TKM COLLEGE OF ENGINEERING

(Government Aided and Autonomous)

celebrating 60 years of excellence



B.Tech Academic Regulations 2023

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

Abstract

TKMCE- Academics- B.Tech academic regulations 2023 -orders issued

No: ACU3/652/2023

Date: 12/06/2023

Order

Read:

- 1. UGC order Ref: F. 22-1/2022(AC) dated 26th May 2022
- 2. U.O. No. KTU/ASST11(ADMIN)/3212/2022 dated 2nd September 2022
- 3. ACU3/1010/2022 dated 16th September 2022

The TKM College of Engineering was conferred with autonomous status by the UGC on 26th May 2022 vide Ref: 1 and the same was notified by the APJ Abdul Kalam Technological University, on 2th September 2022, vide ref.2

The first Governing Body meeting held on September 15, 2022, authorized the Principal to constitute the Academic Council as per the UGC (Conferment of Autonomous Status upon Colleges and Measures for Maintenance of Standards in Autonomous Colleges) Regulations, 2018. As per the resolution of the Governing Body, the Principal has constituted the Academic Council on September 16, 2022, vide ref. 3. The third Academic Council meeting held on June 12, 2023, approved the B.Tech. Regulation for the academic year 2023-24 onwards. The academic regulations for the B.Tech programs, 2023, approved by the Academic Council, is hereby notified as the TKM College of Engineering (Aided and Autonomous) Academic Regulations for B.Tech Programs 2023.



PRINCIPAL THANGAL KUN, HAMBANLIAR COLLEGE OF ENGINEERING KOLLAM-5

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

TKM College of Engineering (Aided and Autonomous) Academic Regulations for B.Tech Programs 2023

This may be called the TKM College of Engineering Academic Regulations for B.Tech Programs 2023. These are subject to the provisions of the UGC (Conferment of Autonomous Status upon Colleges and Measures for Maintenance of Standards in Autonomous Colleges) Regulations, 2018 and the APJ Abdul Kalam Technological University Act, 2015, and the statutes and ordinances, if any, issued in the subject from time to time. All the rules specified herein, approved by the Academic Council, will be in force and applicable to students admitted from the academic year 2023-24 onwards.



PRINCIPAL THANGAL KUNJU MUSALIAR COLLEGE OF ENGINEERING KOLLAM-5

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Preface

The TKM College of Engineering is pleased to announce the launch of its new 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 2023 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 eighth semester, creating mutual benefits for both employers and students, while also broadening the scope of employability. Curriculum offers a flexibility in credit system by permitting students to opt for MOOC courses corresponding to the Professional Elective and Open Elective Courses of the eight semesters, during the lower semesters thereby providing necessary flexibility 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 thematic course streams. The 2023 TKMCE curriculum utilizes this feature by offering Micro-Specializations to UG students.

In order to promote civic responsibility, foster leadership skills, and deepen students' understanding of social issues, the new curriculum integrates opportunities for 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 2023 curriculum effectively addresses these challenges through the introduction of courses such as sports and yoga, as well as Universal Human Value programs.

For the award of B.Tech. Degree, a student has to acquire a maximum of 160 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 from 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.

The rules and regulations stated herein shall be called the **TKM College of Engineering (Aided and Autonomous) academic regulations for B.Tech program, 2023**. 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 2023 admission onwards. Curriculum of the programs under this regulation shall be decided by the Academic council of TKM College of Engineering .



