

HAND BOOK

2019 – 2020



MAR BASELIOS **COLLEGE OF ENGINEERING AND TECHNOLOGY**

(Approved by the AICTE and affiliated to the APJ Abdul Kalam Technological University)
Accredited by NAAC with 'A' Grade (CGPA - 3.13) All B.Tech Programmes accredited by NBA
since 2016

MAR IVANIOS VIDYANAGAR, NALANCHIRA P.O.
THIRUVANANTHAPURAM – 695 015
KERALA, INDIA.

Tel. No. 0471 - 2545866, 2545868, 2545872, Fax. 2545869
E Mail : mbcet@mbcet.org
Website : www.mbcet.ac.in

PERSONAL INFORMATION

Name:

Date of Birth: Sex:

Branch:

Class and Roll No:

ID card No:

Name & Address of Parent:

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Email ID:

Name & Address of Local Guardian:

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Phone No:

Email ID:

Blood Group:

Vehicle No:

Driving License No:

Bank Account:

PREAMBLE

The Malankara Syrian Catholic Church has been in the field of Education in the State for over Eight Decades, having established hundreds of Primary, Secondary and Higher Secondary Schools, Industrial Training Institutes and a few Arts and Science Colleges. Mar Baselios College of Engineering and Technology (MBCET) established in 2002, by the Major Archdiocese of Trivandrum is administered by it through the Malankara Catholic Educational Society, realizing the need in the changing social scenario for an agency to encounter the challenges in Education. The Society has ventured into the specialized areas of Higher Education such as Medical Science, Life Science and Management Studies also. Set against the backdrop of the serene and panoramic Mar Ivanios Vidyanagar at Nalanchira, away from the hustle and bustle of the city life, yet enjoying a pride of place in the heart of Thiruvananthapuram city, the MBCET campus provides an ideal milieu for academic pursuits. The College is located in a verdant and serene environment, just 5 km. from the heart of the city among 17 educational Institutions. Aesthetically designed buildings in nine blocks spread over the campus have a total built-up area of over 33130 sq.m. An eco-friendly infrastructure concept has been executed. Rain water harvesting has been implemented right from the inception of the Institution. Each block is connected by Pedestrian Bridge, retaining the separate entity of each branch of Engineering studies controlled by the Administrative Head.

FOUNDER & HIS VISION

The Founder of the College, His Beatitude Moran Mor Cyril Baselios Catholicos and the first Major Archbishop of Trivandrum established this Institution with a sublime objective, namely, to provide quality Technical Education based on fundamental human values. In the words of the Founder: "This Engineering College is meant to train and develop men and women of higher caliber, equipped with the most modern scientific knowledge and technological skills destined not only to help our people in their march towards progress but also to bring glory and honour to our people and our country... The Students of our College are to strive for excellence and skills and in the pursuit of success in life, in terms of their commitment to bring happiness to our fellow beings and for the development of our Nation."



PATRON

His Beatitude Moran Mor Baselios Cardinal Cleemis, Catholicos and Major Archbishop of Trivandrum, is the Patron of our College. As the President of the Malankara Catholic Educational Society under which the College functions, His Beatitude executes the administration through the Governing Council of the College. As His Beatitude puts it: "We wish to reach out to all sections of our society without the distinction of caste, creed, etc. In short, Mar Baselios College of Engineering and Technology is envisaged to be a glaring example of the philosophy of education and the apostolate of Human Resource Development, which the Major Archdiocese of Trivandrum has been pursuing for the last eight decades".



VISION :

To be an Institution moulding globally competent professionals as epitomes of Noble Values.

MISSION :

To transform the Youth as technically competent, ethically sound and socially committed professionals by providing a vibrant learning ambience.

CORE VALUES

- Integrity
- Tolerance
- Professional Excellence
- Commitment
- Social Responsibility
- Accountability & Innovation.

GOALS & OBJECTIVES

The College aims at achieving the integral development of human personality so as to ensure the possibility of living a fully human existence. It endeavours to contribute in placing spiritually inspired human beings at the centre of the Universe in the New Millennium ensuring the creative use of Science and Technology, in the context of a techno-centric life.

In order to accomplish this, special endeavour will be made to enable the students:

- * To strive for excellence in life.
- * To promote scientific enquiry.

- * To acquire and apply knowledge for the welfare of humanity.
- * To be the agents of qualitative social changes.
- * To use Science & Technology for the preservation of human values and human dignity.
- * To apply Science & Technology for universal brotherhood by being agents of the Gospel of Love and to be architects of future.

QUALITY POLICY STATEMENT

We at MBCET are committed to quality, to be globally competent in Technical Education, pursuing its quest for excellence in teaching, learning, innovation and research guided by noble values, ethical vigour and social commitment, enabling the stakeholders to adapt themselves to varying technologies and environment for the preservation and improvement of life.

MOTTO: "DUC IN ALTUM"

(Leading to the Heights of Excellence)

GOVERNING BODY

His Beatitude Moran Mor Baselios Cardinal Cleemis Catholicos	- Chairman
Rt. Rev. Msgr. Dr. Mathew Manakarakavil	- Member
Rt. Rev. Msgr. Dr. Varkey Attapurath	- Member
Fr. Nelson Valiyaveetil	- Member
Fr. John Vilayil	- Member
Fr. Wilson Thattaruthundil	- Member
Dr. M. Ayyappan	- Member
Mr. Biju B. Varghese	- Member
Dr. T. M. George	- Member & Secretary
Prof. S. Viswanatha Rao	- Member
Ms. Jomole Joseph	- Member
Nominee of the Regional Officer AICTE	- Ex Officio
Director of Technical Education	- Ex Officio
Nominee of the University	- Ex Officio

An Industrialist/Technologist/Educationist from the region nominated by the State Government.

Advisory Board

Mr. John Mathai, IAS (Retd.), Former Chief Secretary, Govt. of Kerala.

Mr. Jacob Punnoose, IPS (Retd.), former DGP, Kerala

Mr. John P. Zacharia, Director, VSSC, Trivandrum

Dr. S. Unnikrishna Pillai, Former Principal, REC (NIT), Calicut.

Dr. Chem Nayar, Emeritus Professor, Curtin University, Australia

Dr. Vijayan K. Asari, Professor, University of Dayton, Ohio, USA.

Dr. Achuthsankar S. Nair, Head, Dept. of Computational Biology &
Bioinformatics, Uty. of Kerala.

Dr. Saji Gopinath, Professor, IIM, Kozhikode.

Mr. Alexander Varghese, Chief Administrative Officer, UST Global,
Trivandrum

Mr. Jayan P. Nair, Senior Vice President, IBS Software Services,
Trivandrum.

Mr. Rajesh Nair, CTO and Founder, Degree Controls Inc., USA.

COLLEGE COUNCIL

1. Fr. John Vilayil (Bursar)
2. Dr. T. M. George (Principal)
3. Prof. S. Viswanatha Rao (Vice Principal)
4. Prof. Paul Thomas (Dean) - P G
5. Dr. Neethu Roy (Asst. Dean) – R&D
6. Ms. Tessy Mathew (HoD – CS)
7. Dr. M. J. Jayashree (HoD – EC)
8. Dr. M. Satyakumar (HoD – CE)
9. Prof. A.S. Shajilal (HoD – EE)
10. Mr. T.N. Rajesh (HoD – ME)
11. Prof. Joseph Cherian (HoD – SH)
12. Ms. Christi Francis (ADPE)
13. Ms. Asha S.(Asst.Prof – CSE) - Nominated
14. Dr. George Zacharia (Prof – S & H) – Nominated
15. Dr. Nisha G.K.(Asst. Prof. - EE) - Nominated

Management Administration

Bursar : **Fr. John Vilayil**
Asst. Bursar : **Fr. Raju Parukoor**

Internal Quality Assurance Cell (IQAC)

Internal Quality Assurance Cell (IQAC) is a body constituted in accordance with the norms of the National Assessment and Accreditation Council (NAAC) an autonomous body of the UGC. The objective of this body is to formulate and propose quality measures to be implemented in the college to enhance and sustain the quality performance of the Institution. The IQAC is constituted with the following office-bearers.

Dr. T. M. George, Principal - Chairman

Management Representative:

Fr. John Vilayil (Bursar)

Senior Administrative Officers:

Prof. S. Viswanatha Rao, Vice-Principal

Prof. Paul Thomas, Dean (P G)

Dr. Neethu Roy, (Asst. Dean- R&D)

Stakeholders' Representatives:

Industry : Ms. Geetha Kumari (Chief Engineer, KSEB)

Mr. Biju Philip (Sr. Vice President, Envestnet)

Alumni : Mr. Ajith Kumar G. S.

Mr. Jerrin Chacko

Co-ordinator:

Prof. (Dr.) George Zacharia

Members :

Dr. M.J. Jayashree (HoD, ECE)

Dr. Tessy Mathew (HoD, CSE)

Dr. M. Satyakumar (HoD, CE)

Mr. Rajesh T.N. (HoD, ME)

Prof. A.S. Shajilal (HoD, EEE)

Prof. Joseph Cherian (HoD, S& H)

Mr. Deepak Raj (ADPE)

Mr. Praveen G.L. (Asst. Prof., Dept. of CS)

Ms. Ann George (Asst. Prof., Dept. of CE)

Mr. Aravind P. (Asst. Prof., Dept. of ME)

Ms. Deepa P.L. (Asst. Prof. Dept. of ECE)

Ms. P. Sandhya (Asst. Prof. Dept of EEE)

Ms. Sabitha S. Nair (Asst. Prof. Dept. of S&H)

COURSES OFFERED

MBCET offers the following courses approved by the All India Council for Technical Education (AICTE) and sanctioned by the Govt. of Kerala, leading to the B.Tech., M.Tech. and Ph.D Degree of the APJ Abdul Kalam Technological University

	Branch of Study	No. of Seats
B.Tech. Programmes		
1)	Civil Engineering	120 + 6 (Fee Wavier)
2)	Computer Science & Engineering	120 “ “
3)	Electrical & Electronics Engineering	120 “ “
4)	Electronics & Communication Engineering	120 “ “
5)	Mechanical Engineering	120 “ “
M.Tech. Programmes		
1)	Computer Science & Engineering	30
2)	Machine Design	18
3)	Power Control and Drives	18
4)	Telecommunication Engineering	18
5)	Structural Engineering	18
6)	Control Systems	18
7)	Signal Processing	18

COLLEGE STAFF

Principal	: Dr. T. M. George, M.Sc. (Engg), Ph.D.
Vice - Principal	: Prof. S. Viswanatha Rao M.E., Senior Member IEEE
Deans	: Prof. Paul Thomas (PG) : Dr. Neethu Roy (Asst. Dean-R &D)

Department of Civil Engineering

Professor & Head	: Dr. M. Satyakumar, M.Tech., Ph.D.
Professors	: Prof. P. S. Abraham, B.Arch., MCP : Dr. Neethu Roy, M.Tech., Ph.D.
Associate Professor	: Dr. S. Jayasree, M.Tech, Ph.D
Asst. Professors	: Ms. Bindu Biju, M.Tech. : Ms. Ann George, M.Tech. (Study leave) : Ms. Tisny D. B., M.Tech.

- : Ms. Muthulakshmi, M.Tech.
- : Ms. Jean Molly Simon, M.Tech.
- : Mr. Jaya S. Pillai, M.Tech.
- : Ms. Anupama Krishnan, M. Tech.
- : Ms. Lekshmi Chandran M., M.Tech.
- : Ms. Parvathy U., M.Tech.
- : Ms. Sherin Mathew, M.Tech.
- : Mr. Akhil Raj S.R., M.Tech
- : Ms. Linda Jose, M.Tech.
- : Ms. Anita A., M.Tech.
- : Ms. Aneena Babu, M.Tech.
- : Dr. Jisha S.V., M.Tech. Ph.D
- : Ms. Nimisha Anna Jacob, M.Tech.
- : Ms. Smrithi Cheriyaath, M.Tech.
- : Ms. Rintu Johnson, M.Tech.
- : Dr. Senthil Kumar, M.Tech., Ph.D
- : Ms. Athira I.C., M.Tech.
- : Ms. Akhila A.M., M.Tech.

Department of Computer Science & Engineering

Associate Professor & Head: Dr. Tessy Mathew, M.Tech., Ph.D

Professors : Dr.R.Vikraman Nair, B.Sc.(Engg.), DEA, Ph.D
 : Prof. Raju K Gopal , B.Sc. (Engg), M.Tech.

Asst. Professors : Ms. S. Asha, M.E.
 : Ms. Elizabeth B. Varghese, M.Tech.(Study leave)
 : Mr. G. L. Praveen, M. Tech.
 : Mr. V. S. Shibu, M.Tech.
 : Ms. V S. Devipriya, M.Tech.
 : Ms. Anne Dickson, M.Tech.
 : Ms. B R. Poorna, M.E.
 : Ms. R S. Divya, M.Tech.
 : Dr. Jisha John, M.Tech., Ph.D
 : Mr. Shon J. Das, M.Tech,
 : Ms. Merin Kuriakose, M.Tech.
 : Ms. Anjali C, M. Tech.
 : Mr. Robin Joseph, M.Tech.
 : Ms. Aswathy Ravikumar, M.Tech.
 : Ms. Gayathri K S, M.Tech.
 : Mr. Binu Jose A, M.E.
 : Ms. Jisha Jose, M.E.

- : Ms. Shini Renjith, M.Tech
- : Ms. Kiran Baby, M.Tech
- : Mr. Ramjith R.P., M.Tech
- : Ms. Jesna Mohan, M.Tech

Department of Electrical & Electronics Engineering

Professor & Head : Prof. A. S. Shajilal, M.Tech.

Associate Professors : Dr. G. K. Nisha, M.Tech, Ph.D.
: Ms. Elizabeth Varghese, M.Tech

Asst. Professors : Mr. R. S. Praveen Raj, M.Tech.
: Ms. P. Sheenu, M.E.
: Mr. F. R. Rejish Babu, M.E.
: Ms. P. Sandhya, M.Tech.
: Ms. Jomole Joseph Peedikayil, M.Tech.
: Ms. Shalu George K., M.E.
: Ms. N. A. Divya, M.Tech.
: Ms. Shyju Susan Mathew, M.Tech. (Study leave)
: Ms. A V. Soumya, M.Tech.
: Ms. Charivil Sojy Rajan, M.Tech. (Study leave)
: Ms. Manju Sreekumar, M.Tech.
: Ms. Manju Ann Mathews, M.Tech.(Study leave)
: Ms. Surasmi N L., M. Tech
: Ms. Vandana P., M. Tech.
: Ms. Anu Gopinath, M.Tech. (Study leave)
: Mr. Aswin R. B, M.Tech.
: Ms. A. N. Archana, M.Tech.(Study leave)
: Mr. Midhun G, M.Tech.
: Ms. Keerthi S Nair, M.Tech.
: Ms. Jeneena Babu, M.Tech
: Ms. Divya M.D., M.E.
: Ms. Ashni Elisa George, M.Tech.
: Ms. Shilpa Susan Peter, M.Tech.
: Ms. Shilpa George, M.Tech.

Department of Electronics & Communication Engineering

Professor & Head : Dr. M J. Jayashree, M.Tech., Ph.D

Professors : Prof. S Viswanatha Rao, M.E.,
Senior Member IEEE
: Prof. Paul Thomas, M.Tech., LLB, PMP,
C (Eng.),FIE, LMASI.

Asst. Professors : Dr. Jayakumari J., M.Tech, Ph.D
: Ms. Luxy Mathews, B.Sc., B.Tech., M.Tech.
: Ms. Ancy S. Anselam, M.Tech.
: Ms. P S. Swapna, M.Tech.
: Ms. Teena Rajan, M.Tech.
: Dr. P Sreedevi, M.Tech., Ph.D
: Ms. P L. Deepa, M.Tech.
: Ms. Lani Rachel Mathew, M.Tech.
: Mr. Niyas K. Haneefa, M. Tech. (Study leave)
: Mr. Jinu Baby, M.E.
: Ms. Ann Mary Alex, M.Tech.
: Mr. Anoop K. Johnson, M.Tech.
: Ms. Poorna R. Prabhu, M.Tech.
: Ms. Athira V, M.Tech.
: Ms. Remya Annie Eapen, M.E.
: Ms. P P. Hema, M.Tech.
: Ms. Riya John, M.Tech.
: Ms. Lakshmy S, M.Tech.
: Mr. Shiras S.N, M.Tech.
: Ms. Anu Susan Philip, M.Tech.
: Mr. Sherry Varghese George, M.Tech.
: Ms. Roselin Raju, M.Tech.
: Ms. Amritha B.J., M.Tech.
: Ms. Ancy Joy, M.Tech.
: Mr. Arun J.S., M.Tech.

