TKM COLLEGE OF ENGINEERING

(Government Aided and Autonomous)

celebrating 60 years of excellence

B. Tech Academic Regulations 2024

THANGAL KUNJU MUSALIAR COLLEGE OF ENGINEERING
(Government Aided and Autonomous)
KOLLAM-691005, KERALA
Abstract

TKMCE- Academics- B.Tech Regulations 2024 -orders issued

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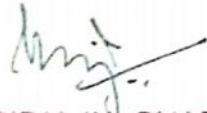
Order

Read:
1. Minutes of the V Academic Council Meeting held on 31/07/2024

The fifth Academic council meeting held on 31st July 2024, approved the B.Tech Regulations 2024 (B.Tech admissions 2024 onwards till the next revision). The academic regulations for the B.Tech programmes, 2024 approved by the Academic Council, is hereby notified as the **TKM College of Engineering (Aided and Autonomous) Academic Regulations for B.Tech Programmes 2024.**

Orders are issued accordingly

PRINCIPAL IN-CHARGE
THANGAL KUNJU MUSALIAR
COLLEGE OF ENGINEERING
KOLLAM - 691 005

Copy to: All HODs, Deans, IQAC, COE, AA, AO, SS, JS(A)

Preface

The TKM College of Engineering is pleased to announce the launch of its revised undergraduate curriculum, aiming at a comprehensive and rigorous education in engineering and technology, a holistic approach by advancing from mere information and knowledge transfer to impart 21st-century skills like creativity, complex problem-solving, critical thinking, and emotional intelligence. An effort has been made to foresee about the future expectations from engineering education to meet the upcoming challenges by considering man, material and environment together as an integrated system. To achieve this, the curriculum has been carefully designed to provide the students with the skills and knowledge needed to become competent engineers capable of tackling real-world problems in a variety of fields. Instead of utilizing conventional teaching methods, all courses are designed to highlight the significance of applying knowledge to engineering and technology challenges, fostering creativity and innovation, and developing entrepreneurial abilities.

The concept of Curriculum for Pragmatic Learning (CPL) is instilled in all Programs of the Institute to expose the students to both theoretical and practical aspects of engineering and provide them with hands-on experience in the latest technologies and tools used in the industry. In view of this, the curriculum is modelled with various category of courses such as project-based courses that emphasize hands-on learning and real-world applications supported by the fundamentals of engineering and, basic science courses with lab components, core courses with and without practical components, laboratory courses, projects, seminars. These variety of courses are tailored in a student centric fashion to ensure that they receive well-rounded education with the flexibility to customize their own learning experience according to their interests and career goals.

By incorporating an internship opportunity into the 2024 curriculum, students are afforded the chance to obtain industry exposure, apply their theoretical knowledge to real-world engineering problems, and obtain valuable practical experience. Every B.Tech student is required to undertake a minimum of six to eight weeks of internship in a recognized industry, research organization, or prestigious institution relevant to their field of study. The curriculum additionally promotes full-time internships during the seventh and eighth semesters, creating mutual benefits for both employers and students, while also broadening the scope of employability. Curriculum offers a flexibility for students to opt for MOOC courses corresponding to the Professional Elective and Open Elective Courses of the seventh and eight semesters, which can be completed during the lower semesters thereby providing opportunity in doing internships.

The concepts of "minor degree" and "honors degree", introduced by AICTE, is incorporated into the TKMCE curriculum, to enhance the employability skills and impart deep knowledge in emerging areas

that are typically not covered in the Undergraduate framework. With this facility, the students can acquire Honors/Minors by earning additional twenty credits. The choice rests with the learners to undertake the Honors /Minors courses.

For supporting multiple pathways within the academic program, AICTE proposed to provide for micro specializations through theory course streams. The curriculum utilizes this feature by offering Micro-Specializations to the B. Tech students.

In order to promote civic responsibility, foster leadership skills, and deepen students' understanding of social issues, the curriculum makes students to participate in socially relevant projects. These projects not only allow students to earn activity points towards their credit acquisition, but also instill social and environmental outlook, bringing a positive impact on society. Socially relevant projects impart a different learning experience with a meaningful contribution to the surrounding communities.

In today's rapidly evolving world, it is crucial to cultivate a comprehensive understanding of life and to raise students' awareness about its various dimensions, including the individual, family, society, and the environment. This entails promoting self-reflection and nurturing a holistic perspective. Equally important is the focus on enhancing physical and mental well-being, facilitating all-round development, improving social skills, alleviating stress, imparting life skills, and establishing the groundwork for a healthy and harmonious lifestyle. The curriculum effectively addresses these challenges through the introduction of courses such as Sports and Wellness, as well as Universal Human Values.

For the award of B.Tech. Degree, a student has to acquire a maximum of 167 learning credits by learning and practicing the various courses prescribed in the curriculum within the stipulated time duration. In addition to the learning credits, students should earn additional 3 credits for activity points by participating in various extracurricular activities such as sports, cultural events, community service, and entrepreneurship. Engaging in these activities shall enable students to enhance their leadership quality, teamwork, and communication abilities with a comprehensive education and global outlook.

Once this is approved by the academic council, the rules and regulations stated herein shall be called the **TKM College of Engineering (Aided and Autonomous) academic regulations for B. Tech program, 2024**. These regulations as given in this document are applicable to students admitted in B.Tech. programs of TKM College of Engineering (Aided and Autonomous) from 2024 admission onwards. Curriculum of the programs under this regulation shall be decided by the Academic council of TKM College of Engineering.

	1. Preamble
24R1.1	These regulations are applicable to all B.Tech (Regular) Degree programs conducted in TKM College of Engineering, Kollam-5 affiliated to the APJAKTU from the Academic Year 2024-25 onwards
24R1.2	The provisions contained in these regulations shall govern the policies and procedures on the admission and registration of students, imparting instructions of course, conduct of the examination, evaluation, certification of students performance leading to the award of B.Tech Degree(s)
24R1.3	These regulations for the B.Tech Degree programs along with all the amendments thereto, and shall be binding on all students undergoing the said B.Tech Degree program(s) conducted in college from the Academic Year 2024-25 onwards.
24R1.4	These regulations, as amended from time to time shall be binding on all parties concerned, including the Students, Faculty and Staff of the College.
24R1.5	The College has the right to modify the regulations from time to time.
24R1.6	In all matters related to the regulations, the decision of the College and itsinterpretation given by the Academic Council shall be final and binding.
24R1.7	*Nomenclature of the programs:* The College uses the nomenclature for the Degree programs as specified by the Affiliated University, and the Degree Certificates issued by the University to their awardees bear the name of the College as well. Therefore, the nomenclatures and their abbreviations given below, shall continue to be used for the Degree programs offered by the College: UG Level: (i) Bachelor of Technology (B.Tech) (ii) B.Tech (Honors) (iii) B.Tech with Minor Specialization Micro Specializations shall be added to the certificate wherever applicable.
	2. Admission
24R2.1	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.
24R2.2	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 statutory body concerned, the Principal may revoke the admission of the candidate and report the matter to the Academic council of the college /University.
24R2.3	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.
24R2.4	A student admitted to this institute shall continue studying in the institute till the completion of the course, unless he/she is permitted an inter college transfer as per **24R11.1**
	3. Structure of B.Tech. program.
24R3.1	The duration of the B.Tech. Program shall be 4 years (8 semesters)
24R3.2	The maximum duration shall be six academic years spanning 12 semesters.

