges after the declaration of the even semester results. Final examination for summer courses will be conducted by the University.

For higher semesters, i.e., fifth semester onwards, summer courses are not offered.

Failed students who have less than 45% marks in internal assessments and/or less than 75% attendance have to register again for the course in the regular semester in which it is offered and complete the course as per the regulations and appear for the end semester examination.

Failed students having 45% marks or more in internal assessments have the option to register again for the course as mentioned above or register only for the end semester examination without attending the course again. A separate registration format will be available for this. This option is available in all semesters.

#### 7. Contact Courses

If a student has to earn credits only just for one course to qualify for the degree

after completing eight semesters of study, the college *may* offer a contact course on a written request by the student. The contact course is considered as fresh registration and will be offered by the teacher concerned who shall conduct the internal evaluation procedures and allot the marks as per the regulations. Minimum contact hours for the course will be 20. The final examination will be conducted by the college and will be monitored by the external academic auditor. Question paper for the examination will be given by the Controller of Examination. *No grade above C* will be given for a contact course.

### 8. Academic Assessment/Evaluation

University follows a continuous academic evaluation procedure. Academic evaluation composes of Internal Evaluation and End Semester Examination. Academic evaluation procedure and corresponding weights are as follows: -

i. Theory Courses

Each theory course is awarded a maximum of 150 marks whose distribution is given below:

Int	ernal E	valuation (by the colle	ege)	External	
		Assignment/Tutori		Evaluation (by	
Test1	Test 2	al/Mini Project	Total	the university)	Total
20	20	10	50	100	150

Normally 1/3rd weightage for internal evaluation and 2/3rd for end semester examination. For convenience, the maximum marks for internal evaluation and end semester examination for theory courses are fixed as 50 and 100 respectively unless otherwise specified through internal circulars for any

particular xamination. All the above evaluations are mandatory requirements to earn credits. Students who have missed either the first or the second test can register with the consent of the faculty and the Head of the Department (HOD) concerned for a re-test which will be conducted soon after the completion of the second test, but before the end semester examination. The re-test will cover *both first and second test course plans*. Those who have missed both the tests are not eligible to appear for the end semester examination.

However, if one misses both tests due to medical reasons or other personal

exigencies, *based on genuine evidence*, a single test of 2-hour duration for 40 marks will be conducted *covering the whole syllabus*, before the end semester examinations. Decision on this will be taken by the Principal and verified by the external academic auditor.

ii. Laboratory/Practical/Workshop Courses

Each laboratory course is awarded 100 marks distributed as follows:

Internal Evaluation (by the college)											
Record	ecord Regular Practical Total										
&Output	Class Viva	Examination									
60	60 10 30 100										

30 marks for final written test /quiz in the evaluation of laboratory /practical courses in 3 to 8 semesters shall be awarded by conducting one end semester internal practical examination. All the above assessments are mandatory to earn credits. If not, the student has to complete the course/assessments during his free time in consultation with the faculty members. On completion of these, grades will be assigned. In case the Practical / Laboratory/ Workshop courses are not completed in the semester, grade I (incomplete) will be awarded against the course and the final grade will be given only after the completion of the course/assessments.

#### iii. Comprehensive Examination

As students appear for placements from seventh semester onwards, comprehensive examination is to be completed in the sixth semester. This examination consists of two parts. Part one a written test and the other an oral one. The written examination will be objective type of 1-hour duration and will have 50 marks and will be conducted by the concerned department.

Chairman of the oral examination board will be a senior faculty in the department and the members include two other faculty members of the department and an external expert from another academic institute or an industry. Oral examination will carry 50 marks.

Comprehensive examination will be conducted any time during the 6th

semester.

iv. Seminar

Each student has to give a seminar on a professional topic of current interest in consultation with the faculty member in charge of the seminar in the Department. Students have to prepare a detailed report on the topic of the seminar and submit it to the teacher concerned. The seminar is to be of 20 minutes duration with another 5 minutes given for questions and answers. All students in the class have to attend the seminar without fail. Evaluation will be based on the report, seminar presentation as well as on the ability of the student to answer the questions put forward.

Faculty member in charge of the seminar and another faculty member in the department nominated by the Head of the Department are the evaluators for the seminar. Distribution of marks for the seminar is as follows.

Marks for the report	30%
Presentation	40%
Ability to answer questions on the topic	30%

v. Design Project

Each student or a group of students has to take up a design project. The project topic could be arrived at in consultation with any faculty member in the department. The Evaluation of the project will be done in two stages. Two project progress evaluations each carrying 20 marks and a final report evaluation and presentation of the project for 60 marks. The project supervisor and two other faculty members from the same or any other department, nominated by the Head of the Department, form the evaluation board.

### vi. Final Semester Project

Students, either individually or in a small batch not exceeding four, have to do a project approved by their faculty supervisor. Evaluation scheme is given below: -

i)	Two progress assessments	20%	by the faculty supervisor(s)
ii)	Final Project Report	30%	by the Assessment Board
iii)	Project presentation and Viva	50%	by the Assessment Board

If the project work is not completed satisfactorily, the student has to put in more work and appear again for assessment on a specified date, not earlier than one month after the first evaluation. If the student fails in the project, a fresh registration for the project for one semester is mandatory.

#### 9. Eligibility for writing the end semester examination and for grading

The main eligibility criteria for appearing the end semester examination are,

- i minimum 75% attendance in each course,
- ii minimum 45% internal marks for each course and
- iii no pending disciplinary action.

Students who do not meet the above eligibility criteria are awarded an *FE* grade and have to register for summer courses, if eligible or for the regular course again at the next opportunity. A student should have a minimum of 45% marks in the end semester examination to be eligible for grading in a course. Otherwise he/she will be considered to have failed in the course and an *F* grade will be awarded.

Internal marks given to the students who got 45% marks or more in the end semester examination shall be regulated in line with the end semester examination performance. Internal mark percentage shall not exceed 25% over the end semester mark %. (For example, if the end semester mark % is 45, then the maximum internal mark % is to be 45+25 = 70 %.)

In case the student writes the supplementary examination, the mark got in that will be taken into consideration for regulating the internal marks. Those who have more than 45% marks in the end semester examination are awarded the grade based on both internal assessment and end semester examination marks. A student earns credits for a *course if the grade is P or above*.

### 10. Examination

At the end of the semester, end semester examination will be conducted in all lecture based courses offered in the semester and will normally be of three hours duration, unless otherwise specified. Supplementary examinations shall be conducted during summer vacation after the even semester examination and before the commencement of the next odd semester, for students who are eligible and have registered for the same. Students, who have completed a course but could not write the end semester examination for valid reasons like illness or personal exigencies, are allowed to write the supplementary examination or the end semester examination at the next opportunity provided they meet other eligibility criteria. Grades awarded in the supplementary examination will be taken as the end semester grades in these courses.

#### 11. Award of Grades

Grading is based on the % marks obtained by the student in a course. The grade card will only give the grades against the courses the student has registered. Semester grade card will give the grade for each registered course, Semester Grade Point Average (SGPA) for the semester as well as Cumulative Grade Point Average (CGPA) up to that semester. Grades and Grade Points as per UGC guidelines will be followed by the University.

Grade	Grade Point	(GP)	% of Total Marks obtained in the course				
0	(Outstanding)	10	90% and above				
A+	(Excellent)	9	85% and above but less than 90%				
А	(Very Good)	8.5	80% and above but less than 85%				
B+	(Good)	8	70% and above but less than 80%				
В	(Above Average)	7	60% and above but less than 70%				
С	(Average)	6	50% and above but less than 60%				

Р	(Pass)	5	45% and above but less than 50%
F	(Fail)	0	Less than 45%
FE		0	Failed due to eligibility criteria
Ι			Course Incomplete

#### 12. Calculation of SGPA/CGPA

Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA) are calculated as follows.

SGPA =  $\Sigma$ (Ci×GPi)/ $\Sigma$ Ci where Ci is the credit assigned for a course and GPi is the grade point for that course. Summation is done for all courses registered by the student in the semester. Here the failed courses are also accounted.

 $CGPA = \Sigma(Ci \times GPi) / \SigmaCi$  where Ci is the credit assigned for a course and GPi is the grade point for that course. Summation is done for all courses registered by the student during all the semesters for which the CGPA is needed. Here the failed courses are also accounted. CGPA of all courses passed may also be given. CGPA for the B. Tech programme is arrived at by considering all course credits that are needed for the degree and their respective grade points.

#### **13. Student Activity Points**

Apart from technical knowledge and skills, to be successful as professionals, students should have excellent soft skills, leadership qualities and team spirit. They should have entrepreneurial capabilities and societal commitment. In order to nurture these qualities, KTU has introduced activity points to be earned by the students during their academic stay at the University covering extra-curricular and co-curricular activities. All students have to earn a minimum of 100 activity points from various activity segments listed to qualify for the B.Tech degree. Two credits are given for this on a pass/ fail basis and is mandatory for getting the B.Tech Degree. As no grade is given for these two credits, they are not included in the CGPA calculation. For lateral

entry students joining from the third semester, the activity point requirement is 75. Points earned by the student will be indicated in the consolidated academic statement. Colleges shall consolidate the activity points earned by students on a semester basis and enter the consolidated points on an academic year basis in the KTU portal. In case of NSS and NCC, points can be entered after the completion of two-year Programme. The portal for this will only be open for a specific time period. All documental proof for awarding the activity points should be obtained and kept with the college authorities to be verified by the Academic Auditor.

The main activity segments are as follows:

- i National Initiatives
- ii Sports & Games
- iii Cultural Activities
- iv Professional Self Initiatives
- v Entrepreneurship and Innovation
- vi Leadership & Management

The following table gives the list of activities under each of these segments, the level of achievement expected, activity points, evidence needed to assign the points and the minimum duration needed for certain activities. Additional activities falling under these segments can be considered, if requested by the college with full details. However, this has to be approved by the Academic Committee of the KTU.

vity ad	ю.	Activity	Ac	hieve and Activ	emen Assiş vity P	t Lev gned 'oints	vels S	ہ oval ment	ıx. nts	ıration of vity
Activ He	SI. N	* Level	I	II	III	IV	v	Docu Appr **	Ma Poi	Min. Du acti

vity ad	0.	Activity	Ac	hieve and Activ	emen Assiş vity P	t Lev gned 'oints	vels S	, oval ment	ıx. nts	ıration of vity
Acti He	SI. N	* Level	I	Π	III	IV	v	** Appr Docu:	Ma Poi	Min. Dı acti
	1	NCC	-	-	-	-	-	a/b	60	2 Years
	2	NSS	-	-	-	-	-	a/b	60	2 Years
National Initiatives Participation	For certif to ma Best Natio India provi Best Partic Excha up to provi	For C certificate / outstanding performance supported by certification, additional marks up to 20 can be provided subjected to maximum limit of 80 points Best NSS Volunteer Awardee (University level) / Participation in National Integration Camp/ Pre Republic-Day Parade Camp (South India), supported by certification, additional marks up to 10 can provided subjected to maximum limit of 70 points Best NSS Volunteer Awardee (State / National level) / Participation in Republic Day Parade Camp/ International Youth Exchange Programme, supported by certification, additional marks up to 20 can be provided subjected to maximum limit of 80 points								
~	3	Sports:	8	15	25	40	60	a	60	1 Year
nee		Games	8	15	25	40	60	а	60	1 Year
لا Gaı ipatio		First Prize	10	10	10	20	20	Additional points can provided for winning		
orts d artic	4	Second Prize	8	8	8	16	16	The maximum limit activity points is 60. for Level IV and winning, the maxim point limit is enhanc 80		mit for 60. But
4 Sp		Third Prize	5	5	5	12	12			nd V ximum anced to
	5	Music	8	12	20	40	60	а		
rities In	6	Perfor ming arts	8	12	20	40	60	а 60		I Year
Activ patic		Literar y arts	8	12	20	40	60	а	60	I Year
ural . artici	First Prize 10 10 10 20 20				20	Addition	al points d for wi	s can be		
Cult <sup>1</sup> Pê	7	Second Prize	8	8	8	16	16	The max activity r	imum li oints is	mit for 60. But
		Third Prize	5	5	5	12	12	for Le winning,	vel IV an , the ma	nd V ximum

2018 - 2019 INFORMATION BULLETIN

/ity ad	0.	Activity	Ac	hieve and Activ	emen Assiş vity P	t Lev gned 'oints	vels S	oval nent	Max. Points	ration of vity
Activ Hea	SI. N	* Level	Ι	II	III	IV	v	** Appr Docui		Min. Du activ
								point limi	t is enha 80.	anced to
nitiatives	8	Tech Fest, Tech Quiz	10	20	30	40	50	a	50	
Professional Self In	9	MOOC with final assessment certificate			50			a	50	
	10	Competitions conducted by Professional Societies - (IEEE, IET, ASME, SAE, NASA etc.)	10	15	20	30	40	a	40	

vity ad	0.	Activity	Ac	hieve and Activ	emen Assig vity P	t Lev gned 'oints	els 5	, oval ment	ax. ints	uration of vity
Acti <sup>,</sup> He	SI. N	* Level	Ι	II	III	IV	V	** Appr Docui	Ma Poi	Min. Du acti
	11	Attending Full time Conference/ Seminars / Exhibitions/ Workshop/ STTP conducted at HTs /NITs			20			a	40	
	12	Paper presentation/ publication at IITs /NITs			30			a	40	
		Add certif	itiona icate	al 10 j of re	point: cogni	s for tion.				

vity ad	0.	Activity	Ac	hieve and Activ	emen Assiş vity P	t Lev gned oints	els	, oval ment	ıx. nts	ıration of vity
Activ He	SI. N	* Level	I	II	III	IV	v	** Appr Docui	Ma Poii	Min. Du acti
	13	Poster Presentation at I ITs /NITs			20			a	30	
		Add certif	itiona icate	l 10 p of red	points cogni	s for tion.				
	14	Industrial Training/ Internship (at least for 5 full days)	20					a/b	20	
	15	Industrial/ Exhibition visits			5			a/b/d	10	

vity ad	0.	Activity	Ac	hieve and Activ	emen Assig vity P	t Lev gned 'oints	rels S	J	oval ment	x. nts	ıration of vity
Activ He	SI. N	* Level	I	II	III	IV	V	*	Appr Docui	Ma Poii	Min. Du acti <sup>,</sup>
	16	Foreign Language Skill (TOFEL/ IELTS/BEC exams etc.)	50						a	50	
Entrepreneurship and Innovation	17	Start-up Company - Registered legally			60				d	60	
	18	Patent- Filed			30				d	60	
	19	Patent - Published			35				d	60	
	20	Patent- Approved			50				d	60	

vity ad	0.	Activity	Ac	hieve and Activ	emen Assiş vity P	t Lev gned 'oints	rels S	• oval ment	x. nts rration of vity	ıration of vity
Activ Hea	SI. N	* Level	I	II	III	IV	V	** Appr Docui	Ma Poi	Min. D <sup>1</sup> acti
	21	Patent- Licensed			80			d	80	
	22	Prototype developed and tested			60			d	60	
	23	Awards for Products developed			60			d	60	
	24	technologies developed and used by			60			d	60	
	25	Got venture capital funding for innovative ideas/products.	80					d	80	

									1/18	AIION	DULLLII
vity ad	Sl. No.	Activity	Ac	hieve and Activ	emen Assiş vity P	t Lev gned oints	els 5	, oval ment		ıx. nts	ıration of vity
Acti He		* Level	I	Π	III	IV	v	* Appr Docu	Ma Poi	Min. Du acti	
	26	Startup Employment (Offering jobs to two persons not less than Rs. 15000/- per month)			80			d		80	
	27	Societal innovations			50			d		50	
			Core oordinator		Sub oordinator		Volunteer				
	28	Student Professional Societies (IEEE, IET, ASME, SAE, NASA etc.)	15		10		5	d		40	

vity ad	0.	Activity	Ac	hieve and Activ	emen Assiş vity P	t Lev gned 'oints	rels S	, oval ment	Max. Points Min. Duration of activity	ıration of vity
Activ He	SI. N	* Level	I	II	III	IV	V	** Appr Docui		Min. Du acti
	29	College Association Chapters (Mechanical, Civil, Electrical etc.)	15		10		5	d	40	
	30	Festival & Technical Events (College approved)	15		10		5	d	40	
	31	Hobby Clubs	15		10		5	d	40	
	32	Special Initiatives (Approval from College and University is mandatory)	15		10		5	d	40	

rity ad o.		Activity	Achievement Levels and Assigned Activity Points			* oval ment	ıx. nts	ıration of vity		
Activ He	SI. N	* Level	I	II	III	IV	v	** Appr Docui	Ma Poii	Min. Du acti <sup>,</sup>
	33	Elected student representatives	30 (Chairman)		25 (Secretary)		15 (Other Council Members)	d		

*Level I	College Events
*Level II	Zonal Events
*Level III	State/ University Events
*Level IV	National Events
*Level V	International Events

\*\*Approval Documents: (a) Certificate (b) Letter from Authorities (c) Appreciation recognition letter (d) Documentary evidence (e) Legal Proof (f) Others (specify)

### 14. Eligibility for promotion to higher semesters

A student has to earn a minimum number of credits in a semester to be eligible to register for the new courses offered in the next semester. Students who do not meet this requirement are not permitted to register for new courses in the higher semesters. They have to register for the failed courses in normal semesters in which they are offered subject to the limitations imposed by the ordinances and course timetable.

ORMATION BULLETIN										
Semester	Allotted	Cumulative	Minimum cumulative credits							
	Credits	Credits	required to register for courses in							
			higher semesters							
First	24	24	Not applicable							
Second	23	47	Not insisted							
Third	24	71	Not insisted							
Fourth	23	94	Not insisted							
Fifth	23	117	26 credits from S1&S2							
Sixth	23	140	Not insisted							
Seventh	22	162	52 credits from S1 to S4							
Eighth	18	180	Not insisted							
Total no. of credits: 180										

#### 15. Break of Study

A student is permitted to have a break of study if,

- i. In case of accident or serious illness needing prolonged hospitalization and rest.
- ii. In case the student has a bright idea and would like to initiate a startup venture or develop a new product.
- iii. In case of any personal reasons that need a break in study.

For break of study due to illness, student should submit all necessary medical reports together with the recommendation of the doctor treating him giving definite reasons for break of study and its duration. Before joining back, the student should submit the fitness certificate from the doctor who treated him. Students who want to initiate a start-up venture or a product development, have to submit a project report, clearly indicating the purpose, action plan, technical details, funding details and future plans to the college Principal. The Principal will evaluate the proposal by constituting an expert team consisting of a technocrat and a bank executive and take an appropriate decision based

on the team's recommendation. In the semester system followed by the University, break of study for an academic year is preferred over a semester break.

Students who want a break in study due to personal reasons shall convince the Principal on the genuine need for it by giving authentic evidence for the same.

In all cases of break of study, the maximum duration for completing the B.Tech programme will be twelve semesters.

#### 16. Revaluation and Grade Improvement

There is no provision for improving the grade. There is no provision for improving the grades. The student can apply for revaluation of the end semester examination after the results are published. The answer scripts already valued by two examiners will not be re-valued again.

#### 17. Grade Cards

Students who have written the end semester examination will be given the grade cards for the registered courses, in every semester by the by the University. On earning the required credits for the degree, the University will issue the final consolidated grade sheet for the B. Tech programme including CGPA.

#### 18. Classification of B.Tech Degree

B.Tech degree will not have any classifications like distinction or first class. There will be no ranks awarded. The grade card and degree certificate of students admitted under lateral entry scheme will indicate so.

#### 19. B. Tech. (Honours)

Accredited departments in institutions, having at least two post graduate programmes, may offer B. Tech (Honours). Students with a CGPA above 8 at the end of the fourth semester and having no credit arrears only are eligible for this option. As only selected institutions may have this provision, students cannot demand this or move later to an institute where this is available. Students have to earn 12 additional credits to get B. Tech (Honours).

Furthermore, their CGPA at the end of the programme should be 8 or higher. Those who opted for B. Tech (Honours) but unable to earn the required additional credits in 8 semesters or whose final CGPA is less than 8 shall automatically fall back to the B. Tech. programme. However, additional course credits and the grades thus far earned by them will be shown in the grade card but not included for the CGPA.

#### 20. B.Tech with Minor

The areas for Minor specialization have to be outside the core engineering field of specialization and should allow the interested B.Tech student to focus on his specific interest outside the core curriculum. Such minors are not currently available for the students. Hence the way out is only through external assistance from well recognized establishments and organizations and by meeting the academic standards. For a Minor to be approved, the student should earn 12 credits by registering for courses, projects, and other well-defined procedures giving specialized knowledge or experience enabling the student to be capable of integrating or supplementing the knowledge gained in the B.Tech program.

One such Minor could be in Technology Entrepreneurship. For this the courses offered by government recognized TBI and certified by them as per the KTU approved procedures could be identified. These courses are to be offered outside the normal academic timings and during vacations. Likewise minors in any other field like music, journalism, IPR etc could also be included if they are offered by other universities or institutions and there are takers for them.

The University will consider the inclusion of the minor in the B.Tech Degree Certificate with the approval of the UGC/AICTE. CGPA for the minor will be separately given for the minor specialization.

#### 21. Academic Calendar.

The academic calendar for every academic semester will be published by the

University in its website.

It indicates the commencement of the semester, date of beginning of instruction, the course registration and enrolment dates, the schedule for mandatory internal tests for theory courses, dates of completion of laboratory/practical evaluations, date for finalization of internal marks, last instruction day in the semester, planned schedule of end semester examinations and result declaration as well as approved holidays falling within the semester.

Schedules for the supplementary examinations and result declaration dates will be included in the calendar. The schedule of summer courses will also be indicated in the calendar.

#### 22. Discipline

Every college will have a Student's Welfare Committee and a Disciplinary Action Committee (DAC), constituted by the Principal of the college. Each college will have a Grievance Redress and Appeals Committee constituted by the Principal to address the grievances of the students and to consider their appeals on any decisions made by the college. Breach of guidelines and unfair practices in Examinations will be viewed seriously and appropriate actions will be taken by the colleges.

#### 23. Academic Malpractices

Every student is required to observe discipline and decorous behaviour. Any act of indiscipline, misbehaviour and unfair practice in examinations will be referred to the Disciplinary Action Committee (DAC). Malpractices in examinations will be viewed seriously and any such incident observed or reported by a faculty member or an invigilator associated with the examinations will be reported to the Principal who in turn will refer it to DAC. On the basis of the report and evidence available or gathered, DAC shall immediately initiate an enquiry giving the concerned student a chance to explain his/her case. Based on this the committee will recommend the course
of action in line with the guidelines formulated for this by the Controller of Examination of the University and forward it to the Principal for action.

The student can appeal to the Grievances and Appeals Committee for a relook on the matter. Based on the committee's report, the Principal will take a final decision on the matter. DAC will be headed by a department head and will have three other faculty members drawn from different departments as members. In case of malpractices in end semester examinations, the report given by the college DAC and the action taken by the Principal will be intimated to the Controller of Examination of the University. The Controller of Examinations shall refer the case to the Examination Monitoring Committee. The Controller of Examination will consider the same as a Review.

#### 24. Rules on Attendance

Attendance is marked for each course. 75% attendance is mandatory for writing the end semester examination in that course. Under unavoidable circumstances students are permitted to take leave. Only 10% leave is normally sanctioned for any approved activity taken up by students outside the college covering sports and other extracurricular activities. Leave is also permitted on medical grounds or on personal exigencies. Leave of absence for all these is limited to 25% of the academic contact hours for the course. No duty leave will be sanctioned as per the KTU guidelines.

In case of long illness or major personal tragedies/contingencies the college; Principal can relax the minimum attendance requirement to 60%, to write the end semester examination. This is permitted for one or more courses registered in the semester. Principal will keep all records which led to his decision on attendance, for verification by the Academic Auditor. However, this concession is applicable only to any two semesters during the entire programme. In case of prolonged illness, break of study is permitted.

#### 25. Leave of Absence

Students who want to take leave have to submit a leave letter to the teacher conducting the course. *For medical leave over three days, medical certificate indicating the need for leave is required.* After any medical leave exceeding five instruction days, on re-joining, the student has to produce the fitness certificate given by the doctor.

#### 26. Ragging

Ragging of any nature is a criminal and non-bail able offence. Involvement in ragging shall lead to stringent punishment, including imprisonment as per the law of the land. A student, whose involvement in ragging is established, shall be summarily dismissed from the college. Each student of the Institute, along with his/her parent, is required to give an undertaking in this regard and the same is to be submitted at the time of registration.

#### 27. Eligibility for Award of Degree

The award of B.Tech/B.Tech (Honours) degree will be based on the recommendation of the Academic Committee and the approval of the Board of Governors and in accordance with the academic regulations.

A student will be eligible for the award of B.Tech Degree on satisfying the following requirements: -

- i Earned credits for all core courses and the Project.
- ii Earned the required minimum credits as specified in the curriculum for the branch of study.
- iii No pending disciplinary action.

### 28. Norms for Inter College Transfer

- i The following Category of students is not eligible for inter-college transfer
  - a. Govt. of India Nominee
  - b. Management Quota in Aided Colleges
  - c. Any other category which are ineligible as per the conditions for admission prescribed by Govt. of Kerala/ Govt. of India.
- ii Inter college transfer shall be applicable only for regular B.Tech students.
- iii Inter college transfer shall be permitted before the commencement of the third semester
- iv Inter college transfer shall be affected within the sanctioned strength of the college
- v The Transfer shall be permitted to Govt. / Govt. Aided / self-financing colleges.
- vi Notification inviting application for Inter College Transfer will be issued by the University during the second semester.
- vii The candidate should fulfil the academic eligibility requirement for the promotion to the Third Semester.
- viii If the numbers of applicants are more than the seats available, the admission may be based on the GPA obtained in the first semester. Ties will be broken by the marks obtained in S1 for Mathematics, Physics/Chemistry taken in that order.
- ix The students will have only one option of the college for transfer.
- x The request for the transfer shall be submitted to the college in which the transfer is sought with the recommendation of the Principal of the college in which the student is currently studying.
- xi The selected candidates shall remit a fee of Rs 3000/- (No fee for SC/ST students) within the stipulated date to KTU while joining in the new college.
- xii The college transfer once approved by the receiving college will be final

and binding on the applicant. No student will be permitted, under any circumstances, to refuse the change of college once offered.

#### 29. Norms for Inter-Branch Transfer

- i A student admitted to a particular branch of the B. Tech programme will normally continue studying in that branch till completion.
- ii However, in special cases the University may permit a student, who has requested for a change from one branch of study to another after the first two semesters, strictly in accordance with the provisions laid down hereinafter.
- iii Only those students who have (a) completed all the credits prescribed in the first two semesters of their studies, and (b) obtained a CGPA not lower than 7.5 ( 6.5 for SC/ST students) at the end of the second semester will be eligible for consideration for a change of branch after the second semester.
- iv Change of branch shall be made strictly on the basis of CGPA of S1 & S2 at the end of second semester of the applicant. Ties will be broken by the marks obtained in S1 &S2 for Mathematics, Physics, and Chemistry taken in that order.
- v Change of branch will be considered only in the college in which the applicant is presently studying to the vacant seats within the sanctioned strength of the branch in the college.
- vi The notification regarding the transfer of branch will be published in the website of the college after the semester examination. The colleges have to collect the applications from the students, list them in the website and inform the KTU.
- vii Students can give only one choice of branch, to which they wish to change over.
- viii All changes of branch made in accordance with the above rules will be effective from the third semester of the applicants concerned. No changes of branch shall be permitted thereafter.