Department of Mechanical Engineering

Associate Professor & Head: Mr. T.N. Rajesh, M.Tech

Associate Professors : Mr. Remil George Thomas, M.Tech.
: Dr. Muraleedharan Nair K., M.Tech, Ph.D

Asst. Professors : Mr. M. Pradeep, M.Tech.
: Dr. M B. Nidhi, M.Tech, Ph.D
: Mr. Hari Venkit, M.Tech.
: Mr. A S. Ayswer, M.Tech.
: Dr. V. Vinod, M.Tech, Ph.D
: Mr. V P. Premchand, M.Tech.
: Dr. Rupesh S., M.Tech., Ph.D
: Mr. Aravind P., M.Tech.
: Mr. Deepak G. Dilip, M.Tech.
: Mr. Unnikrishnan G., M.Tech.

- : Mr. Deepak B., M.Tech.
- : Mr. Roshan George Koshy, M.Tech.
- : Mr. Ajeesh M V., M.Tech
- : Ms. Ruby Maria Syriac, M E.
- : Mr. Jagajith S., M. Tech.
- : Mr. Vinod V., M.Tech.
- : Mr. Sujith S., M.Tech.
- : Mr. Kedar Mohan, M. Tech.
- : Mr. Renjith H., M.Tech.
- : Mr. Vishnu Prasad K.R., M.Tech.
- : Mr. Raveesh G., M.Tech.
- : Mr. Deepak B.S., M.Tech.
- : Mr. Bobin Saji George, M.Tech.
- : Mr. Vishnu Asok J S, M.Tech.

Department of Sciences & Humanities

- Professor & Head** : Prof. Joseph Cherian, M.Sc., M.Phil
- Professors** : Dr. George Zacharia, M.A., PGDTE, Ph.D.,
: Prof. Y. Mathew, M.Sc., M.Phil.
- Asst. Professors** : Ms. Sabitha S. Nair, M.Sc., B.Ed.,M.Phil,
: Ms. M. T. Savitha, M.Sc., B.Ed.
: Ms. Dhanya Ramachandran, M.Sc., M.Phil.
: Dr. Neeradha C. K., M.Sc., M.Ed., Ph.D
: Ms. Lakshmi J.S., M.Sc., B.Ed.
: Dr. Archana P. Das, M.Sc., M.Phil, Ph.D
: Ms. Lekshmi I, M.Sc., B. Ed., M. Phil,
: Ms. Jisha J J., M.Sc., B. Ed., M.Phil.
: Ms. Uma M., M.Sc., B. Ed., M.Phil.
: Ms. Ammu Maria Ashok (Study leave)
: Dr. G.P. Krishna Mohan, M.Sc., Ph.D.
: Dr. Veena Nair, MA, M.Phil., Ph.D.
- Guest Faculty** : Mr. Vinu. V, M.A
: Ms. Hima Sebastian, M.A

Department of Physical Education

- Asst. Director of Physical Edn.: Ms. Christy Francis, M.P.Ed,DCA, M.Phil.
: Mr. Deepak Raj, M.P.Ed, DCA.
- Placement Co-ordinator** : Mr. Justin Joseph, M.Sc., M.Tech.,MBA

Student Counselor

- Dr. Shobha Treasa George, M.Sc., Ph.D., MFT, CPT (USA)
Fr. Bitty Mathew, M.SW, M.Div

Nursing Station in-Charge

Sr. Alex S H

Technical Staff

Department of Civil Engineering

Trade Instructor : Mr. Manon Mony
Lab. Instructor Gr. I : Mr. Johnson George
: Mr. Edwin Roy E. J.
Lab. Instructor Gr. II : Ms. Dhanalekhmi M. C
: Mr. Vijin V. J.
Lab Assistant Gr. I : Mr. Shijin Kumar R.V.
: Ms. Deeparani V.
: Mr. Arun J.
: Ms. Vidyamol S.
: Ms. Renchu Mohan R.

Department of Computer Science Engineering

Lab. Instructor Sr. Grade : Ms.K.C. Linumole
Lab. Instructor Gr. I : Ms. G. Priya
: Ms. Rejani L.
: Ms. Naicy M. John
Lab. Assistant : Ms. Vichithra V.R.

Department of Electrical and Electronics Engineering

Trade Instructor : Mr. V. Ramachandran Nair
Lab. Instructor Gr. I : Ms. S. Prabha
: Mr. E. Senthilkumar
: Mr. Rajeev Mon S.
Lab. Instructor Gr. II : Ms. Shabina N.
: Ms. Smiji R. S.
: Mr. Ratheesh Kumar V. S.
: Mr. Vishnuchandran C. L.
Lab. Assistant Gr. I : Ms. Suchithra M. S.
: Mr. Sajan S.S.
: Mr. Midhun Gopal V.
: Mr. Anand B.H.

Department of Electronics and Communication Engineering

Trade Instructor	: Mr. K. Ramachandran Nair
Lab Instructor Sr. Grade	: Ms. Manju Suresh
Lab. Instructor Gr. I	: Mr. S. M. Ajith Kumar : Mr. C. S. Shinin : Mr. Anilkumar B. S. : Ms. Sarika U. S. : Ms. Swapna Lekha U.
Lab. Instructor Gr. II	: Mr. Rajendran H. : Ms. Smitha S.L. : Ms. Hanna Varghese
Lab. Assistant Gr. I	: Ms. Veeshna G. : Mr. Dhaneesh Raj. D.

Department of Mechanical Engineering

Workshop Superintendent	: Mr. G. Sukumaran Asari, B.Tech.
Trade Instructors	: Mr. S. Dharmaraj : Mr. S. Muraleedharan Nair : Mr. R. Vijayakumar : Mr. G. Krishnankutty
Workshop Instructor Gr. I	: Mr. Sijo Thomas : Mr. Anil Kumar R. S. : Mr. S. C. Aneesh : Mr. D. Shaji
Workshop Instructor Gr. II	: Mr. Biju Androose : Mr. Aneesh Rajan A. T.
Welder	: Mr. Biju K.
Workshop Asst. Gr. I	: Mr. Prasanth S. S. : Mr. Shaji P.

Department of Science & Humanities

Tutor	: Ms. Shimamol . C.
Lab Assistant	: Mr. Praveen R. : Mr. Abhijith S.L.

ITMS Division

Programmer, Sel. Grade	: Ms. Reena Rajan
Asst. System Administrator	: Ms. V. S. Alosius
Asst. Network Administrator	: Mr. Jiju Wilfred

Lab. Instructor Gr. I : Ms. L. Sindhumol
Programmer : Mr. Shinulal P. K.
Junior System Supp. Techn. : Mr. Lajju B. Nair,
Lab. Assistant Gr. I : Mr. Jith C.
Data Entry Operator : Ms. Priya Rani K.

Library Staff

Librarian : Mr. Binu K. John, B.Sc., M.LISc., M.Phil.,
PGDCA
Assistant Librarians : Ms. Anjana G., M.Sc., M.LISc.
: Mr. Sambhu B.K., B.Com, M.LISc.
Library Assistant : Mr. Sabeesh T., B.A., M.LISc.
Office Assistant : Ms. Sherin Mary Joseph, B.Com, PGDCA

Office Staff

Senior Superintendent : Mr. V. K. Kuriakose, B.Sc.
Section Officers : Mr. Mohan George, B.Com.
: Dr. B. Chandrika, M.Sc., Ph.D.
Senior Office Assistants : Mr. Renny Thomas Abraham, B.Com.,
PGDCA
: Mr. Jacob Varghese
: Ms. Shiji George, B.A.
: Mr. D. Joykutty, B.A., PGDHRM
Accountant : Mr. Aiju Looke, B.Com, COPA
Receptionist : Ms. Accamma Kumary George, MA, PGDMM
Confidential Assistant : Ms. Soni Gerry, M.Sc., B.Ed., DSM.
Office Assistant : Ms. Sandhya R. S., B.Com. CFA, TTC
Store Assistant : Ms. Rema G.S., B.A.
Office Assistant : Ms. Silja S., M.Sc.
Clerical Assistant : Ms. Jancy B. S.
Attender Gr. I : Mr. Mathew Thomas
Attenders : Mr. Anish Babu S.
: Mr. Sabu B. S.
: Mr. Retnakaran C.
Peons : Mr. Rejy John
: Mr. Anikumar A.

GENERAL DISCIPLINE

Discipline, both in personal and professional matters, is essential for the success of an Engineer. Orderly behaviour on campus will improve one's self-esteem and will help in having good inter-personal relations. The high level of discipline consistent with the superior standards of the Centres of Excellence in Higher Education shall be maintained on the campus. The following guidelines will help in maintaining discipline on campus and they shall be adhered to by all.

1. Courteous behaviour, an essential ingredient of Professional Competence, is expected from all. Dishonesty, obscenity in word or act or any other acts of misconduct will invite disciplinary action.
2. Students shall wear the prescribed uniform whenever on the campus.
3. Students shall wear the ID cards while on the campus.
4. Students should not loiter in the corridors or on the campus during class hours. They should make use of their free time by using the Library, Computer facilities or other facilities for extra-curricular activities.
5. Habitual negligence of College work, absence from internal examination, non-submission of assignments, frequent absence from classes, etc., will be reported to the parents and if not corrected, may lead to discontinuance from the program.
6. Students, if they have any grievance and personal problems shall bring them to the notice of the Staff Advisor or the College authorities individually; but should not have recourse to collective complaints or petitions to anybody within or outside the College.
7. Students are forbidden from attending or organizing any meeting in the College or in its premises or collecting money for any purpose without the permission of the Management.
8. Political activity in any form, under any banner is not permitted in the campus.
9. Wilful damages to property and equipment will have to be compensated for. Pasting of posters and notices on walls or disfiguring the building and campus, in any form are forbidden.

10. Students organizing tours on their own accord without permission and teachers accompanying them is banned. Any act contrary to this rule will invite strict disciplinary action.

Prevention of Ragging

Ragging, in any form is prohibited by law. The Govt. of Kerala has banned ragging in Educational Institutions / Hostels vide the Kerala Prohibition of Ragging Act 1998 Section 3 which makes ragging punishable as follows:

- a) Imprisonment up to a term of 2 years
- b) A fine up to Rs.10000/-
- c) Dismissal from the Institution. The students so dismissed shall not be admitted to any other Educational Institution for three years.

Anti-ragging Committee and Anti-ragging Squad

In compliance with the AICTE regulations Anti-ragging Committee and Anti-ragging Squad have been constituted to prevent the menace of ragging. The squad conducts frequent patrolling in the common areas of the campus and maintains vigil to prevent the occurrence of ragging. The squad will also have the responsibility to investigate incidence of ragging, if any.

Students shall not indulge in any of the following activities, which are treated as ragging:

- a. Any act that prevents, disrupts or disturbs the regular academic activity of a student.
- b. Exploiting the service of a junior student by a senior student or a group of senior students.
- c. Any act of financial extortion or forceful expenditure burden put on a junior student including fund-raising for organizations.
- d. Any act of physical abuse including all variants of it: annoying, playing, practical jokes, sexual abuse, homosexual assaults, stripping, forcing obscene and lewd acts or gestures.
- e. Any act of abuse by spoken words, emails, SMS or any other means.
- f. Any word or act that causes hurt to the dignity of the individual.

- g. Entering without permission any class other than the one assigned to a student.
- h. Forcing a student to boycott class without his/her consent to participate in strike, demonstration, dharna, etc.

Reporting Cases of Ragging

The complaints or information with regard to ragging could be oral or written and even from third parties. The burden/responsibility of proving his/her innocence rests with the accused. Complaints can be lodged with the Principal, HoD's, Class Advisor or any of the members of the Anti-Ragging Committee. All complaints/information received shall be kept strictly confidential. In the event of a student being booked in a criminal offence and being suspended from the College, he/she will be re-instated only after his/her obtaining clearance certificate from the Police Officer concerned.

Parking of Students' Vehicles

Parking of two wheelers is permitted only in the specified parking area for Boys and Girls. Students are not permitted to take out their vehicles during the working hours. In case of urgency prior permission should be secured. Students are not permitted to use four-wheelers on the Campus. In urgent situations which demand the use of four-wheelers, prior permission should be obtained from the authorities.

Mobile Phones

Mobile phones with or without camera are not allowed on the campus, during working hours (9.30 - 4.30). Students bringing the mobile phone must deposit the same in the locker provided at the entrance. If any student is found in possession of a mobile phone, it will be confiscated by the authorities. Emergency calls, if any, can be made from the College Information Desk.

ETHICS COMMITTEE

Government has given specific instructions to restrict the use of mobile phones and prohibit fashion shows and vulgar dances in the campuses. Accordingly Institutional Level Ethics Committee has been constituted. In compliance with the order of Hon'ble High Court of Kerala and the instructions issued by the Government, a surprise inspection squad is also constituted in the Institution to ensure the compliance. The squad is empowered to conduct surprise inspections in the campus and will furnish reports to the Principal and Ethics Committee for further necessary action.

LIBRARY

The Library has institutional membership with INFLIBNET E-ShodhSindhu, DELNET and AICTE-INDEST consortium.

The library has access to **E-Journals of IEEE (IEL Online), ASCE (American Society for Civil Engineers), ASME (American Society for Mechanical Engineers) and EBSCO - Engineering E-Books. etc...**

A separate periodical section is there with 96 National Journals. The Library is computerized. The circulation is based on barcode system. The important library services are:

* Digital Library, * Institutional Digital Repository, * Reprographic Facility *Engineering Portal * Library Instruction Classes * E-Resources *awareness* programmes * SDI – Selective Dissemination Information * CAS – Current Awareness Service * OPAC – Online Public Access Catalogue * On demand literature search * Library Blog * Online access to E-Resources, * Book Bank etc.

Library Timing: The Library will remain open from 8.30 am to 6.00 pm on all working days and on Saturdays from 9 am to 4 pm.

LIBRARY RULES AND REGULATIONS

All members of the staff and students of the College are entitled to use the library.

1. All personal belongings such as text books, note books, files, briefcases, umbrellas etc. should be kept at the Property Counter. However calculators and plain paper for taking down notes can be brought inside the library.
2. Books in the Reference Section are not open for borrowing.
3. The library is kept open on all working days, the timings will be specified on the notice board. At present the library is kept open from 8.30 a.m. to 6.00 p.m. Schedule for the issue of books will be notified from time to time.
4. Silence should be observed within the library rooms and halls. Students shall have their identity cards with them while in the Library and shall produce it along with the *Barcode ID Cards* at the issue counter.
5. Writing or underlining in the books, periodicals, maps etc. is not allowed. If required a tracing may be taken with the permission of the librarian. The person in whose name a book/periodical is issued will be held responsible for the care of the same. He/she will have to

bear the compensation for any damage or loss. If books borrowed from the library are lost, the matter must be reported to the librarian immediately. The member has to replace the same or a later edition of the same books lost/damaged, within a week's time. If the replacement is not possible the following will be the procedure to recover the cost of the book lost/damaged.

- a) For a foreign edition: The cost of book converted as per current conversion rate of the foreign currency plus 200% of the cost, will be recovered. For an Indian edition: printed price of the book plus 200% of the cost will be recovered.
 - b) Periodicals: same as above.
6. B.Tech students can borrow 3 books and M. Tech. students can borrow upto 4 books.
 7. The period of borrowing will be 14 days including the day of issue for B.Tech and 20 days for M.Tech students. If the member fails to return the book on the 15th day a fine of Rs. 1/- per day, per book will be levied during the first week, Rs.2/- per day per book during the second week and Rs. 5/- per day thereafter.
 8. Members are not permitted to sub-lend books borrowed from the library.
 9. Periodicals are regarded as reference books.
 10. In case a ID card is lost, the matter must be reported to the Librarian.
 11. All the books borrowed should be returned at the end of the Semester Examinations.
 12. A student leaving the Institution before or after completing the Course, has to produce a Non- Liability Certificate from the Librarian for getting any certificate or reimbursement of the Caution Deposit from the College.