24R3.3	Every academic year shall have two semesters "1st July to 31st December (Odd semester)" and "1st January to 30th 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.
24R3.4	The curriculum and syllabi for each branch of the B.Tech Program must be approved by the Academic Council. Syllabus for any course shall be normally modified/ updated based on the arising requirement. 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 based only on the recommendations of the Board of Studies concerned.
24R3.5	Course Credit: The academic programs of the Institute follow the credit system. The general pattern is as below: | Classification	Credit assigned
1 Hour Lecture (L) per week	1 Credit
1 Hour Tutorial (T) per week	1 Credit
1 Hour Project (J) per week	1 Credit
2 Hours Practice/Practical (P) per week	1 Credit | The workload of a faculty member shall be the actual number of hours engaged by the faculty member.
24R3.5.1	The curriculum of any branch of the B.Tech. Program shall have a total of 167 academic/ learning credits and 3 additional activity point-based credits.
24R3.5.2	Course categories based on content delivery: Courses in the curriculum are categorized into 1/2/3/4/5/7 credit courses based on the chosen content delivery method and the desired depth of the course. The delivery methods include Theory-only, Theory with tutorial, Theory with practice, Theory with project etc. The L-T-P-J notation for each course signifies the allocation of hours for content delivery in terms of Lecture (L), Tutorial (T), Practical (P), and Project (J) per week, as well as the credit earned from the course. Apart from lecture, tutorial, practical/practice and the project hours the curriculum offers Self learning hours(S) that indicate the number of hours students are expected to spent for activities that should be completed outside the class defined by the faculty handling courses, and for the activities to support learning, initiated by the students themselves without guidance or direction from tutors. For each course Self learning hour per week is calculated as: $$S= (L*1+P*1+[J/2])$$ where J belongs to the project component of a project-based course. Thus, the L-T-P-J-S-C for each course indicates the number of hours delivered as Lecture (L), Tutorial (T), Practical (P), Project (J), Self-study hours (S) and the total instructional delivery indicated as Credits (C). $$C = L+ T + [P/2] + J$$

Categories of courses included in the curriculum and their L-T-P-J-S-C components are given in the table below.

Sl No.	Lecture-Tutorial-Practical/ Project [L-T-P-J]	Self-learning hours[S]	Credit [C]	Description
1	1-0-0-0	1	1	Theory course without End Semester Examination [ESE]
2	2-0-0-0	2	2	
3	2-0-2-0	4	3	Theory course integrated with practical
4	2-1-0-0	2	3	Theory course with tutorial
	3-1-0-0	3	4	
5	3-0-0-0	3	3	Theory course
6	3-1-2-0	5	5	Theory course integrated with practical and tutorial
7	2-1-2-0	4	4	
8	1-0-2-0	3	2	Theory course integrated with practical without ESE
9	3-0-2-0	5	4	Theory course integrated with practical
10	2-0-2-2	5	5	Project based course
11	0-0-2-0	2	1	Practical course without ESE
12	0-0-4-0	4	2	Practical course without ESE
13	0-0-6-0	6	3	Seminar
14	0-0-14-0	12	7	Major Project
Mandatory Courses with 1 credit				
15	2-0-0-0	2	1	Theory Courses
	3-0-0-0	3		
16	2-0-2-0	4	1	Theory course integrated with lab
17	0-0-0-2	1	1	Socially Relevant Project
Minor/ Honors Course				
18	4-0-0-0	4	4	Theory course
19	0-0-0-4	2	4	Project only course

24R3.6 — Every course of B. Tech. Program shall be placed in one of the eleven categories based on the nature of the course and is listed in the table below:

Sl No:	Category	Code	Credit Breakup
1	Humanities and Social Sciences including Management courses	HSMC	16
2	Basic Science courses	BSC	22
3	Engineering Science courses including workshop, drawing, basics of electrical/ mechanical/computer etc.	ESC	27

	4	Professional Core Courses	PCC		59
	5	Professional Elective courses relevant to chosen specialization/ branch	PEC (MS)	(IEC)	12
	6	Open Electives – Electives from other technical and /or emerging areas	OEC		9
	7	Major Project, seminar and internship in industry or elsewhere	PROJ		17
	8	Mandatory Courses	MC		5
	9	**Mandatory Student Activities**	**SA**		**3**
		Total credits			170
		Optional Specialization			
	10	Honors	HR		20
	11	Minor	MR		20
		Total credits with optional specialization			190

10 to 15 % deviation in credits is permitted under each discipline. While developing the curriculum, the department offering the program should ensure that the above distribution shall be attained by the students upon their completion of their program. Either Minor or Honors can be opted from the optional specialization.

24R3.7	Course Code: Every course of B. Tech. Program shall be taken a code from the table given below.

Course category	Description
PCC	Professional Core Course
PBC	Project Based Course
PEC	Professional Elective Course
OEC	Open Elective Course
BSC	Basic Science Course
ESC	Engineering Science Course
HSMC	Humanities, Social Sciences and Management course
MC	Mandatory Course
LC	Laboratory Course
IEC	Industry Elective Course
SR	Seminar
PROJ	Major Project
MP	Mini project
RMP	Research based Mini Project
MS	Micro Specialization
HR	Honours
MR	Minor