- ix All changes of branch will be final and binding on the applicant. No student will be permitted, under any circumstances, to refuse the change of branch once offered.
- x The appropriate credits applicable to the new branch of study earned by the student in the first two semesters will be transferred to him in the new branch. The college will have to make sure the academic requirements given in the table below are met to undergo the study in the new branch.

	Course Code	Course Name	L-T-P	Credits	Exam Slot			
	MA101	Calculus	3-1-0	4	А			
	PH100	Engineering Physics	3-1-0	4	D			
	CY100	Engineering Chemistry	3-1-0	4	D			
	BE100	Engineering Mechanics	3-1-0	4	С			
	BE110	Engineering Graphics	1-1-3	3	С			
	BE101- 0X	Introduction to	2-1-0	3	D			
1	BE103	Introduction to Sustainable Engineering	2-0-1	3	Е			
<b>R-</b>	CE100	Basics of Civil Engineering	2-1-0	3	F			
ΤE	ME100	Basics of Mechanical Engineering	2-1-0	3				
ES	EE100	Basics of Electrical Engineering	2-1-0	3				
EM	EC100	Basics of Electronics Engineering	2-1-0	3				
S	PH110	Engineering Physics Lab	0-0-2	1	c			
	CY110	Engineering Chemistry Lab	0-0-2	1	5			
	CE110/ ME110/ EE110/ EC110/	Basic Engineering Workshops	0-0-2	1	Т			
	CS110	Computer Science Workshop (CSE only)						
	U100	Language Lab/ CAD Practice/ Bridge Courses/ Micro Projects etc.	0-0- (1/2)	-	U			
				24/23				
	V100	Entrepreneurship/ TBI/ NCC/ NSS/Physical Education etc.	0-0-2	Activity Points	V			
	TOTAL CREDITS = 24/23 HOURS: 30 CUMULATIVE CREDITS= 24/23							

30. B.Tech Curriculum (Semesters 1 and 2, 2015 Scheme)

Notes:

 Basic Engineering course of the parent branch included as Introduction to ------ (3 credits): BE101-01 Introduction to Civil Engineering (for Civil branch), BE101-02 Introduction to Mechanical Engineering Sciences (for

Mechanical and Industrial branches), BE101-03 Introduction to Electrical Engineering (for Electrical Branch), BE101-04 Introduction to Electronics Engineering (for Applied Electronics and Electronics & Communication branches), BE101-05 Introduction to Computing and Problem Solving (for Computer Science branch). The six basic engineering workshops will be connected with the Introductory or Basics of Engineering courses offered.

- 2. The students should attend **two workshops in Semester 1 and two in Semester 2.** For example, students opting *Introduction to Civil Engineering* or *Basics of Civil Engineering* should attend the *Civil Engineering Workshop*, students opting *Introduction to Mechanical Engineering* or *Basics of Mechanical Engineering* should attend the *Mechanical Engineering Workshop* and students opting *Introduction to Computing and Problem Solving* should attend *the Computer Science Workshop etc.* In addition, the students should attend one more workshop course in Semester 1, corresponding to the other Basic Engineering course they had been assigned.
- 3. Engineering Physics and Engineering Chemistry shall be offered in both semesters. 50% of the number of branches in the institution to opt for Engineering Physics in S1 and Engineering Chemistry in S2 and vice versa. Students opting for Engineering Physics in S1 should attend Engineering Physics Lab in S1 and students opting for Engineering Chemistry in S1 should opt for Engineering Chemistry Lab in S1.
- 4. *Engineering Mechanics* and *Engineering Graphics* shall be offered in both semesters. 50% of number of branches in the institution to opt for *Engineering Mechanics* in Semester 1 and *Engineering Graphics* in Semester 2 and vice versa.

EST	Course Code	Course Name	L-T-P	Credits	Exam Slot
5 N	MA102	Differential Equations	3-1-0	4	А
SE R-	PH100	Engineering Physics	3-1-0	4	D
Ш	CY100	Engineering Chemistry	3-1-0	4	D
	BE100	Engineering Mechanics	3-1-0	4	С
	BE110	Engineering Graphics	1-1-3	3	С

 ••••••							
BE102	Design and Engineering	2-0-2	3	D			
CE100	Basics of Civil Engineering	2-1-0	3				
ME100	Basics of Mechanical Engineering	2-1-0	3				
EE100	Basics of Electrical Engineering	2-1-0	3	E, F			
EC100	Basics of Electronics Engineering	2-1-0	3				
CS100	Computer Programming (CSE only)	2-1-0	3				
PH110	Engineering Physics Lab	0-0-2	1	C			
CY110	Engineering Chemistry Lab	0-0-2	1	5			
CE110/ ME110/ EE110/ EC110	Basic Engineering Workshop	0-0-2	1	Т			
CS120	Computer Programming Lab (CSE only)	0-0-2	1				
U100	Language Lab/ CAD Practice/ Bridge Courses/ Micro Projects etc.	0-0- (1/2)	-	U			
			24/23				
V100	Entrepreneurship/TBI/NCC/ NSS/Physical Education etc.	0-0-2	Activity Points	V			
TOTAL CREDITS = 24/23 HOURS: 30 CUMULATIVE CREDITS = 24/23							

### Note:

In Semester 2, the student has to take two of the four of Basics of Engineering courses not already taken in Semester 1 and the corresponding Workshop courses. *CS 100: Basics of Computer Programming & CS120 Computer Programming Lab* are mandatory for *Computer Science & Engineering branch*. Other branches are not allowed to opt these courses.

### 31. B.Tech Curriculum (Semesters 3 to 8, 2015 Scheme)

Applied Electronics and Instrumentation

	Course Code	Course Name	L-T-P	Credits	Exam Slot
ER-3	MA201	Linear Algebra & Complex Analysis	3-1-0	4	А
	EC201	Network Theory	3-1-0	4	В
ST	EC203	Solid State Devices	3-1-0	4	С
ИE	EC205	Electronic Circuits	3-1-0	4	. D
SEI	EC207	Logic Circuit Design	3-0-0	3	Е
•	HS200/	Business Economics /Life Skills	3-0-0/	2	. г
	HS210	business Economics/ Ene Skins	2-0-2	5	I.
	EC231	Electronic Devices & Circuits Lab	0-0-3	1	S
	EC233	Logic Circuit Design Lab	0-0-3	1	Т
		TOTAL CREDITS = 24 HOURS: 28/29 CUMULA	ATIVE CRI	EDITS= 71	
-	MA204	Probability, Random Processes and Numerical Methods	3-1-0	4	А
<b>R</b> -4	AE202	Computer Programming	2-2-0	4	В
ΙΞ	EC204	Analog Integrated Circuits	4-0-0	4	С
ES	AE204	Sensors and Transducers	3-0-0	3	D
M	EE216	Electrical Engineering	3-0-0	3	Е
SI	HS210/	Life Chills / Pusiness Economics	2-0-2/	2	Б
	HS200	Life Skins/ Business Economics	3-0-0	5	Г
	EC232	Analog Integrated Circuits Lab	0-0-3	1	S
	AE232	Transducers and Instrumentation Lab	0-0-3	1	
		TOTAL CREDITS = 23 HOURS 28/27 CUMULA	ATIVE CRE	EDITS= 94	
	AE301	Control System	3-1-0	4	А
	AE303	Electronic Measurements	3-0-0	3	В
	AE305	Microcontrollers	3-0-0	3	С
г О	AE307	Signals and Systems	3-0-0	3	D
ER	HS300	Principles of Management	3-0-0	3	Ε
STI		Elective 1	3-0-0	3	F
ЛE	AE361	Virtual Instrument Design			
EN	EC361	Digital System Design			
0,	AE363	VLSI Circuit Design			
	AE365	Instrumentation for Agriculture			
	AE341	Design Project	0-1-2	2	S
	AE331	Microcontroller Lab	0-0-3	1	Т
	EE337	Electrical Engineering Lab	0-0-3	1	U
		TOTAL CREDITS = 23 HOURS: 28 CUMULAT	IVE CRED	ITS= 117	

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	Course Code	Course Name	L-T-P	Credits	Exam Slot
	AE302	Process Control	4-0-0	4	A
	AE304	Industrial Instrumentation II	3-0-0	3	В
	AE306	Digital Signal Processing	3-0-0	3	С
9 ~	AE300	Power Electronics	3-0-0	3	D
Ē	AE308	Advanced Microprocessors	3-0-0	3	Е
ES.		Elective 2	3-0-0	3	F
W	EC360	Soft Computing			
SE	AE362	Industrial Psychology			
	AE364	MEMS/NEMS			
	AE366	Embedded System Design			
	AE368	Plastic Engineering			
	AE332	Process Control Lab	0-0-3	1	S
	AE334	Power Electronics Lab	0-0-3	1	Т
	AE352	Comprehensive Exam	0-1-1	2	U
		TOTAL CREDITS = 23 HOURS: 27 CUMULAT	IVE CRED	ITS= 140	
	AE401	Logic and Distributed Control System	4-0-0	4	А
	AE403	Biomedical Instrumentation	3-0-0	3	В
	AE405	Advanced Control Theory	3-0-0	3	С
Ŀ,	AE407	Digital Control System	3-0-0	3	D
ER	AE409	Optical Instrumentation	3-0-0	3	Е
STI		Elective 3	3-0-0	3	F
ЛE	AE461	ARM System Architecture			
SEN	AE463	Aerospace & Navigation Instrumentation			
0,	AE465	Information Security			
	AE467	CMOS Circuit Design			
	EC370	Digital Image Processing			
•	AE451	Seminar & Project Preliminary	0-1-4	2	S
	AE431	Control System & Signal Processing Lab	0-0-3	1	Т
		TOTAL CREDITS = 22 HOURS: 27 CUMULAT	IVE CRED	ITS= 162	
	AE402	Analytical Instrumentation	3-0-0	3	А
ŝ	AE410	Power Plant Instrumentation	3-0-0	3	В
2		Elective 4	3-0-0	3	С
ΤE	AE462	Optimal Control System			
$\mathbf{ES}$	AE464	Non-Linear Control System			
M	AE466	Industrial Robotics			
SI	AE468	Nano Electronics			
	AE472	Petroleum Technology			
		Elective 5 (Non-Departmental)	3-0-0	3	D
	AE492	Project		6	
		TOTAL CREDITS = 18 HOURS: 30 CUMULAT	IVE CRED	ITS= 180	

### Civil Engineering

:	Course Code	Course Name	L-T-P	Credits	Exam Slot
<b>ER - 3</b>	MA201	Linear Algebra & Complex Analysis	3-1-0	4	А
	CE201	Mechanics of Solids	3-1-0	4	В
T1	CE203	Fluid Mechanics I	3-1-0	4	С
1EC	CE205	Engineering Geology	3-0-1	4	D
EN	CE207	Surveying	3-0-0	3	Е
ŝ	HS200/	Business Economics /Life Chills	3-0-0/	2	Б
	HS210	business economics/ the Skins	2-0-2	5	ľ
ŀ	CE231	Civil Engineering Drafting Lab	0-0-3	1 .	S
	CE233	Surveying Lab	0-0-3	1	Т
		TOTAL CREDITS = 24 HOURS: 28/29 CUMULA	ATIVE CRI	EDITS= 71	
4	MA202	Probability Distributions, Transforms and Numerical Methods	3-1-0	4	А
2	CE202	Structural Analysis I	3-1-0	4	В
ΓE	CE204	Construction Technology	4-0-0	4	С
ES	CE206	Fluid Mechanics II	3-0-0	3	D
W	CE208	Geotechnical Engineering, I	3-0-0	3	Е
SE	HS210/ HS200	Life Skills/Business Economics	2-0-2/ 3-0-0	3	F
	CE232	Materials Testing Lab I	0-0-3	1	S
	CE234	Fluid Mechanics Lab	0-0-3	1	Т
		TOTAL CREDITS = 23 HOURS 28/27 CUMULA	ATIVE CRE	EDITS= 94	
	CE301	Design of Concrete Structures I	3-1-0	4	А
	CE303	Structural Analysis II	3-0-0	3	В
	CE305	Geotechnical Engineering II	3-0-0	3	С
	CE307	Geomatics	3-0-0	3	D
ß	CE309	Water Resources Engineering	3-0-0	3	Е
2		Elective 1	3-0-0	3	F
[E]	CE361	Advanced Concrete Technology			
Ë	CE363	Geotechnical Investigation			
M	CE365	Functional Design of Buildings			
SE	CE367	Water Conveyance Systems			
	CE369	Disaster Management			
	CE371	Environment and Pollution			
	CE373	Advanced Mechanics of Materials			
	CE341	Design Project	0-1-2	2	S
	CE331	Materials Testing Lab II	0-0-3	1	Т
	CE333	Geotechnical Engineering Lab	0-0-3	1	U
		TOTAL CREDITS = 23 HOURS: 28 CUMULAT	IVE CRED	ITS= 117	

.

	Course Code	Course Name	L-T-P	Credits	Exam Slot
	CE302	Design of Hydraulic Structures	4-0-0	4	А
	CE304	Design of Concrete Structures II	3-0-0	3	В
	CE306	Computer Programming and	3-0-0	3	С
		Computational Techniques			
Ψ	CE308	Transportation Engineering, I	3-0-0	3	D
ΓEI	HS300	Principles of Management	3-0-0	3	Е
Ē		Elective 2	3-0-0	3	F
IW	CE362	Ground Improvement Techniques		•	
SE	CE364	Advanced Foundation Engineering			
	CE366	Traffic Engineering and Management			
	CE368	Prestressed Concrete			
	CE372	Engineering Hydrology			
	CE374	Air Quality Management			
	CE332	Transportation Engg. Engineering Lab	0-0-3	1	S
	CE334	Computer Aided Civil Engineering Lab	0-0-3	1	Т
	CE352	Comprehensive Exam	0-1-1	2	U
		TOTAL CREDITS = 23 HOURS: 27 CUMULAT	IVE CRED	ITS= 140	
	CE401	Design of Steel Structures	4-0-0	4	А
	CE403	Structural Analysis III	3-0-0	3	В
	CE405	Environmental Engineering, I	3-0-0	3	С
	CE407	Transportation Engineering II	3-0-0	3	D
	CE409	Quantity Surveying and Valuation	3-0-0	3	Е
5		Elective 3	3-0-0	3	F
STER	CE461	Water Hydrodynamics and Coastal Engineering			
ИE	CE463	Bridge Engineering			
SEI	CE465	Geo-Environmental Engineering			
0,	CE467	Highway Pavement Design			
	CE469	Environmental Impact Assessment			
	CE471	Advanced Structural Design			
	CE473	Advanced Computational Techniques & Optimization			
	CE451	Seminar & Project Preliminary	0-1-4	2	S
Ι.	CE431	Environmental Engineering Lab	0-0-3	1	Т
	1	TOTAL CREDITS = 22 HOURS: 27 CUMULA	TIVE CRE	EDITS= 162	

	Course Code	Course Name	L-T-P	Credits	Exam Slot
	CE402	Environmental Engineering II	3-0-0	3	А
	CE404	Civil Engineering Project	3-0-0	3	В
Ŷ		Management			
ER		Elective 4	3-0-0	3	С
ST	CE462	Town and Country Planning			
ИE	CE464	Reinforced Soil Structures and Geosynthetics			
E	CE466	Finite Element Methods			
•	CE469	Structural Dynamics & Earthquake Resistant			
	CE400	Design			
	CE472	Transportation Planning			
	CE474	Municipal Solid Waste Management			
		Elective 5 (Non-Departmental)	3-0-0	3	D
	CE492	Project		6	
		TOTAL CREDITS = 18 HOURS: 30 CUMULAT	IVE CRED	ITS= 180	

Computer Science & Engineering

	Course Code	Course Name	L-T-P	Credits	Exam Slot			
- 3	MA201	Linear Algebra & Complex Analysis	3-1-0	4	А			
ER	CS201	Discrete Computational Structures	3-1-0	4	В			
STI	CS203	Switching Theory and Logic Design	3-1-0	4	С			
ЛE	CS205	Data Structures	3-1-0	4	D			
EN	CS207	Electronics Devices & Circuits	3-0-0	3	Е			
0.1	HS210/ HS200	Life Skills/Business Economics	2-0-2/ 3-0-0	3	F			
•	CS231	Data Structures Lab	0-0-3	1 .	S			
	CS233	Electronics Circuits Lab	0-0-3	1	Т			
		TOTAL CREDITS = 24 HOURS: 28/29 CUMULA	ATIVE CRI	EDITS= 71				
+	MA202	Probability Distributions, Transforms and Numerical Methods	3-1-0	4	А			
2-2	CS202	Computer Organization and Architecture	3-1-0	4	В			
LEI	CS204	Operating Systems	3-1-0	4	С			
ES	CS206	Object Oriented Design and Programming	2-1-0	3	D			
IW	CS208	Principles of Database Design	2-1-0	3	Е			
SE	HS200/ HS210	Business Economics/Life Skills	3-0-0/ 2-0-2	3	F			
	CS232	Free and Open Source Software Lab	0-0-3	1	S			
	CS234	Digital Systems Lab	0-0-3	1	Т			
•	HOURS 28/27 TOTAL CREDITS = 23 CUMULATIVE CREDITS= 94							
	CS301	Theory of Computation	3-1-0	4	А			
	CS303	System Software	2-1-0	3	В			
	CS305	Microprocessors and Microcontrollers	2-1-0	3	С			
ю	CS307	Data Communication	3-0-0	3	D			
- Y	CS309	Graph Theory and Combinatorics	2-0-2	3	Е			
ΓE		Elective 1	3-0-0	3	F			
ES	CS361	Soft Computing						
M	CS363	Signals and Systems						
SI	CS365	Optimization Techniques						
	CS367	Logic for Computer Science						
	CS369	Digital System Testing & Testable Design						
	CS341	Design Project	0-1-2	2	S			
	CS331	System Software Lab	0-0-3	1	Т			
	CS333	Application Software Development Lab	0-0-3	1	U			
	TO	TAL CREDITS = 23 HOURS: 29 CUMULATIVE	CREDITS=	117				

	Course Code	Course Name	L-T-P	Credits	Exam Slot
	CS302	Design and Analysis of Algorithms	3-1-0	4	А
	CS304	Compiler Design	3-0-0	3	В
	CS306	Computer Networks	3-0-0	3	С
ER -6	CS308	Software Engineering and Project Management	3-0-0	3	D
L	HS300	Principles of Management	3-0-0	3	Е
<b>IEC</b>		Elective 2	3-0-0	3	F
EN	CS362	Computer Vision		•	
S	CS364	Mobile Computing			
	CS366	Natural Language Processing			
	CS368	Web Technologies			
	CS372	High Performance Computing			
	CS332	Microprocessor Lab	0-0-3	1	S
	CS334	Network Programming Lab	0-0-3	1	Т
	CS352	Comprehensive Exam	0-1-1	2	U
		TOTAL CREDITS = 23 HOURS: 27 CUMULAT	IVE CRED	ITS= 140	
		Computer Graphics	4-0-0	4	А
	CS403	Programming Paradigms	3-0-0	3	В
	CS405	Computer System Architecture	3-0-0	3	С
r,	CS407	Distributed Computing	3-0-0	3	D
ER	CS409	Cryptography and Network Security	3-0-0	3	Е
ST		Elective 3	3-0-0	3	F
ЧE	CS461	Computational Geometry			
E	CS463	Digital Image Processing			
0,	CS465	Bio Informatics			
	CS467	Machine Learning			
	CS469	Computational Complexity			
	CS451	Seminar & Project Preliminary	0-1-4	2	S
	CS431	Compiler Design Lab	0-0-3	1	Т
		TOTAL CREDITS = 22 HOURS: 27 CUMULAT	IVE CRED	ITS= 162	
	CS402	Data Mining and Ware Housing	3-0-0	3	А
æ	CS404	Embedded Systems	3-0-0	3	В
Ľ		Elective 4	3-0-0	3	С
TE	CS462	Fuzzy Set Theory and Applications			
$\mathbf{ES}$	CS464	Artificial Intelligence			
M	CS466	Data Science			
S	CS468	Cloud Computing			
	CS472	Principles of Information Security			
		Elective 5 (Non-Departmental)	3-0-0	3	D
	CS492	Project		6	
		TOTAL CREDITS = 18 HOURS: 30 CUMULAT	IVE CRED	ITS= 180	

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Electrical & Electronics Engineering

	Course Code	Course Name	L-T-P	Credits	Exam Slot		
STER-3	MA201	Linear Algebra & Complex Analysis	3-1-0	4	Α		
	EE201	Circuits and Networks	3-1-0	4	В		
	EE203	Analog Electronic Circuits	3-1-0	4	С		
1E	EE205	DC Machines and Transformers	3-1-0	4	D		
EN	EE207	Computer Programming	2-1-0	3	Е		
an an	HS200/ HS210	Business Economics/Life Skills	3-0-0/ 2-0-2	3	F		
	EE231	Electronic Circuits Lab	0-0-3	1	S		
	EE233	Programming Lab	0-0-3	1	Т		
		TOTAL CREDITS = 24 HOURS: 28/29 CUMULA	ATIVE CRI	EDITS= 71			
+	MA202	Probability Distributions, Transforms and Numerical Methods	3-1-0	4	А		
<b>R-</b> 4	EE202	Synchronous and Induction Machines	3-1-0	4	В		
ΓE	EE204	Digital Electronics and Logic Design	2-1-0	3	С		
ES	EE206	Material Science	3-0-0	3	D		
M	EE208	Measurements and Instrumentation	3-1-0	4	Е		
SI	HS210/ HS200	Life Skills/Business Economics	2-0-2/ 3-0-0	3	F		
	EE232	Electrical Machines Lab I	0-0-3	1	S		
	EE234	Circuits and Measurements Lab	0-0-3	1	Т		
	TOTAL CREDITS = 23 HOURS 28/27 CUMULATIVE CREDITS= 94						
	EE301	Power Generation, Transmission and Protection	3-1-0	4	А		
	EE303	Linear Control Systems	2-1-0	3	В		
ю	EE305	Power Electronics	3-0-0	3	С		
-	EE307	Signals and Systems	3-0-0	3	D		
ΓEI	EE309	Microprocessor and Embedded Systems	2-1-0	3	Е		
Ē		Elective 1	3-0-0	3	F		
M	EE361	Object Oriented Programming					
SE	EE363	Computer Organization and Architecture					
	EE365	Digital System Design					
	EE367	New and Renewable Energy Systems					
	EE369	High Voltage Engineering					
	EE341	Design Project	0-1-2	2	S		
	EE331	Digital Circuits and Embedded Systems Lab	0-0-3	1	Т		
	EE333	Electrical Machines Lab II	0-0-3	1	U		
		TOTAL CREDITS = 23HOURS: 28 CUMULAT	IVE CRED	ITS= 117			

	Course	Course Name	L-T-P	Credits	Exam
	Code				Slot
	EE302	Electromagnetics	2-1-0	3	A
	EE304	Advanced Control Theory	3-1-0	4	В
<u>ę</u>	EE306	Power System Analysis	3-0-0	3	C
R.	EE308	Electric Drives	3-0-0	3	D
TE	HS300	Principles of Management	3-0-0	3	E
ES		Elective 2	3-0-0	3	F
EM	EE362	Data Structures and Algorithms			
S	EE364	Switched Mode Power Converters			
	EE366	Illumination Technology			
	EE368	Soft Computing			
	EE372	Biomedical Instrumentation			
	EE332	System and Control Lab	0-0-3	1	S
	EE334	Power Electronics & Drives Lab	0-0-3	1	Т
	EE352	Comprehensive Exam	0-1-1	2	U
		TOTAL CREDITS = 23 HOURS: 27 CUMULAT	IVE CRED	ITS= 140	•
	EE401	Electronic Communication	2-1-0	3	А
	EE403	Distributed Generation and Smart Grids	3-0-0	3	В
	EE405	Electrical System Design	3-1-0	4	С
Ŀ,	EE407	Digital Signal Processing	3-0-0	3	D
R	EE409	Electrical Machine Design	3-0-0	3	Е
STI		Elective 3	3-0-0	3	F
1E	EE461	Modern Operating Systems			
EN	EE463	Computer Aided Power System Analysis			
00)	EE465	Power Quality			
	EE467	Nonlinear Control Systems			
	EE469	Electric and Hybrid Vehicles			
	EE451	Seminar & Project Preliminary	0-1-4	2	S
	EE431	Power System Lab	0-0-3	1	Т
		TOTAL CREDITS = 22 HOURS: 27 CUMULAT	IVE CRED	ITS= 162	
	EE402	Special Electric Machines	3-0-0	3	А
	EE404	Industrial Instrumentation & Automation	3-0-0	3	В
8 ~		Elective 4	3-0-0	3	С
IEI	EE462	Design of Digital Control Systems			
l Si	EE464	FACTS			
IW	EE466	Digital Image Processing			
SE	EE468	Computer Networks			
	EE472	Internet of Things			
	EE474	Energy Management and Auditing			
		Elective 5 (Non-Departmental)	3-0-0	3	D
	EE492	Project		6	
		TOTAL CREDITS = 18 HOURS: 30 CUMULAT	IVE CRED	ITS= 180	1

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	Course				Evom		
•	Code	Course Name	L-T-P	Credits	Slot		
- 3	MA201	Linear Algebra & Complex Analysis	3-1-0	4	А		
Ĕ	EC201	Network Theory	3-1-0	4	В		
ETS	EC203	Solid State Devices	3-1-0	4	С		
1EC	EC205	Electronic Circuits	3-1-0	4	D		
E	EC207	Logic Circuit Design	3-0-0	3	Е		
ŝ	HS200/ HS210	Business Economics/Life Skills	3-0-0/2- 0-2	3	F		
	EC231	Electronic Devices & Circuits Lab	0-0-3	1	S		
	EC223	Electronic Design Automation	0-0-3	1	Т		
		TOTAL CREDITS = 24 HOURS: 28/29 CUMULA	ATIVE CRI	EDITS= 71			
	MA204	Probability, Random Processes and Numerical Methods	3-1-0	4	А		
	EC202	Signals & Systems	3-1-0	4	В		
- 4	EC204	Analog Integrated Circuits	4-0-0	4	С		
ER	EC206	Computer Organization	3-0-0	3	D		
$\mathbf{ST}$	EC208	Analog Communication Engineering	3-0-0	3	Е		
SEME	HS210/ HS200	Life Skills/Business Economics	3-0-0/2- 0-2	3	F		
0.	EC232	Analog Integrated Circuits Lab	0-0-3	1	S		
	EC230	Logic Circuit Design Lab	0-0-3	1	Т		
	TOTAL CREDITS = 23 HOURS 28/27 CUMULATIVE CREDITS= 94						
	EC301	Digital Signal Processing	3-1-0	4	А		
	EC303	Applied Electromagnetic Theory	3-0-0	3	В		
	EC305	Microprocessors & Microcontrollers		3	С		
	EC307	Power Electronics & Instrumentation	3-0-0	3	D		
	HS300	Principles of Management	3-0-0	3	Е		
S		Elective 1	3-0-0	3	F		
FER -	EC362	Modelling & Simulation of Communication Systems					
ES	EC364	Computer Vision					
M	EC366	Real Time Operating Systems					
SI	EC368	Robotics					
	EC370	Digital Image Processing					
	EC332	Communication Engg Lab (Analog & Digital)	0-0-3	1	S		
	EC334	Microcontroller Lab	0-0-3	1	Т		
	EC352	Comprehensive Exam	0-1-1	2	U		
	TOTAL CREDITS = 23 HOURS: 27 CUMULATIVE CREDITS= 117						