CLASS HOURS

The College works under a full day system from 9.15 am to 4.30 pm.

DRESS-CODE

Students shall wear the prescribed uniform while on the campus. They should dress modestly while attending Programmes on the campus or outside.

IDENTITY CARD

It is mandatory that all Students should have their identity cards properly worn around their necks while on the campus.

LEAVE

1. For any kind of absence, leave application in the prescribed form sanctioned by the HOD must be submitted to the Class Advisor.
2. For absence exceeding three days, a letter from parent or guardian and a medical certificate whenever necessary, should support the application for leave of absence and for such leave of absence, application should be submitted on the day on which the student is reporting at the College.

Industrial Training

Students going for Industrial Training outside Trivandrum should obtain written permission from their parents and the consent letter should be submitted to the Head of the Department concerned, through the class Advisor.

External Technical/Cultural Fests

Guidelines

1. A student interested to take part in an event should make a request to the Staff-in-Charge through the Staff Advisor and the HOD
2. The request should include an application for duty leave in the prescribed form (Form #06).
3. The student who has subsequently participated in the event, should submit, within a week after the end of the duty leave period, copies of certificates of participation / laurels won to show that leave has been utilized for the purpose for which it was applied for.
4. Relevant information regarding the above is conveyed to all the members of Staff concerned.
5. A record of every student in the class should be maintained by the respective Class Staff Advisor. Details of leave taken by the students, duty leave issued, other personal details etc. of each student should be recorded, preferably in a separate page.

Procedure for selection:

- a. Teams representing the college in Inter collegiate/University competitions shall get prior permission.
- b. A selection will be made, if the number of teams interested in participating in any event exceeds the number that is permitted by the Event Coordinator.
- c. External Judges will be brought in, as and when needed, in order to do an unbiased selection of teams which will represent the College in the event.

- d. In case the number of teams interested in participating in any event does not exceed the number that is permitted by the Event Coordinator, a screening will still be done internally to ensure that the programme is of good standard.

Note: Financial help may be provided to the needy participant/s and deserving cases at the discretion of the Management

INTERNAL EXAMINATIONS

- 1) There will be at least two Internal Examinations in a Semester.
- 2) A Progress Report will be sent to the Guardian after the Internal Examination giving details of marks scored, attendance gained and position in the Class.
- 3) Guardians of those students who show poor progress should meet the Staff Advisor on receipt of the Report.

ACADEMIC AWARDS

I. Mar Baselios Youth Excellence Award

Mar Baselios Youth Excellence Award has been instituted in honour of the Founder of MBCET, the late **His Beatitude Moran Mor Cyril Baselios, Major Archbishop Catholicos**. True to the spirit of the Founder's vision, the award is intended to identify and promote the pursuit of excellence among the Engineering students of Kerala. The winner is selected on the basis of all round excellence in Academics, Leadership, Arts & Sports, Personal Conduct, Ethics and Social Service Activities. A panel of experts will short list the entries for the award. The winner will be selected from the short listed candidates after a personal interview. The award comprises a prize money of Rs.1,00,000/- Certificate and Memento.

II. Other Awards

1. **ALL ROUND PERFORMANCE AWARD** (year of admission–year of admission+4)

- To be awarded to final year UG students
- Selection will be based on performance in Academics (50 points), Extracurricular & Co-curricular activities (50 points)
- One student from each Department who secures maximum points out of 100 points according to given criteria will be selected
- Improvement exams and Re-valuation can be considered
- Entries with condonation or supplementary papers will be disqualified

2. **THE BASELIAN AWARD**

- For the best final year UG student
- Selection will be based on performance in Academics (50 points), Extracurricular & Co-curricular activities (50 points) and an Interview (25 points)

- Two students from each Programme of the Department who secures first and second positions based on scores out of 100 points according to given criteria of “All Round Performance Award” will be selected for the interview.
- The shortlisted candidates will be interviewed by the Vice Chairman Governing Body/Experts.
- The Final Year student who secures maximum points out of 125 will be selected for the Award.
- Same student can be awarded “The Baselian Award” and “All Round Performance Award” of a particular Department”, if found qualified.
- Improvement exams and Re-valuation can be considered
- Entries with condonation or supplementary papers will be disqualified

3. PROFICIENCY AWARD

- Will be given to PG and UG students
- Students with highest University Examination marks in the previous two published results.
- One student from each Branch for UG
- One student from each Stream for PG
- Marks obtained in the first attempt only will be considered.
- Improvement marks will not be considered

4. BEST ACADEMIC PERFORMANCE AWARD FOR OUTGOING STUDENTS

For PG and UG students

- One UG student from each Branch who secures highest CGPA in University Examinations from S1 S2 to S8
- One PG student from each Stream who secures highest CGPA in University Examinations from M1 to M4

If more than one student secures same highest CGPA, all with same highest CGPA will be awarded

- Entries with supplementary papers will be disqualified.
- To be awarded on the occasion of Induction Ceremony of the First Year Students for UG students and awarded on the College Day for PG students.

5. ALL ROUND PERFORMANCE IN THE FIRST YEAR – “Young Wizard of Science”.

- Only first year UG students are entitled for the Award
- One student from the first year will be selected for the Award on the basis of All Round Performance, Performance in Proficiency Test, Index Marks and Character.
- Students passed in 1st and 2nd series examinations are eligible for the Award

6. BASELIAN KAYIKA PRATHIBHA PURASKHARAM

- For Outstanding Performance in sports/games in the current Academic Year
- Male and Female category
- In a particular year if a student has an outstanding performance in Chess, the name can be changed as "CHESS MASTER".

7. BASELIAN KALA PRATHIBHA PURASKHARAM

- For outstanding performance in arts in the current academic year
- Male and female category

8. MEMORIAL AWARDS

i. Prof. R. V. Chitra Memorial Award

Instituted by the Staff Members of Department of Electrical & Electronics Engineering in Fond Memory of Prof. R. V. Chitra of their department. Final year student who is Topper in Electrical Machines subjects (Electrical Machines I, II & III).

The Interest accrued from the fixed deposit amount of Rs.25,000/- will be given as Cash Award.

ii. Annu Memorial Award

Instituted by the 2005-09 Students of Department of Civil Engineering in Fond Memory of their beloved friend Ms. Annu Varghese who passed away in 2008. The award includes Rs.3,000/- and Memento.

Awarded to the One Final Year Civil Engineering Student for his/her overall performance in academics & extracurricular activities.

iii. Mr. Arun Memorial Award

This award is instituted in the fond memory of Mr. Arun V. Abraham of **B.Tech CSE 2010-15 batch** by his parents for one final Year Computer Science & Engineering Student who scores the highest marks till final year, in the University Exams.

iv. Mr. Jose Lawrence Memorial Award

This award is instituted in the fond memory of Mr. Jose Lawrence of B.Tech ME 2010-15 Batch by his parents for the Best Final year Project.

v. Mr. Joel Jiji Memorial Award

This award is instituted in the fond memory of Mr. Joel Jiji of B.Tech ME 2010-15 Batch by his parents for one male & female outgoing student who excels in both Academics & Arts

9. MBCET Alumni Awards

- MBCETAA Outstanding Performer Award is given to one student of the previous year pass out batch for outstanding all round performance in academics and extracurricular activities.

- ii. MBCETAA Special Achievement Award is for special achievements of the alumni.

ACADEMIC ADVISING

The Institution takes care of each student admitted through a unique system of Academic Counseling in which all members of the Teaching Staff are involved. As far as possible the same advisor continues for a batch throughout the Course, who will take care of the student throughout his/her Course. The Academic Advisors ensure effective enrollment of students during registration, ensure that academic regulations are observed by the students, meet them regularly, take special care of the weaker students, give them necessary directions to overcome their deficiencies and maintain the contact with the parents keeping them abreast with the performance of their ward. The Advisors keep all student records up-to-date.

STUDENT CHAPTERS OF PROFESSIONAL BODIES

Institution of Engineers (IE) - Web: www.ieindia.org

The aims and objectives of the IE are to promote the general advancement of Engineering and Engineering Science and their applications and to facilitate the exchange of information and ideas on those subjects, among the members and the persons attached to the Institution. The College is an Institutional Membership holder of the Institution of Engineers.

Indian Society for Technical Education (ISTE) -

Web: www.isteonline.com

The Indian Society for Technical Education is a National, Professional, Non-profit making Society registered under the Societies Registration Act of 1860. The main thrust of the activities of the Society relates to research, progress of teaching, learning, training and extension services. The Society also organizes various Seminars, Summer and Winter Schools etc. throughout the Country to disseminate the latest advances in Technology and upgrade the quality of Teaching. The College is an Institutional Member of the ISTE and a Chapter of the Society functions in the College.

Computer Society of India (CSI) - Web: www.csi-india.org

The CSI Student Chapter of Mar Baselios College of Engineering & Technology is one among the biggest Student Chapters in the Kerala State. The Chapter conducts an annual quiz for the students of the College under the name BYTES. Another major event that is conducted by the CSI is an Intercollegiate Technical Fest titled CYNOSURE for the students from various Engineering Colleges in and around the city of Trivandrum. Currently the Chapter has 153 student members, which is the largest one in Kerala State.

Institution of Electrical and Electronics Engineers (IEEE) -

Web: www.ieee.org

IEEE founded in 1884 is the world's largest Professional Association dedicated to advancing technological innovation and excellence for the benefit of humanity. IEEE will be essential to the global technical community and to technical professionals everywhere, and be universally recognized for the contributions of technology and of technical professionals in improving global conditions. It is designed to serve professionals involved in all aspects of the Engineering and Computing fields and related areas of science and technology that underlie modern civilization. IEEE and its members inspire a global community through IEEE's highly cited publications, conferences, technology standards, and professional and educational activities. IEEE serves over 395,000 members in 160 countries. Through its worldwide network of geographical units, publications, web services, and conferences, IEEE remains the world's largest Technical Professional Association.

IEEE members of Mar Baselios College of Engineering & Technology (MBCET) engage in technical and professional activities designed to advance the theory and practice of various technologies. The Institute strives to be supportive and responsive to the needs of the members by seeking to anticipate and manage change in ways that will benefit members and the societies in which they live.

IEEE Computer Society - Web: www.computer.org

IEEE Computer Society is a Professional Society of [IEEE](http://www.ieee.org), founded in 1971, dedicated to Computer Science and Technology. It is the trusted source for information, networking, and career-development, for a global community of researchers, educators, software engineers, IT professionals, employers, and students. Its purpose is to advance the theory, practice, and application of Computer and Information processing science and technology and the professional standing of its members. The Computer Society sponsors workshops and conferences, publishes a variety of peer-reviewed literature, operates technical committees, and develops IEEE computing standards. It supports more than 200 Chapters worldwide and participates in educational activities at all levels of the profession, including distance learning, accreditation of higher education programs in Computer Science, and professional certification in Software Engineering.

IEEE Computer Society Student chapter in MBCET is actively organizing a number of technical events and workshop to make the students up to date with current trends and technologies in computing.

Institution of Engineering and Technology (IET) -

Web: www.theiet.in

Evolved from its early beginnings in 1871 as the Society of Telegraph Engineers (STE) and later as Institution of Electrical Engineers (IEE) in 1887, the IET was formed in 2006 through the merger of IEE and IIE (Institution of Incorporated Engineers). Registered as a charity in England & granted the Royal Charter, the mission of IET is to promote the exchange of information and ideas for the advancement of Science, Engineering and Technology worldwide. Their annual activity programmes are designed to expand the professional development of Local Engineers through Lectures and Technical Visits and encourage young people to join the Engineering Profession by participating in Careers and Science Fairs.

The IET Student Branch of Mar Baselios College of Engineering and Technology is in its infancy. Working with the IET Student chapter in College of Engineering, Trivandrum, the IET-MBCET student branch is however actively involved in organizing a number of technical events, Workshops and Life Skill Orientation Courses for the benefit of its students. The Student chapter is open to students of Electrical, Electronics, Mechanical, Information Technology and Computer Science Engineering.

American Society of Mechanical Engineers (ASME)

ASME- MBCET Chapter (VORTEX) was brought to life in the year 2017. Since then the chapter has spearheaded many programmes, conferences and workshops for students and was instrumental to cater to the needs of their all around development.

ASME member have access to state of the art web services, seminars, e-books and webinars. ASME Student chapter conducts several cultural and technical programmes. Their flagship event E-FEST AND E-FX are held every year in all continents. ASME also provides scholarships to meritorious students.

The Indian Society of Heating, Refrigerating and Air Conditioning Engineers (ISHRAE)

The Indian Society of Heating, Refrigerating and Air Conditioning Engineers (ISHRAE) was founded in 1981 at New Delhi by a group of eminent HVAC & R professionals. ISHRAE - MBCET student chapter was officially installed on 22nd February 2019. ISHRAE objectives are advancement of the Arts and Sciences of Heating, Ventilation, Air Conditioning and Refrigeration Engineering and Related Services, Continuing education of Members and other interested persons in the said sciences through Lectures, Workshops, Product Presentations, Publications, Expositions and Encouragement of scientific research.

American Society of Civil Engineers (ASCE)

American Society of Civil Engineers (ASCE) aims to provide the platform for all young civil engineers to develop and grow to become globally

competent, ethically strong and service minded engineers of the future. American Society of Civil Engineers is a professional body founded in 1852 to represent Civil Engineers worldwide in over 177 countries. It was the greatest privilege to get the ASCE Student Chapter approved in Mar Baselios College of Engineering and Technology on October 3rd 2017. MBCET was the 1st college to receive this approval in Kerala under the ASCE India Southern Section. The chapter was inaugurated on 13th November 2017 by the ASCE India Southern Section Secretary Dr. S. Basil Gnanappa and ASCE Student Chapter Practitioner Advisor, Mr. Kesavan Gangadharan.

INFORMATION TECHNOLOGY MANAGEMENT AND SERVICES (ITMS)

Information Technology Management and Services (ITMS) division effectively manages the IT infrastructure facilities and provides quality IT Services for the Institution's Research, Academic and Administrative needs. ITMS is headed by the Head-ITMS and has four sub units, namely Server Administration, Network Administration, Software Development and Systems Support having a total of 9 staff.

Core Services

- Installation, Operation and Management of the computer backbone network in the College buildings.
- Installation and Maintenance of all computer hardware and systems like UPS, WiFi, Access Points, LCD Projectors, Biometric Machines, etc.
- Connection of the College Network to Internet through UTM device and its management.
- Provision of a central storage space and email service for all staff.
- Installation, Operation and Management of Student Management System, Course Management System (Moodle), Asset Tracking and Management System, Biometric Attendance System and other Campus Management Software.
- Co-ordination of Campus-wide software licenses.
- Co-ordination of on-line publication on the College website.

B-Hub

B'Hub is a unique network centre in the Mar Ivanios Vidyannagar Campus initiated by MBCET. B- Hub, is a platform to open new vistas to promote an entrepreneurial ecosystem through Knowledge sharing, Training and Networking with the involvement and collaboration of Corporates, Industries, Trade bodies, government agencies and educational institutions. It is a holistic approach, a combination of Business Centre, Activity Centre and Innovation Exchange Centre. It is intended to be a model for the bond

between entrepreneurship and campus innovations, to give new dimension to Engineering studies.

Dr. APJ Abdul Kalam Centre for Innovation, Incubation & Entrepreneurship

This Centre, established in 2016, in collaboration with the Kerala State Industrial Development Corporation (KSIDC), aims at providing facility for the MBCTians who intend to begin startup ventures along with and even after the completion of their B.Tech Programme.

Space Avionics Test & Evaluation Lab (SATEL)

MBCET has set up an Avionics Package Testing Lab in association with the VSSC, Trivandrum. An air-conditioned lab with 80 sqm space has been set-up with clean-room facility inside the lab. The lab is equipped with high-end test and measurement facility with ESD flooring. This includes thermal chamber, data recorder, synthesized function generators and precision DC sources. To start with, small packages such as amplifiers, filters etc. will be tested. In addition, this lab will provide the students with an opportunity to understand the stringent requirements of components required for Space Electronics and the various related test and measurement processes involved.

E- Yantra : Robotics Lab

This Nodal Centre of the E-Yantra, IIT Bombay, organizes skill-development Programmes in Robotics & Embedded Systems for Faculty Members and Students. Hands on Training is provided by the experts from IIT, Mumbai.