24R3.7.1	Professional Core (PCC): Courses listed under Program Core of a curriculum are program specific. Students have to complete all the courses listed under PCC to become eligible for the degree
24R3.7.2	Project Based Course (PBC): Aims at developing a deeper knowledge through active exploration of real-world challenges and problems by applying theoretical knowledge. It consists of three components: Theory, Practical and Project. Project is a group-based activity with a maximum of five members in a group, where each group has to identify suitable application-based problem based on the topics covered/advanced concepts of topics in the theoretical part of the course. Curriculum of each program has three project-based courses. Only one PBC can be included in a semester and it should be within the 3rd to 6th semesters.
24R3.7.3	Professional Elective (PEC): Refers to a set of courses which are more advanced or applied or specialized sub-area than the basic courses a student studies as part of program core courses. Courses in the PECs can be organized appropriately to provide a limited specialization in some sub-area of program discipline to a B Tech student and it is named as Micro-Specializations.
24R3.7.3.1	Micro-Specialization: - All B. Tech students are eligible for micro specialization. Each department shall provide a list of micro specialization courses. Each row in the Micro specialization table shall contain a mandatory pre-requisite course with 3/4/5 credit, and at least two thematic courses corresponding to the pre-requisite course, from the PEC list with the sequence order of courses.
24R3.7.3.2	Students shall take any two theory courses in the order specified in the micro specialization list.
24R3.7.4	Open Elective course: Refers to the course that the student shall mandatorily opt from the departments other than the one the he/she pursuing the under graduate studies. This is intended to encourage cross and multidisciplinary learning.
24R3.7.5	9 credits of PEC and OEC in the 8th semester can be earned in earlier semesters through MOOCs recommended by the Board of studies and approved by the Academic Council and satisfying clause R3.11. The candidate shall produce the certification issued by the MOOCs conducting agency in proof of credit attainment before the commencement of the ESE of the 8th semester.
24R3.7.6	Mini Project: Is included in curriculum to achieve practical application of knowledge and skills learned from academics. It will be a group activity with a maximum of five members in a group, where each group has to identify suitable topic in their domain. The progress of the mini project is evaluated based on three reviews - two interim reviews and a final review. A report is required at the end of the semester.
24R3.7.7	Research based Mini Project: Focuses on strengthening the understanding of student's fundamental concepts through the application of theoretical concepts and to boost their skills and widen the horizon of their thinking in research by implementing/working a recent research paper in the domain of study. This shall be executed as a group activity where each group can have a maximum of four students and shall identify a topic of interest in consultation with Mini Project Coordinator that shall lead to their dissertation/final year project. The progress of the Research based Mini Project is evaluated based on three reviews, two interim reviews and a final review. The progress of the mini project shall be evaluated based on three reviews: two interim reviews and a final review. Students have to submit a report during the final review. Credits can be

	assigned to a student for research based mini project if he/she earns a pass grade in the final review.
24R3.7.8	Project: The research-based project in the seventh semester shall be continued as the project in the eighth semester
24R3.7.8.1	The progress of the project is evaluated based on three reviews, two interim reviews and a final review. A report is required at the end of the semester.
24R3.7.8.2	All students doing a project in the eighth semester, shall prepare a Poster as part of their project highlighting their work. The poster carries 5% weightage of the total marks of the project course and to be prepared based on the guidelines issued time to time.

24R3.7.9	Internship: During their tenure in the institution, students get exposure to an academic environment which is different from their future work environment, viz. industry, wherein they are expected to be placed. To get this exposure,
	
	I. Every B.Tech student shall have to mandatorily undergo at least six to eight weeks of internship in any reputed Industry/Research Organization or at other institute of higher learning and repute (Academia) in their respective discipline of study, after their first year of study and before the seventh semester. Students can avail this training in a single stretch or in piece-meal basis with each stretch shall be of not less than two weeks. The organization for Internship shall be selected/decided by the students in consultation with the senior faculty advisor.
	
	II. The students can opt internship during seventh or eighth semesters, besides the one specified in the Clause I above. The minimum duration of such internships shall be 3 months and to be approved by the concerned department. Students who opt this internship can avail MOOCs or follow self-study mode to meet the credit requirements of the semester course works mentioned in curriculum. In such cases, the statement of attendance from the organization where the student pursued his/her internship will be treated as attendance requirements for internal assessment and end semester examinations. If the student is permitted to follow self-study mode, he/she is liable to meet all the requirements such as attending internal exams and submitting the assignments and other works given by the course tutor in time. If MOOC is done instead of a course, the percentage marks obtained for MOOC shall be taken for computing grade for the corresponding course.
	
	III. Every student shall be assigned an internship Supervisor/Guide at the beginning of the internship by the senior faculty advisor in consultation with HoD. Student should contact his /her Guide/Supervisor from college on weekly basis to communicate the progress. Each student has to maintain a diary/log book in this regard. After completion of internship, students are required to submit the following at college level,
	
	      • Report of work done
	      • Internship certificate copy
	      • Feedback from employer / internship mentor
	      • Stipend proof (in case of paid internship)
	
	IV. Students opted for internship in the eighth semester has to attend the interim and final project evaluation. Internal internship supervisor shall be a member of project evaluation committee along with other project evaluation committee

	members. It is desirable that external supervisor from industry also shall be a member of evaluation committee of such students along with other project evaluation committee members.
24R3.7.10	Socially Relevant Project: Each student should complete a minimum of 60 hours of community service during their lower semesters (1-5). 1. Students shall be assigned a mentor to guide them through the process. 2. Students shall keep a log book of their activities, which must be signed off by their mentor or faculty member in charge. 3. The participation of students in NSS/NCC/Club activities will not be coming under the purview of socially relevant project. 4. Each team shall submit a report and make brief presentation based on the service rendered to the society, and an evaluation will be conducted by a committee constituted by the Head of the Department.
24R3.8	Credit per semester shall not be less than 15 or greater than 25 and cumulative credits shall not be less than 163.
24R3.9	Medium of Instruction: The medium of instruction shall be English. All examinations, project/seminar reports, and presentations shall be in English.
24R3.10	Activity Points: The activity points can be obtained by undertaking activities from the different categories. All students must earn 100 activity points from various activity segments listed in Annexure-I to qualify for the B. Tech degree. For lateral entry students joining from the third semester, the activity point requirement is 75. Three credits are given for this on a pass/ fail basis and is mandatory for getting the B. Tech Degree. As no grade is given for these three credits, it has not been included in the CGPA calculation.
24R3.11	MOOC: The MOOCs shall be considered only if it is conducted by the agencies like AICTE/NPTEL/SWAYAM or NITTTR and it should have a proctored/offline examination.
24R3.11.1	The MOOCs shall have a minimum duration of 8/12 weeks and the content of the syllabus shall be enough for at least 36/48 hours of teaching for a 3 or 4/5 credit course respectively.
24R3.11.2	The students can undergo the MOOCs at their convenience, but shall complete it before the registration of end semester examination of the corresponding semester.
24R3.11.3	The list of MOOCs for Minor/Honors/Eighth semester PEC's & OEC's shall be recommended by the respective BoS and to be approved by Academic council.
24R3.11.4	The MOOCs corresponding to seventh and eighth semesters PEC/OEC shall be approved for earning credit, if it has at least 70% of the course contents that match with the syllabus of the course for which it is opted and its contents shall not have more than 40% of overlap with any of the core/elective courses in the concerned discipline or with any of the open elective the student has opted during the B.Tech program. The MOOCs corresponding to Minor/Honors shall be approved for earning credit, if it has at least 70% of the course contents that match with the syllabus of the course for which it is opted or an advanced topic in the respective domain of Honors/Minor and its contents shall not have more than 40% of overlap with any of the core/elective courses in the concerned discipline or with any of the open elective the student has opted.

24R3.11.5	The Institution shall award the credit weightage mentioned in the curriculum of the program for students on successful completion of the MOOCs for purpose mentioned in the **24R3.11.3.**
24R3.11.6	If the student passes the MOOCs corresponding to Honors or the PEC and OEC, the percentage obtained in the MOOC shall be adopted and the grade shall be decided based on **24R8.13** and **24R8.13.1**
24R3.12	The Curriculum shall include multiple course baskets for Honor/Minor and multiple course lists for PEC/OEC under each department. The department shall have the right to decide the course basket/course from the list to be floated in a given academic year and shall be informed the students accordingly.
24R3.13	Industry Elective Courses (IEC): PEC or OEC can be industry oriented and may incorporate modules which shall be designed and handled by experts from industry.