### Electronics & Communication Engineering

	Course				Exam
	Code	Course Name		Credits	Slot
	EC302	Digital Communication	4-0-0	4	A
	EC304	VLSI	3-0-0	3	В
	EC306	Antenna & Wave Propagation	3-0-0	3	С
	EC308	Embedded Systems	3-0-0	3	D
9	EC312	Object Oriented Programming	3-0-0	3	Е
2-2		Elective 2	3-0-0	3	F
ΓE	<b>E C</b> 2 (2)	Modelling & Simulation of Communication		_	
Ē	EC362	Systems			
IN	EC364	Computer Vision			
SI	EC366	Real Time Operating Systems			
	EC368	Robotics			
	EC370	Digital Image Processing			
	EC332	Communication Engg Lab (Analog& Digital)	0-0-3	1	S
	EC334	Microcontroller Lab	0-0-3	1	Т
	EC352	Comprehensive Exam	0-1-1	2	U
		TOTAL CREDITS = 23 HOURS: 27 CUMULAT	IVE CRED	ITS= 140	
	EC401	Information Theory & Coding	4-0-0	4	А
	EC403	Microwave & Radar Engineering	3-0-0	3	В
	EC405	Optical Communication	3-0-0	3	С
	EC407	Computer Communication	3-0-0	3	D
~	EC409	Control Systems	3-0-0	3	Е
LEI		Elective 3	3-0-0	3	F
ES	EC461 Microwave Devices and Circuits			•	•
W	EC463	EC463 Speech and Audio Processing			
SE	EC465	MEMS			
	EC467	Pattern Recognition			
	EC469	Opti Electronic Devices			
	EC451	Seminar & Project Preliminary	0-1-4	2	S
	EC/21	Communication Systems Lab (Optical &	0.0.2	1	т
	EC431	Microwave)	0-0-3	1	1
		TOTAL CREDITS = 22 HOURS: 27 CUMULAT	IVE CRED	ITS= 162	-
	EC402	Nano electronics	3-0-0	3	
æ	EC404	Advanced Communication Systems	3-0-0	3	
2-2		Elective 4	3-0-0	3	
ΓE	EC462	Mixed Signal Circuit Design			
ES	EC464	Low Power VLSI Design			
M	EC466	Cyber Security			
SI	EC468	Secure Communication			
	EC472	Integrated Optics & Photonic Systems			
		Elective 5 (Non-Departmental)	3-0-0	3	
	EC492	Project		6	
TOTAL CREDITS = 18 HOURS: 30 CUMULATIVE CREDITS= 180					

Industrial Engineering

	Course Code	Course Name	L-T-P	Credits	Exam Slot
	MA201	Linear Algebra & Complex Analysis	3-1-0	4	Α
	ME207 Thermal Engineering, I			4	В
LEI	ME200	Fluid Mechanics & Machinery	3-1-0	4	С
MES	ME209	Mechanical Properties of Structural Engg. Materials	3-1-0	4	D
SE	ME213	Theory of Machines	3-0-0	3	Е
	HS200/ HS210	Business Economics/Life Skills	3-0-0/ 2-0-2	3	F
	ME230	Fluid Mechanics & Machines Lab	0-0-3	1	S
	ME235	Machine Dynamics and Material Testing Lab	0-0-3	1	Т
		TOTAL CREDITS = 24 HOURS: 28/29 CUMULA	TIVE CRED	DITS= 71	
	MA208	Introduction to Stochastic Models	3-1-0	4	А
	ME218	Elements of Machine Design	3-1-0	4	В
	ME222	Thermal Engineering II	4-0-0	4	С
ER - 4	IE202	Object Oriented Programming & Numerical Methods	3-0-0	3	D
$\mathbf{ST}$	ME220	Manufacturing Technology	3-0-0	3	Е
EME	HS210/ HS200	Life Skills/Business Economics	2-0-2/3- 0-0	3	F
0)	ME232	Thermal Engineering Lab	0-0-3	1	S
	IE232 Object Oriented Programming Lab		0-0-3	1	Т
		TOTAL CREDITS = 23HOURS 28/27 CUMULAT	IVE CREDIT	ГS= 94	
	IE301	Operation Management	3-1-0	4	А
	ME303	Machine Tools & Digital manufacturing	3-0-0	3	В
	IE303	Operations Research	3-0-0	3	С
	IE305	Work Study & Ergonomics	3-0-0	3	D
10	HS300	Principles of Management	3-0-0	3	Е
Elective 1		Elective 1	3-0-0	3	F
TER	IE361	Management of Projects			
MEST	IE363	Human Resource Management & Organizational Behaviour			
SEI	IE365	Financial Reporting & Analysis			
	ME367	ME367 Non-Destructive Testing			
	IE341	Design Project	0-1-2	2	S
	ME337	Machine Tools Lab	0-0-3	1	Т
	IE331	Work Study & Ergonomics Lab	0-0-3	1	U
TOTAL CREDITS = 23 HOURS: 27 CUMULATIVE CREDITS= 117					

	Course					
	Code	Course Name	L-1-P	Credits	Slot	
	IE302	Data Analysis	4-0-0	4	А	
	IE304	Advanced Operations Research	3-0-0	3	В	
	IE306	Supply Chain and Logistics Management	3-0-0	3	С	
	IE308	Quality Engineering	3-0-0	3	D	
9	IE312	System Simulation	3-0-0	3	Е	
R -		Elective 2	3-0-0	3	F	
ΤE	Group Technology and Flexible					
ES	IE362	Manufacturing System				
M	IE364	Management Information Systems				
SI	IE366	Financial Management				
	IE368	Facilities Layout and Material Handling				
	IE332	Data Analysis and Optimization Lab	0-0-3	1	S	
	15004	Quality Control and Non – Destructive	0.0.0	1	т	
	1E334	Testing Lab	0-0-3	1	1	
	IE352	Comprehensive Exam	0-1-1	2	U	
		TOTAL CREDITS = 23 HOURS: 27 CUMULAT	IVE CRED	ITS= 140		
	IE401	Reliability Engineering	4-0-0	4	Α	
	IE403	Heuristic Solution Techniques	3-0-0	3	В	
	IE405	System Dynamics	3-0-0	3	С	
	IE407	Enterprise Resource Planning	3-0-0	3	D	
	IE409	Applied Ergonomics	3-0-0	3	Е	
~		Elective 3	3-0-0	3	F	
LEI	IE461	Financial Engineering				
ES	IE463	Inventory Control				
W	IE465	Data Analytics Using R and Python				
SE	IE467	Predictive Modelling				
	IE451	Seminar & Project Preliminary	0-1-4	2	S	
	IE 421	System Simulation and Enterprise Resource	0.0.2	1	т	
	IE431 Planning Lab		0-0-3	1	1	
	TOTAL CREDITS = 22 HOURS: 27 CUMULATIVE CREDITS= 162					
	IE401	Reliability Engineering	4-0-0	4	А	
	IE405	System Dynamics	3-0-0	3	С	
		TOTAL CREDITS = 22 HOURS: 27 CUMULAT	IVE CRED	ITS= 162		
	IE402	Industrial Scheduling	3-0-0	3	А	
80	IE404	Manufacturing Automation	3-0-0	3	В	
R		Elective 4	3-0-0	3	С	
STI	IE462	Marketing Management				
1E	IE464	Time Series Analysis				
E	IE466	Occupational Safety and Health Engineering				
S	IE468	Multi – Criteria Decision Making				
		Elective 5 (Non-Departmental)	3-0-0	3	D	
	IE492	Project		6		
TOTAL CREDITS = 18 HOURS: 30 CUMULATIVE CREDITS= 180				•		

Mechanical Engineering

	Course Code	Course Name	L-T-P	Credits	Exam Slot
3	MA201	Linear Algebra & Complex Analysis	3-1-0	4	A
R -	ME201	ME201 Mechanics of Solids		4	B
TE	ME203	Mechanics of Fluids	3-1-0	4	С
IES	ME205	ME205 Thermodynamics		4	D
EN	ME210	ME210 Metallurgy and Materials Engineering		3	Е
S	HS200/	.00/ Business Economics/Life Skills		0	г
	HS210	Business Economics/ Life Skills	2-0-2	3	Г
	ME231	Computer Aided Machine Drawing Lab	0-0-3	1	S
	CE230	Material Testing Lab	0-0-3	1	Т
		TOTAL CREDITS = 24 HOURS: 28/29 CUMULA	TIVE CRE	EDITS= 71	
	MA202	Probability Distributions, Transforms and	3-1-0	4	А
4	10111202	Numerical Methods		1	11
В	ME202	Advanced Mechanics of Solids	3-1-0	4	В
TE	ME204	Thermal Engineering	3-1-0	4	С
ES	ME206	Fluid Machinery	2-1-0	3	D
EM	ME220	ME220 Manufacturing Technology		3	Е
S	Image: The second se		2-0-2/	3	F
			3-0-0	-	
	ME232	Thermal Engineering Lab	0-0-3	1	S
	ME230	Fluid Mechanics & Machines Lab	0-0-3	1	T
	TC ME201	$\frac{1}{10000000000000000000000000000000000$	LATIVE C	REDITS= 94	4
	ME301	Mechanics of Machinery	3-1-0	4	A
	ME303	Machine Tools & Digital Manufacturing	3-0-0	3	В
	ME305	Computer Programming & Numerical	2-0-1	3	С
	FE311	Floctrical Drives & Control for Automation	300	3	D
ю	HS300	Principles of Management	3-0-0	3	E E
- Y	110000	Flective 1	3-0-0	3	E F
ΤE	MF361	ME361 A dyapced Eluid Mechanics		0	1
ES	ME363	Composite Materials and Mechanics			
M	ME365	Advanced Metal Casting			
S	ME367	Non-Destructive Testing			
	ME369	Tribology			
	ME371	Nuclear Engineering			
	ME373	Human Relations Management			
	ME341	Design Project	0-1-2	2	S
	EE335	Electrical and Electronics Lab	0-0-3	1	Т
	ME331 Manufacturing Technology Lab I		0-0-3	1	U
	TOTAL CREDITS = 23 HOURS: 27 CUMULATIVE CREDITS= 117				

	Course Code	Course Name	L-T-P	Credits	Exam Slot	
	ME302	Heat & Mass Transfer	3-1-0	4	А	
	ME304	Dynamics of Machinery	2-1-0	3	В	
	ME306	Advanced Manufacturing Technology	3-0-0	3	С	
9	ME308	Computer Aided Design and Analysis	3-0-0	3	D	
2	ME312	Metrology and Instrumentation	3-0-0	3	Е	
[E]		Elective 2	3-0-0	3	F	
Ë	ME362	Control System Engineering				
W	ME364	Turbo Machinery				
SE	ME366	Advanced Metal Joining Technology				
	ME368	Marketing Management				
	ME372	Operations Research				
	ME374	Theory of Vibration				
	ME376	Maintenance Engineering				
	ME332Computer Aided Design & Analysis LabME334Manufacturing Technology Lab II		0-0-3	1	S	
			0-0-3	1	Т	
ME352 Comprehens		Comprehensive Exam	0-1-1	2	U	
		TOTAL CREDITS = 23 HOURS: 27 CUMULAT	IVE CRED	ITS= 140		
	ME401	Design of Machine Elements I	3-1-0	4	А	
	ME403 Advanced Energy Engineering		3-0-0	3	В	
	ME405	E405 Refrigeration and Air Conditioning		3	С	
	ME407	407 Mechatronics		3	D	
L 	ME409	Compressible Fluid Flow	2-1-0	3	Е	
R		Elective 3	3-0-0	3	F	
LLS	ME461	Aerospace Engineering				
1E	ME463 Automobile Engineering					
EN	ME465 Industrial Hydraulics Engg.					
S	IE306 Supply Chain and Logistics Management					
	ME467 Cryogenic Engineering					
	ME469	Finite Element Analysis				
	ME471	Optimization Techniques				
	ME451	Seminar & Project Preliminary	0-1-4	2	S	
	ME431	Mechanical Engineering Lab	0-0-3	1	Т	
	TOTAL CREDITS = 22 HOURS: 27 CUMULATIVE CREDITS= 162					

	Course Code	Course Name	L-T-P	Credits	Exam Slot
	ME402	Design of Machine Elements II	3-0-0	3	А
8	ME404	Industrial Engineering	3-0-0	3	В
- X		Elective 4	3-0-0	3	С
LEI	ME462	Propulsion Engineering			
ESJ	ME464	Robotics and Automation			
IW	ME466 Computational Fluid Dynamics				
ME468 Nanotechnology		Nanotechnology			
ME472 Failure Analysis and Design					
	ME474 Micro and Nano Manufacturing				
	ME476	Material Handling & Facilities Planning			
	Elective 5 (Non-Departmental)		3-0-0	3	D
	ME492	1E492 Project		6	
	TOTAL CREDITS = 18 HOURS: 30 CUMULATIVE CREDITS= 180				

### 4.2 B.ARCH Programme

The B.Arch programme is a choice-based credit programme. The duration of the regular B.Arch. programme will normally be of five academic years spanning 10 semesters including internship as per the curriculum.

### 1. Programme Structure

- i. B. Arch programme is structured on a credit-based system following the semester pattern with continuous evaluation allowing flexibility for students to decide on the duration of the programme completion.
- ii. The normal duration for B.Arch programme will be 10 semesters. Max. duration that can be allowed to a student to complete the course is 14semesters.
- iii. The B.Arch programme shall cover the group of courses as given in the curriculum.
- iv. Each semester other than practical training shall ordinarily comprise of not less than 16 working weeks.

Knowledge Segm	ents	Credits as per the proposed scheme
Architectural Studies AS		136
VBuildAng Construction BC		17
Engineering Studies	ES	31
Humanities	EH	12
Practical Training	PT	9
Professional Practice	PP	3
Mathematics	MA	2
Stream Electives	SE	11
Practical Skills	PS	4
*Student Activities		2
Total <sup>t</sup> Academic Credits	3	225+2

\*Student Activities- 2 (Audit- Pass/Fail)

Totalwredits for B.Arch. Degree- 225+2

Credits are assigned to courses based on the following general pattern.

- One credit each for lecture/ tutorial hour per week for one semester
- One credit each for one and a half hours of drawing per week for one semester
- One credit each for design studio of one hour per week for one semester

• Qne credit each for workshop of two hours per week for one semester No semester shall offer more than four lecture-based courses and four studio/workshop courses, carrying a maximum credit of 26

not complete the programme and pass the whole programme within 14 semesters will not be allowed to continue and she/ he has to quit the programme.

- vi. Each semester shall have 80instructional days, i.e. 16 weeks of instruction.
- vii. The curriculum of B.Arch programme is designed to have a minimum of 225 + 2 credits.
- viii. The University shall follow Credit System and Credits are apportioned among the following knowledge segments
- ix. University may allow students to transfer credits from other universities with the approval of the Academic Committee and the BOG.

### **Student Activities Points:**

To be an Architect capable of competing globally, in addition to Architectural knowledge and skills, students should develop excellent soft skills, nurture team work and leadership qualities and have an entrepreneurial and trail blazing outlook. To achieve this, in addition to academics, students are to actively engage in cocurricular and extra-curricular activities. For such activities, points are allotted. On getting a minimum of 100 activity points the student passes the course and earns 2 credits which do not count for the CGPA but mandatory for the award of the degree. The University will list out these activity points. Additional activities could be included in the list with the approval of the Academic Committee. (For details, refer 3.1(13))

### 2. Curriculum, List of Courses and Syllabi

- i. Study in the B.Arch. programme will have a curriculum, list of courses, syllabi and course plans approved by the Academic Committee of the University.
- Courses are categorised as Mathematics (MA) Architectural Studies (AS), Building Construction (BC) Engineering Studies (ES), Humanities (EH), Practical Training (PT), Professional Practice (PP) Stream Electives (SE) and Practical Skills (PS)
- iii. Each course has a course number.

### 3. Faculty Advisor/Counsellor

All students shall have faculty advisors whose role will be: -

- i To guide and help students on academics
- ii To monitor their progress in academics and advise them
- iii To counsel them and hand-hold them in any difficulty

### 4. Course Registration and Enrolment

- i. It is mandatory for students to register for the courses they want to attend in a semester. Newly admitted students have to register for all courses offered in the first semester. They do not have to enrol for the semester. All other students are required to register at the end of the semester for the courses they want to take in the coming semester. Later they have to enrol for these courses in the new semester based on the previous semester results. This allows them to make minor changes in the list of courses already registered. Before enrolment, students should clear all dues including any fees to be paid and should not have any disciplinary issues pending. The dates for registration and enrolment will be announced by the colleges in their academic calendar. Any late registration or enrolment, allowed up to 7 working days from the commencement of the semester, will attract a late registration/enrolment fee.
- ii. A student can drop a course or substitute one already registered by another, for valid reasons with the approval of the faculty advisor. However, this has to be done within seven working days from the commencement of the semester.
- iii. The maximum number of credits a student can register in a semester is limited to 26.

### 5. Course Completion and Earning of Credits

Students registered and later enrolled for a course have to attend the course regularly and meet the attendance rules of the university [RU-2] and appear for all the internal evaluation procedures for the completion of the course. Credits for the course are earned only on getting a pass grade in the composite evaluation.

#### 6. Core courses, Prerequisites and Electives

All courses listed in the curriculum, other than the electives, are core courses. Earning credits in the core courses is mandatory for the B. Arch degree. For electives, failure to earn credits does not necessarily require repeating the course. Instead another approved elective is permitted as a replacement course by the faculty advisor concerned. For some courses there could be a prerequisite course completion requirement for registration.

#### 7. End Semester and Supplementary Examinations

- (i) Students who could not earn the required minimum credits at the end of the second, fourth and sixth semester have two options to continue with the studies. They may register again for the courses, when they are offered in the next academic year. However, there is also a provision to offer summer courses for these students who may register and attend the course and write the final examination.
- (ii) Students should have 75% attendance in the summer course to write the examination.
- (iii) For the final grading their internal evaluation marks obtained in the regular semester in which they had undergone the course shall be applicable. Summer courses are to be conducted for a minimum of 20 contact hours for each course. Summer courses are to be offered only at the end of the second and fourth semesters for the courses covered till that semester. They will be conducted either by all colleges or only by some, depending on the number of students registering for them. Details of summer courses planned will be announced by the colleges after the declaration of the even semester results. Final examination for summer courses will be conducted by the University. Based on the availability of faculty and the number of students opting for courses, it will be the prerogative of the colleges to decide on the summer courses to be offered.
- (iv) Options for the Fifth and higher semesters
  - For higher semesters, i.e., fifth semester onwards, summer courses are not offered. Failed students who have less than 45% marks in internal assessments have to register again for the course in the regular semester in which it is offered and complete the course as per the regulations and appear for the end semester examination. Failed students having 45% marks or more in internal assessments have the option to register again for the course as mentioned above or register only for the end semester examination without attending the course again. A separate registration format will be available for this. This option is available in all semesters.
- (v) If a student has to earn credits only just for one course to qualify for the degree after completing ten semesters of study, the college concerned may offer a contact course on a written request by the student. The contact course is considered as fresh registration and is to be offered by the teacher concerned who shall conduct the internal evaluation procedures and allot the marks as per the regulations.

Minimum contact hours for the course shall be 20. The final examination will be conducted by the college and shall be monitored by the external academic auditor. Question paper for the examination will be given by the Controller of Examination. No grade above C shall be given for a contact course.

### 8. Academic Assessment/Evaluation

### (i) Academic Evaluation of Courses

The University follows a continuous academic evaluation procedure for B. Arch Academic evaluation procedure and corresponding weights are as follows: -

### Group I Architectural Design/ Basic Design

- Continuous Assessment 60% (Internal)
- ➢ Jury Examination\* 40%

\* Jury will be conducted by the Institution for odd semester and conducted by the university for the even semester

Scheme of evaluation is as follows.

- > Two internal tests each having 10% (By the Institute)
- > Design Assignments having 40% marks. (By the Institute)
- ➤ Jury having 40%.

Jury panel consists of one internal faculty member and an external expert with minimum 5 years of experience and registered with COA.

# Group II (All Courses other than Architectural Design, Basic Design, Group III and Group IV)

- Continuous Assessment-50% (Internal)
- Examination 50% (Conducted by the Institute)

Scheme of evaluation is as follows.

- > Two internal tests each having 10% (Internally by the Institute)
- Tutorials/Assignments having 30% marks. (Internally by the Institute)
- > Examination 50% (Conducted by the Institute)

### Group III (Theory based subjects)

Scheme of evaluation is as follows.

- > Two internal tests each having 15% (Internally by the Institute)
- Tutorials/Assignments having 10% marks. (Internally by the Institute)
- Semester examination having 60%. (Conducted by the University)

### **Group IV** (Workshops/Practical Training/Documentation Camp.) Scheme of evaluation is as follows.

- Marks for report 30% (internal)
- Presentation / demonstration 40% (Internal)
- Viva 30% (Internal)

All the above evaluations are mandatory requirements to earn credits. Students who have missed either the first or the second test on genuine grounds can register with the consent of the faculty and the Head of the Department (HOD) concerned for a re-test which shall be conducted soon after the completion of the second test, but before the end semester examination. The re-test will cover both first and second test course plans.

The Continuous assessment will be on the basis of the day-to-day work, periodic tests (minimum two in a semester) and assignments/class projects (minimum of two). The faculty member concerned will do the continuous assessment for each semester. The C.A. marks for the Individual subjects shall be computed by giving weight to the above-mentioned parameters.

Those who have missed both the tests are not eligible to appear for the end semester examination.

However, if one misses both tests due to medical reasons or other personal exigencies, based on genuine evidence, a single test of 2-hour duration for 40 marks will be conducted covering the whole syllabus, before the end semester examinations. Decision on this will be taken by the Principal and verified by the external academic auditor.

All the above assessments are mandatory to earn credits. If not, the student has to complete the course/assessments during his free time in consultation with the faculty members. On completion of these, grades will be assigned. In case the studio /practical training courses are not completed in the semester, grade I (incomplete) will be awarded against the course and the final grade will be given only after the completion of the course/assessments.

### (ii) **Dissertation**

Each student has to take up a dissertation project on the topic approved by the Institution. The institution will allot a guide to each student to supervise the dissertation work. The Evaluation of the project is to be done in stages. There will be two progress evaluations each carrying 20 marks, and a final evaluation (presentation and report) of the project for 60 marks at the end of the 9th semester. The project supervisor and two other

faculty members of the same institute form the members of the two progress evaluations.

Scheme of Evaluation is as follows

- > Two progress assessment 20% each (internal)
- > Final evaluation 60 % (conducted by Institute)

The dissertation assessment board for final evaluation shall consist of the following members.

Chairman: A senior faculty member appointed by the institute

Members: Dissertation Coordinator/Internal faculty member, an external member either from academic/research institute or practicing COA registered architect with minimum five years' experience shall be appointed by the institute.

If the dissertation is not completed satisfactorily, the student has to work further and again appear for final assessment on a specified date, not earlier than one month after the first evaluation.

### (iii) Practical Training

As per the B. Arch curriculum students shall undergo practical training for one semester i.e., in the Seventh semester of the B Arch programme. The training shall be under a registered architect having a minimum of five years' experience and approved by the institution. The duration of practical training shall be a minimum of 100 working days. Only those who have completed the practical training successfully will be permitted to register for the 8th semester of the B. Arch degree course. Those students who fail to obtain 45% have to repeat the practical training.

Candidates shall select a registered architect with minimum five years' experience and good reputation in the field of Architectural practice for practical training and the same should be approved by the institution well in advance before the commencement of the 6th semester examination.

### (iv) Final Semester Architectural Thesis

The students of B.Arch. degree course are required to prepare architectural design thesis during the last semester of the programme under the guidance of faculty appointed by the Department.

The student has to obtain prior permission on the subject of thesis from the department and the guide.

The nature of design thesis shall be either a live project or a proposal and the student have to work out all aspects including its programming in consultation with the guide allotted.

### (v) **Evaluation of the thesis is done in four stages.**

- > Continuous assessment by supervising guide.
- Four progress evaluations by internal evaluation team appointed by the institute.
- Mock review
- > Final evaluation by a committee appointed by the University.

### Scheme of Thesis evaluation are as follows:

- > Continuous evaluation by supervising guide- 25%
- > Internal evaluation by team of three examiners- 25%
- ▶ Final Evaluation by team of two examiners 50%

### (vi) Constitution of internal evaluation committee

The thesis guide and two faculty members either from the department or practicing architect or academician with COA registration and with minimum of five years of experience shall form the internal progress evaluation team appointed by Institution.

### (vii) Constitution of evaluation committee appointed for final evaluation

- > One senior faculty member from the institute
- One senior faculty member from other institutes/practicing architect registered with CoA, with a minimum of ten years of professional experience

Those students who have acquired a minimum pass in the internal assessment, but failed in the external evaluation will be given an opportunity to resubmit the thesis in the supplementary chance. Otherwise the student will have to register for the same in the next thesis semester.

### 9. Eligibility to Continue

A student has to earn a minimum number of credits in a semester to be eligible to register for the new courses offered in the next semester. In 1, 2 & 3 semesters if this requirement is not met, the student is to be forewarned and allowed to continue to the next semester. However to register in the 4<sup>th</sup>, 6<sup>th</sup> & 8<sup>th</sup> semesters this requirement will be strictly implemented. Summer courses are offered to those who do not satisfy this norm after the 2<sup>nd</sup>, as well as 4<sup>th</sup> semesters. Students who do not meet this requirement are not permitted to register for new courses in the higher semesters . They have to register for the failed courses in normal semesters in which they are offered subject to the limitations imposed by the ordinances and course timetable.

Action plan, for dealing with course arrears in theory courses at the end of each semester to continue with the programme, is given below. Faculty advisors shall monitor advice and support the students in this. Students should be informed about the minimum cumulative credits requirement to register for higher semester courses

Semester	Allotted Credits	Cumulative Credits	Revised Minimum cumulative credits required to register for the courses in higher semesters		
First	25	25	Not applicable		
Second			Minimum P Grade for the subject AS106 Architectural Design – I to		
	24	49	register for S3		
Third	25	74	Not applicable		
Fourth	25	99	cumulative credits of S1 & S2 and Minimum P grade for the subject AS 204 – Architectural Design – II, to register for S5		
Fifth	25	124	Not Applicable		
Sixth	24	148	68 out of 99 cumulative credits from S1 to S4 to register for S7		
Seventh	8	156	Not Applicable		
Eighth	27	183	101 out of 148 credits from S1 to S6 to register		

			for S9		
Ninth	27	210	Not Applicable		
Tenth	15	225	Not Applicable		
Total Credits - 225					

#### 10. Class Committee

This committee is constituted by the respective Heads of Departments for every semester.

The Chairman of the class committee shall be a senior faculty member who does not offer any course during that semester.

Members: -

- > All faculty members teaching courses in that semester.
- Two student representatives nominated by the Head of the Department.

The class committees shall meet at least thrice in a semester – the first at the beginning of the semester, the second and the third after the first and the second internal tests respectively. The committee should monitor the conduct of the courses, adherence to the course plan and time schedule, completion of the syllabus, standards of internal tests, evaluation process and difficulties faced by the students and take suitable remedial actions at the appropriate time. At the end of the semester, the committee should meet without student representatives to review the conduct of the course and finalise the internal assessment marks and approve them.

#### 11. Eligibility for writing the end semester examination and for grading

Students with 45% or more marks in internal assessment in a course shall only be permitted to write the end semester examination in that course. Those with less than 45% internal marks shall be awarded FE grade and have to register for the course again.

A student should have a minimum of 45% marks in the end semester examination to be eligible for grading in a course. Otherwise she/he will be considered to have failed in the course and an F grade will be awarded. Internal marks given to the students who got 45% marks or more in the end semester examination shall be regulated in line with the end semester

examination performance. Internal mark percentage shall not exceed 25% over the end semester mark %.

(For example, if the end semester mark % is 45, then the maximum internal mark % is to be 45+25 = 70 %.)