INNOVATION & ENTREPRENEURSHIP DEVELOPMENT CENTRE (IEDC)

The main objective of the Innovative and Entrepreneurship Development Cell is to educate and train students for developing entrepreneurial capabilities through training programmes which will boost up innovative ideas and creativity.

CENTRE FOR CONTINUING EDUCATION

With an aim to promote Continuing Education Programmes and Industrial Consultancies, the Centre conducts Training Programmes, Add-On Courses and Workshops for Students and Graduate Engineers.

CONSULTANCY CELL

The Cell functions to organize Extension Service Programme for the benefit of the Society. The Cell acts as a consultant to various Government and Private Organizations carrying out projects in Design, Testing, Survey and other related areas.

ENERGY AUDIT CELL

The Energy Audit Cell aims to take-up projects and consultancy in Energy related areas. It seeks to find out methods to reduce the Energy consumption. The Cell encourages the use of 'Green Energy' and minimizing of the use of Fossil Fuel.

TRAINING AND PLACEMENT UNIT

The Training and Placement Unit of MBCET has been playing a vital role since its inception in 2004. The TPU with representatives from every batch, works towards arranging Training Programs, Workshops, Seminars, making arrangements for various Aptitude Tests, Competitive Examinations, Guidance and Counseling Classes and securing placements for students in reputed firms. MBCET offers the right settings for campus recruitment examinations. The campus has functioned as a host venue for combined campus recruitment for the top companies such as Infosys, Wipro, UST Global, CTS, IBS, NeST, LTS etc. A separate facility, the students' Amenity Center is earmarked for the CGPU activities.

EXTRA - CURRICULAR ACTIVITIES

Special emphasis is given to extra-curricular activities and the Physical Education Department gives the necessary support in this regard. An Amenities Centre, a unique facility of MBCET with a plinth area of about 3000 sq.m, provides indoor playing facility for Shuttle, Badminton, Basket-Ball, Volley-ball, Table-Tennis, Billiards etc. and facilities for Photographic Club, Nature Club, Social Service Unit, Departmental Associations and Placement activities, all under the direction of a Senior Professor.

CLUBS & COMMITTEES

For the effective realization of the goals and objectives of the Institution about 40 clubs & committees have been formed in addition to the ones mentioned earlier. The Vice-Principal will co-ordinate the activities of Clubs. For each Club there will be a Faculty-in-charge.

The various Cells and Committees functioning in the College include, Admission Committee, Research Promotion Committee, Resource Monitoring Cell, Examination Cell, Purchase Committee, Discipline Committee, Industry Collaboration Cell, Consultancy Cell, Library Committee, Anti Ragging Committee, Ethics Committee, Staff Grievance Redressal Committee, Student's Welfare / Grievance Redressal Committee, Women's Grievance Redressal Cell (UGC), Women's Studies Unit, Counseling Cell, Hostel Committee, Canteen and Cafeteria Committee, Website Committee, Publication Wing, Archives, Campus Maintenance Committee, Yoga and Meditation Centre, Photography Club, Nature / Eco Club, Sports Club, Music Club.

MBCETAA

MBCETAA - the Alumni Association of the college has been very active over the years. The Association sponsors the cash prize of the Mar Baselios Youth Excellence Award, besides the Proficiency Awards given every years.

Patron : Fr. John Vilayil
President : Dr. T.M.George
Vice- President : Mr. Aswin R.B.
Gen. Secretary : Mr. Deepak B.
Joint Secretary : Mr. Anoop K. Johnson
Treasurer : Ms. C. Soji Rajan

Parent Teacher Association (PTA)

The Parent Teacher Association of the College contributes positively to the smooth and effective functioning of the College. The Parent Teacher Association provides a common platform for the Parents and Teachers for interaction and to discuss matters promoting academic excellence in the Institution. The Association enables to maintain a healthy relationship among the Faculty, Students and Parents.

President : Dr. T.M. George (Principal)
Vice President : Jojimon Thomas
Secretary : Prof. (Dr.) M.J. Jayasree

MORAL AND RELIGIOUS FORMATION

Special Lectures, Seminars and Symposia will be arranged by the College Authorities to inculcate Moral and Spiritual values in the students. Students are advised to make the best use of such facilities. All Catholic students are expected to attend religious instruction/discussions arranged for them.

FACILITIES ON THE CAMPUS

College Bus

Students can make use of the facility of the College bus regularly after registering their names and getting Yearly passes in advance. Requested for one-way Pass will not be entertained.

Hostel Facility

Separate hostel facilities for Men and Women are provided in a homely atmosphere. Application for admission to the hostel should be submitted in the prescribed form at the time of admission/registration.

1. Mar Aprem Hostel for Men

A common room with various recreational facilities is provided for the overall development of the students. Adequate medical facilities are always available. The hostel mess is run on the dividing system. MBCET Hostel for men (MAR APREM HOSTEL) can accommodate **400 students** on single room, twin sharing or three beds basis. Spacious rooms with separate area for living and study are provided.

Chief Warden : Fr. John Vilayil Phone: 0471-2534415

Warden (1): Fr. Raju Parukkoor

(2): Fr. Daniel Kulangara Phone : 8304841964

2. St. Alphonsa Hostel for Women

Accommodation facility for 50 students is available. The hostel owned by the Major Archdiocese of Trivandrum is run by Rev. Sisters of the Sacred Heart Congregation.

Warden: Rev. Sr. Jaya SH Phone: 0471-2530160

3. Mary Matha Ladies Hostel

Accommodation is provided for 250 women students at this Hostel, owned by the Major Archdiocese of Trivandrum.

Warden: Rev. Sr. Jessin FDSHJ Phone: 0471-2114375

Staff Quarters

Accommodation is provided for the members of the Staff at the Staff Quarters.

Amenity Centre

The Students Amenity Centre, Olympia, is a three storeyed building complex. It houses a large auditorium for conducting large-scale tests, recruitment drives, etc. Separate rooms are set apart for group discussions and interviews. It houses also a Store, Gymnasium, facilities for playing Badminton, Basket Ball, Table Tennis and so on.

Bank

Branches of the Catholic Syrian Bank and South Indian Bank are functioning on the campus.

Canteen and Cafeteria

A Canteen attached to the Amenity Centre functions on all working days. Noon Meals and other refreshments are provided on all working days. Besides the Canteen, Cafeterias also provide refreshment on all working days.

College Store

Note Books, Record Books and Stationery are supplied to students at fair price through the Store, attached to the Amenity Centre.

Mar Gregorios Renewal Centre & Girideepam Convention Centre

Facility for Seminars / Workshops / Conferences is provided here.

Counseling Centre

The Students can seek the guidance and support of the Student Counselors for their social, emotional and psychological issues. In order to ensure effective counseling, the Counselors work in co-operation with the departments, the parents and the students.

Information Desk / Reception

An information Desk / Reception will be functioning from 8.30 am to 5.00 pm on all working days. Necessary information can be gathered from there. Tel: 0471 – 2545866, 68, 72.

Telephone Facility

Common Telephone Facility is available at the Information Desk.

Important Notice

Students shall desist from creating/ spreading trolls, images and messages in Social Media tarnishing any Person/ Persons, Faith or Objects relating to any Faith which come under the purview of Cyber Crimes.

ACADEMIC CALENDAR 2019 - 2020

JUNE	2019		JULY
	1	Sat	
	2	Sun	
	3	Mon	1
	4	Tue	2
Ramadan - H	5	Wed	3
	6	Thu	4
	7	Fri	5
2nd Saturday	8	Sat	6
	9	Sun	7
	10	Mon	8
	11	Tue	9
	12	Wed	10
	13	Thu	11
	14	Fri	12
	15	Sat	13
	16	Sun	14
	17	Mon	15
	18	Tue	16
	19	Wed	17
	20	Thu	18
	21	Fri	19
	22	Sat	20
	23	Sun	21
	24	Mon	22
	25	Tue	23
	26	Wed	24
	27	Thu	25
	28	Fri	26
	29	Sat	27
	30	Sun	28
		Mon	29
		Tue	30
		Wed	31
			Karkadaka vavu

ACADEMIC CALENDAR 2019 - 2020

AUGUST	2019		SEPTEMBER
	1	Thu	
	2	Fri	
	3	Sat	
	4	Sun	1
	5	Mon	2
	6	Tue	3
	7	Wed	4
	8	Thu	5
	9	Fri	6
2nd Saturday	10	Sat	7
Bakrid - H	11	Sun	8
	12	Mon	9
	13	Tue	10
	14	Wed	11
Independence Day- H	15	Thu	12
	16	Fri	13
	17	Sat	14
	18	Sun	15
	19	Mon	16
	20	Tue	17
	21	Wed	18
	22	Thu	19
Sreekrishna Jayanthi- H	23	Fri	20
	24	Sat	21
	25	Sun	22
	26	Mon	23
	27	Tue	24
Ayyankali Jayanthi - H	28	Wed	25
	29	Thu	26
	30	Fri	27
	31	Sat	28
		Sun	29
		Mon	30

ACADEMIC CALENDAR 2019 - 2020

OCTOBER	2019		NOVEMBER
	1	Tue	
Gandhi Jayanthi - H	2	Wed	
	3	Thu	
	4	Fri	1
	5	Sat	2
	6	Sun	3
Maha Navami - H	7	Mon	4
Vijaya Dasami - H	8	Tue	5
	9	Wed	6
Mar Gregorios Day	10	Thu	7
	11	Fri	8
2nd Saturday	12	Sat	9
	13	Sun	10
	14	Mon	11
	15	Tue	12
	16	Wed	13
	17	Thu	14
	18	Fri	15
	19	Sat	16
	20	Sun	17
	21	Mon	18
	22	Tue	19
	23	Wed	20
	24	Thu	21
	25	Fri	22
	26	Sat	23
Deepavali - H	27	Sun	24
	28	Mon	25
	29	Tue	26
	30	Wed	27
	31	Thu	28
		Fri	29
		Sat	30

ACADEMIC CALENDAR 2019 - 2020

DECEMBER - 2019	JANUARY - 2020			
	1	Sun		
	2	Mon		
	3	Tue		
	4	Wed	1	
	5	Thu	2	Mannam Jayanthi - H Patron's Day
	6	Fri	3	
2nd Saturday	7	Sat	4	
	8	Sun	5	
	9	Mon	6	
	10	Tue	7	
	11	Wed	8	
	12	Thu	9	
	13	Fri	10	
	14	Sat	11	2nd Saturday
	15	Sun	12	
	16	Mon	13	
	17	Tue	14	
	18	Wed	15	
	19	Thu	16	
	20	Fri	17	
X'mas vacation begins	21	Sat	18	Founder's Day
	22	Sun	19	
	23	Mon	20	
	24	Tue	21	
X'Mas - H	25	Wed	22	
	26	Thu	23	
	27	Fri	24	
	28	Sat	25	
	29	Sun	26	Republic Day - H
Re-opening	30	Mon	27	
	31	Tue	28	
		Wed	29	
		Thu	30	
		Fri	31	

ACADEMIC CALENDAR 2019 - 2020

FEBRUARY	2020		MARCH	
	1	Sat		
	2	Sun	1	
	3	Mon	2	Sivaratri - H
	4	Tue	3	
	5	Wed	4	
	6	Thu	5	
	7	Fri	6	
2nd Saturday	8	Sat	7	2nd Saturday
	9	Sun	8	
	10	Mon	9	Attukal Pongala - H
	11	Tue	10	
	12	Wed	11	
	13	Thu	12	
	14	Fri	13	
	15	Sat	14	
	16	Sun	15	
	17	Mon	16	
	18	Tue	17	
	19	Wed	18	
	20	Thu	19	
	21	Fri	20	
	22	Sat	21	
	23	Sun	22	
	24	Mon	23	
	25	Tue	24	
	26	Wed	25	
	27	Thu	26	
	28	Fri	27	
	29	Sat	28	
		Sun	29	
		Mon	30	
		Tue	31	

ACADEMIC CALENDAR 2019 - 2020

APRIL	2020		MAY
	1	Wed	
	2	Thu	
	3	Fri	1 May Day - H
	4	Sat	2
	5	Sun	3
	6	Mon	4
	7	Tue	5
	8	Wed	6
Maundy Thursday - H	9	Thu	7
Good Friday - H	10	Fri	8
2nd Saturday	11	Sat	9 2nd Saturday
Easter	12	Sun	12
	13	Mon	13
Vishu - H Ambadkar Jayanthi	14	Tue	14
	15	Wed	15
	16	Thu	16
	17	Fri	17
	18	Sat	18
	19	Sun	19
	20	Mon	20
	21	Tue	21
	22	Wed	22
	23	Thu	23
	24	Fri	24 Eid-ul-Fitr
	25	Sat	25
	26	Sun	26
	27	Mon	27
	28	Tue	28
	29	Wed	29
	30	Thu	30
		Fri	31

PROGRAMME OUTCOMES (POs)

Engineering Graduates will be able to :

1. **Engineering knowledge** : Apply the knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.
2. **Problem analysis** : Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
3. **Design/development of solutions** : Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
4. **Conduct investigations of complex problems** : Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
5. **Modern tool usage** : Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
6. **The engineer and society** : Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7. **Environment and sustainability** : Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. **Ethics** : Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. **Individual and team work** : Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings

10. **Communication** : Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
11. **Project management and finance** : Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
12. **Life - long learning** : Recognize the need for, and have the preparation and ability to engage in independent and life- long learning in the broadest context of technological change.

DEPARTMENT OF CIVIL ENGINEERING

Programme Educational Objectives (PEOs)

- I. Graduates of the Programme will have successful career as Civil Engineering practitioners, entrepreneurs or professionals; addressing the needs of the industry with a global perspective.
- II. They will contribute to society as ethical and responsible citizens with proven expertise.
- III. They will engage in continuous professional development and advance to leadership roles in their chosen career.

Programme Specific Outcomes (PSOs)

Engineering Graduates will be able to :

- a) Provide feasible and sustainable solutions to problems in various Civil Engineering disciplines such as Structural, Environmental, Geotechnical, Transportation and Construction Engineering.
- b) Apply the principles, methods, software and codes of practices to design various Civil Engineering Systems.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Programme Educational Objectives (PEOs)

- I. Graduates will be successful professionals in Industries of core or interdisciplinary nature or entrepreneurs demonstrating effective leadership and excellent team work.

- II. Graduates will expand the horizon of knowledge through higher education or research, leading to self directed professional development.
- III. Graduates will demonstrate professional attitude and ethics while providing solutions in societal and environmental contexts.

Programme Specific Outcomes (PSOs)

Engineering Graduates will be able to :

- (a) Apply Algorithmic Principles, Programming Skills and Software Engineering Principles to design, develop and evaluate Software Systems of varying complexities.
- (b) Apply knowledge of Systems Integration to design and implement computer- based systems.
- (c) Solve real world and socially relevant problems with the knowledge in recent and advanced Computing Technologies.

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

PROGRAMME EDUCATIONAL OBJECTIVES (PEOs):

- I. The graduates of the Programme will have successful career as Professionals in Industry or as Entrepreneurs, encompassing a broad spectrum of areas related to Electronics and Communication Engineering.
- II. They will be able to adapt to the changing needs of Industry and Academia through continuous learning and professional upgrading.
- III. They will exhibit social responsibility in their pursuit for technical excellence.

PROGRAMME SPECIFIC OUTCOMES (PSOs):

Engineering Graduates will be able to :

- a) Design Electronic Circuits and systems for Communication, Monitoring and Control Applications.
- b) Demonstrate the knowledge, in Electronics, Signal Processing, Embedded Systems and Communication Engineering, required for providing Technical Solutions to real world problems.

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

- I. Graduates will succeed as Professionals in Industry or as Entrepreneurs in Electrical and Electronics Engineering and related disciplines.

- II. Graduates will be able to adapt to the advances in Technology by continuously acquiring knowledge and skills, with an urge for innovation.
- III. Graduates will be socially committed individuals, exhibiting professional ethics in addressing technical and engineering challenges.

PROGRAMME SPECIFIC OUTCOMES (PSOs)

Engineering Graduates will be able to :

- a) To apply the knowledge in Electrical and Electronics Engineering for the design of Power Generation, Transmission, Distribution and utilization systems.
- b) To demonstrate the knowledge required to design, develop, test, and implement Electrical & Electronics systems.