4. Course Registration and Enrollment

24R4.1	Except for the first semester, registration and enrollment shall be done at the beginning of the semester as per the schedule and procedure announced by the Institution.
24R4.2	A student shall be eligible for enrolment only if he/she completely satisfies the minimum requirement to continue the program only if i) he/she has cleared all the dues in the Institute, hostel & library up to the end of the previous semester ii) he/she is not debarred from enrolment by a disciplinary action of the Institute iii) he/she has paid all the tuition fees and all other relevant fees, if any, prescribed by the Institution.
24R4.3	Students shall complete formalities like teaching evaluation of the courses registered in the previous semester etc., if any, as notified by the Institution before the registration to a semester.

5. Structure of a Course and Syllabus

24R5.1	The entire syllabus should be divided into five modules, with description of the topics in each module, that can be covered in 12/24/36/48/60 hours for 1/2/3/4/5 credits respectively in a semester.
24R5.2	The syllabus of each course shall have a course code, course title, course delivery modes (L-T-P-J), Self-study hours (S), and credits assigned to that course (C) as per **24R3.5** along with the preamble of the course, prerequisites, course objectives, expected course outcomes, Course Outcome - program Outcome mapping, lesson plan with expected duration needed to cover the syllabus, suggested text books, reference books, assessment pattern and question paper pattern.
24R5.3	The Syllabus of each course shall be recommended by the BoS of the respective department and approved by Academic council. Any subsequent modifications shall be approved by Academic council subsequent to the recommendation of the respective BoS.
24R5.4	Structure of Course Code: Each course will be identified by a unique Course Code consisting of eight alpha numeric characters (Two digits, three alphabets which together followed by three digits) and is represented as YYXXCSNN, which can be interpreted as: **YY** – Regulation Year **XX** - Course Stream Code **C**- Course Delivery Mode, **S** – Semester Number (it can have a number from 1 to 8) NN- Course Sequence Number

For eg: 24CET303- is a theory course offered by the Civil Engineering department in the third semester of the 2024 scheme.

24MEL408 - is a laboratory course offered by the Mechanical Engineering department in the fourth semester of the 2024 scheme

24CSP607 - - is a laboratory course offered by the Computer Science and Engineering department in the sixth semester of 2024 scheme

Year of Regulation YY	Course category XX	Course delivery mode, C	Semester Number S	Serial No. of course NN
24 for 2024 regulation	BY -BIOLOGY CE - CIVIL ENGINEERING CH - CHEMICAL ENGINEERING CS - COMPUTER SCIENCE &ENGINEERING CY – CHEMISTRY EC- ELECTRONICS & COMMUNICATION ENGINEERING EE – ELECTRICAL & ELECTRONICS ENGINEERING ER – ELECTRICAL& COMPUTER ENGINEERING AI – COMPUTER SCIENCE & ENGINEERING[AI] ES - ENGINEERING SCIENCE COURSE HU - HUMANITY, SOCIAL SCIENCE	T - THEORY ALONE P - THEORY INTEGERATED WITH PRACTICAL COURSE L-LABORATORY COURSE J - THEORY NTEGERATED WITH PROJECT (PROJECT BASED COURSE) E – PROFESSIONAL ELECTIVE COURSE O - OPEN ELECTIVE COURSE H - HONORS COURSE M - MINOR COURSE S - SEMINAR R - RESEARCH BASED MINI PROJECT D - PROJECT N - INTERNSHIP	1 2 3 etc.	01 02 03 etc.

	AND MANAGEMENT MA - MATHEMATICS MC- MANDATORY COURSE ME - MECHANICAL ENGINEERING PY – PHYSICS

	6. Academic Monitoring and Student Support.
24R6.1	There shall be one senior faculty advisor (SFA) for a batch in the department and a faculty advisor (FA) each for 25 to 35 students. The Principal shall assign a regular faculty member with minimum of five year of experience as the SFA as recommended by HoD.
24R6.2	The documents regarding all academic and nonacademic matters of students under an advisory group shall be kept under the custody of Faculty Advisor/Senior Faculty Advisor.
24R6.3	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 on academic matters. It is the official responsibility of the institution to provide the required guidance, clarifications and advices to the students and parents strictly based on the prevailing academic regulations.
24R6.4	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/ 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. Advisory meetings shall preferably be convened: 　1. Immediately after the commencement of the semester. 　2. Immediately after announcing the marks of first internal evaluation test. 　The internal marks, activity points earned during the semester and eligibility of attendance shall be uploaded in the academic management system of the institute. . 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 students concerned. 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.

24R6.5	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 statutory body as and when required.
24R6.6	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.
24R6.7	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/ Faculty Advisor.
24R6.8	The Principal shall inform/forward all regulations, guidelines, communications, announcements etc. issued by the statutory body/University regarding student academic and other matters to the HoDs/ Senior Faculty Advisors for information and timely action.
24R6.9	It shall be the official responsibility of the Principal to arrange necessary orientation programs 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
7. Academic Auditing	
24R7.1	There shall be academic auditing in each department at stipulated intervals. The academic auditing shall be conducted by an Internal Quality Assurance Cell (IQAC) within the college in association with Department Quality Assurance Cell (DQAC) of each department. The Internal Quality Assurance Cell (IQAC) shall oversee and monitor all the academic activities including all internal evaluations and examinations. The IQAC shall prepare academic audit statements for each semester at regular intervals. These reports shall be presented to the Principal for the consideration of the statutory bodies concerned. Academic auditing shall cover: - 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 setups and equipment, practical assignments, mini projects and conduct of practical classes and their evaluation. 2. Co-curricular and Extra-curricular activities of students, the monitoring mechanism of activity points 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. 4. The audit shall also cover the quality criteria prescribed by NBA/NAAC.
8.Assessment	
24R8.1	The learning level of a student is assessed and evaluated in-house by the course facilitating faculty member/ department except in the case of project work where an external examiner shall be nominated to conduct the project presentation. The students in each semester shall be evaluated by Continuous Internal Assessment (CIA) and End

Semester Examinations (ESE) or by Continuous Internal Assessment (CIA) alone based on the credit as prescribed in the curriculum.

| 24R8.2 | The CIA is spread through the duration of course in a day-to-day basis and is done by the faculty member facilitating the course. In order to evaluate the different skills acquired by a student, the continuous learning assessments are appropriately performed through: periodic tests, assignments, presentations, surprise tests, seminars multiple choice quizzes, field visits, case-study, group activities, debates, conference papers and other suitable and innovative tools devised by the course tutor. The faculty member(s) concerned shall carry out the CIA for the courses allotted to him/her and should perform the learning assessments in the following perspectives with respect to all courses: |