	1. Preamble
23R1.1	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 2023-24 onwards
23R1.2	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)
23R1.3	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 2023-24 onwards.
23R1.4	These regulations, as amended from time to time shall be binding on all parties concerned, including the Students, Faculty, Staff, of the College.
23R1.5	The College has the right to modify the regulations from time to time.
23R1.6	In all matters related to the regulations, the decision of the College and its interpretation given by the Academic Council shall be final and binding.
23R1.7	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
23R2.1	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.
23R2.2	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.
23R2.3	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.
23R2.4	A student admitted to this institute shall continue studying in that institute till the completion of the course, unless he/she is permitted an inter college transfer as per 23R11.1

	3. Structure of B.Tech. progr	am.			
23R3.1	The duration of the B.Tech. Program shall be 4 years (8 semesters)				
23R3.2	The maximum duration shall be six academic year	ars spanning 12 semesters.			
23R3.3	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.				
23R3.4 23R3.5	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.				
25105.5	Course Credit: The academic programs of the Ingeneral pattern is as below:	isitute follow the credit system. The			
	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.				
23R3.5.1	The curriculum of any branch of the B.Tech. academic/ learning credits and 3 additional activi				
23R3.5.2	Course categories based on content delivery categorized into 1/2/3/4/5/6 credit courses bas method and the desired depth of the course. The only, Theory with tutorial, Theory with practice, J notation for each course signifies the allocati terms of Lecture (L), Tutorial (T), Practical (P), the credit earned from the course. Apart from let the project hours the curriculum offers Self learn of hours students are expected to spent for activit the class defined by the faculty handling cours learning, initiated by the students themselves tutors. For each course Self learning hour per we	y: Courses in the curriculum are sed on the chosen content delivery ne delivery methods include Theory- Theory with project etc. The L-T-P- ion of hours for content delivery in and Project (J) per week, as well as ecture, tutorial, practical/practice and ing hours(S) that indicate the number ties that should be completed outside ses, and for the activities to support without guidance or direction from			
	S=(L*1+P*1+[-	+[J/2])			
	where J belongs to the project component of a pr J-S-C for each course indicates the number of ho (T), Practical (P), Project (J), Self-study hours (S	urs delivered as Lecture (L), Tutorial			

	indicate	ed as Credits (C)		_ T _ T _	[D / 2] + I		
	Catego	ries of courses i			$[\mathbf{P}/2] + \mathbf{J}$	eir L-T-P-J-S-C c	omponents
	-	en in the table be				л L-1-1- ј- 5-С С	omponents
	SI	Lecture-	Self-	Credit			
	No.	Tutorial-	learning	[C]		Description	
		Practical/	hours[S]				
		Project [L-T-		_			
		P-J]					
	1	1-0-0-0	1	1		urse without End	l Semester
	2	2-0-0-0	2	2	Examinatio	and the second sec	
	3	2-0-2-0	4	3	Theory of practical	course embedo	led with
	4	2-1-0-0	2	3	Theory cou	rse embedded wi	ith tutorial
		3-1-0-0	3	4		10	11
	5	3-0-0-0	3	3	Theory cou	irse	110
	6	3-1-2-0	5	5	Theory	course embedo	ded with
	7	2-1-2-0	4	4	practical an	nd tutorial	25 1 1
	8	1-0-2-0	3	2	Theory of practical wa	course embedo ithout ESE	led with
	9	3-0-2-0	5	4	Theory of practical	course embedd	led with
	10	2-0-2-2	5	5	Project bas	ed course	12
	11	0-0-2-0	2	1	Practical co	ourse without ES	E
	12	0-0-4-0	4	2	Practical co	ourse	mili
	13	0-0-6-0	6	3	Seminar	78. /	2111
	14	0-0-12-0	12	6	Final year l	Project	711
	Mandatory Courses (Pass / Fail)						711
	15	2-0-0-0	2	0	Theory Cou	urses	11
		3-0-0-0	3	-99		15	
	16	2-0-2-2	5	0	Theory cou	rse embedded w	ith project
	17	0-0-0-2	1	0	Socially Re	elevant Project	SE
			Mir	nor/ Hond	Honors Course		
	18	4-0-0-0	4	4	Theory cou	irse	
	19	0-0-0-4	2	4	Project only	y course	
23R3.6	Every	course of B. Te	ch. Program	shall be	placed in one	e of the eleven of	categories
		on the nature of	-		-		
	Sl No):	Categ	ory		Code	Credit Breakup
	1		Humanities and Social Sciences including Management courses		including	HSMC	16
	2	Basic Scien	ce courses			BSC	20