DEPARTMENT OF MECHANICAL ENGINEERING

Programme Educational Objectives (PEOs)

- I. Graduates will be Engineering Professional, Innovators or Entrepreneurs engaged in Technology Development or implementation of Engineering Systems meeting the Industrial needs.
- II. Graduates will be successful in the pursuit of higher education or research, in Engineering or Management Studies.
- III. Graduates will be self- disciplined and capable of applying technical concepts and skills for the benefit of society.

Programme Specific Outcomes (PSOs)

Engineering Graduates will be able to :

- i) Apply the concepts of Solid Mechanics in the design of Mechanical Engineering systems.
- ii) Apply knowledge of Thermal and Fluid Sciences to solve Engineering Problems.
- iii) Use Simulation Tools and Computer Integrated Systems in Mechanical Engineering.
- iv) Apply advanced manufacturing processes and modern Industrial Management Techniques in Engineering.

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

Academic Calendar July 2019– June 2020

(B.Tech, B.Arch, M.Tech, M.Arch, M.Planning, MCA and Evening B.Tech&M.Tech)

Day	Jul-19	Aug-19	Sep-19
Mon	1		
Tue	2		
Wed	3		
Thu	4	1	Commencement of Classes for all other programmes
Fri	5	2	
Sat	6	3	
Sun	7	4	1
Mon	8	5	2
Tue	9	6	3
Wed	10	7	4
Thu	11	8	5
Fri	12	9	Induction Programme ends : S1 6
Sat	13	10	7 Onam Vacation begins
Sun	14	11	8
Mon	15	12	Course-Sel,Reg.&Mapping begins 9 Muharam
Tue	16	13	10 First Onam
Wed	17	14	11 Thiruvonam
Thu	18	15	Independence Day 12 Third Onam
Fri	19	16	13 Fourth Onam
Sat	20	17	14
Sun	21	18	15 Onam Vacation ends
Mon	22	19	16 Commencement of Classes S1 Classes reopens
Tue	23	20	17 Exam Registrations begins
Wed	24	21	18
Thu	25	22	Course-Sel,Reg.&Mapping ends 19
Fri	26	23	Sreekrishna Jayanthi 20
Sat	27	24	21 SN Guru Samadhi Day
Sun	28	25	22
Mon	29	26	23 Test 1 to be Completed
Tue	30	27	24
Wed	31	28	Karkadaka Vavu Birthday of Ayyankali 25
Thu		29	26
Fri		30	27
Sat		31	28 Sports Meet to Complete
Sun			29
Mon			30

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY						
Academic Calendar July 2019– June 2020						
Day		Oct-19		Nov-19		Dec-19
Tue	1	Exam Registration ends				
Wed	2	Gandhi Jayanthi				
Thu	3					
Fri	4		1			
Sat	5		2			
Sun	6		3		1	
Mon	7	Mahanavami	4		2	Last date for forwarding IA marks & Attendance to Uty of all programs
Tue	8	Vijayadasami	5		3	
Wed	9		6	Test 2 to be Completed	4	Exam S7 B.Tech and S3 M.Tech Begins
Thu	10		7		5	Exam S3 B.Tech & S1 M.Tech
Fri	11		8		6	Exam S5 B.Tech begins
Sat	12		9		7	
Sun	13		10		8	
Mon	14		11		9	
Tue	15		12		10	
Wed	16		13		11	
Thu	17		14		12	
Fri	18		15	Class ends for S1 Publish attendance	13	
Sat	19		16		14	
Sun	20		17		15	
Mon	21		18	Publish IA Marks for all programs	16	Commence of classes S2
Tue	22		19	Start date for forwarding IA marks & Attendance to Uty of S1	17	
Wed	23		20		18	
Thu	24		21		19	
Fri	25		22	Last date for forwarding IA marks & Attendance to Uty of S1	20	
Sat	26		23		21	X' mas vacation begins
Sun	27	Deepavali	24		22	
Mon	28	Sports Meet (Zon. Lev) To be Completed	25	Class ends for all other Programs, publish attendance	23	
Tue	29		26	Start date for forwarding IA Marks & attendance to Uty of all other Programs	24	
Wed	30		27	Exam S1/S8 Begins	25	Christmas
Thu	31		28		26	
Fri			29		27	
Sat			30		28	
Sun					29	
					30	Re-opening
					31	

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
Academic Calendar July 2019– June 2020

Day		Jan-20		Feb-20
Sun				
Mon				
Tue				
Wed	1			
Thu	2	Mannam Jayanthi		
Fri	3			
Sat	4		1	
Sun	5		2	
Mon	6	Commencement of Classes for all other programs	3	
Tue	7		4	
Wed	8		5	
Thu	9		6	
Fri	10		7	
Sat	11		8	
Sun	12		9	
Mon	13		10	
Tue	14		11	
Wed	15		12	
Thu	16		13	
Fri	17		14	
Sat	18		15	
Sun	19		16	
Mon	20		17	
Tue	21		18	
Wed	22		19	
Thu	23		20	
Fri	24		21	Maha Shivarathri
Sat	25		22	
Sun	26	Republic Day	23	
Mon	27		24	
Tue	28		25	
Wed	29		26	
Thu	30		27	
Fri	31		28	

KTU Academic Regulations, 2019

This may be called the A. P. J. Abdul Kalam Technological University Academic Regulations, 2019. These are subject to the provisions of the APJ Abdul Kalam Technological University Act, 2015, the statutes and ordinances if any issued in the subject from time to time. It is the express understanding that these regulations are subject to the approval of the concerned statutory bodies of the University.

1. Preamble	
R1.1	The University has the right to modify the regulations from time to time.
R1.2	In all matters related to the regulations, the decision of the University and its interpretation given by the Chairman of the BOG shall be final and binding.
2. Admission	
R2.1	Admission policy, eligibility for admission and admission procedure shall be decided by the University or the competent statutory authority for admissions from time to time.
R2.2	If at any time after admission, it is found that a candidate has not fulfilled any of the requirements stipulated by the University or the concerned statutory body, the Vice Chancellor may revoke the admission of the candidate and report the matter to the BOG.
R2.3	No student shall be permitted, under any circumstances, to change the branch/stream to which he/she is admitted by the competent authority for admission.
R2.4	A student admitted to a particular institute shall continue studying in that institute till the completion of the course, unless he/she is permitted an inter college transfer as per R9.1 to 9.12.
3. Structure of B.Tech. Program.	
R3.1	The duration of the B.Tech. Program shall be 4 years (8 semesters)
R3.2	The maximum duration shall be six academic years spanning 12 semesters.
R3.3	Every academic year shall have two semesters "1 st July to 31 st December (Odd semester)" and "1 st January to 30 th June (Even semester)". Each semester shall have minimum of 72 working

	days. The vacation of the faculty and staff shall be as per the Government orders from time to time.																								
R3.4	Every branch of the B.Tech Program shall have a curriculum and syllabi for the courses approved by the Academic Council. Syllabus for any course shall be normally modified/updated once in four years. However, innovative elective courses can be included as and when required, on the recommendations of the respective Board of Studies and subject to the approval of the Academic Council. All revisions shall be only based on the recommendations of the concerned Board of Studies.																								
R3.5	<p>The academic programs of the University follow the credit system. The general pattern is as below:</p> <table border="1"> <tr> <td>1 Hr. Lecture (L) per week</td> <td>1 credit</td> </tr> <tr> <td>1 Hr. Tutorial (T) per week</td> <td>1 credit</td> </tr> <tr> <td>1 to 2 Hours Practical(P) per week</td> <td>1 credit</td> </tr> <tr> <td>3 to 4 Hours Practical(P) per week</td> <td>2 credit</td> </tr> <tr> <td colspan="2">The work load of the faculty shall be the actual number of Hours engaged by the faculty member.</td> </tr> </table>	1 Hr. Lecture (L) per week	1 credit	1 Hr. Tutorial (T) per week	1 credit	1 to 2 Hours Practical(P) per week	1 credit	3 to 4 Hours Practical(P) per week	2 credit	The work load of the faculty shall be the actual number of Hours engaged by the faculty member.															
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The work load of the faculty shall be the actual number of Hours engaged by the faculty member.																									
R3.6	The curriculum of any branch of the B.Tech. Program shall have a total of 162credits.																								
R3.7	<p>Every course of B. Tech. Program shall be placed in one of the nine categories as listed in table below.</p> <table border="1"> <thead> <tr> <th>S. No.</th> <th>Category</th> <th>Code</th> <th>Breakup of Credits</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Humanities and Social Sciences including Management courses</td> <td>HSMC</td> <td>13</td> </tr> <tr> <td>2</td> <td>Basic Science courses</td> <td>BSC</td> <td>25</td> </tr> <tr> <td>3.</td> <td>Engineering Science courses including workshop, drawing, basics of electrical/mechanical/ computer etc</td> <td>ESC</td> <td>18</td> </tr> <tr> <td>4</td> <td>Professional core courses</td> <td>PCC</td> <td>68</td> </tr> <tr> <td>5</td> <td>Professional Elective courses relevant to chosen specialization/ branch</td> <td>PEC</td> <td>17</td> </tr> </tbody> </table>	S. No.	Category	Code	Breakup of Credits	1	Humanities and Social Sciences including Management courses	HSMC	13	2	Basic Science courses	BSC	25	3.	Engineering Science courses including workshop, drawing, basics of electrical/mechanical/ computer etc	ESC	18	4	Professional core courses	PCC	68	5	Professional Elective courses relevant to chosen specialization/ branch	PEC	17
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	6.	Open subjects – Electives from other technical and /or emerging subjects ‘ as specified in the concerned curriculum.	OEC	09
	7	Project work, seminar and internship in industry or elsewhere	PROJ	10
	8	Mandatory Courses [Environmental Sciences, Induction training, Indian Constitution, Essence of Indian Traditional Knowledge]	MC	Non credit
	9	Mandatory Student Activities (Pass/Fail)	SA	2
Total Credits				162
R3.8	No semester shall have more than six lecture-based courses and two laboratory and/or drawing/seminar/project courses in the curriculum. Credit per semester shall not be less than 15 or greater than 25 and cumulative credits shall not be less than 162.			
R3.9	The medium of instruction shall be English. All examinations, project/seminar reports and presentations shall be in English.			
4. Academic Monitoring and Student Support.				
R4.1	Advisory System: There shall be one Senior Faculty Advisor (SFA) and a faculty advisor (FA) each for 25 to 35 students in a class. The Principal shall appoint a permanent faculty member with minimum five years of experience as the Senior Faculty Advisor (SFA) on the recommendations of the concerned Head of Department.			
R4.2	The documents regarding all academic and non academic matters of students under an advisory group shall be kept under the custody of Faculty Advisor/Senior Faculty Advisor.			
R4.3	All requests/applications from a student or parent to higher offices are to be forwarded/recommended by his/her Faculty Advisor/ Senior Faculty Advisor. Students and parents shall first approach their Faculty Advisor/ Senior Faculty Advisor for all kinds of advices, clarifications and permissions of academic matters. It is the official responsibility of the FA/SFA to provide the required guidance, clarifications and advices to the students and parents strictly			

	<p>based on the prevailing academic regulations. The FA shall make appropriate recommendations or remarks on the applications submitted by the students and parents before forwarding it to the Senior Faculty Advisor. The SFA shall verify the recommendations/remarks of FA for the compliance of University regulations before forwarding it to the HoD/other concerned officials.</p>
R4.4	<p>The SFA shall arrange separate or combined meetings with advisors; course faculty, Parents and students as and when required and discuss the academic progress of students under their advisory group. The Senior Faculty Advisor shall also offer guidance and help to solve the issues on academic and non-academic matters including personal issues of the students in their advisory group. Mandatory advisory meetings shall be convened:</p> <ol style="list-style-type: none"> 1. Immediately after the commencement of the semester. 2. Immediately after announcing the marks of first internal evaluation test. <p>The internal marks, activity points earned during the semester and eligibility of attendance shall be uploaded in the University portal only after displaying the same in the department notice board at least for two working days. This is for the information and feed back of the students. Any concerns raised by the students regarding attendance and internal marks and activity points shall be looked into in the combined meetings of advisors, course faculty and the concerned students. This meeting shall be mandatorily chaired by the Principal/ HoD. The principal/ HoD shall ensure the proper redressal of the concerns raised by the students regarding internal assessment and attendance. The FA/SFA shall be the custodian of the minutes and action taken reports of the advisory meetings.</p>
R4.5	<p>The SFA shall get the minutes and action taken reports of advisory meetings approved by the Head of Department and the Principal. It shall be the duty of the HoD and the Principal to produce it before the University as and when required.</p>
R4.6	<p>The FA/SFA shall keep a hard copy of the consolidated statement of attendance, activity points and internal marks of the students in their advisory group. It shall be kept with the HoD without fail for all sorts of inspections.</p>

R4.7	Regular communication with the parents of students in respect of progress in academic matters and other general issues shall be the responsibility of the Senior Faculty Advisor.
R4.8	The Principal shall inform/forward all regulations, guide lines, communications, announcements etc issued by the University regarding student academic and other matters to the HoDs/ Senior Faculty Advisors for information and timely action.
R4.9	It shall be the official responsibility of the Principal to arrange necessary orientation programmes to the HoDs, SFAs and SAs regarding student counseling, the prevailing University norms, regulations, guidelines and procedures on all academic and other University related matters.
5. Academic Auditing of affiliated institutions.	
R5.1	<p>There shall be academic auditing in each affiliated college at stipulated intervals. The academic auditing shall be conducted jointly by an Internal Quality Assurance Cell (IQAC) within the college and external academic auditor/auditors appointed by the University. The Internal Quality Assurance Cell (IQAC) in each college shall oversee and monitor all the academic activities including all internal evaluations and examinations. This cell shall prepare academic audit statements in the formats prescribed by the University for each semester at regular intervals. These reports shall be presented to the external academic auditor/ auditors, who shall use it as reference for independent auditing. The external auditors shall submit the final audit report to the University in the prescribed format.</p> <p>Academic auditing shall cover:-</p> <ol style="list-style-type: none"> 1. Course delivery and adherence to the course plan, syllabus coverage, quality of question papers used for internal examinations, internal evaluation, maintenance of laboratory experimental set ups and equipments, practical assignments, mini projects and conduct of practical classes and their evaluation. 2. Co-curricular and Extra-curricular activities available for students, the monitoring mechanism of activity points to be earned by the students. 3. Academic functioning of the college encompassing students, faculty and college administration covering punctuality, attendance, discipline, academic, environment, learning

	ecosystem, academic accountability, academic achievements and benchmarking.												
6. Assessment													
R6.1	There shall be End Semester Examinations (ESE) in every semester for all courses as prescribed under the respective curriculum, except for 1 & 2 semesters Lab/ workshops courses. The End Semester Examinations shall be conducted by the University. Semester classes shall be completed at least ten working days before the commencement of the End Semester Examination.												
R6.2	The End Semester Examinations (ESE) shall be held twice in a year– May/June session (for even semesters) and November/ December session (for odd semesters). However, the End Semester Examinations of the VII and VIII Semesters shall be conducted in both the sessions.												
R6.3	Candidates in each semester shall be evaluated both by Continuous Internal Evaluation (CIE) and End Semester Examinations (ESE). The ratio of Continuous Internal Evaluation (CIE) to End Semester Examinations (ESE) shall be as below : <ol style="list-style-type: none"> 1. Theory Courses : 1 : 2 2. Laboratory Courses : 1 : 1 3. Project : CIE only 4. Seminar : CIE only 												
R6.4	<p>Continuous Internal Evaluation (CIE): The Continuous Internal Evaluation shall be on the basis of the day-to-day work, periodic tests (minimum two in a semester) and assignments (minimum two). The faculty member (s) concerned shall carry out the Continuous Internal Evaluation (CIE) for the course allotted to him/ her. The CIE marks for individual subjects shall be computed by giving weightage to the following parameters unless otherwise specified in the curriculum.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Course</th> <th>Attendance</th> <th>Tests</th> <th>Assignment/ Class work/ Course project.</th> </tr> </thead> <tbody> <tr> <td>Theory</td> <td>20%</td> <td>50%</td> <td>30%</td> </tr> <tr> <td>Drawing/Practical</td> <td>20%</td> <td>40%</td> <td>40%</td> </tr> </tbody> </table> <p style="margin-left: 40px;">a. Work assessed by the project guide – 30%</p> <p style="margin-left: 40px;">b. Three member Continuous Internal Evaluation Committee – 40% (Guide shall be one member in the CIE committee)</p>	Course	Attendance	Tests	Assignment/ Class work/ Course project.	Theory	20%	50%	30%	Drawing/Practical	20%	40%	40%
Course	Attendance	Tests	Assignment/ Class work/ Course project.										
Theory	20%	50%	30%										
Drawing/Practical	20%	40%	40%										