- Evaluation with respect to knowledge
- Evaluation with respect to Understanding
- Evaluation with respect to skill
- Evaluation with respect to Applications and/or
- Higher Order Thinking Skills

For the Practice part of a course or a pure Practice (Laboratory/Practical) course; due weightage for carrying out experiments, such as observations, collection of data, analysis, interpretation of results, inferences and also timely submission of record work done would all carry due weightage based on the type of laboratories and the course.

| 24R8.2.1 | The CIA marks for individual courses shall be computed by giving weightage to the parameters given in the table below: |

Mark Distribution of CIA

| Course Structure [L-T-P-J] | Attendance | Assignment | Theory [L- T] | | | Practical [P] | Project [J] | | Total Marks |
			Test-1	Test-2	#Class work	Lab Exam	Evaluation 1	Evalaution-2	Report	
1-0-0-0	5	25	20	-	-	-	-	-	-	50
2-0-0-0	5	35	30	30	-	-	-	-	-	100
1-0-2-0	5	10	20	-	25	40	-	-	-	100
0-0-2-0	5	-	-	-	35	10	-	-	-	50
0-0-4-0	5	-	-	-	25	30	-	-	-	60
2-1-0-0	5	15	10	10	-	-	-	-	-	40
3-0-0-0	5	15	10	10	-	-	-	-	-	40
3-1-0-0	5	15	10	10	-	-	-	-	-	40
4-0-0-0	5	15	10	10	-	-	-	-	-	40
2-0-2-0	5	10	-	15	15	15	-	-	-	60
3-1-2-0	5	10	12.5	12.5	10	10				60
2-1-2-0	5	10	12.5	12.5	10	10	-	-	-	60
3-0-2-0	5	10	12.5	12.5	10	10	-	-	-	60

2-0-2-2	5	10	-	15	10		5	10	5	**60**
2-2-0-0	5	10	12.5	12.5						**40**
^2-0-2-0	5	10	20		*45	20				**100**
&0-0-4-0	5				55	40				**100**

^ For Idea lab only, & For Manufacturing Practices only *Split up is given in the syllabus

The CIA marks for the attendance for each theory, practical and drawing shall be awarded in full, only if the candidate has secured 90% attendance or above in the course. If a student has attendance for a course below 90%, reduction in the marks for the attendance shall be made proportionally. The CIA marks obtained by the student for all courses in a semester are to be published at least 5 days before the commencement of the ESE. Duty leave shall be accounted for awarding the internal marks for attendance. Retest shall be permitted to the students who could not appear for the internal tests due to genuine grounds.

Based on the course category the number of assignments that shall be given for each course may vary. The table given below gives the details about it.

Assessment of Assignment component of CIA

Course Category	L-T-P-J	Credit	Assessment of Assignment component of CIA
Theory Course	1-0-0-0	1	One assessment per two and half module
	2-0-0-0	2	
Theory Embedded with Practical	1-0-2-0	2	
Theory Course	2-1-0-0	3	Minimum two assessments per two and half modules. If more numbers are given, best two shall be considered for the calculation of CIA.
	2-2-0-0	4	
	3-0-0-0	3	
	3-1-0-0	4	
	4-0-0-0	4	
Theory Embedded with Practical	2-0-2-0	3	
	3-1-2-0	5	
	2-1-2-0	4	
	3-0-2-0	4	
Project Based Course	2-0-2-2	5	

24R8.2.2	Evaluation Type, CIA & ESE Mark Distribution: for courses with various course structure is given in the following table:

Evaluation Type	Course Category	L-T-P-J	Credit	CIA Mark	ESE Mark	CIA %	ESE %
CIA only	Theory Course	1-0-0-0	1	50	-	100 %	-
		2-0-0-0	2	100			

		Theory integrated with Practical	1-0-2-0	2				
		Practical	0-0-2-0	1	50			
			0-0-4-0	2				
		Seminar	0-0-6-0	3	100			
		Project [Minor/Honor]	0-0-0-4	4				
		Major Project	0-0-14-0	7				
	CIA + ESE	Theory Course	2-1-0-0	3				
			2-2-0-0	4				
			3-0-0-0	3	40	60	40%	60%
			3-1-0-0	4				
			4-0-0-0	4				
		Theory integrated with Practical	2-0-2-0	3				
			3-1-2-0	5				
			2-1-2-0	4	60	40	60%	40%
			3-0-2-0	4				
		Project Based Course	2-0-2-2	5				

24R8.2.3	Assessment for Project, Seminar, Mini Project and Research based Mini project is given in the table given below.

Course	Mark Distribution
Project work	a. Work assessed by the project guide – 25% b. Three-member Continuous Internal Evaluation Committee – 20% (Guide shall be one member in the CIE committee) 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% d. Draft report – 5 % Final Report - 15% e. Preparing and presenting poster -5%
Seminar	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. a) Attendance: 5% b) Guide: 25% c) Technical Content: 30% d) Presentation: 40%
Mini Project / Research based Mini Project	a. Work assessed by the project guide –25% b. Three-member Continuous Internal Evaluation Committee – 25% (Guide shall be one member in the CIE committee) c. Draft report – 5 % Final Report - 10% d. Final Evaluation by a three-member Committee comprising of the department project coordinator, guide and a member from sister department. - 35%

| 24R8.3 | End semester Examination Patterns: The end-semester final examination shall have learning assessments from the following perspectives with respect to all courses:
 • Evaluation with respect to knowledge
 • Evaluation with respect to Understanding
 • Evaluation with respect to Applications
 Based on the total marks of the ESE, separate evaluation pattern shall be followed and is given in table below.
 Evaluation pattern for End Semester Examination | | | |

PATTERN	PART A	PART B	ESE Marks
PATTERN 1	10 Questions, each question carries 2 marks Marks: (2x10 =20 marks)	2 questions will be given from each module, out of which 1 question should be answered. Each question can have a maximum of 2 sub divisions. Each question carries 8 marks. Marks: (5x8 = 40 marks) Time: 3 hours	**60**
	Total Marks: 20	Total Marks: [5x8 = 40 marks]	
PATTERN 2	NIL	2 questions will be given from each module, out of which 1 question should be answered. Each question can have a maximum of 2 sub divisions. Each question carries 8 marks. Marks: (5x 8 = 40 marks) Time: 2.5 hours	**40**
	Total Marks: 0	Total Marks: [5x8 = 40 marks]	
PATTERN 3 [For the course 24EST108/24EST206 Engineering Graphics 2-2-0-0	NIL	2 questions will be given from each module, out of which 1 question should be answered. Each question carries 12 marks. Marks: (5x 12 = 60 marks) Time: 3 hours	**60**
	Total Marks: 0	Total Marks: [5x12 = 60 marks]	
PATTERN 4 (For the course 24CHP701 Computer-Aided Process Design (2-1-2-0)	NIL	2 Questions, each question carries 40 marks. Each question can have a maximum of 2 sub-divisions. Marks: (1x40 = 40 marks Time: 2.5 hours	**40**
	Total Marks: 0	Total Marks: (1x40 = 40 marks]	