In case the student writes the supplementary examination, the mark got in that will be taken into consideration for regulating the internal marks.

Those who have more than 45% marks in the end semester examination are awarded the grade based on both internal assessment and end semester examination marks. A student earns credits for a course if the grade is P or above.

### 12. Award of Grades

Grading is based on the % marks obtained by the student in a course, as given in 7n. The grade card will only give the grades against the courses the student has registered.

Semester grade card will give the grade for each registered course, Semester Grade Point Average (SGPA) for the semester as well as Cumulative Grade Point Average (CGPA).

#### 13. Grades and Grade Points

Grades and Grade Points as per UGC guidelines is to be followed by the University

			% of Total Marks obtained in the
Grades	Grade Point (GP)		course
0	(Outstanding)	10	90% and above
A+	(Excellent)	9	85% and above but less than 90%
А	(Very Good)	8	80% and above but less than 85%
B+	(Good)	7	70% and above but less than 80%
В	(Above Average)	6	60% and above but less than 70%
С	(Average)	5	50% and above but less than 60%
Р	(Pass)	4	45% and above but less than 50%
F	(Fail)	0	Less than 45%
FE		0	Failed due to eligibility criteria [7-o]
Ι			Course Incomplete

SGPA and CGPA are calculated based on the above grading norms and are explained at the end of this document.

### 14. Academic Auditing

i. The University shall have a detailed academic auditing procedure in place comprising of an internal academic auditing cell within the colleges and an external academic auditing for each college. The internal

academic auditing cell in each college shall oversee and monitor all the academic activities including all internal evaluations and examinations. This cell is to prepare academic audit statements for each semester at regular intervals. These reports are to be presented to the external academic auditor appointed by the University, who will use it as a reference for his independent auditing and for submitting the final report to the University.

a. Academic auditing shall cover: -

- ii. Course delivery covering syllabus, adherence to course plan, quality of question papers for internal examinations, internal evaluation, assignments, and conduct of classes and their evaluation.
- iii. Co-curricular and Extra-curricular activities available for students, their organization and the mechanism of monitoring of activities points earned by the students.
- iv. Academic functioning of the college encompassing students, faculty and college administration covering punctuality, attendance, discipline, academic environment, academic accountability, academic achievements and benchmarking.

### 15. Break of Study

A student may break study for a maximum duration of two semesters, preferably in one academic year, to initiate start-up ventures, product development etc. This is however permitted only on successfully completing the courses listed out in the first four semesters. Request for this with ample evidence to the seriousness of the venture should be forwarded to the college principal for approval. [RU-3]

Break of study on serious health reasons is also permitted with the approval of the college Principal. [RU-3]

All such cases of break of study are to be reported to the University. In both the cases, the maximum duration for completing the B. Arch. programme will still be fourteen semesters.

### 16. Revaluation and Grade Improvement

There is no provision for revaluation of the end semester answer books or for improving the grade.

However, the student is permitted to check the answer books of the end semester examination after the results are declared. Any discrepancy in evaluation could be brought to the notice of the teacher concerned who will initiate appropriate action on this. The decision of the Controller of Examination shall be final on this.

### 17. Grade Cards

Students who have written the end semester examination will be given the grade cards for the registered courses, in every semester by the respective colleges. On earning the required credits for the degree, a consolidated grade sheet for the B. Arch programme will be given by the University.

### 18. B. Arch Degree

B.Arch. degree will not have any classifications like distinction or first class.

### 19. Academic Discipline and Malpractices in Examinations

Every student is required to observe discipline and decorous behaviour.

Any act of indiscipline, misbehaviour and unfair practice in examinations will be referred to the **Disciplinary Action Committee** (**DAC**). Malpractices in examinations shall be viewed seriously and any such incident observed or reported by a faculty member or an invigilator associated with the examinations shall be reported to the Principal who in turn shall refer it to DAC. On the basis of the report and evidence available or gathered, DAC shall immediately initiate an enquiry giving the concerned student a chance to explain his/her case. Based on this the guidelines formulated for this by the Controller of Examination of the University and forward it to the Principal for action.

Actions are to be based on the severity of the offence and are to be dealt with, on a course basis. Guidelines on this shall be given by the Controller of Examination which is to be followed by the Disciplinary Action Committee of the college.

The student may appeal to the Grievances and Appeals Committee for a relook on the matter. Based on the committee's report, the Principal shall take a final decision on the matter.

DAC shall be headed by a department head and shall have three other faculty members drawn from different departments as members. In case of malpractices in end semester examinations, the report given by the college DAC and the action taken by the Principal shall be intimated to the Controller of Examination of the University

### 20. Student's Welfare Committee

Every college shall have a Student's Welfare Committee, constituted by the Principal of the college. This committee shall have at least three faculty
members as members and the chairman shall be a senior faculty member in the rank of a Professor. This committee is entrusted with the task of looking after the welfare of the students by taking appropriate steps with the concurrence of the principal.

### 21. Grievances and Appeals Committee

Each college should have a Grievances Redress Committee constituted by the Principal to address the grievances of the students and to consider their appeals on any decisions made by the college. This committee consisting of at least three faculty members and chaired by a senior professor shall look into student's grievances and appeals and give its recommendations to the Principal for action.

### 22. Amendment to Regulations/Rules

Notwithstanding all that has been stated above, the University has the right to modify any of the above Rules/regulations from time to time.

### 4.3 RULES:

#### 1. RU-1 Course Code and Course Number

Each course is identified by a course code and a three-digit number. The two-letter code refers to the Knowledge segment and number refers to the semester in which the course is offered.

101 MA Mathematics in First Semester

103 EH Humanities in First Semester

206 AS Architectural Design in second semester

### 2. RU-2 Attendance

Attendance is marked for each course. While 75% attendance is mandatory for writing the end semester examination in that course, students are expected to have 100% attendance. However, under unavoidable circumstances students are permitted to take leave. Leave is normally sanctioned for any approved activity taken up by students outside the college covering sports and other extracurricular activities. Leave is also permitted on medical grounds or on personal exigencies. Leave of absence for all these is limited to 25% of the academic contact hours for the course.

In case of long illness or major personal tragedies/contingencies the college Principal can relax the minimum attendance requirement to 60%, to write the end semester examination. This is permitted for one or more courses registered in the semester. Principal shall keep all records which led to his decision on attendance, for verification by

the Academic Auditor. However, this concession is applicable only to any two semesters during the entire programme. In case of prolonged illness, break of study is permitted as per RU-3.

### 3. RU-3 Break of Study

A student is permitted to have a break of study.

- i. In case of accident or serious illness needing prolonged hospitalization and rest.
- ii. In case the student has a bright idea and would like to initiate a start-up venture or develop a new product.
- iii. In case of any personal reasons that need a break in study.

For break of study due to illness, student should submit all necessary medical reports together with the recommendation of the doctor treating him giving definite reasons for break of study and its duration. Before joining back, the student should submit the fitness certificate from the doctor who treated him.

Students who want to initiate a start-up venture or a product development, have to submit a project report, clearly indicating the purpose, action plan, Archnical details, funding details and future plans to the college Principal. The Principal shall evaluate the proposal by constituting an expert team consisting of an Archnocrat and a bank executive and take an appropriate decision based on the team's recommendation. In the semester system followed by the University, break of study for an academic year is preferred over a semester break.

Students who want a break in study due to personal reasons shall convince the Principal on the genuine need for it by giving authentic evidence for the same.

### 4. RU-4 Leave of Absence

Students who want to take leave under RU2 have to submit a leave letter to the teacher conducting the course. This letter is to be forwarded to the Head of the Department with recommendation of the teacher indicating the total leave of absence the student has so far availed. Leave is to be sanctioned by the Head of the Department. For medical leave over three days, medical certificate indicating the need for leave is required. After any medical leave exceeding five instruction days, on re-joining, the student has to produce the fitness certificate given by the doctor.

5. RU-5 Ragging

Ragging of any nature is a criminal and non-bailable offence. Involvement in ragging shall lead to stringent punishment, including imprisonment as per the law of the land. A student, whose involvement in ragging is established, shall be summarily dismissed from the college. Each student of the Institute, along with his/her parent, is required to give an undertaking in this regard and the same is to be submitted at the time of registration.

### Addendum: -

1) Calculation of SGPA/CGPA

Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA) are calculated as follows.

 $SGPA = \Sigma(C_i \times GP_i) / \Sigma C_i$ 

where  $C_i$  is the credit assigned for a course and  $GP_i$  is the grade point for that course. Summation is done for all courses registered by the student in the semester. Here the failed courses are also accounted.

 $CGPA = \Sigma(C_i \times GP_i) / \Sigma C_i$ 

where  $C_i$  is the credit assigned for a course and  $GP_i$  is the grade point for that course. Summation is done for all courses registered by the student during all the semesters for which the CGPA is needed. Here the failed courses are also accounted. CGPA of all courses passed may also be given.

CGPA for the B. Arch programme is arrived at by considering all course credits that are needed for the degree and their respective grade points.

### 4.4 M.TECH Programme

M-Tech programme follows a credit-based system following the semester pattern with continuous evaluation. The programme has a regular duration of 2 academic years, spanning four semesters. The maximum duration is seven semesters.

### 1. Programme Structure

- **i.** The M. Tech programme in all streams of specialization will be structured on a credit-based system following
- **ii.** The University permits regular as well as external registration (part time) for those in employment.
- **iii.** The duration for the M. Tech. programme in all streams of specialization will normally be 4 semesters. The maximum duration is 6 semesters.
- **iv.** For students admitted on external registration, the normal duration will be 6 semesters.
- **v.** The University permits a regular student to change over to external registration during the programme, under specific circumstances like initiating a start-up venture or to take up a job.
- vi. Each semester shall have a minimum of 72 instruction days followed by the end semester examination.
- vii. A common course structure for the M. Tech programmes in all streams of specialization is to be followed and consists of the following: Core Courses Elective Courses Laboratory Courses Seminar and Project.
- viii. Every stream of specialisation in the M. Tech. programme will have a curriculum and syllabi for the courses. The curriculum should be so drawn up that the minimum number of credits for successful completion of the M. Tech. programme in any stream of specialization is not less than 64 and not more than 68.
  - ix. A pass is mandatory in all core courses. In case of failure in an elective course, there is the provision to choose another elective listed in the curriculum.
  - **x.** On their request, CGPC shall examine the academic records and permit candidates with B. Tech (Honours) who have earned credits for any relevant graduate level courses to transfer credits towards the M. Tech. programme. Candidates who received B. Tech (Honours) degree just prior to their M. Tech admission are permitted to transfer up to 9 credits. Candidates, who received the B. Tech (Honours) degree within three years prior to their M. Tech admission, are permitted to transfer up to 6 credits.
  - xi. The maximum number of lecture-based courses and laboratory courses

in any semester shall not exceed 5 and 2 respectively. The maximum credits in a semester shall be 23.

xii. The normal duration of the programme shall be four semesters. In case of prolonged illness or other personal exigencies, the university may allow a student who has earned credits for at least one semester, to extend the programme up to the maximum duration of six semesters. Students who have earned credits for the courses listed in the first two semesters are permitted to transfer their registration as external candidates if they take up a job. However, they have to complete the programme within six semesters.

### 2. Course Registration and Enrolment

All students have to register for the courses they desire to attend in a semester. Students admitted to the first semester are advised to register for all courses offered in the first semester. They do not have to enrol for the semester. All other students are required to register at the end of the semester for the courses they desire to take in the next semester. Later they have to enrol for these courses in the new semester. This allows them to make minor changes in the list of courses already registered for. Before enrolment, students should clear all dues including any fees to be paid and should not have any disciplinary proceedings pending. The dates for registration and enrolment will be given in the academic calendar. Any late registration or enrolment, allowed only up to 7 working days from the registration or enrolment date, will attract a late fee. A student can drop a course or substitute one already registered for by another, for valid reasons with the approval of the faculty advisor. However, this has to be done within 7 working days from the commencement of the semester. The maximum number of credits a student can register for in a semester is limited to 24. O-7 Recommended Credit distribution over the semesters are as follows:

First Semester	:	20 to 23 credits
Second Semester	:	18 to 19 credits
Third Semester	:	14 credits
Fourth Semester	:	12 credits [Project]

### 3. Academic Assessment/Evaluation

The University follows a continuous academic evaluation procedure. The assessment procedure and corresponding weights recommended are as follows:

(a) **Theory Courses:** Each theory course evaluated through internal and external evaluation. The percentage-wise split-up of marks is as follows:

i)	Two internal tests, each having	15%
ii)	Tutorials/Assignments/ Mini projects having	10%
iii)	End Semester examination having	60%

All the above are mandatory requirements to earn credits. Students who have missed either the first or the second test can register with the consent of the faculty member and the Head of the Department concerned for a re-test which shall be conducted soon after the completion of the second test and before the end semester examination. The re-test will cover both the first and the second test course plans. If a student misses both the scheduled tests, there is no provision for any retests and zero marks will be given for each test. In case of serious illness and where the attendance is above 70% the Principal may permit the conduct of the tests for a student based on his application and other relevant medical reports. Such cases are to be reported to CGPC.

(b) Laboratory Courses: Each laboratory course has one credit. And evaluated internally. The percentage-wise split-up of marks is given below;

i)	Practical Records /outputs	40%
ii)	Regular Class Viva-Voce	20%
iii)	Final Test (Objective)	40%

### (c) Seminar

Students have to register for the seminar and select a topic in consultation with any faculty member offering courses for the programme. A detailed write-up on the topic of the seminar is to be prepared in the prescribed format given by the Department. The seminar shall be of 30 minutes duration and a committee with the Head of the department as the chairman and two faculty members from the department as members shall evaluate the seminar based on the report and coverage of the topic, presentation and ability to answer the questions put forward by the committee. Faculty member in charge of the seminar and another faculty member in the department nominated by the Head of the Department are the evaluators for the seminar. Distribution of marks for the seminar is as follows.

i)	Marks for the report	30%
ii)	Presentation	20%
iii)	Ability to answer questions on the topic	40%

### (d) Project work

Project work is spread over the third and fourth semesters. Project work is to

be evaluated both in the third and the fourth semesters. Based on these evaluations the grade is finalised only in the fourth semester. Project evaluation is done in two semesters and mark split-up is as follows:

i)	Third Semester (Total)	50 marks	
	Progress evaluation by the Project Supervisor	20 marks	
	Presentation and evaluation by the	30 marks	
	committee		
ii)	Fourth Semester (Total)	100 Marks	
	Project evaluation by the supervisor/s 30 Mar		
	Presentation & evaluation by the Committee 40 Marks		
	Evaluation by the External expert	30 marks	
	Grand Total	150 marks	

Normally students are expected to do the project within the college. However, they are permitted to do the project in an industry or in a government research institute under a qualified supervisor from that organization. Progress of the project work is to be evaluated at the end of the third semester. For this a committee headed by the head of the department with two other faculty members in the area of the project and the project supervisor/s

Final evaluation of the project will be taken up only if the student has earned all course credits listed in the first three semesters. Project evaluation shall be done by the same committee mentioned above with an external expert, either from an academic/R&D organization or from Industry, as an additional member. Final project grading shall take into account the progress evaluation done in the third semester and the project evaluation in the fourth semester. If the quantum of work done by the candidate is found to be unsatisfactory, the committee may extend the duration of the project up to one more semester, giving reasons for this in writing to the student. Normally further extension will not be granted and there shall be no provision to register again for the project.

While students are expected to do their projects in their colleges, provision is available for them to do it outside the college either in an industry or in an institute of repute. This is only possible in the fourth semester and the topic of investigation should be in line with the project part planned in the 3rd semester. Student should apply for this through the project supervisor indicating the reason for this well in advance, preferably at the beginning of the 3rd semester. The application for this shall include the following: - Topic of the Project, Project work plan in the 3rd Semester, Reason for doing the project outside, Institution/Organization where the project is to be done, Details of the

External Supervisor.

Letter of consent of the External Supervisor as well as from the organization is to be obtained. This application is to be vetted by the head of the department and based on the decision taken the student is permitted to do the project outside the college.

### 4. Course Completion and Earning Credits

Students registered and later enrolled for a course have to attend the course regularly and meet the attendance rules of the University and appear for all internal evaluation procedures for the completion of the course. However, earning of credits is only on completion of the end semester/supplementary examination and on getting a pass grade. Students, who had completed a course but could not write the end semester/supplementary examination for genuine health reasons or personal exigencies, if otherwise eligible are permitted to write the semester examination, at the next opportunity and earn credits without undergoing the course again. Failed candidates having more than 45% marks in their internals can also avail of this option. However, those who are not eligible to appear for the end semester examination have to register and undergo the course again, whenever it is offered, to earn the credits.

### 5. End Semester and Supplementary Examinations

The end semester examination will be conducted in all theory courses offered in the semester and will be of three hours duration unless otherwise specified. Supplementary examinations are to be conducted for eligible candidates registered for them, after the declaration of results.

Eligibility criteria to appear for the semester examination are the attendance requirements in the course, 45% or more marks in the internal evaluation and having no pending disciplinary action. The minimum attendance for appearing for the semester examination is 85% in the course. In case of serious illness there is a relaxation for attendance [O-14.xvi]. Those who do not meet the eligibility criteria shall be awarded an FE Grade and have to register again for the course.

A student should have a minimum of 45% marks in the end semester examination to be eligible for grading in a course. Otherwise he/she will be considered to have failed in the course and an F grade will be awarded.

i. Eligibility to write the Supplementary Examination: Only failed students and those who could not write the semester examination due to health reasons or other personal exigencies that are approved by the Principal can register for the supplementary examination provided they meet the eligibility requirements given in O-10.1. Grades awarded in the supplementary examination will be

taken as the semester grades in these courses.

ii. **Conduct of End Semester Examination:** The Clusters will prepare the question papers, conduct the end semester examinations, organize the valuation of the answer scripts, finalise the results and submit it to the University, as per the academic calendar.

### 6. Award of Grades

Grading is based on the marks obtained by the student in a course. The grade card will only show the grades against the courses the student has registered. The semester grade card will show the grade for each registered course, Semester Grade Point Average (SGPA) for the semester as well as Cumulative Grade Point Average (CGPA).

Grades	Grade Point	(GP)	% of Total Marks obtained in the course
0	(Outstanding)	10	90% and above
A+	(Excellent)	9	85% and above but less than 90%
А	(Very Good)	8.5	80% and above but less than 85%
B+	(Good)	8	70% and above but less than 80%
В	(Above Average)	7	60% and above but less than 70%
С	(Average)	6	50% and above but less than 60%
Р	(Pass)	5	45% and above but less than 50%
F	(Fail)	0	Less than 45%
FE		0	Failed due to eligibility criteria
Ι			Course Incomplete

Grades and Grade Points followed by the University is as follows:

Grade Point Average (GPA) and Cumulative Grade Point Average (CGPA) are calculated based on the above grading norms and are explained at the end of this document.

### 7. Calculation of GPA

(See Section A.12)

### 8. Eligibility to continue with the programme

A student shall be allowed to register for the second semester only if he/she is eligible to appear for end semester examination in 2/3 of the courses in the first semester. Failed students who have more than 45% marks in the internal course evaluation are permitted to write the semester examination without

registering and undergoing the course. Those with less than 45% in internal course evaluation have to register again for the course, attend the classes and earn the credits.

#### 9. Revaluation and Grade Improvement

(See Section A.16)

#### 10. Grade Cards

(See Section A.17)

### 11. Award of M. Tech., Degree

The award of the M. Tech. Degree shall be in accordance with the Ordinances and Procedures given by the University. A student will be eligible for the award of M. Tech. Degree of the University on meeting the following requirements;

- i. Registered and earned the minimum credits, as prescribed in the curriculum, for the stream of specialization.
- ii. No pending disciplinary action.

#### 12. Academic Discipline and Malpractices in Examinations

(See Sections A.21 and A.22)

#### 13. Attendance

Attendance is marked for each course. 85% attendance is mandatory for writing the semester examination in a course. Students who get Part Time Teaching Assistantship (PTTA) or Scholarships from the Central or State Governments or any other agencies are expected to have 100 % attendance. However, under unavoidable circumstances students are permitted to take leave. Leave is normally sanctioned for any approved activity taken up by students outside the college covering sports and other extra-curricular activities. Leave is also permitted on medical grounds or on personal exigencies. Leave of absence for all these is limited to 15 % of the academic contact hours for the course.

In case of long illness or major personal tragedies/exigencies the Principal can relax the minimum attendance requirement to 70%, to write the semester examination. This is permitted for one or more courses registered in the semester. The Principal shall keep all records which led to his decision on attendance, for verification by the Academic Auditor. However, this concession is applicable only to any one semester during the entire programme. In case of prolonged illness, break of study is permitted up to two

semesters which could extend the programme up to six semesters, the maximum permitted by the regulations.

### 14. Leave of Absence

Students who want to take leave have to submit a leave letter to the teacher conducting the course. For medical leave over three days, medical certificate indicating the need for leave is required. After any medical leave exceeding five instruction days, on re-joining, the student has to produce the fitness certificate given by the doctor.

#### 15. Ragging

Ragging of any nature is a criminal and non-bail able offence. Involvement in ragging shall lead to stringent punishment, including imprisonment as per the law of the land. A student, whose involvement in ragging is established, shall be summarily dismissed from the college. Each student of the Institute, along with his/her parent, is required to give an undertaking in this regard and the same is to be submitted at the time of registration.

### 4.5 MCA Programme

### 1. Eligibility -

The candidate must be an Indian Citizen. Candidates should have passed in any recognized Bachelor's Degree of minimum 3 years duration in any discipline with Mathematics at 10 + 2 level OR Should have passed in any recognized Bachelor's Degree of minimum 3 years' duration in any discipline with Mathematics/Statistics as one of the subjects OR Should have passed in BCA Degree of minimum three years duration from a recognized University. For candidates who have passed BCA/B.Sc.(IT/COMPUTER SCIENCE) Degree of minimum 3 years duration with Mathematics at 10+2 level OR at Graduate level, they can join the MCA lateral entry (LE) Programme of two years duration consisting of four semesters. Lateral Entry Scheme will be for the maximum of 20% of "Approved intake" which shall be over and above supernumerary to the "Approved Intake", plus the unfilled vacancies of 1st year MCA (regular) course. The candidate should have secured a minimum aggregate of 50% marks in their Degree examination. For SEBC and physically handicapped candidates, the aggregate mark required is 45%. For SC and ST candidates, a minimum pass in the degree examination is sufficient.

The MCA programme is a credit-based programme affiliated to A P J Abdul Kalam Technological University. The duration of the MCA programme will normally be three academic years spanning 6 semesters and the maximum duration shall be, for MCA - five academic years spanning 10 semesters.

### 2. Examination

- a. At the end of the semester, end semester examination will be conducted in all lecture-based courses offered in the semester and will normally be of three hours duration, unless otherwise specified. Supplementary examinations shall be conducted after the declaration of results of end semester examinations, for students who are eligible and have registered for them.
- b. Students, who have completed a course but could not write the end semester examination for valid reasons like illness or personal exigencies, are allowed to write the supplementary examination or the end semester examination at the next opportunity and earn the credits without having to register for the course again provided they meet other eligibility criteria.
- c. The main eligibility criteria for the end semester examination are attendance in the course, internal marks and no pending disciplinary action. The minimum attendance for appearing for the end semester examination is 85% in each course. Further, the internal evaluation marks in the course should be 45% or above. Students who do not meet these eligibility criteria are awarded an FE grade and have to register for the course again.
- d. Students who could not write the end semester examination due to health reasons or other exigencies can register for the supplementary examination, with the approval of the principal provided they have 45% or above marks in the internal evaluations for the course. Candidates who received F grade can also write the supplementary examination. Grades awarded in the supplementary examination will be taken as the end semester grades in these courses.

### 3. Eligibility for Award of Degree

A student will be eligible for the award of MCA Degree of the University on meeting the following requirements;

- a. Registered and earned the minimum credits, as prescribed in the curriculum.
- b. No pending disciplinary action.

### 4. MCA Programme Structure -

Curriculum, List of Courses and Syllabi For details refer to **www. ktu.edu.in** 

#### 5. Core courses, Prerequisites and Electives

All courses listed in the curriculum, other than the electives, are core courses. Earning credits in the core courses is mandatory for the MCA degree. For electives, failure to earn credits does not necessarily require repeating the course. Instead another approved elective is permitted as a replacement course by the faculty advisor concerned. For some courses there could be a prerequisite course completion requirement for registration.

#### 6. Academic Assessment/Evaluation

University follows a continuous academic evaluation procedure.

a. Theory Courses: -

The maximum marks for internal evaluation and end semester examination for theory courses are fixed as 40 and 60 respectively. Scheme of evaluation is as follows.

- i) Two internal tests each of 15 marks and of one-hour duration. (Internally by the College)
- ii) Tutorials/Assignments/Mini Projects carrying 10 marks. (Internally by the College)
- iii) End Semester examination carrying 60 marks. (Conducted by the University)

All the above evaluations are mandatory requirements to earn credits. Students who have missed either the first or the second test can register with the consent of the faculty and the Head of the Department (HOD) concerned for a re-test which shall be conducted soon after the completion of the second test, but before the end semester examination. The re-test will cover both first and second test course plans. Those who have missed both the tests are not eligible to appear for the end semester examination.

However, if one misses both tests due to medical reasons or other personal exigencies, based on genuine evidence, a single test of 2-hour duration for 30 marks will be conducted covering the whole syllabus, before the end semester examinations. Decision on this will be taken by the Principal and verified by the external academic auditor.

b. Laboratory / Practical courses

a)	Practical records /Outputs	60 marks	(Internally by the College)
b)	Regular class Viva	10 marks	(Internally by the College)
c)	Final practical exam	30 marks	(Internally by the College)

Distribution of marks for the seminar is as follows.

Marks for the report: 20%

Presentation: 60%

Ability to answer questions on the topic: 20%

c. Final Semester Project

Students, individually have to do a project approved by their faculty supervisor. Project evaluation weights shall be as follows: -

Total Marks for the Final Project: 100

Project evaluation by the supervisor(s): 30 Marks Presentation & evaluation by the Committee: 40 Marks Evaluation by the External experts: 30 Marks

### 7. Eligibility to Continue

A student has to earn a minimum number of credits in a semester to be eligible to register for the new courses offered in the next semester. In odd semesters if this requirement is not met, the student is to be forewarned and allowed to continue to the next even semester. However, at the end of even semesters this requirement will be strictly implemented. Students who do not meet this requirement are not permitted to register for new courses in the higher semesters. They have to register for the failed courses in normal semesters in which they are offered subject to the limitations imposed by the ordinances and course timetable.

Semester	llotted redits	umulative Credits	Minimum cumula to register for semesters	ative credits required courses in higher
	A] C	Ū	REGULAR	LATERAL ENTRY
First	22	22	Not insisted	Credit Transfer
Second	22	44	27	Credit Transfer
Third	22	66	Not insisted	Not insisted
Fourth	22	88	53	53

Eligibility Criteria for Registering for Higher Semester Courses

Fifth	23	111	Not insisted	Not insisted
Sixth	12	123	Not insisted	Not insisted

### 8. Eligibility for writing the end semester examination and for grading

Students with 45% or more marks in internal assessment in a course shall only be permitted to write the end semester examination in that course. Those with less than 45% internal marks shall be awarded FE (Failed due to Eligibility criteria) grade and have to register for the course again.

A student should have a minimum of 45% marks in the end semester examination to be eligible for grading in a course. Otherwise he/she will be considered to have failed in the course and an F grade will be awarded.

Internal marks given to the students who got 45% marks or more in the end semester examination shall be regulated in line with the end semester examination performance. Internal mark percentage shall not exceed 25% over the end semester mark %.