	Project work	<p>c. Final Evaluation by a three member Committee comprising of the department project coordinator, guide and an external expert. The external expert shall be an academician or from industry. The industry expert is preferred : 30%</p> <p>d. One third of the project credit shall be completed in VII semester and two third in VIII semester.</p> <p>e. There shall be no separate minimum requirement for credit attainment.</p>
	Seminar	<p>The report and the presentation shall be evaluated by a team of internal members comprising three senior faculty members based on the style of presentation, technical content, adequacy of reference, depth of knowledge and overall quality of the report.</p> <p>a) Attendance : 10%</p> <p>b) Guide : 20%</p> <p>c) Quality of report : 30%</p> <p>d) Presentation : 40%</p>
<p>The CIE marks for the attendance (20%) for each theory, practical and drawing shall be awarded in full, only if the candidate has secured 90% attendance or above in the subject. If a student has attendance for a subject below 90%, reduction in the marks for the attendance shall be made proportionally. The CIE marks obtained by the student for all subjects in a semester are to be published at least 5 days before the commencement of the University examinations.</p>		
R6.5	<p>Students, who have completed a course but could not write the end semester examination, shall be awarded "F" Grade, provided they meet other eligibility criteria (R6.6). They shall appear for the end semester examination at the next opportunity and earn the credits without having to register for the course again.</p>	
R6.6	<p>The main eligibility criteria for registering to the End Semester Examination are attendance in the course and no pending disciplinary action. The minimum attendance for appearing for</p>	

	the End Semester Examination is 75% in each course. Students who do not meet these eligibility criteria are awarded an FE grade.
R6.7	The students with FE grade shall register for the courses during the normal semesters in which the courses are offered. However, for the seventh and eighth semester FE grade students can register for the courses in the next immediate chance, if offered by their institute.
R6.8	A student who does not register for all the courses listed in the curriculum for a semester shall not be eligible to enroll for the next higher semester.
R6.9	The maximum number of credits a student can register (course registration) for, in a semester is limited to 08 credits in excess of the total credits allotted in the curriculum for that semester.
R6.10	A student will be eligible for the award of B. Tech. Degree of the University on satisfying the following requirements: <ol style="list-style-type: none"> 1. Fulfilled all the curriculum requirements within the stipulated duration of the course. 2. Earned the required minimum credits as specified in the curriculum for the branch of study (R3.6 and R3.7). 3. No pending disciplinary action.
R6.11	Students registered for a course have to attend the course regularly and undergo the Continuous Internal Evaluation (CIE) and appear for the End Semester Examinations (ESE). Credits for the course are deemed to be earned only on getting a pass grade 'P' or better in the composite evaluation.
R6.12	Pass minimum for a course shall be 40% for the End Semester Examination and 50% of CIE and ESA put together. Letter grade 'F' will be awarded to the student for a course if either his/her mark for the End Semester Examination (ESE) is below 40 % or the overall mark [Continuous Internal Evaluation (CIE) + End Semester Examination (ESE)] is below 50 %.
R6.13	Students who received F grade in an End Semester Examination shall have to appear for the End Semester Examination at the next opportunity and earn the credits. They shall not be permitted to register for the course again.
R6.14	Continuous Internal Evaluation mark percentage shall not exceed 30% over the End Semester Examination mark %. CIE marks awarded to a student shall be normalised accordingly. For example

	if the end semester mark % is 40, then the maximum eligible CIE mark % is 40+30 = 70 %.)		
R6.15	Grading is based on the overall % marks obtained by the student in a course, as given in 6.16. The grade card shall only give the grades against the courses the student has registered. Semester grade card shall give the grade for each registered course, Semester Grade Point Average (SGPA) for the semester as well as Cumulative Grade Point Average (CGPA).		
R6.16	Grade and Grade Points		
	Grades	Grade Point (GP)	% of Total Marks obtained in the course
	O	10	90% and above
	A+	9.0	85% and above but less than 90%
	A	8.5	80% and above but less than 85%
	B+	8.0	75% and above but less than 80%
	B	7.5	70% and above but less than 75%
	C +	7.0	65% and above but less than 70%
	C	6.5	60% and above but less than 65%
	D	6.0	55% and above but less than 60%
	P (Pass)	5.5	50% and above but less than 55%
	F (Fail)	0	Below 50% (CIE + ESE) or Below 40 % for ESE
	FE	0	Failed due to eligibility criteria (R6.6)
	Classification of Tech Degree.	First Class with Distinction First Class	CGPA 8.0 and above B. CGPA 6.5 and above
	Equivalent percentage mark shall be = 10 * CGPA		
R6.17	Minimum Cumulative Credit Requirements for Registering to Higher Semesters		
	Semester	Allotted Credits	Cumulative Credits
			Minimum Cumulative Credits required
	First	17	17
	Second	21	38
	Third	22	60
	Fourth	22	82
	Fifth	23	105
	Sixth	24	129
	Seventh	15	144
	Eight	16	160

R6.18	For the students admitted under lateral entry scheme, credits for the first and second semester courses are deemed to have been earned from the qualifying programme.
R6.19	There is no provision for improving the grade. However, the student is permitted to check the answer books of the End Semester Examination after the results are declared on payment of the prescribed fee. Any discrepancy in evaluation could be brought to the notice of the Controller of Examination, who shall initiate appropriate action as per the University Examination Manual.
R.6.20	The students can apply for revaluation of the answer books of the end semester examination after the results are declared. The final mark awarded will be the better of the two marks. If the difference in marks obtained in revaluation and the original valuation is more than 15% of the maximum marks, it shall be sent for third valuation. The final mark shall then be the average of the closer of the two marks obtained in the three valuations to the advantage of the student or the mark obtained in the original valuation whichever is higher. The Controller of Examination shall examine such cases and conduct proper enquiry to see whether any of the examiners is responsible for negligent valuation of answer script and initiate suitable action as per the University Examination Manual. The answer scripts already valued by two examiners shall not be re-valued again.
R6.21	Grade cards shall be made available in the student login for the registered courses, in every semester by the University. On earning the required credits for the degree, the University will issue the final consolidated grade sheet for the B. Tech program including CGPA.
R6.22	Calculation of SGPA/CGPA
	<p>Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA) are calculated as follows.</p> <p>SGPA = $\frac{\sum(C_i \times G_{P_i})}{\sum C_i}$, where 'C_i' is the credit assigned for a course and 'G_{P_i}' is the grade point for that course. Summation is done for all courses specified in the curriculum of that semester. The failed and incomplete courses shall also be considered in the calculation.</p> <p>CGPA = $\frac{\sum(C_i \times G_{P_i})}{\sum C_i}$, where 'C_i' is the credit assigned for a course and 'G_{P_i}' is the grade point for that course. Summation is done for all courses specified in the curriculum up to that semester for which the 'CGPA' is needed. Here the failed courses shall also be accounted. CGPA of all courses passed may also be given.</p> <p>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.</p>

	<p>For students admitted under lateral entry scheme, credits for the first and second semester courses shall not be accounted for the calculation of CGPA.</p> <p>Equivalent percentage mark shall be = 10 * CGPA</p>
R6.23	<p>Any act of violation of University directions, indiscipline, misbehavior, or unfair practice in examinations from the part of students, faculty members, staff, institution, management or any other source shall be viewed very seriously. It is the legal responsibility of the principal and the college management to see that the examinations are conducted strictly as per the directions of the University. Malpractices in examinations observed or reported by an official employed by the University, faculty member, invigilator or anybody shall be immediately reported to the Principal. The principal shall in turn conduct a preliminary enquiry giving the concerned student a chance to explain his/her case. The Principal shall then forward the case with his/her preliminary enquiry report and remarks to the Controller of Examinations along with all related documents and evidences within two working days. The Controller of examination shall decide the course of action on the issue as per the prescribed norms in the University Examination Manuel.</p>
R6.24	<p>A student shall earn 2 credits by actively involving in co – curricular and extra curricular activities as per the guidelines issued by the University from time to time. On getting minimum 100 activity points the student passes the course and earns the two credits which shall not be counted for the calculation of CGPA but mandatory for the award of the Degree. For the students admitted under lateral entry scheme the 2 credits shall be considered to be earned on getting 75 activity points. The students are required to keep a file containing documentary proofs of activities done by him/her attested by the Senior Faculty Advisor/ Faculty Advisor.</p>
<p>7. Break of Study</p>	
R7.1	<p>A student is permitted to avail break of study:</p> <ul style="list-style-type: none"> 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 product. iii) In case of any personal reasons that need a break in study.

	<p>iv) For internship leading to employment.</p> <p>For break of study due to illness, student shall 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.</p> <p>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 shall 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.</p> <p>Students who require 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.</p> <p>Students who require break in study for 'internship leading to employment' shall produce the offer letter obtained from the concerned employer. The principal shall verify the authenticity of the offer and submit his recommendation to the University sufficiently in advance for approval. Only campus placed students with an annual compensation more than 6 lakhs are eligible to avail this facility.</p> <p>In the semester system followed by the University, break of study for an academic year is the preferred option than break of study for a semester.</p> <p>The student can avail the break of study only with the prior approval of the University. The Principal shall upload the request of the student with all relevant documents to the University portal for the approval with his/her recommendations.</p> <p>Students shall have to rejoin on the first working day of the same semester on which he/she had started availing the break of study.</p>
8.Attendance	
R8.1	<p>Students are expected to attain 100% attendance for all courses. However, under unavoidable circumstances they are permitted to avail leave. Total leave of absence shall not exceed 25% of the academic contact hours for a course and 75% attendance is mandatory for registering to the end semester examination.</p>

	<p>On medical ground 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 Auditors/ University officials. This provision is applicable only to any two semesters during the entire program period.</p> <p>In case of prolonged illness, break of study is permitted as per R7.1.</p>
R8.2	<p>The Principals are authorised to grant attendance relaxation to the students representing the University in officially sponsored national level competitions/championships/ tournaments when called upon to do so, up to a maximum of 10%. In this case 65% of attendance is mandatory for registering to the end semester examination for a course. Such students should produce the participation certificate countersigned by the University Sports Coordinator/ the Director of Physical Education in the case of sports activities and the Senior Faculty Advisor in the case of other extracurricular activities: within ten days of the event. The participation certificate thus produced shall be forwarded to the Principal with the due recommendation of the respective Head of the Department. Under any circumstances, the principal shall not consider the certificate if the overall attendance of the candidate is less than 65%. Late applications received shall not be considered on any account. The student shall get official prior permission from the University for representing the University.</p>
9. Inter College Transfer	
R9.1	<p>Inter college transfer shall be applicable only for regular B.Tech students.</p>
R9.2	<p>The transfer shall be permitted just before the commencement of third semester.</p>
R9.3	<p>The transfer shall be with effect from the first working day of the third semester.</p>
R9.4	<p>The transfer shall be only within the sanctioned strength of the receiving college.</p>
R9.5	<p>The following Category of students shall not be eligible for inter college transfer</p> <ol style="list-style-type: none"> 1. Govt. of India Nominee.

	<ol style="list-style-type: none"> 2. Management Quota in Aided colleges. 3. Management Quota in private Self Financing Colleges 4. Students admitted under NRI/PIO quota. 5. Lateral Entry students. 6. Students admitted under TFW Scheme. 7. Students admitted in any supernumerary seats. 8. Any other category which are ineligible as per the conditions for admission prescribed by Govt. of Kerala/Govt. of India.
R9.6	<p>The transfer shall be permitted :</p> <ol style="list-style-type: none"> 1. Between Govt/ Govt. Aided Colleges. 2. Between Self – Financing Colleges. (Including Govt. Controlled SFC).
R9.7	Notification inviting application for inter college transfer shall be issued by the University just before the commencement of the third semester.
R9.8	The candidate should fulfill the academic eligibility requirement for promotion to the third semester.
R9.9	If the number of applicants is more than the vacant seats available, the transfer may be based on the Kerala Engineering Entrance Rank.
R9.10	The students shall opt only one college for inter college transfer.
R9.11	The selected candidates shall remit a fee of Rs 3000/- (No fee for SC/ST students) within the stipulated date to the University. However, this rule is not applicable to the students transferred to other institutes under “Shift College” University order.
R9.12	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.
10. Migration from other Universities	
R10.1	Migration to the University from other Universities shall be permitted only if the parent University and the APJ Abdul Kalam Technological University enters into a bipartite agreement/ MoU for this purpose. However, this condition is not applicable to the students in any of the Engineering colleges/ institutions, which, before the commencement of KTU Act remained affiliated to Universities except Deemed to be Universities in the State of Kerala.

R10.2	The student shall be permitted to migrate only if he/she fulfills the University eligibility criteria for admission to the course applied for migration.
R10.3	The migration shall be permitted only up to the fifth semester of the B. Tech program and half the duration of the program in the case of other programs.
R10.4	The admission shall be offered on migration basis through lateral transfer of credits. Lateral credit transfer shall be as recommended by the concerned Board of Studies.
R10.5	The students shall be allowed to migrate to the University subject to satisfying the rules and regulations of the University as regards to, maximum number of backlogs, grade points, minimum credit requirement for promotion to higher semesters, etc.
R10.6	The student shall be offered admission in any of the affiliated colleges/institutions of the University subject to availability of seats. The student shall produce no objection certificate from the concerned college/institute in this regard.
R10.7	The students offered admission shall have to take transitory courses/ additional courses of the previous semesters to satisfy the program requirement as recommended by the concerned board of studies.
R10.8	The students offered admission shall pay the migration fees and the University fees as prescribed by the University. The application processing fee (University fee) shall be Rs 5000/- (Rupees five thousand only) and the migration fees shall be Rs 20000/- (Rupees twenty thousand only). The migration fee is charged for the meeting expenses of the concerned Board of studies to decide on the student suitability for migration and to recommend the transitory courses/ additional courses to be done by the student to fulfill the academic requirement of the University. The processing fee shall be paid along with the application, and the migration fee shall be paid to the University at the time of offering admission. The fee once paid shall not be refunded under any circumstances. The students in any of the Engineering colleges / institutions, which, before the commencement of KTU Act remained affiliated to Universities except Deemed to be Universities in the State of Kerala, are exempted from paying the processing fee and the migration fee.

R10.9	The migrated students shall follow the rules and regulations of the University.
R10.10	The students offered admission shall produce a migration certificate from the parent University at the time of admission.
R10.11	The student offered admission shall produce a character certificate from the parent institute/University at the time of admission.
R10.12	Regulations, Scheme and Syllabus of the respective specialization attested by the Registrar of the parent University or equivalent authority shall be submitted to the University along with the application seeking migration to the University.
R10.13	Attested copies of all certificates and mark lists from 10 th onwards shall be submitted along with the application for migration (Original certificates and mark lists shall be produced as and when required by the University).
R10.14	Assessment of the student suitability for migration in terms of programs, backlogs, grade points, credit requirements, etc shall be done by the concerned Board of Studies.
R10.15	Assessment of the transitory courses/ additional courses to be done by the student as per the academic requirement of the University shall be as recommended by the concerned Board of Studies.
11. Minor in Engineering.	
R11.1	All B. Tech students shall be eligible to register for Minor in Engineering.
R11.2	The Minor in Engineering registration shall be along with the registration of the 3 rd semester.
R11.3	If a student fails in any course of the minor, he/she shall not be eligible to continue the B.Tech (Minor). However, the additional credits and grades thus far earned by the student shall be included in the grade card but shall not be considered in calculating the CGPA.
R11.4	The student shall earn additional 20 credits to be eligible for the award of B. Tech Degree with Minor. R11.5 Out of the 20 Credits, 12 credits shall be earned by undergoing a minimum of four courses, during the specified period. The total number of contact

	hours for these four courses shall be 168 Hrs (42Hrs/course). The duration of a course shall be minimum 14 weeks. The remaining 8 credits could be acquired through MOOCs recommended by the Board of studies and approved by the Academic Council.
R11.6	Curriculum and the syllabus of the four courses shall be approved by the Board of studies and the Academic Council.
R11.7	The assessment of the courses other than MOOCs and earning of credits shall be as per R6.1 to R6.24. The assessment and certification of the MOOCs shall be as per the prescribed norms of the MOOCs. The candidate shall produce the certification issued by the MOOCs conducting agency in proof of credit attainment.
R11.8	Under graduate Degree with minor shall be issued by the University to the students who fulfill all the academic eligibility requirements for the B. Tech program and Minor in Engineering.