| 24R8.4 | Students, who have completed a course but could not write the end semester examination, shall be awarded "I' Grade, provided they meet other eligibility criteria **24R8.5**. They shall register (exam registration) and appear for the end semester |

	examination at the next opportunity and earn the credits without having to register (course registration) for the course again
24R8.5	The main eligibility criteria for registering the End Semester Examination are attendance in the course and no pending disciplinary action. The minimum attendance for appearing for the End Semester Examination is 75% in each course, **40% marks for CIA** Students who do not meet these eligibility criteria are awarded an FE grade.
24R8.6	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.
24R8.7	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.
24R8.8	The maximum number of credits a student can register (course registration) for, in a semester is limited to 10 credits in excess of the total mandatory credits allotted in the curriculum for that semester.
24R8.9	A student will be eligible for the award of B. Tech. Degree of the University on satisfying the following requirements: 1. Fulfilled all the curriculum requirements within the stipulated duration of the program. 2. Earned the required minimum credits as specified in the curriculum for the branch of study (R3.5.1& R3.10). 3. No pending disciplinary action.
24R8.10	Students registered for a course have to attend the course regularly and undergo the Continuous Internal Assessment (CIA) and appear for the End Semester Examinations (ESE). Credits for the course are deemed to be earned only on getting at least a pass grade 'P' or better in the composite evaluation.
24R8.11	Pass minimum for a course shall be 40% for the End Semester Examination, 40% of CIA, and 50% of CIA and ESE aggregate. If a course has both theory and practical component, then the student shall appear in the end semester examinations of both the theory and practical components and separate minimum of 40% is required for each component. For courses with only CIA and no ESE, a minimum of 50% of CIA mark is required for a P grade.
24R8.12	Sessional improvement can be availed by a student after the first chance of the regular ESE of the respective semester. (i) who could not obtain minimum 40% marks in CIA (ii) who could not obtain a P grade though he/she has got 40% in ESE. However, the maximum marks that can be awarded through sessional improvement are sealed at 26(for the course with maximum CIA of 40 marks)
24R8.13	Grading is based on the overall % marks obtained by the student in a course, as given in **24R8.13.1**. 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).
24R8.13.1	**Grade and Grade Points**

Grades	Grade Point (GP)	% of Total Marks obtained in the course
S	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	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	55% and above but less than 60%
P (Pass)	5.5	50% and above but less than 55%
F (Fail)	0	Below 50% (CIA + ESE) or Below 40 % for ESE or Below 40% for CIA Below 50% for courses with only CIA and no ESE
FE	0	Failed due to lack of eligibility criteria
I	0	Could not appear for the end semester examination but fulfills the eligibility criteria.
Classification of B.Tech Degree.	First Class with Distinction	CGPA 8.0 and above
	First Class	CGPA 6.5 and above
Equivalent percentage mark shall be = 10 * CGPA		

24R8.14	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 Institute Examination Manual.	
24R8.15	Revaluation: The students can apply for revaluation of the answer books of the end semester examination after the results are declared. The Controller of Examination shall examine such cases and take appropriate actions based on rules available in the Institute Examination Manual.	

24R8.16	a. The 'I' Grade once awarded stays in the record of the student and is deleted when he/she completes the course successfully later. The grade acquired by the student will be indicated in the grade card of the appropriate academic year with an indication of the month and the year of passing of that course. b. 'F' grade obtained by a student will be deleted in the grade card once that course is successfully completed. The pass grade acquired by the student will be indicated in the grade card of the appropriate year with an indication of the month and the year of passing. The CGPA will be accordingly revised.
24R8.17	Grade cards shall be made available in the student login for the registered courses, in every semester by the institute. On earning the required credits for the degree, the Institution will issue the final consolidated grade sheet for the B. Tech program including CGPA.
24R8.18	All matters pertaining to the conduct of ESE, declaration of results, revaluation, and scrutiny will be as per the institution examination manual unless otherwise mentioned in this regulation.
24R8.19	SGPA/CGPA Calculation: Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA) are calculated as follows. $$SGPA = \Sigma(C_i \times GP_i)/\Sigma C_i ,$$ where 'Ci' is the credit assigned for a course and 'GPi' 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. $$CGPA = \Sigma(C_i \times GP_i)/\Sigma C_i ,$$ where 'Ci' is the credit assigned for a course and 'GPi' 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 for the B. Tech program is arrived at by considering all course credits that are needed for the degree and their respective grade points. For students admitted under lateral entry scheme, credits for the first and second semester courses shall not be accounted for the calculation of CGPA. Equivalent percentage mark shall be = 10 * CGPA
24R8.20	Re-admission: When the case of readmission arises from one scheme to another, respective BoS shall have to prepare the courses for credit transfer/ transitory courses. In such cases application from students addressed to dean UG shall be forwarded to respective BoS and academic council shall approve the same after receiving the recommendation from BoS. .
24R8.21	Activity Points: A student shall earn 3 credits by actively involving in co-curricular and extra –curricular activities as per the guidelines issued by the college from time to time. On getting minimum 100 activity points the student passes the course and earns the three 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 3 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.
24R8.22	Malpractices in Examination: Any act of violation of Institute 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 Controller of Examination to see that the examinations are conducted strictly as per the institution Examination Manual. Malpractices in examinations observed or reported by an official employed by the University/Institution, faculty member or invigilator shall be immediately reported to the Deputy Controller of Examination. The Deputy Controller of Examinations shall in turn conduct a preliminary enquiry giving the student concerned a chance to explain his/her case and 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 Institution Examination Manual.

9.Break of Study

24R9.1	a) A student is permitted to avail break of study:
	
	    i) In case the student has a bright idea and would like to initiate a start-up venture or develop a product.
	    ii) In case of accident or serious illness needing prolonged hospitalization and rest.
	    iii) In case of any personal reasons that need a break in study.
	    iv) For internship leading to employment.
	
	b) Break of study shall be imposed on a student due to the following reasons
	
	    i) 'Debarred from study' due to any stipulated reason in the previous semester.
	    ii) 'Pending Disciplinary Actions' against him/her from the previous semesters
	    iii) Not registered for a semester.
	
	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.
	
	Students who want to initiate a start-up venture or a product development shall submit 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. The break of study for the start-up shall be permitted only after the 4th semester for a maximum duration of two semesters. This is however permitted only on successfully completing the courses listed out in the first two semesters.
	
	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.
	
	Students who require break in study for 'internship leading to employment' shall produce the offer letter obtained from the employer concerned. The HoD shall verify the authenticity of the offer and submit his recommendation to the Principal in advance for approval. Only campus placed students with an annual compensation more than 6 lakhs are eligible to avail this facility.
	
	The student can avail the break of study only with the prior approval of the Principal. The Principal shall inform the details of students who availed break of study to the university.
	