#### 9. Grades and Grade Points

Grades	Grade Point (	GP)	% of Total Marks obtained in the course
0	(Outstanding)	10	90% and above
A+	(Excellent)	9	85% and above but less than 90%
А	(Very Good)	8.5	80% and above but less than 85%
B+	(Good)	8	70% and above but less than 80%
В	(Above Average)	7	60% and above but less than 70%
С	(Average)	6	50% and above but less than 60%
Р	(Pass)	5	45% and above but less than 50%
F	(Fail)	0	Less than 45%
FE		0	Failed due to Eligibility criteria [7-n]
Ι			Course Incomplete

Grades and Grade Points to be followed by the University

SGPA and CGPA are calculated based on the above grading norms.

### 10. Revaluation and Grade Improvement

There is no provision for revaluation of the end semester answer books as they are valued by two examiners or for improving the grade.

However, the student is permitted to check the answer books of the end semester examination after the results are declared. Any discrepancy in evaluation could be brought to the notice of the teacher concerned who will initiate appropriate action on this. The decision of the Controller of Examination shall be final on this.

### 4.6 MBA Programme

### 1. Eligibility

Candidates who have been awarded or qualified for the award of the Bachelor's degree in Engineering / Technology / Business Administration with 50% marks in aggregate or equivalent CGPA; or Bachelor's degree in Arts / Science / Commerce with 50% marks in aggregate or equivalent CGPA and 50% for the Part III or core papers are eligible to apply for

admission to the MBA programme. For SC/ST candidates, a pass in qualifying examination is sufficient and for SEBC (OBC) candidates 45% of aggregate marks in the qualifying examination is mandatory.

### 2. Duration

Duration of the MBA programme will normally be two academic years spanning six trimesters.

### 3. Awarding of the MBA Degree

Award of MBA degree shall be in accordance with the academic regulations of the University.

## 4. Admission to the MBA programme

- Admission to MBA programme will be as per the rules and regulations of the University following the guidelines given by the State and Central Governments on reservation.
- The number of students admitted are decided by the University based on the approval by the competent authorities.
- It is mandatory that students seeking admission to the MBA programme should have a valid score in a national level admission test or any other test, notified by the University or Government of Kerala.
- Admission to the programme as per the admission procedure is final and binding for the whole duration of the programme.
- Foreign nationals whose applications are received through Indian Council or Cultural Relations, Government of India, are also eligible for admission to the MBA Part Time programme and not to the Full Time programme as per GO.

## 5. Curriculum, List of Courses and Syllabi

The MBA programme will have a curriculum, list of courses, syllabi and course plans approved by the Academic Board for Management Programme (ABM).

R-10.2 Courses are categorized as Core Theory (CT), Electives (EL), Projects (PR) and Internship (IS)

R-10.3 Courses and trimesters

Trimester 1: 18 credits - Six Core courses (CT)

Trimester 2: 18 credits - Six Core courses (CT)

Trimester 3: 21 credits – Six Core courses (CT), Three credits earned for softskill in the first three trimesters

Trimester 4: 18 credits - Two Core courses (CT) and Four Electives (EL)

Trimester 5: 22 credits – Two Core courses (CT), Four Elective courses (EL), and Project in an area of specialization (PR)

Trimester 6: 18 credits – One Core course (CT) and Two Elective courses (EL), Comprehensive project (PR) and internship credit earned between 3rd and 4th trimester (IS)

### 6. Duration

The Full Time MBA programme is a two-year programme, whereas the Part Time MBA programme spans for two years and eight months

### 7. Course Registration and Enrolment

It is mandatory for students to register for the courses they want to attend in a trimester. Students have to register for all courses offered in the first trimester at the time of admission and for all courses offered in the second and third trimesters before the commencement of these trimesters. All students are required to register at the end of the third, fourth and fifth trimesters for the courses they want to take in the following trimester. Later they have to enrol for these courses in the new trimester based on the previous trimester results. This allows them to make minor changes in the list of courses already registered for. Before enrolment, students should clear all dues including any fees to be paid and should not have any disciplinary issues pending. The dates for registration and enrolment will be announced in the academic calendar of the affiliated colleges. Any late registration or enrolment, allowed up to 7 working days from the commencement of the trimester, will attract a late registration/enrolment fee. A student can drop a course or substitute one already registered by another, for valid reasons with the approval of the faculty advisor. However, this has to be done within seven working days from the commencement of the trimester. The maximum number of credits a student can register in a trimester is limited to 22.

### 8. Academic Assessment/Evaluation

The university follows a continuous academic evaluation procedure. R-16.1 Assessment procedure and the corresponding weights are as follows: - For theory courses

- i) Two internal tests, each having 15%
- ii) Assignments having 10%
- iii) Project & Presentation having 15%
- iv) Trimester examination having 60%

### 9. Project in the area of Specialization (5th trimester) (4 Credits)

Evaluation is based on the following: -

- i) Two progress assessments 20%
- ii) Final Project Report 30%
- iii) Project presentation and Viva-voce 50%

# 10. Comprehensive Project which can be organization based (6th trimester) (6 Credits)

Evaluation is based on the following: -

i) Two progress assessments 20%

- ii) Final Project Report 30%
- iii) Project presentation and Viva-voce 50%

### 11. Eligibility for writing the end semester examination and for grading

The main eligibility criteria for appearing the end semester examination are,

- minimum 85% attendance in each course,
- minimum 45% internal marks for each course and
- no pending disciplinary action

### 12. Award of Grades

Grading is based on the total marks obtained by the student in a course. University will follow relative grading. The grade card will only give the grades against the courses.

Trimester grade card will give the grade for each registered course, Grade Point Average (GPA) for the trimester as well as Cumulative Grade Point Average (CGPA).

Grades and Grade Points as per UGC guidelines followed by the University are as given below:

Grades Grade Point Percentage of total marks obtained in the course

0	10	90% and above
A+	9	85% and above but less than $90%$
А	8.5	80% and above but less than $85%$
B+	8	70% and above but less than $80%$
В	7	60% and above but less than $70%$
С	6	50% and above but less than $60%$
Р	5	45% and above but less than $50%$
F	0	Less than 45%
FE	0	Failed due to eligibility criteria
Ι		Course Incomplete

### 4.7 M.Arch / M.Planning programme

### Eligibility

Candidates who have been awarded or qualified for the award of the appropriate Bachelor's degree in Architecture/Engineering/ Planningas per the following table, from an Institution approved by All India Council for Technical Education (AICTE) or Council of Architecture (COA) are eligible for admission to the M. Planning/ M.Arch. Programme. Eligibility of candidates will be decided from time to time by following the guidelines issued by All India Council for Technical Education (AICTE) and the Government of Kerala. Other important eligibility criteria are as listed out by the Director of Technical Education with the approval of the Government of Kerala

Specialization	Eligibility
M.Planning	Degree in Architecture / Civil
	Engineering / Planning
M.Arch	Degree in Architecture

#### M. Planning/ M.Arch. Programme Structure

A common course structure for the M. Planning/ M.Arch. programmes in all streams of specialization is to be followed and consists of the following:

Studio Courses Core Courses Elective Courses Internship Dissertation Project

Credits are assigned as follows, for one semester 1 credit for each studio of 2 or 3 hours per week 1 credit for each lecture hour per week 1 credit for each tutorial hour per week credits for internship credits for Dissertation in the 3rd Semester redits for Project in the 4th Semester

### **Course Registration and Enrolment**

All students have to register for the courses they desire to attend in a semester. Students admitted to the first semester are advised to register for all courses offered in the first semester. They do not have to enrol for the semester. All other

students are required to register at the end of the semester for the courses they desire to take in the next

semester. Later they have to enrol for these courses in the new semester based on the results in the previous semester. This allows them to make minor changes in the list of courses already registered for. Before enrolment, students should clear all dues including any fees to be paid and should not have any disciplinary proceedings pending. The dates for registration and enrolment will be given in the academic calendar. Any late registration or enrolment, allowed only up to 7 working days from the commencement of the semester, will attract a late fee.A student can drop a course or substitute one already registered for by another, for valid reasons with the approval of the faculty advisor. However this has to be done within 7 working days from the commencement of the semester. The maximum number of credits a student can register for in a semester is limited to 24.

Credit distribution over the semesters First Semester: 21credits Second Semester: 20 credits Third Semester: 20credits Fourth Semester: 12 credits [Project]

### Academic Assessment/Evaluation

The University follows a continuous academic evaluation procedure. The assessment procedure and corresponding weights recommended are as follows:-

For theory courses

i) Two internal tests, each having 15%

ii) Tutorials/Assignments having 10%

iii) End Semester examination having 60%

Students who have missed either the first or the second test can register with the consent of the faculty member and the Head of the Department concerned for a retest which shall be conducted soon after the completion of the second test and before the end semester examination. The re-test will cover both the first and the second test course plans. If a student misses both the scheduled tests, there is no provision for any retests and zero marks will be given for each test. In case of serious illness and where the attendance is above 70% the Principal may permit the conduct of the tests for a student based on his application and other relevant medical reports.

For studio based courses

i) Seminars/Assignments/ Group / Individual projects 200 marks

ii) End semester jury 100 marks

For Dissertation

i) Internal assessment by guide 100 marks

ii) Internal evaluation by committee 100marks

For Thesis

i) Internal assessment by guide 10%

ii) Internal evaluation by committee 40%

iii) Final evaluation by internal and external examiner 45%

iv) Marks for publication in journal/ conference 5%

All the above are mandatory requirements to earn credit

### Course Completion and earning of credits

Students registered and later enrolled for a course have to attend the course regularly and meet the attendance rules of the University and appear for all internal evaluation procedures for the completion of the course. However, earning of credits is only on completion of the end semester/supplementary examination and on getting a pass grade for core and elective courses. Students, who had completed a course but could not write the end semester/supplementary examination for genuine health reasons or personal exigencies, if otherwise eligible are permitted to write the semester examination, at the next opportunity and earn credits without undergoing the course again. Failed candidates having more than 45% marks in their internals can also avail of this option. However, those who are not eligible to appear for the end semester examination have to register and undergo the course again, whenever it is offered, to earn the credits.

### Award of M. Planning/ M.Arch. Degree

The award of the M. Planning/ M.Arch. Degree shall bein accordance with the Ordinances and Procedures given by the University. A student will be eligible for the award of M. Planning/ M.Arch. Degree of the University on meeting the following requirements;

i) Registered and earned the minimum credits, as pr

escribed in the

curriculum, for the stream of specialization.

ii) No pending disciplinary action

### Grade and Grade Points

0	10	90% and above
A+	9	85% and above but less than $90%$
А	8.5	80% and above but less than $85%$
B+	8	70% and above but less than $80%$
В	7	60% and above but less than $70%$
С	6	50% and above but less than $60%$
Р	5	45% and above but less than $50%$
F	0	Less than 45%
FE	0	Failed due to eligibility criteria
Ι		Course Incomplete

# 5. FACILITIES

### 5.1 LIBRARY

With a large collection of books, periodicals and reports, the library serves the needs of the staff and students of this College. The library is kept open from 9 a.m. to 8 p.m. on all working days.

The College Library consists of:

- a) Reference section
- b) Lending section
- c) Current periodicals section
- d) Back volumes section
- e) Book bank for students of Scheduled Caste/Tribe
- f) Book bank for financially backward students
- g) Reading room
- h) Reprographic section
- i) Journal, E-journal and E-Book section
- j) Binding section

11.145 seats with individual tables are provided in the reading room and current periodical's room for the convenience of the students/faculty.

Total number of books in various sections:

Lending section	:	46,241
Reference section	:	23022
Book bank section	:	26193
Back volumes	:	11216
Current periodicals	:	43
Journals	:	138
E-Books	:	600
E-journals	:	2500
Magazines	:	15

Books will be issued from the book Bank section to all SC/ST students and all OBC students whose parent's annual income does not exceed Rs.100,000. A large collection of old question papers is also available in the library.

### 5.2 CENTRAL COMPUTING FACILITY

The Central Computing facility started functioning in 1999. The facility serves as the focal point of computing resources, which are shared by all the departments and offices of the College. It is open from 9:00 AM to 9:00 PM on all working days and from 9:00 AM to 4:00 PM on holidays. The CCF comprises of Server room and 4

Labs equipped with 10 high end servers in which applications and software such as Campusoft, MATLAB, LabView etc. are hosted, 200 plus computers and other accessories including printers, scanners, LCD projectors etc. that is available for the use of the staff and the students of the Institution. E-journals and research publications such as Science Direct Publications, ASME, ASCE, IEEE etc. are also available. An EPBX for the intercom facility of the College is also housed here.

The facility is served by a 1Gbps leased line internet connection availed under the NKN scheme of the Central Government. It is the hub of the Campus wide Network backbone and distributes the internet connectivity throughout the Campus via fibre optical connectivity including Ladies Hostel, enabling 24 X 7 internet access. A Wi-Fi connection is also set-up in the College.

An outstanding part of the facility is the Sree Chithirathirunal Centre for Computing. It is a fully furnished lab room equipped with state-of-the-art ICT devices and technologies. 100 high-end desktop PCs and other accessories including printers, scanners are provided for fulfilling the academic needs of our students. Seminars, workshops, training sessions etc is conducted by utilizing this facility for the over-all development of staff and student community.

Another focus of the facility is the Centre for Training in Software Engineering (CTSE). It is well-equipped with 48 Computers, which are entirely networked and enabled with internet access. This is extensively used for conducting technical training sessions, classes, seminars as well as short term courses on a variety of topics related to computing and Information Technology. Short-term courses on current technologies are regularly conducted here for the benefit of our students and also the public.

A Language Lab, intended to improve the communication skills of our students is also provided in the CTSE.

### 5.3 CAREER GUIDANCE AND PLACEMENT UNIT

The Career Guidance and Placement Unit (CGPU) of the College is a voluntary organization headed by the co-ordinators and supported by student's representatives from all departments.

The objectives of the unit are:

- To place students in leading corporate organizations through campus recruitment.
- To organize various training programmes, lectures, seminars, group discussions, mock interviews etc. for career guidance, entrepreneurship and personality development.
- To provide information and assistance to students regarding:
- a) Job opportunities in India and abroad.

- b) Opportunities for self-employment.
- c) Opportunities for higher education in India and abroad.
- d) Competitive examinations like GRE, CAT, TOEFL, GMAT, GATE etc.

Over the last few years the Campus has been regularly visited by some of the top companies in India and others being constantly added to the list. The details of placement of 2018 Batch placement is given below:

COMPANY	EE	CE	AE	CS	ME	IE	EC	MCA	MBA	TOTAL
AADYAH Aerospace Pvt. Ltd	0	2	0	0	0	0	1	0	0	3
ABB	2	0	0	0	0	0	0	0	0	2
ALLIANZ	0	0	0	0	0	0	0	0	7	7
ACCENTURE	22	26	7	11	15	11	8	12	0	112
Adobe Systems	0	0	0	1	0	0	1	0	0	2
AKASH Institute	0	0	0	0	1	0	1	0	0	2
AMAZON	0	0	0	2	0	0	0	0	0	2
Bosch	5	0	10	12	0	0	16	0	0	43
BPCL	6	0	3	0	4	0	0	0	0	13
Byjus Classes	2	0	0	1	2	0	1	0	2	8
IDBI	0	0	0	0	0	0	0	0	6	6
CAFÉ COFFEE DAY	0	0	0	0	0	0	0	0	1	1
CHAINalytics	0	0	0	1	1	3	0	1	0	6
Cognizant Technology Solu	0	7	0	0	0	0	0	0	0	7
ENVESTNET	1	0	1	1	3	2	1	0	7	16
EY	0	0	0	0	0	0	0	0	1	1
Experion Technologies	0	0	0	0	0	0	0	2	0	2
FEDERAL BANK	0	0	0	0	0	0	0	0	1	1
Fleet Management	0	0	0	0	10	0	0	0	0	10

# 2018 - 2019\_\_\_\_\_

COMPANY	EE	CE	AE	CS	ME	IE	EC	MCA	MBA	TOTAL
FINGENT	0	0	0	0	0	0	0	0	4	4
Flytxt	0	0	0	2	0	0	1	0	1	4
GE Digital	0	0	0	2	0	0	0	0	0	2
GES Infotek	3	0	0	0	0	0	1	0	0	4
Godigit	1	0	0	5	0	0	1	0	0	7
Hyundai Motors	1	0	0	0	1	0	0	0	1	3
Infosys	24	22	6	11	41	3	8	2	0	117
ITC	0	0	0	0	0	0	0	0	1	1
KAYNES TECH	0	0	0	0	0	0	0	0	1	1
KERAKOLL	0	0	0	0	0	0	0	0	1	1
KITCO	1	2	0	0	0	0	0	0	0	3
KREATIO SOFTWARE	0	0	0	2	3	0	0	4	0	9
KPMG	0	0	0	0	0	0	0	0	1	1
LOCAL CUBE	0	0	0	0	0	0	0	0	1	1
Malayala Manorama	0	0	0	2	0	0	0	0	0	2
MINDTECK	9	0	4	7	0	0	6	1	0	27
MRF	3	0	0	0	9	2	1	0	0	15
MU-SIGMA	2	1	4	2	1	0	4	0	0	14
Nokia - IN- Bangalore	0	0	0	3	0	0	0	0	0	3
Open-Silicon	0	0	0	0	0	0	4	0	0	4
ORACLE	0	0	0	3	0	0	0	0	0	3
ORION	0	0	0	0	0	0	0	0	2	2
QUEST GLOBAL	5	0	1	0	0	0	1	0	0	7
RMESI	0	0	0	0	0	0	0	0	4	4
Royal Enfield	0	0	0	0	4	1	0	0	0	5
RR DONNELLEY	0	0	0	0	0	0	0	0	1	1
Saint Gobain	2	1	0	0	4	0	0	0	0	7
SAP Labs	0	0	0	1	0	0	1	0	0	2
SAPCL	0	3	0	0	0	0	0	0	0	3
Sentient Scripts	0	0	0	0	2	1	0	0	0	3

# 2018 - 2019

COMPANY	FF	<b>C</b> T		66			FC			
COMPANY	EE	CE	AE	CS	ME	IE	EC	MCA	МВА	TOTAL
ServiceNow Software	0	0	0	4	0	0	1	0	0	5
SRIRAM FINANCE	0	0	0	0	0	0	0	0	2	2
SIEMENS	1	0	6	3	0	0	0	0	0	10
STORE KING	0	0	0	0	0	0	0	0	4	4
TATA Communications	0	0	0	2	0	0	0	0	0	2
TATA ELXSI	0	0	11	2	0	0	6	0	0	19
TOONZ	0	0	0	0	0	0	0	0	2	2
TISMO	4	0	0	2	0	0	1	0	0	7
Travancore Analytics	1	0	1	2	0	0	0	0	0	4
UST GLOBAL	0	0	0	0	0	0	0	0	4	4
Viasat	2	0	0	2	0	0	1	0	0	5
VKC	0	0	0	0	3	0	0	0	0	3
WIPRO TURBO HIRING	7	0	2	5	0	0	10	0	0	24
Zoho	0	0	0	3	0	0	0	0	0	3
Zyxware	0	0	0	4	0	0	0	0	0	4
MILAAP	0	0	0	0	0	0	0	0	1	1
SBI LIFE	0	0	0	0	0	0	0	0	1	1
SOFTECH ASSOCIATES	0	0	0	0	0	0	0	0	1	1
SWIGGY	0	0	0	0	0	0	0	0	1	1
TCS	0	0	0	0	0	0	0	0	1	1
VIZHINJAM PORT	0	0	0	0	0	0	0	0	1	1
ZUVENTUS	0	0	0	0	0	0	0	0	1	1
TOTAL	104	64	56	98	104	23	76	22	62	609

Students joining the College are encouraged to actively participate in personality development programs and aptitude tests apart from diligently pursuing their academic activity. Students requiring the services of the Career Guidance Unit should register themselves with the Career Guidance & Placement Unit, when they

enter the seventh semester. Further details can be had from Dr. D. Bijulal, Coordinator or Dr. V S Unnikrishnan, Assistant Co-ordinator (Training), Career Guidance & Placement Unit Ph. 2595152, 2515682, 2515800. e-Mail: placement@cet.ac.in

### 5.4 RESEARCH PROGRAMMES

Facilities for research work leading to PhD degree are available in the departments of Civil Engineering, Mechanical Engineering, Electrical Engineering, Electronics & Communication Engineering, Computer Science Engineering, Architecture and Business administration. The department of Chemistry of College of Engineering Trivandrum is also an approved research centre under University of Kerala. Opportunities exist for candidates to do full-time as well as part-time research in the college with registration under Kerala University and the newly formed Kerala technological University.

### **FULL-TIME RESEARCH**

Candidates who wish to do full-time research can avail scholarship under any of the following schemes.

Scheme	Funding Agency
CERD	APJ Abdul Kalam Technological
	University
Higher Education Department	Government of Kerala
QIP	AICTE
NDF	AICTE
Other funding Agencies	UGC

### 5.5 QIP and State Higher Education Department Scholarships.

### i. QIP

The main objective of the 'Quality Improvement Programme (QIP)' sponsored by AICTE is to upgrade the expertise and capabilities of the faculty members of AICTE approved degree-level engineering institutions, National Institutes of Technology (NITs) and National Institutes of Technical Teachers' Training and Research (NITTRs) of the country. The programme launched by the Government of India in the year 1970, is now being implemented and

monitored by the National QIP Coordination Committee, funded through AICTE. College of Engineering Trivandrum was approved as a new QIP centre in 2012. There are 2 QIP seats each for Mechanical, Civil, Electrical and Electronics & Communication engineering branches in College of Engineering Trivandrum. Those candidates selected under QIP, need not qualify the Kerala University entrance exam for admission to the PhD programme. Eligibility criteria, stipend and other details are available at http://www.qip.cce.iisc.ernet.in

### ii. State Government Scholarship

Government of Kerala through the Higher Education Department has sanctioned 5 scholarships for research fellows each year. The details will be published by the Government of Kerala, Higher Education Department regularly.

Department	Fields of specialization
	Traffic and Transportation Engineering,
Civil	Geotechnical Engineering, Structural Engineering,
Engineering	Hydraulics and Water Resources, Environmental
	Engineering, Geoinformatics
	Fluid Mechanics, Heat Transfer, Thermodynamics and
	Combustion, Computational Fluid Dynamics, Thermal
	Engineering, Refrigeration and Air conditioning, Energy
Mechanical Engineering	Management, Alternate Energy Sources and Fuels,
	Machine Dynamics, Condition Monitoring, Vibration,
	Fluid Structure Interaction, Smart/Intelligent Structures,
	Vibration, Machine Design
	Power Systems, Electrical Machines, Control Systems,
Electrical Engineering	Guidance & Navigational Control, Power Electronics &
	Drives
	RF Engineering, Signal Processing, VLSI Circuits, Motor
Electronics &	Drives, MEMS, Image Processing, Computer Vision,
Communication	Wireless Communication, Optical Communication,
Engineering	Information System Security, Machine Learning
	Techniques

### MAJOR RESEARCH AREAS IN THE COLLEGE

Department	Fields of specialization					
Computer Science &	Information Security, Image Processing					
Engineering						
Industrial Engineering	Operations Management, Supply Chain Management,					
	Financial Engineering, Ergonomics, Tribology, Wear and					
	Lubrication, System Modelling and Simulation, System					
	Dynamics, Optimization Techniques					
Business Administration	Finance, Human Resources, Operations, Marketing and					
	Systems					

### 5.6 CET CENTRE FOR INTERDISCIPLINARY RESEARCH (CCIR)

To promote interdisciplinary research the College has started a new centre CET Centre for Interdisciplinary Research (CCIR). The centre would promote and coordinate activities of research involving faculty members of difference departments of Engineering, Science in the College. It would enable to undertake B.Tech and M.Tech projects involving faculty members across discipline and to undertake such joint research work.

## 5.7 VISITING FACULTY SCHEME

The visiting faculty scheme in Government Engineering colleges is introduced to improve and revamp the Technical Education sector in the State. It provides an opportunity to extend the services of experienced teachers and experts to all the colleges of the state. The Joint Director of Technical Education will be Nodal officer for the implementation of the scheme and will be responsible for the conduct of the scheme.

College of Engineering Trivandrum will be the co-ordinating institution for the implementation of the scheme for engineering colleges. The College of Engineering Trivandrum shall identify competent faculty from National Institutes / Institutions within Kerala, retired teachers from IIT, NIT, Engineering Colleges and executives from prominent and leading industries in India. The visiting faculty will be eligible for reimbursement of expenditure towards their travel, including airfare as per actual. Certificate of payments will be accepted as voucher for payment of taxi charges from their residence to airport, railway station etc. Any claim exceeding Rs.500/- has to be supported by bills/vouchers. The host institution shall arrange for boarding and lodging in hotels/guest houses for the visiting faculty. The charges for boarding and lodging shall not exceed Rs.3000/- per day. There will not be any ceiling for travel. However reserving tickets using the lowest airfare shall be done. The visiting faculty shall be paid honorarium as follows:

- a) Faculty and experts from Government/Quasi Government institutions -Rs.1000 - per day
- b) Executives from industries and retired teachers -Rs.2000/- per day
- c) Faculty from leading national institutes and Universities like NITs, IITs, IISc, Anna University etc. and leading professionals -Rs.3000/- per day

The maximum remuneration payable per week (5 days) will be limited to Rs.10000/-. The visiting faculty mentioned at para (i) and (ii) above are expected to deliver lectures for at least three hours a day and spend at least a day in the institution.

An amount of 2.5% of the total budget allocation shall be set apart for meeting expenditure towards stationary, lecture notes, learning resources etc. and also to meet the refreshment charges at the rate of Rs.10/- per participant. The joint Director of Technical Education shall make the allotment of required funds to the Principals of the Government Engineering College at their disposal. The Principals are authorised to draw necessary advance and delegated powers to pass all the vouchers in connection with the conduct of the scheme.

### 5.8 CET – TBI

The socio-cultural changes in the state shows high demand among the students of the institution to pursue innovation based entrepreneurial carriers. This requires considerable reorientation of the teaching methodology aimed at innovation and entrepreneurship. In this context it a Technology Business Incubator (TBI) at College of Engineering Trivandrum was established with the support DST.

### i. INCUBATION METHODOLOGY

TBI provides services and support for a wide range of requirements needed by a new business start-up in a Clean technology area. Depending on the demand and resources availability, TBI provides the following.

Manpower, Infrastructure and Office Support, Memorandum of Understanding with parties interested in availing the Business Incubation support of CET, Training and Information support, Strategic Planning and Business Development support.

### ii. SELECTION PROCESS

The selection procedure in CET-TBI includes:

- i. Determination of eligibility by TBI based on preliminary application.
- ii. TBI and the entrepreneur sign a mutual non-disclosure agreement (NDA)
- iii. Submission of complete application package:

- a. Copy of the entrepreneur's Business plan,
- b. Entrepreneur's tax returns for prior three years if applicable and
- c. Details of company's corporate structure, by-laws, ownership, etc.
- iv. A faculty mentor from CET to ensure the commitment by the entrepreneur(s).
- v. TBI sets up an expert committee to evaluate the application.
- vi. The expert committee reviews the application
- vii. The entrepreneur gives a presentation of the business plan to the expert committee.
- viii. Due diligence by the expert committee (including background and credit check of entrepreneur)
  - ix. Decision by expert committee

### iii. FACILITIES PROVIDED TO INCUBATEES

CET-TBI provides one Desktop computer, network facility, printing and copying facility, shared conference room, a comprehensive interactive atmosphere to create a professional business atmosphere along with the technical back up from the faculty expertise and the laboratory facilities to the incubated companies.