	3	Engineering Science courses including	ESC		29		
	5	workshop, drawing, basics of electrical/	ESC		29		
		mechanical/computer etc.					
	4	Professional Core Courses	PCC		59		
	5	Professional Elective courses relevant to	PEC		12		
	5	chosen specialization/ branch		(IEC)	12		
	6	Open Electives – Electives from other	OEC		9		
		technical and /or emerging areas	OLC		,		
	7	Project work, seminar and internship in	PROJ		15		
		industry or elsewhere					
	8	Mandatory Courses	MC				
	9	Mandatory Student Activities	SA		3		
			50	1	160		
	1	Total Academic/Learning credits	10	6	100		
	11	Optional Specialization	-11	200	11		
	10	Honors	HR	12	20		
	11	11 Minor			20		
		Total Academic/Learning credits with optional specialization					
		6 deviation in credits is permitted under each	discipline.	While of			
	the curric distributio	6 deviation in credits is permitted under each alum, the department offering the program sh n shall be attained by the students upon their o	discipline. hould ensu	While oure that the of the other of the other ot	leveloping the above		
23R3.7	the curric distributio Either Min Course Co	b deviation in credits is permitted under each alum, the department offering the program sh in shall be attained by the students upon their of or or Honors can be opted from the optional sp de: Every course of B. Tech. Program shall be	discipline. hould ensuccompletion	While oure that n of their	leveloping the above r program.		
23R3.7	the curric distributio Either Min Course Co given belo	b deviation in credits is permitted under each alum, the department offering the program sh in shall be attained by the students upon their of for or Honors can be opted from the optional sp de: Every course of B. Tech. Program shall be w.	discipline. hould ensu completion pecializatio e taken a c	While oure that n of their	leveloping the above r program.		
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23R3.7	the curric distributio Either Min Course Co given belo Cours categor	 a deviation in credits is permitted under each alum, the department offering the program shall be attained by the students upon their of a or or Honors can be opted from the optional species. Every course of B. Tech. Program shall be w. e Description y Professional Core Course Project Based Course 	discipline. hould ensu completion pecializatio e taken a c	While oure that n of their	leveloping the above r program.		
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23R3.7	the curric distribution Either Min Course Co given belo Course COURS C	 a deviation in credits is permitted under each alum, the department offering the program shall be attained by the students upon their of a for or Honors can be opted from the optional spectre determined by the students upon their of a for or Honors can be opted from the optional spectre determined by the students upon the optional spectre determined by the students upon the optional spectra be opted from the optional spectra be o	discipline. hould ensu completion pecializatio e taken a c	While oure that n of their on. code fror	leveloping the above r program.		
23R3.7	the curric distributio Either Min Course Co given belo Cours categon PCC PBC PBC OEC BSC ESC HSMC	 a deviation in credits is permitted under each alum, the department offering the program shall be attained by the students upon their of or or Honors can be opted from the optional spide: Every course of B. Tech. Program shall be w. Professional Core Course Professional Core Course Professional Elective Course Open Elective Course Basic Science Course Engineering Science Course Humanities, Social Sciences and Manage Mandatory Course 	discipline. hould ensu completion pecializatio e taken a c	While oure that n of their on. code fror	leveloping the above r program.		
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	MP	Mini project
	RMP	Research based Mini Project
	MS	Micro Specialization
	HR	Honours
	MR	Minor
23R3.7.1	Professional C	Core (PCC): Courses listed under Program Core of a curriculum are
	program speci	fic. Students have to complete all the courses listed under PCC to
	become eligibl	e for the degree
23R3.7.2	exploration of knowledge. It a group-based group has to covered/advan of each progra semester and it	Course (PBC): Aims at developing a deeper knowledge through active f real-world challenges and problems by applying theoretical consists of three components: Theory, Practical and Project. Project is activity with a maximum of five members in a group, where each identify suitable application-based problem based on the topics ced concepts of topics in the theoretical part of the course. Curriculum m has three project-based courses. Only one PBC can be included in a t should be within the 3 rd to 6 th semesters.
23R3.7.3	applied or spe program core of a limited spec	lective (PEC): Refers to a set of courses which are more advanced or ecialized sub-area than the basic courses a student studies as part of courses. Courses in the PECs can be organized appropriately to provide ialization in some sub-area of program discipline to a B Tech student d as Micro-Specializations.
23R3.7.3.1	Each departme Micro speciali credit, and at	ization: - All B. Tech students are eligible for micro specialization. ent shall provide a list of micro specialization courses. Each row in the zation table shall contain a mandatory pre-requisite course with 3/4/5 least two thematic courses corresponding to the pre-requisite course, list with the sequence order of courses.
23R3.7.3.2	Students shall specialization	take any two thematic courses in the order specified in the micro list.
23R3.7.4	the departmen	course: Refers to the course that the student shall mandatorily opt from ts other than the one the he/she pursuing the under graduate studies. d to encourage cross and multidisciplinary learning.
23R3.7.5	through MOC Academic Con certification is before the com	EC and OEC in the 8 th semester can be earned in earlier semesters OCs recommended by the Board of studies and approved by the uncil and satisfying clause R3.11. The candidate shall produce the sued by the MOOCs conducting agency in proof of credit attainment amencement of the ESE of the 8 th semester.
23R3.7.6 23R3.7.7	maximum of f in their domain two interim rev	Is included in curriculum to achieve practical application of d skills learned from academics. It will be a group activity with a ive members in a group, where each group has to identify suitable topic n. The progress of the mini project is evaluated based on three reviews, views and a final review. A report is required at the end of the semester. ed Mini Project: Focuses on strengthening the understanding of
2513.1.1	Research Dast	a mini rojeci. Pocuses on suchguichning the understanding of