12. B. Tech (Honours)

R12.1	All B. Tech students are eligible to register B.Tech (Honours). However, their CGPA at the end of eighth semesters shall be 8.5 or higher to be eligible for the award of B. Tech (Honours).
R12.2	The B. Tech (Honours) registration shall be along with the registration of the 4 th semester.
R12.3	If a student fails in any course including the course chosen for B. Tech (Honours), he/she shall not be eligible to continue the B.Tech(Honours). However, the additional credits and grades thus far earned by the student shall be included in the grade card but shall not be considered in calculating the CGPA.
R12.4	The student shall earn additional 20 credits to be eligible for the award of B. Tech (Honours) Degree.
R12.5	Out of the 20 Credits, 12 credits shall be earned by undergoing minimum four specified B. Tech (Honours) Elective courses of the respective stream. A student shall not be permitted to select the normal elective courses of the respective B. Tech programs for attaining the credit requirements of B. Tech (Honours). The remaining 8 credits could be acquired through MOOCs of the respective streams recommended by the Board of studies and approved by the Academic Council.

R12.6	The assessment and certification of the MOOCs shall be as per the prescribed norms of the MOOCs. The candidate shall produce the certification issued by the MOOCs conducting agency in proof of credit attainment.
R12.7	The institutions offering B. Tech Honours programs shall not charge any additional fee from the students.
R12.8	B. Tech (Honours) Degree shall be issued by the University to the students who fulfill all the academic eligibility requirements for the B. Tech and B. Tech (Honours) programs.
13. Grace Marks for Sports /Arts Competitions.	
R13.1	Only bona-fide, regular candidates are eligible for the award of Grace Marks.
R13.2	The criterion for the award of Grace Marks is representing the University in officially sponsored national level competitions/ championships/ tournaments when called upon to do so. The student shall get official prior permission from the University for representing the University.
R13.3	The maximum grace marks that can be awarded to a candidate in a particular semester for all activities put together shall be 5% of the aggregate maximum End Semester Examination marks of all theory courses for which the University conducts End Semester Examinations.
R13.4	The maximum grace marks that can be awarded to a student for a theory course in a particular semester for all activities put together shall not exceed 10% of the maximum aggregate marks of End Semester Examination of the course.
R13.5	The Grace Marks shall not be awarded to a student for Practical/ Lab/ Viva Voce/ internal assessment/ Seminar etc even though she/he fails for the same.
R13.6	Eligible Grace Marks shall be distributed equally on all theory papers/courses of an examination.
R13.7	The Grace Marks shall be awarded for all theory papers/courses/ subjects in a semester.
R13.8	Re – distribution of Grace Marks shall be allowed only in the case of those courses of an examination for which the candidate have passed: re-distribution is possible from passed courses

	to failed courses only. Re-distribution of Grace Marks is not permissible from failed courses to other courses for a pass.
R13.9	Re- distribution shall be done only for enabling a candidate to obtain the minimum marks required for a pass.
R13.10	Grace Marks shall not be re – distributed from one semester to another semester.
R13.11	If the candidate does not secure the minimum marks required for a pass even after effecting re- distribution, eligible moderation fixed by the respective board if any, shall be awarded to that candidate in addition to the Grace Marks for a pass.
R13.12	Eligible Grace Marks shall be awarded for the regular examination of the performing semester only. Grace Marks shall not be awarded for supplementary examinations.
R13.13	The performing semester shall be considered from 1 st July to 31 st December (Odd semester) and 1 st January to 30 th June (Even Semester).
R13.14	Grace Marks shall be awarded on the basis of performance in the respective semester.
R13.15	The request for Grace Marks shall be submitted to the Controller of Examinations through the principal along with all relevant documents, within the time limit prescribed by the University. The request for Grace Marks received after the time limit shall not be entertained on any account.
R13.16	Only a single highest achievement during the period of a semester shall be considered for awarding the grace marks.
14.Grace Marks for Persons With Disability (PWD)	
R14.1	A person with disability means a person suffering from not less than 40% of any disability as certified by the District Medical Board. To be eligible for the grace marks, the certificate of disability specifying the percentage of disability shall be produced before the Principal at the time of admission.
R14.2	The Grace Marks that can be awarded for PWD candidates shall be 25% of the marks scored by the candidate in each course at the time of finalization of the results.

R14.3	Transfer of marks from one paper to another shall not be permitted. Fractions of marks if any, while computing the Grace Marks shall be rounded off to the next higher integer.
R14.4	PWD candidates who are eligible for Grace Marks shall be awarded Grace Marks for regular and supplementary chances until they pass the whole examination.
R14.5	Grace Marks shall be awarded only for the marks of the End Semester Examinations conducted by the University.
R14.6	The request for Grace Marks shall be submitted to the Controller of Examinations through the principal along with all relevant documents, within the time limit prescribed by the University. The request for Grace Marks received after the time limit shall not be entertained on any account.
16. Transitory provision.	
16.1	Notwithstanding anything contained in these regulations, the Vice-Chancellor shall, for a period of two years from the date of coming into force of these regulations, has the power to provide by order that these Regulations shall be applied to any B. Tech program with such modifications as may be necessary.

CURRICULUM TEMPLATE FROM SEMESTERS I TO VIII

Every course of B. Tech. Program shall be placed in one of the nine categories as listed in table below.

Sl. No	Category	Code	Credits
1	Humanities and Social Sciences including Management courses	HMC	10
2	Basic Science courses	BSC	26
3	Engineering Science Courses	ESC	20
4	Program Core Courses	PCC	66
5	Program Elective Courses	PEC	19
6	Open Elective Courses	OEC	9
7	Project work and Seminar	PWS	10
8	Mandatory Non-credit Courses (P/F) with grade	MNC	—
9	Mandatory Student Activities (P/F)	MSA	2
Total Mandatory Credits		162	
10	Value Added Course (Optional)	VAC	20

No semester shall have more than six lecture-based courses and two laboratory and/or drawing/seminar/project courses in the curriculum. Semester-wise credit distribution shall be as below:

Sem	1	2	3	4	5	6	7	8	Total
Credits	17	21	22	22	23	24	15	16	160
Activity Points	25		25		25		25		100
MSA	2								2
G.Total									162

Basic Science Courses: Maths, Physics, Chemistry, Biology for Engineers, Life Science etc

Engineering science courses: Basic Electrical, Engineering Graphics, Programming, Workshop, Basic Electronics, Basic Civil, Engineering Mechanics, Mechanical Engineering, Thermodynamics, Introduction to — Engineering, Design Engineering, Materials Engineering etc.

Humanities and Social Sciences including Management courses: English, Humanities, Professional Ethics, Management-I, (Organizational Behaviour)/ Finance & Accounting, Economics etc

Mandatory non-credit courses: Environmental Science, Constitution of India/ Essence of Indian Knowledge Tradition, Industrial Safety Engineering, disaster management etc.

SEMESTER I

SLOT	COURSE NO.	SUBJECT	L-T-P	HOURS	CREDIT
A	BSC	Engineering Maths I	3-1-0	4	4
B 1/2	BSC	Engineering Physics	3-1-0	4	4
	BSC	Engineering Chemistry	3-1-0	4	4
C 1/2	ESC	Engineering Mechanics	2-1-0	3	3
	ESC	Engineering Graphics	1-0-4	5	3
D 1/2	ESC	Basics of Civil & Mechanical Engineering	4-0-0	4	4
	ESC	Basics of Electrical & Electronics Engineering	4-0-0	4	4
E 1/2	MNC	Design & Engineering	2-0-2	4	—
	MNC	Life Skills	2-1-0	3	—
S 1/2	BSC	Engineering Physics Lab	0-0-2	2	1
	BSC	Engineering Chemistry Lab	0-0-2	2	1
T 1/2	ESC	Civil & Mechanical Workshop	0-0-2	2	1
	ESC	Electrical & Electronics Workshop	0-0-2	2	1
		TOTAL		23/24 *	17

*Minimum hours per week

SEMESTER II

SLOT	COURSE NO.	SUBJECT	L-T-P	HOURS	CREDIT
A	BSC	Engineering Maths II	3-1-0	4	4
B	BSC	Engineering Physics	3-1-0	4	4
1/2	BSC	Engineering Chemistry	3-1-0	4	4
C	ESC	Engineering Mechanics	2-1-0	3	3
1/2	ESC	Engineering Graphics	1-0-4	5	3
D	ESC	Basics of Civil & Mechanical Engineering	4-0-0	4	4
1/2	ESC	Basics of Electrical & Electronics Engineering	4-0-0	4	4
E	MNC	Design & Engineering	2-0-2	4	—
1/2	MNC	Life Skills	2-1-0	3	—
F	ESC	Programming IN C	2-1-2	5	4
S	BSC	Engineering Physics Lab	0-0-2	2	1
1/2	BSC	Engineering Chemistry Lab	0-0-2	2	1
T	ESC	Civil & Mechanical Workshop	0-0-2	2	1
1/2	ESC	Electrical & Electronics Workshop	0-0-2	2	1
		TOTAL		28/29	21

NOTE:

- Engineering Physics and Engineering Chemistry shall be offered in both semesters. Institutions can advise students belonging to about 50% of the number of branches in the Institution to opt for Engineering Physics in S1 and Engineering Chemistry in S2 & vice versa. Students opting for Engineering Physics in S1 should attend Physics Lab in S1 and students opting for Engineering Chemistry in S1 should attend Engineering Chemistry Lab in S1.
- Physics to be made separate for programs according to their requirements like Physics (Mechanics & Mechanics of Solids): Civil, ME etc
Physics (Waves and Optics, and Introduction to Quantum Mechanics):
EEE, ECE etc
Physics Lab: Same syllabus for all courses
- Engineering Mechanics and Engineering Graphics shall be offered in both semesters. Institutions can advise students belonging to about 50% of the number of branches in the Institution to opt for Engineering Mechanics in S1 and Engineering Graphics in S2 & vice versa.

4. Design & Engineering and Life Skills shall be offered in both semesters. Institutions can advise students opting Engineering Mechanics in S1 in the Institution to opt for Design & Engineering in S1 and students opting Engineering Graphics in S1 to opt Life Skills in S1.

5. Basics of Civil & Mechanical Engineering and Basics of Electrical & Electronics Engineering shall be offered in both semesters. Basics of Civil & Mechanical Engineering contain equal weightage for Civil Engineering and Mechanical Engineering. Slot for the subject is D with CIE marks of 25 each and ESE marks of 50 each. Students belonging to branches of AEI, EI, BME, ECE, EEE, ICE, CSE, IT, RA can choose this subject in S1.

Basics of Electrical & Electronics Engineering contain equal weightage for Electrical Engineering and Electronics Engineering. Slot for the subject is D with CIE marks of 25 each and ESE marks of 50 each. Students belonging to AERO, AUTO, CE, FSE, IE, ME, MECHATRONICS, PE, METTULURGY, BT, BCE, CHEM, FT, POLY can choose this subject in S1. Students opting for Basics of Civil & Mechanical Engineering in S1 should attend Civil & Mechanical Workshop in S1 and students opting for Basics of Electrical & Electronics Engineering in S1 should attend Electrical & Electronics Workshop in S1.

6. LIFE SKILLS

Objective is to develop in the under-graduate students of engineering a level of communication competence. Coverage: Communication Skill, Critical Thinking & Problem Solving, Teamwork, Ethics, Moral & Professional Values, Leadership Skills,

SEMESTER III

SLOT	COURSE	SUBJECT	L-T-P	HOURS	CREDIT
A	BSC	Engineering Maths III	3-1-0	4	4
B	PCC	CORE 1	3-1-0	4	4
C	PCC	CORE 2	3-1-0	4	4
D	PCC	CORE 3	3-1-0	4	4
E	HMC	Professional Communication	2-0-0	2	2
1/2	HMC	Professional Ethics	2-0-0	2	2
F	MNC	Sustainable Engineering	2-0-0	2	—
S	PCC	CORE 1 LAB	0-0-3	3	2
T	PCC	CORE 2 LAB	0-0-3	3	2
R/M	VAC	Remedial/Minor course	3-1-0	4 *	4
		TOTAL		30	22/26

NOTE:

1. Professional Communication and Professional Ethics shall be offered in both S3 and S4. Institutions can advise students belonging to about 50% of the number of branches in the Institution to opt for Professional Communication in S3 and Professional Ethics in S4 & vice versa. Professional ethics should include academic ethics, IPR etc.
2. *All Institutions should keep 4 hours exclusively for Remedial class/ Minor course (Thursdays from 3 to 5 PM and Fridays from 2 to 4 PM). If a student does not opt for minor programme, he/she can be given remedial class.

SEMESTER IV

SLOT	COURSE	SUBJECT NO.	L-T-P	HOURS	CREDIT
A	BSC	Engineering Maths IV	3-1-0	4	4
B	PCC	Core 4	3-1-0	4	4
C	PCC	Core 5	3-1-0	4	4
D	PCC	Core 6	3-1-0	4	4
E	HMC	Professional Communication	2-0-0	2	2
1/2	HMC	Professional Ethics	2-0-0	2	2
F	MNC	Constitution of India	2-0-0	2	—
S	PCC	Core 3 Lab	0-0-3	3	2
T	PCC	Core 4 Lab	0-0-3	3	2
R/M/H	VAC	Remedial/Minor/Honours course	3-1-0	4*	4
		TOTAL		30	22/26

NOTE:

1. Professional Communication and Professional Ethics shall be offered in both S3 and S4. Institutions can advise students belonging to about 50% of the number of branches in the Institution to opt for Professional Communication in S3 and Professional Ethics in S4 & vice versa.
2. *All Institutions should keep 4 hours exclusively for Remedial class/ Minor course (Thursdays from 3 to 5 PM and Fridays from 2 to 4 PM). If a student does not opt for minor programme, he/she can be given remedial class.
3. PROFESSIONAL COMMUNICATION: Objective is to develop in the under-graduate students of engineering a level of competence in English required for independent and effective communication for their professional needs. Coverage: Listening, Barriers to listening, Steps to overcome them, Purposive listening practice, Use of

technology in the professional world. Speaking, Fluency & accuracy in speech, Positive thinking, Improving self-expression, Tonal variations, Group discussion practice, Reading, Speed reading practice, Use of extensive readers, Analytical and critical reading practice, Writing Professional Correspondence, Formal and informal letters, Tone in formal writing, Introduction to reports. Study Skills, Use of dictionary, thesaurus etc., Importance of contents page, cover & back pages, Bibliography.

- Professional ethics should include academic ethics, IPR etc.

SEMESTER V

SLOT NO.	COURSE	SUBJECT	L-T-P	HOURS	CREDIT
A	PCC	CORE 7	3-1-0	4	4
B	PCC	CORE 8	3-1-0	4	4
C	PCC	CORE 9	3-1-0	4	4
D	PEC	Program Elective I	3-1-0	4	4
E 1/2	HMC	Industrial Economics & Foreign Trade	3-0-0	3	3
	HMC	Management For	3-0-0	3	3
F	MNC	Disaster Management	2-0-0	2	—
S	PCC	CORE 5 Lab	0-0-3	3	2
T	PCC	CORE 6 Lab	0-0-3	3	2
R/M/H	VAC	Remedial/Minor/Honours course	3-1-0	4*	4
		TOTAL		31	23/27

NOTE:

- Industrial Economics & Foreign Trade and Management for Engineers shall be offered in both S5 and S6. Institutions can advise students belonging to about 50% of the number of branches in the Institution to opt for Industrial Economics & Foreign Trade in S5 and Management for Engineers in S6 & vice versa.
- *All Institutions should keep 4 hours exclusively for Remedial class/ Minor/Honours course (Tuesdays from 3 to 5 PM and Wednesdays from 3 to 5 PM). If a student does not opt for minor/honours programme, he/she can be given remedial class.