### iv. PRESENT STATUS

At present there are total of eight incubates in CET – TBI. Many applications are being mentored and will be ready for incubation within few months. Dr. A. Samson Professor, Mechanical Engineering is the coordinator and mail ID of CET – TBI is: tbi@cet.ac.in

### v. TREST RESEARCH PARK

The Govt. of Kerala has given the consent for the formulation of the Trivandrum Engineering Science and Technology (TrEST) during the year 2013. The registration of the TrEST as section 25 Company with the Directorate of Technical Education and College of Engineering Trivandrum as its registered shareholders, was granted in 2014 and the process is complete with the Registrar of Companies, Govt. of India. TrEST has been set up inside the College of Engineering Trivandrum (CET) as a State level sponsored scheme to leverage the talent and expertise available in the University/Academic Institutions. The Research Park assists companies with a research focus to set up a base in the park. The coming together of the Corporate R & D, the faculty and students of CET will increase the probability of successful innovation. It provides an environment that encourages technology development, commercialization with robust research and educational opportunities. The park set up within the premises of CET, strives to facilitate and

foster ground-breaking research and innovation a reality that will generate a buoyant economic and employment environment for Kerala. The USP of TrEST Research Park is the vast pool of highly qualified and experienced academicians and the large number of bright students in CET. Being the top rated technical institution in Kerala with over 75 years of reputed existence, the college attracts the best of brains in Kerala, both in the academic community and student community. A member of TrEST Research Park gets access to this remarkable pool of intellectual resource. The college has well equipped laboratories and workshops in various fields of Engineering having all modern machines, equipment, test, measuring and calibration facilities and instruments, productivity tools, prototype and pilot production facilities etc. A member of the TrEST Research Park automatically gets access to all these facilities. Dr. Jayasankar Prasad C, is the current CEO and Dr. P. G. Jairaj, Dean (Research and International Relations) is the coordinator. The park can be reached via the following mail IDs: admin@trestpark.org, trestpark@kerala.gov.in, trestpark@cet.ac.in .

### 5.9 SMART CLASS ROOMS

Almost all class rooms have been converted to smart class rooms and provided with LCD projection system and Internet connectivity under ICT. This will enable the faculty to conduct the classes more effectively by introducing computer based and net based learning resources.

### 5.10 VIDEO PRODUCTION ROOM

College of Engineering Trivandrum has set up of a video production room in the first floor of the main library building. This facility in intended to capture lectures of eminent teachers of the college and to store it in digital form in the central library which can be later used by the students and faculty alike. The system currently consists of two cameras which simultaneously capture the scene (one camera focusing on the teacher and one on the white board). The captured video is edited on line using a video mixer kept at the operator room. The edited video is recorded in an SD card which can be further used by the students. The project is administered by Mr. Sreeni K G, Assistant Professor, Dept. of ECE.

### 5.11 NPTEL COURSES FROM COLLEGE OF ENGINEERING TRIVANDRUM

NPTEL is the authentic and quality e-course materials generated by the seven IITs and the IISc in the form of recorded video lectures and supplementary webcontent for use in the engineering colleges. College of Engineering Trivandrum has

been included as an associate partnering institution in the NPTEL phase 2 programme. NPTEL offers a wide range of programmes that spans over various fields such as Engineering, Science, Law, Management and Arts.. Dr. Shereef R M Assistant Professor, Dept of Electrical Engineering is the NPTEL Local chapter co-ordinator from College of Engineering Trivandrum.

### 5.12 VIDEO CONFERNCING FACILITY

The video Conferencing Facility of the institution is being utilized on a regular basis by the higher education department and Directorate of Technical Education for convening meetings of with principals of various institutions under Education Department.

### 5.13 EDUSAT FACILITY

Edusat Facility is regularly utilized for receiving and telecasting lectures from/to other network institutions. Many programs both technical and non-technical have been telecast through this facility and has been utilized by students and faculty of many other engineering colleges also in the state.

### 5.14 INDO-US EDUSAT SCHEME

This is a scheme through which leading professors from universities of USA deliver talks on different areas of engineering at Amrita Vishwa Vidyapeetham, Ettimadai, Coimbatore and will be telecast over EDUSAT, for the benefit of students and the faculty of CET. This programme is coordinated in the college by Dr Bindu G R, Dept. of electrical Engineering

### 5.15 EGRC - CET

The main aim of this project is to improve the IT infrastructure &quality of education in technical institutions & engineering colleges of the state. The infra structure facilities for content development & posting are ready. The systems from SUN Micro systems and four PCs with content development software & tools have been installed at CET. An amount of Rs. five lakhs have been sanctioned to CET in connection with the project activities mainly in specific areas, namely organising workshops, imparting training for the faculty members of CET & e-courseware development. Under Graduate and Post Graduate students are given group ID to access the grid.

### 5.16 INDIAN SOCIETY FOR TECHNICAL EDUCATION

Indian society for Technical Education (ISTE) is a national professional body consisting of nearly 40,000 engineering teachers and academicians. A chapter of ISTE with more than 250 life members and a student chapter with more than 700 student members are functioning in this institution. The activities of ISTE have several dimensions such as career development, subject up gradation, personality development, communication skill development, aptitude development, preparation for competitive examination etc. The aim of ISTE is to prepare faculty and students into master trainers and master students respectively. In order to achieve these goals several programs are organized regularly. The programs include invited talks by experts from the industry, industrial visits, seminars, subject upgradation workshops,
competitions, quiz programmes, audio visual shows etc. Mock interviews, training for competitive examinations, group discussion and public speaking are held at regular intervals. The ISTE has training facility for spoken English which is open for both faculty and students. ISTE also provides Internet facility to its members.

The ISTE student chapter is the most vibrant and active chapter in the campus. It organizes Talks by experts, Quiz, Paper presentation, Robotics Contest, Hands-on events etc. 'Prarambh' is the program to welcome the first years to the campus. 'Exodus' tests the organizing ability of newly inducted ISTE members. 'Semfiesta' is like an intra-college Technical festival. The most highly acclaimed personality contest 'persona' is also conducted every year. Aavishkar is the National level Technical festival hosted by ISTE Students' Chapter. The ISTE website is istecet.org.

### 5.17 IEEE STUDENTS' BRANCH

A non-profit organization, IEEE is the world's leading professional association for the advancement of technology. Through its global membership, IEEE is a leading authority on areas ranging from aerospace systems, computers and telecommunications to biomedical engineering, electric power and consumer electronics among others. It has more than 375,000 members of which 80,000 of them are student members. The student Branch Committee of this college consists of a group of students who are committed to providing and enhancing opportunities for CET Students.

The IEEE publishes nearly a third of the world's technical literature in electrical engineering, computer science and electronics. IEEE journals are consistently among the most highly cited in electrical and electronics engineering, telecommunications and other technical fields.

The *IEEE Spectrum*, a monthly award-winning periodical provided for all the IEEE members keeps up to date with the latest advancements in the field of engineering, explores the developing applications and implementations of new technology. It also anticipates trends and provides a forum for understanding, discussion, and leadership in engineering, science and technology. *IEEE.tv* is an Internet based television network that produces and delivers special-interest programming about technology and engineering. Member exclusive programs appear monthly, and include conference highlights, author interviews, oral histories, career guidance and much more.

Students and young professionals gain insight about the latest research and innovation at universities and research centers worldwide, while learning about business and career issues. All members receive access to this publication through the *IEEE Xplore Digital Library* which allows member's access to more than two million IEEE documents.

The Student's branch aims to create awareness among students by conducting seminars and talks on various topics such as open source software and Linux as well as future studies and opportunities. It regularly conducts events like quizzes and competitions in order to test the technological aptitude of the students. It has also conducted an industrial visit with 100 students from various batches of the college. It also has a *Women in Engineering* (WIE) affinity group which is the largest international professional organization dedicated to promoting women engineers and scientists whose mission is to inspire, engage, encourage, and empower IEEE women worldwide.

#### 5.18 IET - CET STUDENTS CHAPTER

The Institution of Engineering and Technology (IET) is the largest multidisciplinary professional engineering institution in the world. The IET was formed in 2006 from two separate institutions: The Institution of Electrical Engineers (IEE), dating back to 1871 and the Institution of Incorporated Engineers (IIE) dating back to 1884. Its worldwide membership is currently in excess of 163,000. The IET's main offices are in Savoy Place in London, England and at Michael Faraday House in Stevenage, England.

The IET has the authority to establish professional registration for the titles of Chartered Engineer, Incorporated Engineer, Engineering Technician, and ICT Technician, as a Licensed Member institution of the Engineering Council. The IET is registered as a charity in England and Wales, and in Scotland.

The IET has a journal publishing program, totalling 24 titles as of March 2012 (with the addition of IET Biometrics and IET Networks). The journals contain both original and review-oriented papers relating to various disciplines in electrical, electronics, computing, control, biomedical and communications technologies.

Electronics Letters is a peer-reviewed rapid-communication journal, which publishes short original research papers every two weeks. Its scope covers developments in all electronic and electrical engineering related fields. Also available to Electronics Letters subscribers are something called the Insight Letters. Micro & Nano Letters, first published in 2006, specialises in the rapid online publication of short research papers concentrating on advances in miniature and ultra-miniature structures and systems that have at least one dimension ranging from a few tens of micrometres to a few nanometres. It offers a rapid route for international dissemination of research findings generated by researchers from the micro and Nano communities.

The IET represents the engineering profession in matters of public concern and assists governments to make the public aware of engineering and technological

issues. It provides advice on all areas of engineering, regularly advising Parliament and other agencies.

The IET also grants Chartered Engineer, Incorporated Engineer, Engineering Technician, and ICT Technician professional designations on behalf of the Engineering Council UK. IEng is roughly equivalent to North American Professional Engineer designations and CEng is set at a higher level. Both designations have far greater geographical recognition.

This is made possible through a number of networks for engineers established by the IET including the Professional Networks, worldwide groups of engineers sharing common technical and professional interests. Through the IET website, these networks provide up-to-date sector-specific news, stock a library of technical articles and give members the opportunity to exchange knowledge and ideas with peer groups through dedicated discussion forums. Particular areas of focus include education, IT, energy and the environment.

The IET has an educational role, seeking to support its members through their careers by offering a professional home for life, producing advice and guidance at all levels to secure the future of engineering.

For instance, the IET accredits degree courses worldwide in subjects relevant to electrical, electronic, manufacturing and information engineering. In addition, it secures funding for professional development schemes for engineering graduates including awards scholarships, grants and prizes.

For the public, the IET website provides fact files on topics such as solar power, nuclear power, fuel cells, micro-generation and the possible effects on health of mobile phones and power lines.

The IET runs the bibliographic information service Inspec, which is a major indexing database of scientific and technical literature and publishes books, journals such as Electronics Letters, magazines such as Engineering &Technology and conference proceedings. Over 80,000 technical articles are available via the IET Digital Library

IET mission is to inspire, inform and influence the global engineering community. Learn more about what we do.

The IET student chapter of CET was formed in the year 2009

Principal is the IET CET Chapter Patron, Sri. Indulal Sreedharan, Electrical Dept. is the faculty advisor.

### 5.19 INDUSTRY INSTITUTE INTERACTION CELL (IIIC)

Better interaction between Technical institutions and industry is the need of the hour. This will have great bearing on the Engineering Curriculum, exposure of industrial atmosphere to engineering students and subsequent placement of

young graduating engineers in industries across the country. With the advent of globalization and opening up of Indian economy to outside world, competition among industries has become stiff. To solve their engineering problems, they look up now to Engineering Institutions. Similarly, there is an urgent need to prepare engineering students for jobs in multinational companies, by exposing them to newer technologies and engineering methodologies. These objectives can only be achieved well by bridging the gap between industry and the academic institute.

#### 5.20 CENTRE FOR CONTINUING EDUCATION

Centre for Continuing Education (CCE) is an autonomous body set up under the Board of Governors of College of Engineering, Trivandrum to promote Continuing Education programs. A number of short-term courses, training programs, and workshops have been conducted by the centre for the benefit of practicing engineers, teachers, weaker sections of society and others. The functioning of the centre is governed by the Institutional Programme Implementation Unit (IPIU). The Manager of the centre is Dr. Anil R, Associate Professor, Department of Civil Engineering.

#### 5.21 ENVIRONMENTAL CLUB

The Environmental Club has done excellent work in nature conservation activities at College of Engineering, Trivandrum. The club mainly concentrates on enhancing the Greenery and conserving and documenting the bio-diversity of the campus. The diversity of plants and the lush greenery make the campus a haven for many species of birds and butterflies. All the trees in the campus have been surveyed and documented. The members of the club have surveyed the birds and butterflies of the campus and published the books- 'Feathered friends of our campus' in 2006 and 'Flying Jewels of our Campus' in 2007. The members are actively involved in enriching its Arboretum. The Eco-corner adjacent to the Canteen also functions as a plant nursery.

The Eco-friendly activities has bagged the following Awards:

- 'Indira Priyadarsini Vrikshamithra Award' from Ministry of Environment and Forests, Govt. of India in 2005 for Exemplary afforestation Work (Rs. One Lakh)
- 'Palathulli Award' in 2006 from Malayala Manorama for Eco friendly Water
- Conservation and related activities (Rs. One Lakh)
- 'Gandhi Darsan Vrikshamithra Award' in 2006 from Dept. of Gandhiyan studies,
- University of Kerala
- 'Vanamithra Award 2007" from Govt. of Kerala (Rs. One Lakh).

### 5.22 ENCON CLUB

Energy Conservation refers to efforts made to reduce energy consumption in order to preserve reserves for the future and also to reduce Environmental pollution. ENCON Club of CET was formed in association with BPCL, Kochi refinery to promote energy conservation among staff and students of CET and their family members. The activates under taken by ENCON Club include conducting awareness programmes, energy auditing and promoting model projects in energy conservation.

### 5.23 ENTREPRENEURSHIP DEVELOPMENT CLUB

An Entrepreneurship Development Club (EDC) is functioning in the college with the intention of nurturing entrepreneurship skills of the students. The club organizes seminars and short-term training programs for the students.

# 5.24 REFRIGERATION AND AIR CONDITIONING MAINTENANCE UNIT

A well-equipped service and maintenance centre for Refrigeration and Air conditioning is functioning under the Mechanical Engineering Department. Some of the objectives of the unit are:

- Repair and maintenance work of the refrigeration and air conditioning units in the campus.
- Impart practical training to the students
- Updating the skill of technicians and faculty members of the department.
- Conducting job-oriented training programs for the unemployed youth.
- Conducting consultancy work and advanced research in the area of refrigeration and air conditioning.

### 5.25 KERALA EDUCATION GRID PROJECT

Kerala Education Grid (KEG) project of the Department of Higher Education, Govt. of Kerala, has its operations centre located at IIITM-K, Park Centre, Technopark Campus. College of Engineering, Trivandrum is one of the Resource Centers (EGRC - CET) of the Education Grid Project. Other Resource Centers are IIITM-K, CUSAT, NIT, and Amrita Viswa Vidhyapeetham. KEG will co-ordinate and manage the project through its operations centre at IIITM-K and a network of Education Grid Resource Centers.

### 5.26 NATIONAL SERVICE SCHEME

NSS Technical cell unit no.147 of this college originally under University of Kerala, is at present functioning under the Directorate of Technical Education. Every year the N.S.S unit celebrates various important days with all its gaiety and

formalities. The various activities of the unit include blood donation, planting of trees, conducting legal awareness classes, personality development programmes, surveys for adopted village, cleaning and other constructive activities. N.S.S is also a part of Careplus, RCC, Trivandrum where students accompany doctors to attend patients under palliative care and donates food materials bought with the fund collected through 'one day one-rupee scheme'. The unit organizes 'Art for Heart' exhibition regularly in college, Technopark and other places to collect money through selling of paintings done by students and donated by artists. The money collected will be distributed to orphanages, cancer care centres etc. Through these activities the whole campus joins hands with the volunteers in helping the less privileged, in the way we can. It also conducts tuition for students at Balabhavan and Balika Bhavan every Saturday and Sunday. NSS also takes the hospitality works for Dhwani, Avishkar, Cetex, Drishti admission and other major activities. Conducts camps where students get opportunity to interact with eminent personalities. Volunteers of this college actively participate in seminars, conferences and camps conducted in various parts of the state. "Not me but you" is the motto of NSS. NSS is a student-centred activity and 'Personality development through community service' is the main aim of NSS activities. It is conceived as an educational programme and it is understood that education will be complete only if social concerns are inculcated in the minds of students.

# 5.27 CETAA (COLLEGE OF ENGINEERING TRIVANDRUM ALUMNI ASSOCIATION)

CETAA, was formed in 1976 with the aim of establishing rapport with former students and to have common programmes which will be mutually beneficial. Now around 10,000 of the former students are life members of the association. The alumni who come under the banner of CETAA have established themselves worldwide. Now, CETAA has active chapters functioning around the globe.

Growing Engineers Monitory Support (GEMS) is a social initiative of CETAA to provide scholarship to at least 100 students requiring financial support. CETAA, in connection with the 70th Anniversary Celebrations of College of Engineering, Trivandrum has decided to create a corpus scholarship fund of Rs. 10 Million towards Growing Engineers Monetary Support (GEMS). This corpus fund will enable CETAA to help 100 economically weak but bright students every year. The interest earned from the corpus fund shall be utilized to pay the scholarship to the selected students. The scholarship amount for a student per year is Rs. 10,000/-. All donations/contributions to GEMS shall be credited to GEMS Account No. 67094639700 in SBT, Engineering College Trivandrum branch. The payment can be

made through Internet banking or by cheque/DD favouring "GEMS-CETAA" payable at Trivandrum. The other details can be had from www.cetaa.com.

In a similar move, a new corpus fund for Rs. 2 Million titled Growing Opportunity for Leadership Development (GOLD) is initiated to support Management students at CET School of Management, College of Engineering, Trivandrum as GEMS is meant for supporting Engineering students only.

A cheque in favour of "CETAA GOLD" with an email to Secretary, CETAA is sufficient enough to contribute to this fund. Fund transfer details to this fund are as follows: Account Name is CETAA GOLD, Account Number is 37702916987 with State Bank of India Engineering College Trivandrum with IFSC code SBIN0070268 and SWIFT Code SBININBBT08.

CETAA day celebration is carried out every year during November, which gives a forum to meet alumni members. Office bearers of CETAA include:

Principal (President), Dr. Jisha V R (General Secretary) and Dr. Girija K (Treasurer).

No	Name	Post	Batch & Branch
1	Dr. Jiji C.V.	President	
2	Sri. J. P. Raju	Vice President	1974-Electrical
3	Sri. Mohamed Sali A.	Vice President	1975-Civil
4	Sri. Thomas Job K.	Vice President	1984-Civil
5	Dr. Jisha V R	General Secretary	1995-Electrical
6	Dr. Girija K	Treasurer	1991-Civil
7	Sri. S. Radha Krishnan	Joint Secretary	1970- Mechanical
8	Prof. Sheena Hassan	Joint Secretary	1995-Civil
9	Dr. Baiju Sasidharan	Joint Secretary	1995- Mechanical
10	Dr. Sreelatha G.	Joint Secretary	1996- Electronics
11	Prof. Smitha M. V.	Newsletter editor	2003- Architecture
12	Sri. Gopakumar S	Exe. Committee Member	1972- Electronics
13	Sri. Nandan Menon S.	Exe. Committee Member	1975-Electrical

5.27.1 CETAA Executive Committee Members 2018-19

14	Sri. K L. Sreekumar	Exe. Committee Member	1986-Electrical
15	Sri. Ranjit Kumar V	Exe. Committee Member	1988-Electrical
16	Sri. Renny Koipuram	Exe. Committee Member	1988-Electrical
17	Sri. Suresh Kumar V	Exe. Committee Member	1988-Civil
18	Dr. Rani S	Exe. Committee Member	1993- Mechanical
19	Prof. Vijayasree G	Exe. Committee Member	1994-Electrical
20	Sri. Ebin M. Manuel	Exe. Committee Member	2003- Electronics
21	Sri. Anil J.	Exe. Committee Member	2004-Electrical
22	Sri. Abilash Daniel George	Exe. Committee Member	2012-CET School of Management
23	Sri. Tarun U.	Exe. Committee Member	2014- Mechanical
24	Dr. Abhilash Suryan R	Ex. officio Member	1995- Mechanical

Instituting awards and scholarships to reward excellence in curricular and extracurricular activities has been one of the major activities of CETAA. Prizes and awards are annually distributed in a prestigious CETAA awards ceremony. As on date there are 64 awards/endowments instituted by CETAA members in the names of former professors as well as their colleagues. The number of endowments and awards are listed below.

#### 5.27.2 CETAA AWARDS

- 1. **Prof. K.C. Chacko Memorial Endowment** For the best outgoing Civil Engineering student
- 2. Suroop Memorial Endowment For the best outgoing Civil Engineering student
- 3. **Prof. S. Rajaraman Endowment** For the second-best outgoing student in Civil Engineering
- 4. **Col. P. Vaidyanathan Memorial Endowment** For outgoing student in Mechanical Engineering

### 5. **Prof. M. P. Mathew Memorial Endowment** For outgoing Mechanical Engineering student with the highest sessional marks

6. T. S. Viswanatha Pillai Memorial Endowment

For the best all-rounder in final year Mechanical Engineering

- 7. **Dr. M. V. Kesava Rao Endowment** For the best outgoing student in Electrical Engineering
- 8. **Prof. K. Venkitaraman Memorial Endowment** For the highest marks in 5th and 6th semesters, E & C
- 9. **Prof. J.C. Alexander Memorial Endowment** (Best outgoing student, Architecture) Professor, Chief Town Planner, designed College **building**
- 10. **S. VidyanathaIyer Memorial Endowment** Highest marks in I<sup>st</sup> to VI <sup>th</sup> semester Civil Engg.
- 11. **Prof. T.C. George Endowment** For the final year Civil Engineering Student with highest marks in all surveying papers put together
- 12. **Kesav-Santha Memorial Endowment** Best incoming Mechanical Engineering student
- 13. **Maya Mukundan Memorial Endowment** Highest marks in 4th semester Civil Engineering
- 14. **Dr. S Vasudev Memorial Endowment** Civil - Highest marks in Fluid Mechanics - theory & practical
- 15. **Prof. M.G. Koshy Memorial Endowment** Best student in Maths from all branches
- 16. **Dr. P. Appukuttan Endowment** University Champion and also should fall within the first 10 tanks in his branch

### 17. **George Korah Memorial Endowment** Highest marks in Ist to IVth semester of Electronics & Tele Communication

18. **Thomas Panicker Memorial Endowment** Best student of S7 Electrical

### Govinda Shenoi Endowment For academically outstanding Gowda Saraswatha Brahmin student of 1<sup>st</sup> year Civil Engineering

- 20. Sankumughom Padmanabhan Memorial Endowment First year civil Engg. Student who is award of factory worker or a last grade servant
- 21. **P. Rathnaswamy Memorial Endowment** Best outgoing student in Computer Science & Engineering
- 22. Dr. L. Srinivasa Iyer Endowment

Civil Engg. Student with the highest marks in Structural Engg. Elective.

23. **Dr. S. Hariharan Endowment** Final semester Electrical Engg. Student with the Highest marks in Electric machines.

## 24. **Dr. K. P. Parameswaran Pillai Endowment** Best all-rounder in Academics, Arts & Cultural activities (Final year student)

25. **Prof. P C. George Endowment** Best Basketball player in the college, with no back papers

## 26. **S. Shanmugham Memorial Endowment.**

Electrical Engg. student securing highest marks in Control Systems. (First appearance)

### 27. U G Menon Memorial Endowment

For a student in Architecture with Highest marks in Fine Arts related subjects

### 28. Dr. T. S. RamanathaIyer Endowment

For the Civil Engineering student with highest marks in Geotechnical Engineering.

### 29. Sthapathi Samman

Architecture student who scores maximum marks in final year 'Architecture Design Thesis'.

### 30. K. Jayamohan Memorial Scholarship

Final Year Mechanical Engg. who excels academically & active in extracurricular activities who is not in receipt of any other award.

### 31. **K. Thomas Kora Memorial Award** Best Outgoing Mechanical Engineering student.

32. **Prof. V K Savithiri Endowment Award** Best outgoing Electrical Engineering Female student.

### 33. **Prof. V K Savithri Endowment** Best incoming girl student on the basis of rank in entrance examination (first year student)

R. S. Varier memorial Endowment
 Three top ranking students of Electrical & Electronics in the final year B-Tec examination. (3 students)

### 35. **C. K. Babu Memorial Award** Best outgoing student in Industrial Engg.

36. **Prof. G. Ramachandran, Endowment Scholarship** Economically weaker student, (please write the income of Student)

(2 nd Year student)

- Dr. N. Vasudevan Nair Memorial Endowment Best Incoming Student in Microwave Engineering (M. Tech.)
- Dr. K. Ramachandran, Endowment Scholarship Best Incoming Student in Power Systems (M.Tech.)Electrical
- 39. Prof. G. Nagappan Nair Endowment Awards For the Student scoring maximum marks in Mathematics for all semesters from One each to students of CE, ME, E&E and E&C Dept. 4 awards.

### 40. Appukuttan Fund Endowment

For the best outgoing student of the following 5 Branches in rotation. Architecture, Civil, Electrical, Electronics & Communication and Mechanical.

### 41. Smt. Sarasija Thampuran Memorial Endowment

Best outgoing student in Master Planning (Housing) from the Dept.of Architecture.

### 42. Prof. P.C. George Memorial Endowment

For a Civil Engg. student who secured the highest marks in Environmental Engineering.

- 43. **Prof. C.E.G. Justo Endowment** For the best outgoing M-Tech student in Traffic and Transportation Engg.
- 44. **Thattayil P.N. Achutha kurup Memorial Endowment** Electrical& Electronics Engg. student who secured the highest marks in Engineering Physics for the first-year examination.
- 45. **Prof. S.G. Subramonia Sarma Memorial Endowment** Student scoring the highest marks in MBA full time degree examination conducted by the KTU from CET School of Management
- 46. **Abid Shajahan Memorial Endowment** Electrical Engg. student scoring highest marks in software related subjects
- 47. **I.K. Mohan Trust Scholarship** Meritorious students with low family income
- 48. **1956 Batch Golden Jubilee Endowment** First year Regular student belong to economically backward family whose entrance rank is above the median rank in the college

### 49. Mahindra Gold Medal

Topper at the end of Sixth semester (Mechanical, Electronics, Computer Science)

- 50. **Dr. Baburaj Praseedam Memorial Endowment** Poor & deserving student in CET. (Selection will be based on income)
- 51. **CETAA Alumni Bahrain Endowment** Economically backward & weaker Student to be selected by the Principal.
- 52. HARISANKAR A. Memorial Endowment. Excellent student with good character, high academic record and with leadership qualities.

### 53. T.K. DIVAKARAN MEMORIAL AWARD For the best outgoing M.Tech student in Structural Engineering.

### 54. **1970-74 Batch Endowment.**

A meritorious student from economically weaker section.

### 55. S.P.Gopakumar Memorial Endowment

For the best incoming student in M Tech Electrical Engg, Stream Control system.

### 56. Sri. S Bhagavatheeswara Iyer Memorial Fund

For the Top scorer in M.Tech in Geotechnical Engg.nical Engineering

### 57. Manu Memorial Scholarship

Economically backward sixth semester student who have academic skills and need financial support

### 58. Dr K Gopalakrishnan Nair IIIE Endowment Award

M Tech Student in industrial Engg: Scores the highest Marks in the final Examination from this College.