	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.

24R9.2	During the Break of Studies, a student is: a. Not permitted to attend any regular classes b. Not permitted to stay in the 'Hostel' facility provided by TKMCE c. Not permitted to participate in any of the institute level activities inside the campus. d. Eligible to register for courses in which he/she might have obtained an 'I'/'FE' grade. e. Eligible to reappear for the 'End Semester Final Examination' for such courses in which he/she might have obtained 'F' / 'I' grade.
	10.Attendance
24R10.1	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. The minimum attendance requirement of 75% allows a student the facility to use the balance 25% to account for illnesses, permitted assignments such as job interviews, inter university sports meets, inter-collegiate/inter-university competitions, unforeseen emergencies etc. The students who have less than 75% attendance will not be permitted to appear the end semester examination. The grade for CIA only courses shall be awarded to the students only if he/she satisfies the minimum attendance of 75%.
24R10.2	On medical ground, the 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. HoD shall forward the application of students for attendance relaxation to the Principal for approval. The SFA shall keep all records which led to his decision on attendance, for verification by the IQAC/any other competent authority. This provision is applicable only to any two semesters during the entire program period.
24R10.3	The Principal has the power to grant attendance relaxation (duty leave) to the students in officially sponsored national level competitions/championships/ tournaments when called upon to do so, up to a maximum of 10%. Such students should produce the participation certificate counter signed 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 60%. Late applications received shall not be considered on any account. The student shall get official prior permission from the University/Institution for representing the University/Institution.
24R10.4	The Principal has the power to grant attendance relaxation (duty leave) to the students for organizing extra/ co-curricular activities, up to a maximum of 05%. Such students should produce the required documents 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 extra/ co-curricular activities: within ten days of the events. The documents 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 documents, if the overall attendance of the candidate is less than 60%. Late applications received shall not be considered on any account.
	11. Inter College Transfer
24R11.1	Inter college transfer shall be applicable only for regular B. Tech students subject to the stipulations from the affiliating university promulgated time to time.
	12. Migration from other Universities
24R12.1	Migration to the institution from other Universities shall be permitted subject to the stipulations from the affiliating university promulgated time to time.
	13 Minor in Engineering
24R13.1	All B. Tech students shall be eligible to register for Minor in Engineering.
24R13.2	The Minor in Engineering registration shall be along with the registration of the 3rd semester.
24R13.3	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.
24R13.4	The student shall earn additional 20 credits to be eligible for the award of B. Tech Degree with Minor.
24R13. 5	Out of the 20 Credits, 12 credits shall be earned by undergoing a minimum of three courses, during the specified period. The total number of contact hours for these three courses shall be 126 Hrs. (42Hrs/course). The duration of a course shall be minimum 12 weeks. The remaining 8 credits could be acquired through two MOOCs recommended by the Board of studies and approved by the Academic Council.
24R13.6	Curriculum and the syllabus of the theory courses shall be approved by the Board of studies and the Academic Council.
24R13.7	The assessment of the courses other than MOOCs and earning of credits shall be as per **24R8.1** to **24R8.22**. The assessment and certificate 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.
24R13.8	Undergraduate 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.
	14. B. Tech (Honors)
24R14.1	All B. Tech students are eligible to register B.Tech (Honors). However, their mandatory CGPA at the end of eighth semester shall be 8.5 or higher to be eligible for the award of B. Tech (Honors).
24R14.2	The B. Tech (Honors) registration shall be along with the registration of the 4th semester.
24R14.3	If a student fails in any course including the course chosen for B. Tech (Honors), he/she shall not be eligible to continue the B.Tech(Honors). However, the additional credits thus far earned by the student shall be included in the grade card but shall not be considered in calculating the CGPA.
24R14.4	The student shall earn additional 20 credits to be eligible for the award of B. Tech (Honors) Degree.

24R14.5	Out of the 20 Credits, 12 credits shall be earned by undergoing minimum three specified B. Tech (Honors) Elective courses of the respective stream. Credits for the B. Tech (Honors) Elective courses are deemed to be earned only on getting at least a grade 'C' or better in the composite evaluation. 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 (Honors). The remaining 8 credits could be acquired through two MOOCs of the respective streams recommended by the Board of studies and approved by the Academic Council.
24R14.6	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.
24R14.7	The institutions shall not charge any additional fees other than examination fees from the students for the Honors course.
24R14.8	B. Tech (Honors) Degree shall be issued by the University to the students who fulfill all the academic eligibility requirements for the B. Tech and B. Tech (Honors) programs.
	15. Grace Marks for Sports /Arts Competitions.
24R15.1	Only bonafide, regular candidates are eligible for the award of Grace Marks.
24R15.2	The criterion for the award of Grace Marks is representing the University/Institution in officially sponsored national level competitions/championships/ tournaments when called upon to do so. The student shall get official prior permission from the University/Institution for representing the University/Institution.
24R15.3	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 Institute conducts End Semester Examinations.
24R15.4	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.
24R15.5	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.
24R15.6	Eligible Grace Marks shall be distributed equally on all theory papers/courses of an examination. However, redistribution of Grace Marks shall be allowed only in the case of those courses of an examination for which the candidate has passed. Redistribution is possible from passed courses to failed courses only. Redistribution of Grace Marks is not permissible from failed courses to other courses for a pass.
24R15.7	The Grace Marks shall be awarded for all theory courses in a semester.
24R15.8	Redistribution shall be done only for enabling a candidate to obtain the minimum marks required for a pass.
24R15.9	Grace Marks shall not be redistributed from one semester to another semester.
24R15.10	If the candidate does not secure the minimum marks required for a pass even after effecting redistribution, eligible moderation fixed by the respective board if any, shall be awarded to that candidate in addition to the Grace Marks for a pass.

24R15.11	Eligible Grace Marks shall be awarded for the regular examination of the performing semester only. Grace Marks shall not be awarded for supplementary examinations.
24R15.12	The performing semester shall be considered from 1st July to 31st December (Odd semester) and 1st January to 30th June (Even Semester).
24R15.13	Grace Marks shall be awarded on the basis of performance in the respective semester.
24R15.14	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.
24R15.15	Only a single highest achievement during the period of a semester shall be considered for awarding the grace marks.
16. Grace Marks for Persons with Disability (PWD)	
24R16.1	A person with disability means a person suffering from not less than 40% of any disability as certified by the Medical Board in Govt. hospitals. 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.
24R16.2	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.
24R16.3	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.
24R16.4	PWD candidates who are eligible for Grace Marks shall be awarded Grace Marks for regular and supplementary chances until they pass the whole examination.
24R16.5	Grace Marks shall be awarded only for the marks of the End Semester Examinations.
24R16.6	Request for Grace Marks shall be submitted to the Controller of Examinations through the HoD along with all relevant documents, within the time limit prescribed by the Institution. The request for Grace Marks received after the time limit shall not be entertained on any account.
17. Grace Marks for Paper publication	
24R17.1	Grace mark for publication is restricted to a maximum of 10 marks. Students will be awarded 5 marks for publication, in which he/she is the author or co-author and the publication is accepted in a Scopus indexed conferences and will be awarded 10 marks for publication, in which he/she is the author or co-author and the publication is accepted in a SCI/Scopus index journal. This is to be validated and approved by the research council of the Institute.
18. Degree Certificate & Provisional Certificate:	
24R18.1	Award of Degree: Upon satisfying all the conditions noted in **24R8.9**, Institution shall recommend to affiliated university for awarding the B.Tech degree to such students. Affiliated University is the authority for awarding the degree certificate.
24R18.2	Provisional Degree Certificate and Consolidated Grade Card: Upon satisfying all the conditions noted in **24R8.9**, institution shall issue consolidated grade card and Provisional Degree certificate for the students.
19. Transcript	