PROGRAM ELECTIVE I

SLOT	COURSE NO.	SUBJECT	L-T-P	HOURS	CREDIT
D	PEC	i	3-1-0	4	4
	PEC	ii	3-1-0		
	PEC	iii	3-1-0		
	PEC	iv	3-1-0		
	PEC	v	3-1-0		
	PEC	vi	3-1-0		

SEMESTER VI

SLOT	COURSE NO.	SUBJECT	L-T-P	HOURS	CREDIT
A	PCC	CORE 10	3-1-0	4	4
B	PCC	CORE 11	3-1-0	4	4
C	PCC	CORE 12	3-1-0	4	4
D	OEC	Open Elective I	2-1-0	3	3
E 1/2	HMC	Industrial Economics & Foreign Trade	3-0-0	3	3
	HMC	Management for Engineers	3-0-0	3	3
F	PCC	Comprehensive Viva Voce	2-0-0	2	2
S	PCC	CORE 7 Lab	0-0-3	3	2
T	PWS	Mini Project	0-0-3	3	2
R/M/H	VAC	Remedial/Minor/Honours course	3-1-0	4*	4
TOTAL				30	24/28

NOTE:

- Industrial Economics & Foreign Trade and Management for Engineers shall be offered in both S5 and S6. Institutions can advise students belonging to about 50% of the number of branches in the Institution to opt for Industrial Economics & Foreign Trade in S5 and Management for Engineers in S6 & vice versa.
- *All Institutions should keep 4 hours exclusively for Remedial class/Minor/Honours course (Tuesdays from 3 to 5 PM and Wednesdays from 2 to 4 PM). If a student does not opt for minor/honours programme, he/she can be given remedial class.

3. Comprehensive Examination: The comprehensive examination in the sixth semester of study shall have a written test and viva-voce of 50 marks each. The written examination will be of objective type similar to the GATE examination. A department committee comprising the Head of the Department or his/her nominee and two senior faculty members of the department shall conduct the examination. The Viva-voce examination will be conducted by a panel of examiners consisting of, the department committee and one external expert, preferably, from the Industry. Syllabus for comprehensive examination shall be prepared by the respective BoS choosing any 5 core subjects studied from semester 3 to 5.
4. Miniproject: To identify a topic of interest in consultation with Faculty/ Advisor. Review the literature and gather information pertaining to the chosen topic. State the objectives and develop a methodology to achieve the objectives. Carryout the design/fabrication or develop codes/ programs to achieve the objectives. Demonstrate the novelty of the project through the results and outputs. The progress of the mini project is evaluated based on a minimum of two reviews. The review committee may be constituted by the Head of the Department. A project report is required at the end of the semester. The product has to be demonstrated for its full design specifications. Innovative design concepts, reliability considerations, aesthetics/ergonomic aspects taken care of in the project shall be given due weight. The final evaluation will be made based on the product, the report and a viva- voce examination, conducted internally by a 3 member committee appointed by Head of the Department.

SEMESTER VII

SLOT	COURSE NO.	SUBJECT	L-T-P	HOURS	CREDIT
A	PEC	Program Elective II	2-1-0	3	3
B	PEC	Program Elective III	2-1-0	3	3
C	OEC	Open Elective II	2-1-0	3	3
D	MNC	Industrila Safety Engineering	2-1-0	3	—
S	PCC	CORE 8 Lab	0-0-3	3	2
T	PWS	Seminar	0-0-3	3	2
U	PWS	Project Phase I	0-0-3	6	2
R/M/H	VAC	Remedial/Minor/Honours course	3-1-0	4*	4
		TOTAL		28	15/19

PROGRAM ELECTIVE II

SLOT	COURSE No.	SUBJECT	L-T-P	HOURS	CREDIT
D	PEC	i	3-1-0	4	4
	PEC	ii	3-1-0		
	PEC	iii	3-1-0		
	PEC	iv	3-1-0		
	PEC	v	3-1-0		
	PEC	vi	3-1-0		

PROGRAM ELECTIVE III

SLOT	COURSE NO.	SUBJECT	L-T-P	HOURS	CREDIT
A	PEC	i	2-1-0	3	3
	PEC	ii	2-1-0		
	PEC	iii	2-1-0		
	PEC	iv	2-1-0		
	PEC	v	2-1-0		
	PEC	vi	2-1-0		

- *All Institutions should keep 4 hours exclusively for Remedial class/ Minor/Honours course (Mondays from 10 to 12 and Wednesdays from 10 to 12 Noon). If a student does not opt for minor/honours programme, he/she can be given remedial class.
- Seminar: To encourage and motivate the students to read and collect recent and reliable information from their area of interest confined to the relevant discipline from technical publications including peer reviewed journals, conference, books, project reports etc., prepare a report based on a central theme and present it before a peer audience. Each student shall present the seminar for about 20 minutes duration on the selected topic. The report and the presentation shall be evaluated by a team of internal members comprising three senior faculty members based on style of presentation, technical content, adequacy of references, depth of knowledge and overall quality of the report.

Total marks: 100, only CIE, minimum required to pass 50

Attendance : 10
 Guide : 20
 Quality of the Report : 30
 Presentation : 40

3. Project Phase I: A Project topic must be selected either from research literature or the students themselves may propose suitable topics in consultation with their guides. The object of Project Work I is to enable the student to take up investigative study in the broad field of Electronics & Communication Engineering, either fully theoretical/practical or involving both theoretical and practical work to be assigned by the Department on a group of three/four students, under the guidance of a Supervisor. This is expected to provide a good initiation for the student(s) in R&D work. The assignment to normally include:
- ✓ Survey and study of published literature on the assigned topic;
 - ✓ Working out a preliminary Approach to the Problem relating to the assigned topic;
 - ✓ Block level design documentation
 - ✓ Conducting preliminary Analysis/ Modelling/ Simulation/ Experiment/ Design/ Feasibility;
 - ✓ Preparing a Written Report on the Study conducted for presentation to the Department;
 - ✓ Final Seminar, as oral Presentation before a departmental committee.

Total marks: 100, only CIE, minimum required to pass 50

Guide : 30
 Interim evaluation, 2 times in the semester by a committee : 50
 The report evaluated by the above committee : 20

SEMESTER VIII

SLOT	COURSE NO.	SUBJECT	L-T-P	HOURS	CREDIT
A	PEC	Program Elective IV	2-1-0	3	3
B	PEC	Program Elective V	2-1-0	3	3
C	PEC	Program Elective VI	2-1-0	3	3
D	OEC	Open Elective III	2-1-0	3	3
U	PWS	Project Phase II	0-0-12	12	4
R/M/H	VAC	Remedial/Minor/ Honours course	3-1-0	4*	4
TOTAL				28	16/20

PROGRAM ELECTIVE IV

SLOT	COURSE NO.	SUBJECT	L-T-P	HOURS	CREDIT
B	PEC	i	2-1-0	3	3
	PEC	ii	2-1-0		
	PEC	iii	2-1-0		
	PEC	iv	2-1-0		
	PEC	v	2-1-0		
	PEC	vi	2-1-0		

PROGRAM ELECTIVE V

SLOT	COURSE NO.	SUBJECT	L-T-P	HOURS	CREDIT
A	PEC	i	2-1-0	3	3
	PEC	ii	2-1-0		
	PEC	iii	2-1-0		
	PEC	iv	2-1-0		
	PEC	v	2-1-0		
	PEC	vi	2-1-0		

PROGRAM ELECTIVE VI

SLOT	COURSE NO.	SUBJECT	L-T-P	HOURS	CREDIT
A	PEC	i	2-1-0	3	3
	PEC	ii	2-1-0		
	PEC	iii	2-1-0		
	PEC	iv	2-1-0		
	PEC	v	2-1-0		
	PEC	vi	2-1-0		

NOTE

- *All Institutions should keep 4 hours exclusively for Remedial class/ Minor/Honours course (Mondays from 10 to 12 and Wednesdays from

10 to 12 PM). If a student does not opt for minor/honours programme, he/she can be given remedial class.

2. Project Phase II: The object of Project Work II & Dissertation is to enable the student to extend further the investigative study taken up in Project 1, either fully theoretical/practical or involving both theoretical and practical work, under the guidance of a Supervisor from the Department alone or jointly with a Supervisor drawn from R&D laboratory/Industry. This is expected to provide a good training for the student(s) in R&D work and technical leadership. The assignment to normally include:

- In depth study of the topic assigned in the light of the Report prepared under Phase I;
- Review and finalization of the Approach to the Problem relating to the assigned topic;
- Preparing an Action Plan for conducting the investigation, including team work;
- Detailed Analysis/Modelling/Simulation/Design/Problem Solving/Experiment as needed;
- Final development of product/process, testing, results, conclusions and future directions;
- Preparing a paper for Conference presentation/Publication in Journals, if possible;
- Preparing a Dissertation in the standard format for being evaluated by the Department;
- Final Seminar Presentation before a Departmental Committee

Total marks: 150, only CIE, minimum required to pass 75

Guide	: 30
Interim evaluation, 2 times in the semester by a committee	: 50
Quality of the report evaluated by the above committee	: 30
Final evaluation by a three member committee	: 40

OPEN ELECTIVE (OE)

The courses listed below are offered by the Department of ECE for students of following departments: AERO, AUTO, CE, FSE, IE, ME, MECHATRONICS, PE, METTULURGY, BT, BCE, CHEM, FT, POLY.

Sl. No.	Course Title
A.1	Fuzzy systems and Applications
A.2	Analog Communication
A.3	Digital Image Processing

- B.1 MEMS
- B.2 Electronic Packaging
- B.3 Electronic Materials
- C.1 Electronic Instrumentation
- C.2 Embedded Systems
- C.3 Biomedical Engineering

B.Tech (Minor)

A minor is intended for a student to gain expertise or skill in an area outside his/her major B.Tech discipline. The objective is to permit a student to customize their Engineering degree to suit their specific interests. Upon completion of an Engineering Minor, a student will be better equipped to perform interdisciplinary research and will be better employable. Minor specialization will help engineers to apply their knowledge in different facets of human life. Engineering Minors allow a student to gain interdisciplinary experience and exposure to concepts and perspectives that may not be a part of their major degree programs.

A specialist basket of 3-6 courses is identified for each Minor. Each basket may rest on one or more foundation courses. A basket may have sequences within it, i.e., advanced courses may rest on basic courses in the basket. The area of the Minor must be different from the major discipline of the student; the courses that are part of the common core, or the discipline core/electives cannot be counted towards a Minor. The name of the Minor will appear on the CGC and the degree certificate of the student. The classes shall be conducted along with regular classes and no extra time shall be required for conducting minor course. The credits shall be assigned to the courses as per the norms followed for mandatory courses in KTU curriculum.

(i) The curriculum/syllabus committee/BoS shall prepare syllabus for courses to be included in the curriculum from third to eight semesters for all branches. The minor courses shall be identified by M slot courses.

(ii) Registration is permitted for B.Tech with Minor at the beginning of third semester for all students who do not have history of more than 1 'F' grade in the first semester. Disable registration in subsequent semesters for students with history of more than 4 'F' grades (up to N-2 semester) even after reevaluation.

iii) Total credits required is 182 (162 + 20 credits from value added courses)

iv) Out of the 20 Credits, 12 credits shall be earned by undergoing a minimum of four courses, of which one course shall be a miniproject based on the chosen area. The remaining 8 credits could be acquired through 2 MOOCs recommended by the Board of studies and approved by the Academic Council. The classes for Minor shall be conducted along with regular classes and no extra time shall be required for conducting the courses.

v) There won't be any supplementary examination for the courses chosen for Minor.

vi) On completion of program, award B.Tech with Minor if overall CGPA is more than or equal to 6.5 (?) and has no history of more than 4 'F' grades.

(vii) If eligibility conditions as above are not satisfied, additional credits earned will be indicated with grade in the consolidated grade card.

For example: Students who have registered for **B.Tech Minor in Electronics & Communication Engineering** can opt to study the courses listed below:

Sl. No.	Course Title
	A.1 Semiconductor Physics and Devices
	A.2 Digital Circuits and Systems
	A.3 Signals and Systems
	A.4 Analog Communication
	B.1 Electronic Circuits
	B.2 Computer Organization
	B.3 Digital Signal Processing
	B.4 Digital Communication
	C.1 Analog Integrated Circuits
	C.2 Microprocessors and Micro Controllers
	C.3 Digital Signal Processors and Applications
	C.4 Antennas and Propagation
	D.1 Digital Integrated Circuits
	D.2 Embedded Systems
	D.3 Statistical Signal Processing
	D.4 Fiber Optic Communication
	E.X Mini Project based on the chosen area

B.Tech (Honours)

Honours is intended for a student to gain expertise/specialise in an area inside his/her major B.Tech discipline. KTU is providing this option for

academically extra brilliant students to acquire B.Tech (Honours). The objective of Honours degree is to enrich knowledge in emerging/advanced areas in the branch of engineering concerned. It is particularly suited for students aiming to pursue higher studies. Upon completion of B.Tech (Hons.), a student will be better equipped to perform research in his/her branch of engineering. The courses shall be grouped into maximum of 5 groups, each group representing a particular specialization in the branch. The students shall select only the courses from same group in all semesters. It means that the specialization is to be fixed by the student and cannot be changed subsequently. The internal evaluation, examination and grading shall be exactly as for other mandatory courses. The Honours courses shall be identified by H slot courses.

- (i) The curriculum/syllabus committee/BoS shall prepare syllabus for courses to be included in the curriculum from fourth to eight semesters for all branches. The honours courses shall be identified by H slot courses.
- (ii) Registration is permitted for B.Tech Honours at the beginning of fourth semester for all students who do not have any history of 'F' grade in the first semester. Disallow registration in subsequent semesters for students with history of 'F' grade (up to N-2 semester) even after reevaluation.
- (iii) Total credits required is 182 (162 + 20 credits from value added courses)
- (iv) Out of the 20 Credits, 12 credits shall be earned by undergoing minimum four specified B. Tech (Honours) Elective courses of the respective stream. The remaining 8 credits could be acquired through 2 MOOCs of the respective streams recommended by the Board of studies and approved by the Academic Council. The classes for B.Tech (Hons.) shall be conducted along with regular classes and no extra time shall be required for conducting the courses.
- (v) There won't be any supplementary examination for the courses chosen for honours.
- (vi) On completion of program, award B.Tech(Honours) if overall CGPA is more than or equal to 8.5 and without any history of 'F' Grade
- (vii) If eligibility conditions as above are not satisfied, show additional credits earned with grade in the consolidated grade card.

For example: Students who have registered for **B.Tech Honours in Electronics & Communication Engineering** can opt to study the courses listed below:

- 5.1 Advanced Digital Signal Processing
- 5.2 Digital System Design

- 5.3 Analog IC Design
- 5.4 Detection and Estimation
 - 6.1 Digital Signal Processing For Medical Imaging
 - 6.2 Asynchronous System Design
 - 6.3 Mixed - Signal Circuit Design
 - 6.4 Spectral Analysis of Signals
- 7.1 Wavelet Signal Processing
- 7.2 Low Power VLSI Circuits
- 7.3 Electronic Design Automation Tools
- 7.4
 - 8.1 VLSI Digital Signal Processing Systems
 - 8.2 Design of ASICS
 - 8.3 RF Circuits
 - 8.4

CLASSIFICATION

After successful completion of the programme, degree will be awarded as per the following classifications based on the CGPA.

- a) Students who complete all the courses in the first attempt and in four years and complete the requirements (additional 20 credits) with CGPA of 8.5 and above shall be awarded B.Tech (Honours) degree.
- b) Students who complete the programme within ten consecutive semesters getting a CGPA of 8.5 and above, will be declared to have passed in first class with distinction.
- c) Students who complete all the courses in the first attempt and in four years and complete the requirements (additional 20 credits) above with CGPA of 6.5(?) and above shall be awarded B.Tech (Minor) degree.
- d) Students who get a CGPA of 6.5 and above, but below 8.5 and who complete the course within 12 semesters will be declared to have passed in first class.

ONLINE COURSES

KTU permits credit transfer upto a maximum of 8 through ONLINE Courses. The MOOC courses can be opted by students for Minor and Honours Program.

ONLINE EXAMINATION

Online examination can be conducted for first and second semester lab exams, comprehensive exam, Life skills, Professional Communication, Basics of Civil & Mech, Basics of Electrical & Electronics.