### 59. Dr R Jayaraman Endowment Award

The final year B tech civil Engg. student who has highest aggregate up to6thsemesterwithout failing in any subject (having passed all subjects in the first attempt itself)

### 60. Dr A Kulathu Aiyer Memorial Endowment

Topper in all Geotechnical Engg sub: put together (three core subjects in S6 and S7 and Electives in Geotechnical Engg: Stream in the First Appearances)

### 61. Dileep kumar Memorial Endowment

Economically weak and good academic achiever. 2ndyear Architecture student

### 62. Dr. K V Krishnankutty Endowment Award

The best incoming student by rank joining in the M Tech (Industrial Engg. Stream)

### 63. Appukuttan Memorial Endowment Award

Economically backward student and with good academic performance in S1S2 examination

### 64. Bini & Sajeev Endowment Scholarship

First year Ec student Economically poor and not a recipient of other similar scholarship (means & merit)

### 5.28 DIAMOND JUBILEE GUEST HOUSE

CETAA and PTA maintains a Guest House in the campus. The visitors (Guest faculty, parents of students and other guests) can make use of this facility on advance reservation. One A/C room, one non-A/C room and a Hall are available. For reservations contact secretary, CETAA.

(e-mail: secretary@cetaa.com). Phone: 0471-2590059/ 2515685.

#### 5.29 FITNESS CENTRE

The fitness centre is open for both students and staff from 6 am to 8 am & 4 pm to 6 pm on all working days. It has modern scientific equipment and also an Instructor. It aims to alert the students physically, mentally and psychologically.

#### 5.30 STAFF CLUB

The Engineering College staff club is formed to facilitate improvement of the cultural, friendly and academic activities among the teaching staff of this institution. It keeps a link between the different departments as well as with the former teachers of the college. Further, the family members and children of the staff are being encouraged on attaining distinction in their obtaining top rank in S.S.L.C./Pre-Degree/Degree/Entrance Examinations. Staff club is the co-ordinating body of the activities of common interest among the teaching staff. Present office bearers of the staff club are Principal (Patron)

Dr. Sajith Vijavaraghavan (President)

Dr. Biju Longhinos (Secretary)

Dr. Rani (Treasurer)

Executive Members: Prof. Sindhu P (Civil), Prof. Pradeep (Mech), Prof. Anu G (EEE), Prof. Preethi L (CSE), Prof. Lekshmi (Arch), Prof. Baby Shyla (MCA), Prof. Gayatri (MBA), Prof. Anil Kumar B T (Mathematics), Dr. Bringle C (Chemistry), Prof. Anil Kumar (Phy. Edn.)

### 5.31 PARENT TEACHER ASSOCIATION

The Parent Teacher Association is a non-government organization of parents of all the students of the College and the teaching faculty. It is an active organization working in the College to provide a common forum for interaction of parents and teachers so as to improve facilities for academic excellence. It also provides special and essential services to the students and the staff.

The activities of the PTA are decided and implemented by the 39member executive committee. The executive committee of PTA for this year was very active and vibrant. It has been an effective and supportive forum for the maintenance of the discipline as well as sustenance of academic excellence in the campus. PTA this year too, under took many projects to improve the infrastructure facilities and has extended financial support for academic, technical and sport events as well as the various cultural activities held in the College.

### The major projects implemented by PTA during 2018-19 are:

- Modernization of laboratories of all departments
- Assisting the office for the entire admission process of UG, PG, MBA, MCA and Evening degree courses and meeting the complete expenses for the same
- Providing security service to the college
- Meeting the entire expense of printing of identity card for staff members and students
- Maintenance of class rooms and installation of DLP projectors
- Refurbishment of examination office
- Purchase of chairs and RFID tags for MBA department
- Installation and maintenance of water purifier in the departments as well as in the main block
- Financial assistance for plumbing works, minor civil and electrical works in the college

### PTA has met expenses for the following academic activities:

- Providing stationery items for conducting internal examinations
- Financial assistance for the Survey camp of final year Civil Engg. students
- Purchase of materials for conducting practical examinations
- Rewarding students who secured highest position in academics, technical events, sports and arts
- Communication of internal marks of the students to the parents
- Conducting orientation programme for first year students of UG and PG courses.
- Providing financial assistance to minor works in Central Library
- Remuneration to library staff / watchmen engaging duty for evening degree courses
- Financial support for patent filing

• Expenses in connection with maintenance of equipment in various laboratories

Apart from rendering financial assistance for various academic activities connected with the College, PTA has also met expenses for the following non-academic activities:

- Financial support to start new NSS unit for First Year students under A P J Abdul Kalam Technological University
- Maintenance of water supply system
- Maintenance of ladies' amenity centre
- Replacement and repair of campus street light
- Remuneration to daily wages staff for cleaning
- Expense for providing drinking water and refreshment during University examinations
- Maintaining e-messenger service for digital display of notices and other information
- Installation and maintenance of CC camera and TV surveillance system in the campus

• Requested the Government to start a police aid post in the campus for ensuring the security of the students

- Representations submitted by PTA to the Hon'ble Chief Minister and Education Minister requesting support for the following matters
  - To issue a fresh Government order regarding the inclusion of faculty members for the conduct of mess in the men's hostel
  - To entrust the District Collector and Corporation officials to demarcate the boundaries of CET and to remove encroachers to complete the construction of boundary wall of CET

### 5.31.1 P.T.A EXECUTIVE COMMITTEE MEMBERS (2018-19)

### 1. President

Dr. Jiji C. V. Principal, College of Engineering, Trivandrum – 695016 Phone: (M) 9497679489 (O) 2515555 email id: jijicv@cet.ac.in

### 2. Vice President

Sri. Abdul Jaleel OASIS, Thottacaud Post,

Kallambalam Via, Thiruvanthapuram - 695605 Phone: (M) 9895777133, 7907802728 email id: arajaleel@gmail.com

#### 3. Secretary

Dr.V. S. Unnikrishnan Associate Professor Dept. of Mechanical Engineering Phone: (M) 9495151437 email id: <u>vsukrishna@gmail.com</u>

#### 4. Joint Secretary

Sri. Radhakrishnan Vallabhassery KHRA-109, Karamana P.O, Thiruvananthapuram- 695002 Phone: (M) 9947000404, 7012684404 (R) 0471-3050404 email id: IMASPTLTD@gmail.com

#### 5. Treasurer

Dr. Mini V. P. Assistant Professor Dept. of Electrical and Electronics Engineering Phone: (M) 9447986892 email id: minivp@cet.ac.in

#### **Parent Members**

#### **Civil Engineering**

6. Adv. Rajan Thomas (UG Representative) Thattarady (H) Koothrappally P.O Karukachal, Kottayam Phone: (M) 9847123002 email id: <u>thattaradyrajan@yahoo.com</u>

7. Sri. Surya Narayana Kunjurayar (UG Representative)

TC 40/1053, Opp. Mukkolakkal Temple Manacaud P. O, Trivandrum. Phone: (M) 9447443201 email id: <u>suryaalanthatta@gmail.com</u>

8. Sri.T. Ramakrishnan(PG Representative) Tc 5/ 2761
CRA C- 75 A, Padinjattil
Cheruvickal, Sreekaryam P.O
Phone: (M) 9495304924
email id: ramjeevi@yahoo.co.uk

#### **Mechanical Engineering**

9. Sri. Abdul Jaleel (UG Representative)
OASIS, Thottacaud Post,
Kallambalam Via, Thiruvanthapuram - 695605
Phone: (M) 9895777133, 9446979433
email id : <u>arajaleel@gmail.com</u>

**10.** Sri.Sreedharan Nair(UG Representative) DNRA 30ADevi Nagar, Kundaman Kadavu, ValiavilaThirumala, Trivandrum - 695006 Phone: (M)9447889991 (R) email id: ssreedharannair@gmail.com

**11.** Sri. P. V. Thomas (PG Representative) Peedikayil Angadical South Chengannoor, Phone: (M) 9495873255 (R) 0479-2468438 email id: thomaspeedikayil@yahoo.com

#### **Electrical and Electronics Engineering**

12 Sri. N. Girish kumar (UG Representative) Rohini, PRA- 328 Engineering College P. O

Trivandrum-695016 Phone: (M)8075290598 email id: <u>nanukuttankumar@gmail.com</u>

**13.** Dr. K. Santhosh Kumar (UG Representative) Sarangi, TC 8/455 (5), Royal Gardens, Mangadu, Thirumala P.O, Thiruvananthapuram Phone: (M) 9447010208, email id: kskumar@rgcb.res.in

14. Sri. Premkumar C. (PG Representative) Kathika, Sasstha Raod Avukkulam, Chempazhanthy P O, Trivandrum -Phone: (M) 9349953756 email id: prema\_kumarc@gmail.com

#### **Electronics and Communication Engineering**

**15.** Dr. Aji S. (UG Representative) Phone: (M) 9447961715 email id: <u>ajisaraswathi@gmail.com</u>

**16.** Smt. Beena S. S. (UG Representative) Phone: (M) 9497008923

**17.** Sri. Louis (PG Representative) Phone: (M)9633759266 email id: louis\_leena@hotmail.com

#### **Computer Science and Engineering**

18. Sri. Baby Thomas (UG Representative) Nedumkallel HouseVenappara P. OPhone: (M) 9946323820

**19.** Smt. Nirmala M. (PG Representative) Daivadhatham TC 12/1105, TRA 12 Thekkummoodu, Vanchiyoor P. O, TVM Phone: (M) 9747801150

#### Architecture

**20.** Sri. K. T. Balabhaskaran (UG Representative) Yanam, SARK C-23A Devi Nagar, Kundamanbhagom Peyad P. O, TVM- 695573 Phone: (M) 9447711444 (R) 0471- 2270050 email id: skyarchalpy@gmail.com

**21.** Smt. Manju Rajeev (PG Representative) 707, Prasanth Nagar Ulloor P. O, Trivandrum. Phone: (M) 9904452939 email id: manjurajeev70@gmail.com

#### MCA

22 Sri. Radhakrishnan Vallabhassery KHRA-109, Karamana P.O, Thiruvananthapuram- 695002 Phone: (M) 9947000404, 7012686464 (R) 0471-3050404 email id: IMASPTLTD@gmail.com

#### MBA

**23.** Sri. V. R. Hareendra Kumar Hariprasadam GVRA. B- 19, Vazhayila, Karakulam P. O, Trivandrum Phone: (M) 9446527258 email id: hari.vr.kumar@gmail.com

#### Head of Departments

24. Civil Engineering Dr. M. S. Girish Ph: 2515560, (M) 9847119126 email id: girishmadhavan@yahoo.com 25. Mechanical Engineering Dr. A. Samson Ph: 2515561, (M) 9447324844 email id: asamson@cet.ac.in 26. Electrical and Electronics Engineering Dr. S. Usha Kumari Ph:2515562, (M) 9447477655 email id: ushalal2002@yahoo.com 27. Electronics & Communication Dr. Ciza Thomas Ph: 2515563, (M) 9496204380 email id: cizathomas@gmail.com 28. Computer Science & Engineering Prof. Dr. Sreelekshmi R Ph: 2515564, (M) 9446170432 email id: shreelekshmi@cet.ac.in 29. Architecture Dr. Sheeja K. P. Ph: 2515565, (M) 9447893024 email id: sheejakp@gmail.com 30. MCA Prof. Jose T Joseph Ph: (M) 9544715331 email id: HOD.CA@cet.ac.in 31. MBA Dr. Suresh Subramoniam Ph: 2592727, (M) 9496749099 email id: sureshsubramoniam@gmail.com 32. Evening Degree Courses Dr. Arvee Sujil Johnson Ph: 2515508, (M) 9447411568 email id: arveesujil@yahoo.co.uk 33. PG DEAN Prof. Neena Thomas

Ph, (M) 9895642569 email id: neenasenapathy@gmail.com

34. UG DEAN Prof. Shaji T. L. Ph: 2515570, (M) 9447054334 email id: tlshaji@cet.ac.in tlshaji@gmail.com 35. CGPU coordinator Dr. D. Bijulal Ph: 2515682, (M) 9645357434 email id: dbijulal@cet.ac.in 36. Physical Education Dr. Ajai Kumar G I Ph: 9847067887 email id: ajaikumargi@gmail.com 37. Mathematics Dr. P. S Rajendran Ph: 2515710, (M) 9446591960 email id: Psraj8867@gmail.com 38. Physics Prof. Sajeev Mohan Ph: 2515567, (M) 9495297609 email id: sajeevmohan@rediffmail.com 39. Chemistry Dr. Muhammed Arif M Ph: 2515568, (M)9447238272 email id: arifmmm@gmail.com 40. Warden, Hostel Office Dr. A. samson

Ph: 9447324844 Email id: asamson@cet.ac.in

#### **Faculty Members**

**41.** Civil Engineering Smt. Sunitha. S Ph: 9495242979

Email id: sunitha.cet@gmail.com

42. Mechanical Engineering Dr. K. C. Gopalakrishnan. Ph: 9447718887 Email id: gopankcg@yahoo.com 43. Electrical Engineering Asst. Prof. Anu A. G Ph: 9447661826 Email id: anusyamnath@gmail.com 44. Electronics Engineering Smt. Asha Murali Ph: 9447192074 Email id: ashanmurali@gmail.com 45. Computer Science Smt. Rani Koshy Ph: 9496754520 Email id: koshyrani@yahoo.co.in 46. Architecture Smt. Manju G Nair Ph: 9746044936, 9884402791 Email id: Manjumanoj1@yahoo.com 47. MBA Smt. Jisha Gopi Ph: 8592849487 Email id: tpo.mba@cet.ac.in 48. MCA Prof. Baby Syla L Ph: 8547060768 Email id: syla@cet.ac.in

#### 5.32 CAMPUS AUTOMATION SOFTWARE

The in-house developed campus automation software is fully functional. It has facilities for maintaining student records, faculty details, attendance management, Fee collection, student feedback on instruction and all other features essential for the institutional management.

**5.33 SOFTWARE FOR EVALUATION OF INSTRUCTION BY STUDENTS** A Web based software for the evaluation of instruction by the students was developed. It has been prepared as per AICTE norms.

### 5.34 INTELLECTUAL PROPERTY RIGHT (IPR) CELL

IPR cell is functioning in the College (in the main building near the Hostel Office, Room No. 101) from July 2010 onwards. As per the Proceedings No. L4/19813/10/DTE Thiruvananthapuram dated 26/05/2010, the IPR cell is supported by Patent Information Centre (PIC) - Kerala, Kerala State Council for Science, Technology & Environment (KSCSTE), Govt. of Kerala.

Due to the lack of awareness on the significance of IPR, many of the inventions/creations emanating from engineering colleges are not getting protected. The inventions are being published in newspapers and media and thus they are being disqualified for getting patent. Hence to guide the student and faculty in the colleges in protecting their intellectual properties IPR cell can contribute in this direction and it can create awareness and facilitate the filing of patent applications and filing other forms of IPR through PIC-Kerala

The IPR cell is expected: -

- i) To work as a bridge between PIC-Kerala and engineering colleges
- ii) To advise and guide the students and faculty on importance of IPR, especially patents with help of PIC.
- iii) To arrange periodic meetings of faculty members along with Officer of PIC-Kerala for identifying patentable inventions.
- iv) To encourage faculty members to carryout patent searches in house and / or at PIC Kerala and to fine tune their research.
- v) To forward eligible cases for IP protection to PIC.

The main activities of IPR cell are as follows:

- i) The IPR cell can organize IP clinic in which student can be asked to express some innovative ideas and the IPR cell can provide proper guidance on the scope of developing that to an idea to an innovative product. As an outcome of these IP clinics, lot of innovative ideas are expected to come out and among them, some of these ideas may result in to patentable invention.
- ii) The IPR cell can organize innovation workshops in which some of the existing technical problem may be raised and the students can be asked to come up with solutions.
- iii) The IPR cell can organize Lectures periodically on the various issues of IPR for which the technical support will be provided by PIC-Kerala, by

way of providing the service of experts in the field of IPR for delivering the lectures.

- iv) The IPR cell can conduct some quiz programmes exclusively on IPR and the winner may be given certificates and prizes and it will encourage the students to study more about IPR.
- v) The IPR cell can also forward the eligible cases for IP protection to PIC -Kerala.

### 5.35 MINISTERIAL STAFF CLUB

The Ministerial Staff Club was formed in the year 1999 primarily for the welfare of the ministerial staff of this Institution. It is a registered organization and approved by the Government of Kerala. The club conducts annual get together during all major festivals like Onam, Christmas, New Year, etc. The club actively participates in family functions of its members like marriage, house warming etc. It also gives merit award to S.S.L.C., +2 toppers among the children of its members and also encourages the talented and prizewinning children of its members. The club also conducts workshops on important topics like stress management, socially relevant club issues and also quiz competition. The is planning to bring out a magazine with articles by its members, thereby encouraging their creative and literary skills. The executive members of the club are as follows:

1.	President	Mr. Thrilok Chand GM	
2.	Secretary	Mr. Saffarulla H	
3.	Vice President	Ms. Manjukam	
4.	Joint Secretary	Mr. Jayakumar V	
5.	Treasurer	Mr. Mohammed Rasheed	

The office bearers are selected unanimously from among the members annually

5.50	Activity clubs 2010-17 - STATI CO-ORDINATORS				
<b>S1</b> .	Activities	Name	Phone No	Email	Category of
No					Activity
1	MUSIC	Dr. Beena	9645923362	kpbeena@gmail.co	cultural
	CLUB	K.P(CE)		m	
2	INDIAN	Dr. Mini	9447968010	mini_soman@rediff	Professional
	CONCRET	Soman (CE)		mail.com	self-initiative
	Е				and
	INSTITUT	Sri. Biju V (CE)	9447081068	biju_vasudevan@ya	Leadership
	Е			hoo.com	and
					management

5.36 Activity Clubs 2018-19 - STAFF CO-ORDINATORS

3	NATIONA L SERVICE SCHEME	Joy Vargheese M (ME)	9447525215	joyvargheesevm@g mail.com	National initiative
4	ROBOCET	Sri. Kiran.R(ECE)	9747138162	kiranravi@gmail.co m	Entrepreneu rship and innovation
5	CET FILM CLUB ACTIVITIE S	Dr. Abdul Nizar (CS)	9446035072	nizar@cet.ac.in	Cultural activity
6	INNOVAT ION CENTRE CET	Dr. Rani (ME)	9746814008	Ranigiri2011@gmail .com	Entrepreneu rship and innovation
7	LITERARY SOCIETY, CET	Dr. Dhanya J.S (MBA dept.)	9846209553	dhanyajosephine@y ahoo.com	cultural
8	ISTE CET STUDENT CHAPTER EVENT	K.S Santhosh (ME)	9447124045	istecet.info@gmail.c om santhosh@cet.ac.in	Professional self-initiative and Leadership and management
9	CET SOCIETY FOR AMATEU R RADIO	Mr. Jayakrishnaraj (EC)	9447059215	jayakrishnaraj@gma il.com	Professional self-initiative and Leadership and management
10	SAE India CET Chapter	Dr. N Asok Kumar (ME)	9846086331	asoknak@gmail.com	Professional self-initiative and Leadership and management
11	IEEE SB CET	Prof. Shajahan (EC)	9447594170	Shajes2007@gmail.c om	Professional self-initiative and Leadership and management
12	CET SHUTTER	Prof. Sarath Sundar (AR)	9495520815	sarath.sundar@gma il.com	Leadership and

	BUGS				management
13	VOYAGE NEWSLET TER	Prof. SajeevMohan (Phy)	9495297609	physics.sajeev@gma il.com	cultural
14	Entreprene urship Developme nt Cell	Dr. Sunil Kumar (ME)	9946844277	ssunilcet@yahoo.co m	Entrepreneu rship and innovation
15	IET CET	Prof. Subin (EEE)	9349920118	indulals@gmail.com	Professional self-initiative and Leadership and management
16	Quiz Club	Dr. Abhilash Suryan (ME)	8281211932	suryan@cet.ac.in	Professional self-initiative and Leadership and management
17	ENVIRON MENTAL CLUB	Pro.Lea Mathew (CE)	9446556661	mpolackal@hotmail. com	Professional self-initiative and Leadership and management
18	Arts Club (Fine Arts)	Prof. Deepa Rani (Arch)	9496640532	deeparani.r@gmail.c om	Cultural
19	SSA	Prof. Sarath Sundar (AR)	9447009311	aju.raveendran@gm ail.com	Professional self-initiative and Leadership and management
20	Helping Hands organizatio n (H2O)	Dr. Jayasree P K(CE)	9447205324	jayasreepk@yahoo.c om	Leadership and management
21	CETAA Connect	Dr. Abhilash Suryan (ME)	8281211932	suryan@cet.ac.in	Leadership and management
22	Indian Institution of Industrial	Dr.V.S. Unnikrishan (ME)	9495151437	vsukrishna@gmail.c om	Professional self-initiative and Leadership

	Engineerin				and
	σ (IIIE)				management
23	Dance	Prof Sindhu	9447862283	sindhu mohan@gm	Cultural
20	Club	P(CE)	, iii 00 <b>22</b> 00	ail.com	Cultural
24	Malavalam	Dr Dhanya IS	9846209553	dhanyaiosephine@y	Cultural
	Literature	(MBA dept.)	,01020,000	ahoo com	Currarai
	and Debate	(			
25	Energy	Dr. Mabel	9447427664	mabelbaiju@rediffm	Leadership
	conservatio	Ebenezer		ail.com	and
	n	(EEE)			management
26	Bhoomithr	Dr. Biju	9020608727	longhinos@cet.ac.in	Cultural
	a Club	Longhinos		0	
		(ČE)			
27	Sports	Prof. Ajai	9847067887	igajai1234@rediffma	Sports and
	Club	Kumar.G. I		il.com	games
		(Phy Edn)			
28	Palliative	Prof.			Leadership
	Club	Vijasree.G EE			and
					management
29	PRO	Prof Salim A	9446200401	salim.mangad@gma	Professional
	Coders	(CS)		il.com	self-initiative
	club				and
					Leadership
					and
					management
30	CET FOSS	Prot. Vipin	9446445689	vipin@cet.ac.in	Professional
	CELL	Vasu (CS)			self-initiative
					and
					Leadership
					and
21	Vouna	Dr. Sini V	0846560727	sini mha@aat aa in	Mation
51	Ioung	Dr. 5ini V Billai	9840309727	sini.mba@cet.ac.in	huilding
	Chaptor	Fillal			through
	(CII)				Vouth and
					Though
					Leadership
	1				Leavership

### 5.37 CENTRE FOR INTERNATIONAL RELATIONS

College of Engineering Trivandrum is moving a step ahead from the conventional class room teaching and trying to spread her hands towards the international arena. On the outset, as a humble beginning, a Centre for International Relations, has been established at CET, which is the brain child of our principal, Dr. Jiji C

V. The Centre is presently under the able hands of our Dean (Research and International Relations) Dr. Jairaj P.G.

The broad objectives of the Centre have been fixed as:

1. Initiate student / faculty member exchange programs with foreign institutions

2. Establish MoU with key international universities / research centres

3. Instigate research collaborations with international academicians & practitioners by preparing joint research proposals

4. Encourage faculty members to attend as well as organize international conferences

5. Invite research presentations / seminars from international academics & practitioners

6. Encourage faculty members to publish technical papers in high impact international journals and rated international conferences

The members of the Centre are:

1.Dr. Jayasree P K (Coordinator) (Professor in Civil Engineering)

2.Dr. Anusha S P. (Assistant Professor in Civil Engineering)

3.Dr. Abhilash Suryan (Associate Professor in Mechanical Engineering)

4.Dr. Jisha V R (Associate Professor in Electrical and Electronics Engineering)

5.Dr. Suresh K. (Professor in Electronics and Telecommunication Engineering)

6.Dr. Ajeesh Ramanujam (Assistant Professor in Computer Science)

7.Dr. Manoj Kini (Assistant Professor in Architecture)

8.Dr. Suresh Subramoniam (Director, CET School of Management)

#### 5.38 INTERNSHIP CELL

Internship Cell started functioning in the College from 2018. The cell aims to attract the best possible internship offers to the students from prestigious companies, institutions and research establishments from India and abroad. The internship cell is functioning under the guidance of the Principal and the Deans, with a Faculty Coordinator and a student committee. Internships provide the students with an opportunity to integrate career related experience by participating in planned, supervised work that complement what is learned in classrooms. The internship experience contributes to the student's personal and professional development through challenging work assignments and provide career awareness to the students. The students may also be able to gain invaluable research experience, leading to possible publications. Internships can be completed during the semester breaks extending to 2 to 3 months. The student

internships are facilitated by the internship cell in consultation with the concerned department.

# 5.39 CENTRE FOR INDUSTRIAL TRAINING, CONSULTANCY & SPONSORED RESEARCH (ITC&SR)

The Sponsored research and industrial consultancy are two important modes through which the faculty maintains contact with the frontiers of knowledge and the latest developments in technology. We have entered an era when the products and their technological contents are changing rapidly due to intense competition in the globalized market. The life of a generation of product has been reduced to only a few years and is becoming increasingly shorter. In these times of continuous innovation and fast changing technology the curriculum must also be updated continuously to keep pace with time and research and consultancy projects help the faculty to enrich the curriculum on a regular basis to offer quality education in science and technology. Thus, the activities of sponsored research and industrial consultancy have become an essential part of the research and professional activities of the faculty of the college. The specific objectives of the Centre are as follows:

- (a) To channelize the specialized technical competence and expertise of the faculty and staff of the Institute for industrial consultancy and research.
- (b) To act as a link between the Institute and Industry to enable the state-ofthe-art testing facilities available at various laboratories to be effectively utilized for the growth and development of the Industry in the region.
- (c) To share expertise with the industry in development, fabrication and design of modern processes, machines and devices.
- (d) To offer total consultancy in select sectors, that have relevance to the country, in collaboration with Indian or foreign consultancy groups if necessary, so that the staff and students of the Institute are associated with the industrial growth and advancement of the country.
- (e) To support the faculty to prepare and submit research projects to various funding agencies.
- (f) To conduct training for professionals and executives in Industry, Business and Service sector so as to enable them to cop up with the fast changing technological and managerial environment.

- (g) To conduct in service training to workers in the industries of organized and unorganized sectors for enhancement of productivity and equip them to meet the changes in technology.
- (h) To make training needs analysis of specific sectors and plan and organize suitable training programme for them.
- (i) To channelize the expertise of faculty to assist the industries to set up their R & D activities in the TrEST Research Park and Technological Business Incubation Centre of CET.
- (j) To support educational outreach activites.
- (k)To undertake socially relevant projects/development of technology which are of immediate relevance to the society in the state, through faculty/technical staff and student initiation.

In order to co-ordinate the sponsored research, industrial consultancy and training activities in the college, the Centre for Industrial Training, Consultancy & Sponsored Research (ITC & SR) is formed under the Board of Governors of the college. The functioning of the centre is governed by the Institutional Programme Implementation Unit (IPIU). The Professor in charge of ITC&SR is Dr. Jairaj.P.G. , Dean (Research and International Relations). The centre contact details are : Tel : 0471-2515572 ; email : itcsr@cet.ac.in

### 6. COLLEGE UNION MEMBERS 2018-2019

1.	Chairman	: Sangeeth T. K.
2.	Vice Chairman	: Sruthikrishna M.
3.	General Secretary	: Nithin K.
4.	Magazine Editor	: Shamjas Ibrahim V. P.
5.	Arts Club Secretary	: Manu O.
6.	University Union Councillor	: 1. Akhil Dev M
	-	2. Aswathi A. S.
7.	Lady Representative	: 1. Krishnaveni R.
		2. Anjuradh T. R.
8.	Members of Representing Students of:	
	a) All branches of S1	: Arjun Lailas
	b) All branches of S3	: Kannan Karippayil
	c) All branches of S5	: Taaby Prasad Stephen
	d) All branches of S7 & S9 Arch	: Ajay R Krishnan
	e) All branches of PG Courses includin	g MCA and MBA
		: Abhishek Krishnan
9.	Secretaries of Associations	
	a) Civil Engineering Association	: Kevin Mathew
	b) ME and IE Association	: Mohamed Roshan M.
	c) Electrical & Electronics	
	Engineering Association	: Arun Satheesh
	d) ECE & AEI	
	Association	: Mohamed Irshad K. P.
	e) Computer Science and	
	Engineering Association	: Ajaz Sidhiq
	f) Architecture	
	Engineering Association	: Karthik S. S.