24R19.1	Transcript will be issued to students on request by paying a prescribed fee. Transcripts shall contain all the information that is mentioned in the grade sheet along with the month and year of passing of each course.
20. Transitory Provision.	
24R20.1	Notwithstanding anything contained in these regulations, the statutory bodies shall, have the power to provide by order that these Regulations shall be applied to any B.Tech program with such modifications as may be necessary.

ANNEXURE 1

RULES FOR ASSIGNING ACTIVITY POINTS

Apart from technical knowledge and skills, to be successful as professionals, students should have excellent soft skills, leadership qualities and team spirit. They should have entrepreneurial capabilities and societal commitment. With a view to nurturing these qualities, activity points to be earned by the students, covering extra-curricular and co-curricular activities, have been specified. All students have to earn a minimum of 100 activity points from various activity segments listed to qualify for the B.Tech degree. Three credits are given for this on a pass/ fail basis and is mandatory for getting the B.Tech Degree. As no grade is given for these two credits, they are not included in the CGPA calculation. For lateral entry students joining from the third semester, the activity point requirement is 75 Points earned by the student will be indicated in the consolidated academic statement. In case of NSS and NCC, points can be entered after the completion of two-year Programme. All documental proof for awarding the activity points should be obtained and the points are to be consolidated. The rules for assigningactivity points are given in the following sections.

THE MAIN ACTIVITY SEGMENTS ARE AS GIVEN BELOW:

1. National Initiatives
2. Sports & Games
3. Cultural Activities
4. Professional Self Initiatives
5. Entrepreneurship and Innovation
6. Leadership & Management

The following table gives the list of activities under each of these segments, the level of achievement expected, activity points, evidence needed to assign the points and the minimum duration needed for certainactivities. Additional activities under these segments can be considered, after approval from the Academic Council.

Activity Head	Sl. No	Activity	Achievement Levels and Assigned Activity Points					**Approval Document	Max. Points	Min. Duration of activity
		*Level	I	II	III	IV	V			
National Initiatives Participation	1	N C C	-	-	-	-	-	a/b	60	2 Year
	2	N S S	-	-	-	-	-	a/b	60	2 Year
		For C certificate / outstanding performance supported by certification, additional marks upto 20 canbe provided subjected to maximum limit of 80 points. Best NSS Volunteer Awardee (University level) / Participation in National Integration Camp/ PreRepublic Day Parade Camp (South India), supported by certification, additional marks upto 10 canbe provided subjected to maximum limit of 70 points Best NSS Volunteer Awardee (State / National level) / Participation in Republic Day Parade Camp /International Youth Exchange Programme, supported by certification, additional marks upto 20 canbe provided subjected to maximum limit of 80 points								
Sports & Games Participation	3	Sports:	8	15	25	40	60	a	60	1 Year
	4	Games	8	15	25	40	60	a	60	1 Year
		First Prize	10	10	10	20	20	Additional points can be provided for winning. The maximum limit for activity points is 60. But for Level IVand V winning, the maximum point limit is enhanced to 80.		
		Second Prize	8	8	8	16	16			
		Third Prize	5	5	5	12	12			
Cultural Activities Participation	5	Music	8	12	20	40	60	a	60	1 Year
	6	Performing arts	8	12	20	40	60	a	60	1 Year
	7	Literary arts	8	12	20	40	60	a	60	1 Year
		First Prize	10	10	10	20	20	Additional points can be provided for winning. The maximum limit for activity points is 60. But for Level IVand V winning, the maximum point limit is enhanced to 80.		
		Second Prize	8	8	8	16	16			
		Third Prize	5	5	5	12	12			

Professional Self Initiatives

Sl	Activity								
8	Tech Fest, Tech Quiz	10	20	30	40	50	a	50	
9	MOOC with final assessment certificate	50					a	50	
10	Competitions conducted by Professional Societies - (IEEE, IET, ASME, SAE, NASA etc.)	10	15	20	30	40	a	40	
11	Attending Full time Conference/ Seminars / Exhibitions/ Workshop/ STTP conducted at IITs /NITs	15					a	30	
11 a	Attending Full time Conference/ Seminars / Exhibitions/ Workshop/ STTP conducted at KTU or its affiliated institutes	6					a	12	
12	Paper presentation/ publication at IITs /NITs	20					a	40	
	Additional 10 points for certificate of recognition.								
12. a	Paper presentation/ publication at KTU or its affiliated institutes	8					a	16	
	Additional 2 points for certificate of recognition.								
13	Poster Presentation at IITs /NITs	10					a	20	
	Additional 10 points for certificate of recognition.								
13. a	Poster Presentation at KTU or its affiliated institutes	4					a	8	
	Additional 2 points for certificate of recognition.								

	14	Industrial Training/ Internship (atleast for 5 full days)	20	a/b	20	
	15	Industrial/ Exhibition visits	5	a/b/d	10	
	16	Foreign Language Skill (TOEFL/ IELTS/ BEC exams etc.)	50	a	50	
Entrepreneurship and Innovation	17	Start-up Company – Registered legally	60	d	60	
	18	Patent-Filed	30	d	30	
	19	Patent - Published	35	d	60	
	20	Patent- Approved	50	d	60	
	21	Patent- Licensed	80	d	80	
	22	Prototype developed and tested	60	d	60	
	23	Awards for Products developed	60	d	60	
	24	Innovative technologies developed and used by industries/users	60	d	60	
	25	Got venture capital funding for innovative ideas/products.	80	d	80	
	26	Startup Employment (Offering jobs to two persons not less than Rs. 15000/- per month)	80	d	80	
	27	Societal innovations	50	d	50	

			Core coordinator	Sub coordinator	Volunteer			
	28	Student Professional Societies (IEEE, IET, ASME, SAE, NASA etc.)	15	10	5	d	40	
	29	College Association Chapters (Mechanical, Civil, Electrical etc.)	15	10	5	d	40	
Leadership & Management	30	Festival & Technical Events (College approved)	15	10	5	d	40	
	31	Hobby Clubs	15	10	5	d	40	
	32	Elected student representatives	30 (Chairman)	25 (Secretary)	15 (Other Council Members)	d	60	

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

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