### 7. AMENITIES

### 7.1 COLLEGE HOSTEL

The college has both men's hostel and Women's hostels. Men's hostel is situated behind the college within the campus amidst a glistening panoramic view. The Women's hostel is located on the front side of the college at a beautiful location amidst greenish scenery. Both hostels provide comfortable and conducive atmosphere to develop the innate abilities of inmates. Indoor and outdoor facilities for sports and cultural activities (Reading rooms, Fitness centers with modern scientific equipment) are available in both hostels.

The men's hostel has 250 rooms and can accommodate 500 students. The ladies hostel has 140 rooms which can accommodate 400 students. Both hostels are under the control of the Warden, assisted by two assistant wardens and Resident Tutors (RTs).

The mess is run by the mess committee elected from among the students under the directions of the General Secretary, Mess Director and other members of the committee. A hygienic atmosphere is available in the hostels. The Resident tutors (RTs) look after the hostels and maintain a peaceful atmosphere in the hostels. Hostel day (MH day and LH day) festivities are conducted in both hostels with the active participation of inmates and faculty of the college.

### 7.2 COLLEGE BUS

The College has nine buses and is managed by a committee consisting of the Principal, Head of Departments, student representatives, teaching and non-teaching staff representative, Bus staff representative and Bus secretary. Dr. Baiju B, Associate professor, Department of Mechanical Engineering is the secretary cum treasurer. Contact no.2515587 (O), 9249519029(M).

Sl. No	Bus Code.	Time	Route	
			Maruthunkuzhy, Kanjirampara, Vattiyoorkavu,	
1.	А	7.45 am	am Mannarakonam, CPT Quarters,	
			Melathumele, Mannamoola, Peroorkada-CET.	
2	N	7.45 am	Karamana, Kunjalumood, Poojappura junction,	
۷.	IN	7.45 am	Chengalloor, Vijayamohinimill, Pangode,	

Following are the routes through which the buses are operating:

Sl. No	Bus Code.	Time	Route
			Edappazhinji, Cotton hill, Althara, Museum,
			PMG, Plamoodu,
			Manacaud, Vazhappalli, Fort Hs, Kaithamukku,
3. M 8.00 am V		8.00 am	Vanchiyoor, Pettah, Chackai, Bypass, Monvila,
			CET
	Thampanoor, Thycaud Hospital, Mettu		Thampanoor, Thycaud Hospital, Mettukada,
			Ayyappan Temple, Magnet Jn, Vazhuthacaud,
4	т	7 45 am	Udharasiromani Road, Vellayambalam,
4.	1	7.45 am	Devaswam Board Jn, Kowdiar, Kuravankonam,
			Marappalam, Pattom, Lic, Kesavadasapuram,
			CET
Vettamukku, Marutha		Vettamukku, Maruthankuzhy, Sasthamangalam,	
	РК	7.45 am	Pipinemoodu, Ambalamukku, Vayalikada,
5.			Muttada, Paruthippara, Pananvila, Maingate,
			Nalanchira, Kottamugal, Mannanthala,
			Keraladithyapuram, Powdikonam (Society Jn.),
			Kariyam, CET
			Eastfort ,Ayurveda College, Statue,
6	Е	7.45 am	Vjt(Palayam), Akg Centre, General Hospital,
0.			Pattoor, Pallimukku, Kannamoola,
			Kumarapuram, Medical College,CET
			Attingal, Attingal Bus Stand, Moonnumukku,
			Mamam, Korani, Chempakamangalam, 16 Mile,
7	т	8.00 am	Thonnakkal AJ College, Mangalapuram, CRP,
7.	L	0.00 am	Pallippuram, Kaniyapuram ,Vetturoad, Block
			Office, Kazhakuttom, Railway Station,
			Kulathoor,CET
			Karette, Vamanapuram, Ambalamukku,
			Keezhayikonam, Gokulam Medical College,
8.	V	8.00 am	Venjaramoodu, Thycaud, Velavoor,
			Koliyakode, Shantigiri, Pothencode,
			Kattayikonam, Chembazhanthy,CET
9.	4:15 PM R	EVERSE.	

The college bus can be used only by those who hold the bus pass, which costs Rs.1100, 1400, 1500, 1750, 1800, 2000, 2500, 3000 per semester for different boarding points.

Bus pass can be had from the bus secretary office by applying in the prescribed form along with the fee and a stamp photograph

### 7.3 CO-OPERATIVE SOCIETY

To cater the needs of the students and employees of the college, a co-operative society was formed and it started functioning from 1982 onwards. Under the cooperative society a co-operative store is functioning. The items including text books, instrument boxes, study materials, office equipments, consumables etc. are available at the co-operative store at reduced price. The co-operative store working time is from 8.45 am to 4.45 pm. A student of this college can pay (say Rs. 2000) at the time of admission and purchase items from the store later with a discount of 5%. This scheme is running successfully and well appreciated by the parents and students. The co-operative society conducts MDS (chitties) for the employees of the college. Nearly 1711 employees are members of this society. It also gives different type of loans to employees like educational loan, Festival loan, Emergency loan, Own fund loan, Hire purchase loan. etc. up to a maximum of Rs. 7,00,000/-per member. The society collects Fixed Deposit and Savings Deposits. The other important activities of the society include the Onam Festival market and SSLC/THSLC/CBSE/ICSE award for the 10th standard students from the society members. The society has an elected governing body and is functioning very well. Telephone No. Co-operative society: - 2596495, 2515688, 2515624 Co-operative Store: - 2515623

### 7.4 CANTEEN

The College canteen is functioning under a governing committee consisting of representatives from teaching faculty, non-teaching staff, students and the PTA

### 7.5 POST OFFICE AND BANK

A post office is functioning within the campus with its working hours between 9 and 5 pm.

A branch of State Bank of India is functioning just in front of the campus with its working hours between 9 am and 4 pm. Transaction hours is between 9.00 am - 1.00 pm and 1.30 pm - 2.30 pm.

### 7.6 SUB TREASURY

Sub Treasury, Engineering College is functioning in the College campus exclusively for the transactions related to this College - Phone No. 2596496, 2515687

### 8. MEMBERS OF STAFF

۶	Principal	Dr. Jiji.C.V	Ph.	2598370 2515555
۶	P.G. Dean	Prof. Neena Thomas	Ph.	2515571
≻	Research and	Dr. P. G. Jairaj	Ph.	2515518
	International Relations	6		
	Dean			
۶	U.G. Dean	Prof. Shaji T. L.	Ph.	2515570
≻	<b>Technical Officer</b>	Prof. Lyla Jane	Ph.	2515511

### 8.1 DEPARTMENT OF CIVIL ENGINEERING

### **TEACHING FACULTY**

Sl. No.	Name	Qualific ation	Specialization	Office Phone No. 2515-	Residence/ Mobile No./ e-mail
Prof	fessor & Head				
1	Dr. M. S. Girish	Ph.D.	Geotechnical Engg.	596, 560	2554122, 9847119126 girishmadhavan@ yahoo.com
Prof	fessors				
2	Dr. P.G. Jairaj	Ph.D.	Hydraulics Engg	605	2591561, 9847241141 jairaj@cet.ac.in
3	Dr. Sreekumar S	Ph.D.	Structural Engg	618	sreekumar@cet.ac.in
4	Dr. S. Latheswary	Ph.D.	Structural Engg.		2465076, 9446785076 lathahayagreev@yahoo.co.in
5	Dr. Sheela Evangeline	Ph.D.	Geotechnical Engg.	605	9895217551 sheelabala2000@yahoo.com
6	Dr. Arvee Sujil Johnson	Ph.D.	Geotechnical Engg.	629	9447411568 arveesujil@yahoo.co.uk
Ass	ociate Professors				
7	Dr. Sindhu G.	Ph.D.	Hydraulics Engg.	607	2594141, 9447697036 sindhug_cet@yahoo.co.in
8	Dr. Mini Soman	Ph.D.	Structural Engg.	597	9447968010 mini_soman@rediffmail.com
9	Dr. Ajitha B Bhaskar	Ph.D.	Geotechnical Engg.	630	2449523, 9495122635 ajithabhaskar@yahoo.com
10	Sri. Jayaprakash Jain K G	M. Tech	Structural Engg.		0474-2791312, 9447410624 kgjjain@yahoo.com
51. No.	Name	Qualific ation	Specialization	Office Phone No. 2515-	Residence/ Mobile No./ e-mail
------------	-------------------------------	-------------------	-------------------------	---------------------------------	---
11	Dr. Satheesh Chandran R	Ph.D	Transportation Engg.	600	9496172587 satheesh cetcivil@rediffmail.com
12	Sri. B. Thulasidharan Nair	M. Tech.	Hydraulics Engg.	796	2556884, 9446346884 btnair@yahoo.com
13	Dr. Anil R.	M. Tech, MBA	Transportation Engg.	501	2592998, 9447023233 anilraghunathan@ rediffmail.com
14	Dr. Jayasree P. K.	Ph.D.	Geotechnical Engg.		9447205324 jayasreepk@cet.ac.in
15	Dr. Priya R.	Ph.D.	Transportation Engg.	608	0474-2798697 8547028697 priya_ajilal@yahoo. co.in
16	Dr. Bindhu K. R.	Ph.D.	Structural Engg.	593	9495239156 bindhukr@yahoo.co.in
17	Dr. Beena K. P.	Ph.D.	Structural Engg.	598	2594594, 9645923362 kpbeena@gmail.com
18	Dr. Padmakumar R.	Ph.D.	Transportation Engg.		9497595165 rpkcet@yahoo.com
19	Dr. Manju V. S.	Ph.D.	Transportation Engg.	579	2362708, 9496260488 manjuvs@cet.ac.in
20	Dr. Bindu J.	Ph.D.	Geotechnical Engg.	603	2460362, 9446540362 bnduj7@ rediffmail.com
21	Dr. Girija K	Ph.D.	Structural Engg.	617	9496178255 girijak.cet@gmail.com
22	Dr. Priyadarsini R. S.	Ph.D.	Structural Engg.		9495401058, priyadarsini_rs@yahoo.com
Ass	istant Professors				
23	Sri. M. K. Radhakrishnan	B. Tech.			9995515451 radmk2012@yahoo. com
24	Smt. Ajitha A. R.	M. Tech	Geotechnical Engg.	611	9446459469 ajithavinod@ rediffmail.com
25	Dr. Thulaseedharan.V	Ph.D.	Hydraulics Engg		9567896655 thulaseedharanv@gmail.com
26	Sri. Shibu K.	M. Tech.	Environmental Engg.	591	0474-2746302 9446066302 shibukrishnan@gmail.com
27	Sri. Sabu P.	M. Tech.	Remote sensing	791	8589060754 padmanabhansabu@rediffmail. com
28	Dr. G. Jeenu	Ph.D.	Structural Engg.	626	2722662, 9447657397 jeenu_shaj@yahoo.com
29	Dr. Binu Sara Mathew	Ph.D.	Traffic Engg.	590	2596701, 9446192874 binuraju.1990@gmail.com

S <b>1.</b> No.	Name	Qualific ation	Specialization	Office Phone No. 2515-	Residence/ Mobile No./ e-mail
30	Dr. Deeparai S	Ph D	Structural	628	2539280, 9446389280
50	Di. Deepuiuj 0.	111.0.	Engg.	020	deepaajayan@yahoo.com
31	Sri Mitra D C	M Tech	Structural	595	4010412, 9447750226
		init reent	Engg.	0,00	mitradc@yahoo.com
32	Prof.Sivakumar	M. Tech	Structural Engg		sivakumar@cet.ac.in
			Traffic &		9446175427
33	Dr. Leema Peter	Ph.D	Transportation planning	621	leems_cet@yahoo. co.in
34	Dr. Boona P. R	Ph D	Structural	503	2369822, 9496887003
54	DI. Deena I. K.	TH.D	Engg.	593	prbeena@yahoo.com
35	Sri Jiji Jacob	M Tech	Structural	595	9447892957
35	511. Jiji jacob	WI. TECH	Engg.	575	jijianitha@yahoo.com
36	Smt. Preethi P.	M. Tech.	Traffic & Transportation		9447957372 preethiprathap@gmail.com
			Hudroulice		2505400 0446102414
37	Smt. Sheena Hassan	M. Tech.	Enga	795	sheenacet@gmail.com
			Environmental		9048878741
38	Smt. Latha P.	M. Tech.	Engg	594	latha tchr@gmail.com
			Geotechnical		2596220, 9400288610
39	Smt. Sayida M. K.	M.E.	Engg.		savidamk@ rediffmail.com
10			Geotechnical	101	8281431711
40	Dr. Manju G S	Ph.D	Engg.	606	manjusanthosh99@gmail.com
41	DULUTT		Transportation	(07	9447972317
41	Dr. Loui I. K.	Ph.D	Engg.	627	louitr2@gmail.com
42	Smt. Prebhakumari	M. Toch	Structural	606	9447254798
42	K. S.	wi. rech.	Engg.	000	prebha_kumari@ yahoo.co.in
13	Sri Mohandas C	M Tech	Hydraulics	793	2366646, 9847319688
45	SII, Monandas C.	IVI. Teen.	Engg.	175	mohandasc@gmail.com
44	Smt Sindhu P	M Tech	Environmental	594	2366646, 9447862283
	ond. ontana i .	ivi. reen.	Engg.	071	sindhu.mohan@gmail.com
45	Smt. Salini S	M. Tech.	Transportation	803	9847442588
10		init reent	Engg.		salinisasikumar@ gmail.com
46	Dr. Shibu A.	Ph.D.	Hydraulics	794	9447205308
			Engg.		shibuiitb@yahoo.in
47	Dr. Sheela Alex	Ph.D.	Transportation		9447388294
			Engg.		Sheelaalex.cet@gmail.com
40	Creek Councilles C	MT	Master of	(02	9495242979
48	Shit. Sunitha S.	M. Tech.	(Housing)	603	sunitha.cet@gmail.com
			(Housing)		2281068 0447081068
49	Sri. Biju V.	M. Tech.	Fngg	591	2301000, 9447001000 hijurit@gmail.com
1	1	1		I	onguines man.com

51. No.	Name	Qualific ation	Specialization	Office Phone No. 2515-	Residence/ Mobile No./ e-mail
50	Smt. Indulekha K. P.	M. Tech.	Hydraulics Engg.	795	9495067874 indulekhakp@yahoo.co.in
51	Dr. Yashida Nadir	Ph.D.	Structural Engg.	628	9446787298 yashidanadir@gmail.com
52	Dr. Vandana R K	Ph.D	Offshore Structures		9400606576 vandana_ranadive@yahoo.co.in
53	Dr. Anusha S P	Ph.D.	Transportation Engg.	627	9446779699 anushanair1@yahoo.co.in
54	Smt. Sumi S	Ph.D	Environmental Engg.	606	9497268717 sumis@cet.ac.in
55	Dr. Anu P. Alex	M.E.	Transportation & Management	619	9447201341 anualex55@gmail. com
56	Smt. Vineetha Basil	M. Tech.	Hydraulics Engg.	615	9447588080 vinibasil2000@gmail.com
57	Smt.Sini T	M. Tech	Geotechnical Engg		9895584298 Sinit@cet.ac.in
58	Smt. SajithaBeegum A S	M. Tech.	Structural Engg.		9447592095 sajithasiyadsm@gmail.com
Ass	istant Professor in Ge	ology			
59	Dr. Biju Longhinos	Ph.D.	Geology	616	9020608727 longhinos@cet.ac.in
60	Dr. Ajith G. Nair	Ph. D.	Geology	796	9447141353 nairajith06@gmail.com
Ass	istant Professor in Mi	cro Biolog	5 <b>У</b>		
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# 2018 - 2019\_

**INFORMATION BULLETIN** 

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31	Niyas Nazar n		9447321328
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32	Shiju D (Tradosman)		9846212544
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# 2018 - 2019

### **INFORMATION BULLETIN**

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79	C.S.Kumar	Bus Cleaner	516	9847277205
80	R.Prem Kumar	Bus Cleaner	516	9747636278
81	Rana M S P	Bus Cleaner	516	8547003083
82	C.Simon	Bus Cleaner	516	9400053485
83	M. Ameerudheen	Watchman	510	9048085686
84	Madhu N.S	Watchman	510	9497691664
85	S.Mohammed Nazeer	Watchman	510	9496279796
86	S.Santhoshraj	Watchman	510	9895671118
87	S. Sarath Prasad	Watchman	510	9497470607
88	Midhun S	Watchman	510	8129004538
89	Chandhu G	Watchman	510	9895576037
90	Shiju V S	Watchman	510	9037684709
91	Rahanath F	Full Time Sweeper	510	9037916238
92	Jayakumari R	Full Time Sweeper	510	9746202253
93	Suresh K	Full Time Sweeper		9846071025
94	Ramlath K A	Full Time Sweeper	510	9747129218
95	A.Ayyappan	Part Time Sweeper	510	9656717469
96	S.Chandralekha	Part Time Sweeper	510	9539431633
97	Chandrika B	Part Time Sweeper	510	9388796921
98	Sabeena M J	Part Time Sweeper	510	8129260089
99	V.Jayachandrakum ar	Part Time Sweeper	510	9446513661
100	J.Lalitha	Part Time Sweeper	510	9746067882
101	T.Padmakumari	Part Time Sweeper	510	9567574847
102	G.Rajan	Part Time Sweeper	510	9747951701
103	Sadasivan Nair	Part Time Sweeper	510	9495303910
104	B.Sasidharan Nair	Part Time Sweeper	510	9495832290
105	S.Sulochana	Part Time Sweeper	510	9495895219
106	P.Syamala	Part Time Sweeper	510	9562291042
107	Sunny S	Part Time Sweeper	510	9745681967
108	Sobhi A	Part Time Sweeper	510	8592880558
109	J. Sarasamma	Part Time Sweeper	510	8606750654

### 2018 - 2019 INFORMATION BULLETIN 8.15 OFFICE OF THE EVENING DEGREE COURSE

S1. No.	Name	Designation	Office Phone No. 2515-	Mobile No.
1	Dr. Arvee Sujil Johnson	Professor	574	9447411568
2	Shri. Sajin R S	Junior Superintendent	508	9497639137
3	Shri. Sanju Raj R.	Senior Clerk	508	9497487629
4	Shri. Vinayachandran L D.	Clerk	508	9746041412
5	Smt. Prathibha P. G.	L. D. Typist	508	9447247959
6	Shri. Ratheesh Kumar K.	Office Attendant	508	7025570025
7	Shri. Saji	N. T. A.	508	9947939835
8	Shri. Vijayan T.	N. T. A.	508	7025216177

### 8.16 OFFICE OF THE DEANS

Sl. No.	Name	Designation	Office Phone No. 2515-	Residence Phone No./ Mobile No./ e-Mail
1	Prof. Neena Thomas	Dean, P. G.	571	9895642569 neenasenapahy@g mail.com deanug@cet.ac.in
2	Dr.P.G Jairaj	Dean, Research and International Relations	518	9847241141 deanresearch@cet.ac. in
3	Prof. Shaji T. L.	Dean, U. G.	570	9447054334 deanug@cet.ac.in
4	Prof. S.Lyla Jane	Technical Officer [Dean (U G)]	511	0471 - 2340962, 9446500962 lylajane@cet.ac.in
5	Dr.Shiny G	Technical Officer [Dean (R)]	518	9446485056 shinyjayan@yahoo. com
6	Smt.Divya.B	Confidential Asst [Dean (P G)]	512	8086681102 divyakottathala@g mail.com
7	Shri. Suresh Babu N	Clerk	518	9562850439

Sl. No.	Name	Designation	Office Phone No. 2515-	Residence Phone No./ Mobile No./ e-Mail	
8	Smt. Seena S	U D Typist	812	9567684117 seenavelappan@g mail.com	
9	Sri. Pradeep Kumar. R	Roneo Operator	812	9446434250	
10	Sri.G.VijayaKumaran	Office Attendant	512	9496841544	
11	Sri. Vinod B	Office Attendant	812	9249891066	

### 8.17 HOSTEL OFFICE

٠	Warden	Dr. A Samson	Ph.	2515560	
			2515689		
			94473	24844	
•	Assistant Warden (MH)	Prof. Unnikrishnan M	Ph.	2515562	
				9947350636	
•	Assistant Warden (LH)	Dr. Beena K P	Ph.	2515638	
			96459	23362	
•	Resident Tutor (MH)	Prof. R Suresh	Ph.	2515694	
)			2515725		
			94977	83267	
Office	e (MH)	Ph.	25156	91	
Watch	nman (MH)	Ph.	25156	90	
Office	e (LH)	Ph.	25156	79	
Watch	ıman (LH)	Ph.	25157	41	
Mess	Hall (LH)	Ph.	25157	36	
Matro	n	Ph.	25157	38	

Sl. No.	Name of Staff	Designation	Office Phone No. 2515-	Mobile No.
1	Unnikrishanan S	Administrative Assistant	689	9446751192
2	Upendran. V	Sergeant(IC)	691	8547320677
3	Jayachandran. V	Clerk	689	8129538674
4	Bindhu. V	Clerk	689	9747267848
5	Sreeja B	Clerk		9645378447
6	Reshmi K R	Clerk Typist		9846964347
7	Ajaya. K	Matron	679/738	9400598141
8	Sindhu K V	Matron	679/738	9048315856
9	Arya Sukumaran R	Matron		9497778583
10	Sreejith Roy M J	Office Attendant	689	9809763414
11	Syam Subash Lal. K	Office Attendant	689	8281460482
12	Prasad. M	Office Attendant	689	9846356848
13	Sreenivasan. T.V	Sick Room Attender		8281775249
14	Annamma K	Gardener		9846887704
15	Santhoshkumar. S	Watchman	741	9497771649
16	Hareesh. R	Watchman		9745683245
17	Akhil. S	Watchman	741	9495829226
18	Arun. M S	Watchman		9526106867
19	Shakkir. B	Watchman		9947849925

Sl. No.	Name of Staff	Designation	Office Phone No. 2515-	Mobile No.
20	Sumesh. V G	Watchman		9446385758
21	Hariprasad	Watchman		9605567720
22	Jayasree. R	Cook	736	9746119216
23	Kumari Anitha S	Cook	736	8943253799
24	Binimol S	Cook	736	9895913995
25	Sunitha P G	Cook		9745917469
26	Remani B	Full Time Sweeper	736	9847743286
27	Asokan T	Full Time Sweeper		
28	Pushparajan H	Full Time Sweeper	691	
29	Ajithmol KP	Full Time Sweeper		9495506378
30	Rajeswari P	Full Time Sweeper		9497793147
31	Sanooja	Part Time Sweeper		

### 2018 - 2019 INFORMATION BULLETIN 8.18 IMPORTANT TELEPHONE NUMBERS

#### Internal

College of Engineering Trivandrum	2598370	
Principal	2515555	
Hostel Warden, Dr. A. Samson	2515689	
Men's Hostel	2515689	
Ladies' Hostel	2515690	
Bus Secretary	2515587	
Civil Engg. Dept	2515560	
Mechanical Engg. Dept.	2515561	
Electrical & Electronics Engg. Dept.	2515562	
Electronics & Commn. Engg. Dept	2515563	
Computer Science & Engg. Dept	2515564	
Architecture Dept.	2515565	
Business Administration Dept.	2515589	
Mathematics Dept	2515569	
Physics Dept.	2515567	
Chemistry Dept	2515568	
Physical Education Dept	2515575	
Evening Degree Course.	2515508	
Career Guidance and Placement Unit (CGPU)	2515682	2595152
CETAA	2515685	2590059
PTA Office	2515699	
Central Computing Facility (CCF)	2515535	
Centre for Continuing Education (CCE)	2515572	2515579
Co-operative Society	2515688	2596495
Technology Business Incubator (TBI)	2515799	
Canteen	2515686	
External		
Sub-Treasury, Engineering College, Trivandrum	2515687	2596496
S.B.T., Engineering College	2598539	

#### **Technical Education**

Director of Technical Education	2451741	2451369
Senior Joint Director of Technical Education	2451747	
G E C, Barton Hill, Trivandrum	2300485	2300484

Post Office, Engineering College ......2598389

R I T, Kottayam	0481-2507763	2506153
G E C, Idukki	04862-233250	
G E C, Thrissur	0487-2334590	2334144
G E C, Srikrishnapuram, Palakkad	0466-2260565	
G E C, Kozhikode	0495-2383220	
G E C, Wayanad,, Mananthavady	0493-2541267	2541250
G E C, Kannur	0497-2780227	2780226
NIT, Kozhikode	0495-2286100	
T.K.M College of Engineering, Kollam	0474-2712022	
M.A. College of Engineering, Kothamangalam	0485-2822363	
N.S.S College of Engineering, Palakkad	0491-2555255	
G E C, Kozhikode G E C, Wayanad,, Mananthavady G E C, Kannur NIT, Kozhikode T.K.M College of Engineering, Kollam M.A. College of Engineering, Kothamangalam N.S.S College of Engineering, Palakkad	0495-2383220 0493-2541267 0497-2780227 0495-2286100 0474-2712022 0485-2822363 0491-2555255	2541250 2780226

#### University

Vice Chancellor, University of Kerala	
Pro Vice Chancellor, University of Kerala	
Registrar, University of Kerala	
Controller of Examination, University of Kerala	
Vice Chancellor, KTU	
Pro-Vice Chancellor, KTU	
Registrar, KTU	
Controller of Examination, KTU	
Dean, Research, KTU	
Dean,Academic, KTU	
Technical Support, KTU	0471-2593120, 2593128, 2590029

#### Others

AICTE Zonal Office Kerala ...... 2597099
## 2018 - 2019 INFORMATION BULLETIN

### DON'T RAG ALSO DON'T BE A MUTE WITNESS TO RAGGING

#### WHAT IS RAGGING?

 Physical and mental abuse (including bullying and exclusion) on the ground of

- Color, Race, Religion, Caste & Ethinicity
- Gender (including transgender)
- Sexual orientation & Appearance
- Nationality, Regional origins & Linguistic identity
- Place of birth, Place of residence & Economic background
- Indecent behaviour
- Criminal intimidation/wrongful restraint
- Undermining human dignity
- Financial exploitation/extortion
- Use of force

#### PUNISHMENT FOR RAGGING

- Expulsion/rustication from the institution
- Cancellation of admission
- Denial of admission to any other institution
- Banning from the mess/hostel
- Withdrawal of scholarship
- Withholding results/Debarring from examinations
- Prosecution for criminal action
- Debarring from representing the institution in meets, tournaments, youth festivals etc.

### RAGGING IN ANY FORM IS PUNISHABLE GO AHEAD REPORT RAGGING

In case of ragging contact: Phone: +91-9447446911, +91-9895642569, +91 9847241141 Email: principal@cet.ac.in, deanug@cet.ac.in, warden@cet.ac.in, cars@cet.ac.in National Anti-ragging helpline no: 1800-180-5522 Email: helpline@antiragging.in, Website: www. antiragging.in

# 2018 - 2019 INFORMATION BULLETIN

To reach us:

College of Engineering Trivandrum Thiruvananthapuram – 695016, Kerala, India Email: <u>cetvm@cet.ac.in</u> Website: <u>www.cet.ac.in</u>