23R3.7.8	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.
	project in the eighth semester
23R3.7.8.1	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.
23R3.7.8.2	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.
23R3.7.9	 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 a reputed Industry/Research Organization or at another 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 eighth semester, besides the one specified in the clause I above, which shall be treated as their project in eighth semester, and shall be evaluated as specified in 23R8.2.3 The minimum duration of such internships shall be 3 months and above 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 the courses of in the eighth 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.

	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 and 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, by submitting the internship report. 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.
23R3.7.10	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.
23R3.8	Credit per semester shall not be less than 15 or greater than 25 and cumulative credits
	shall not be less than 163.
23R3.9	Medium of Instruction: The medium of instruction shall be English. All examinations, project/seminar reports, and presentations shall be in English.
23R3.10	Activity Points: The activity points can be obtained by undertaking activities from the
2313.10	different categories. All students must earn at least 100 activity points from various
	activity segments listed in Annexure-I 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 three credits, it has not been included in the CGPA calculation.
2002.11	
23R3.11	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 end semester examination.
23R3.11.1	The MOOCs shall have a minimum duration of 8/12 weeks and the content of the
23K3.11.1	syllabus shall be enough for at least 36/48 hours of teaching for a 3 or 4/5 credit
	course respectively.

23R3.11.2	The students can undergo the MOOCs at their convenience, but shall complete it before the registration of end semester examination of 8 th semester.
23R3.11.3	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.
23R3.11.4	The MOOCs corresponding to eighth semester 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.
23R3.11.5	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 23R3.11.3 .
23R3.11.6	If the student passes the MOOCs corresponding to Honors or the 8 th semester PEC and OEC, the percentage obtained in the MOOC shall be adopted and the grade shall be decided based on 23R8.13 and 23R8.13.1
23R3.12	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.
23R3.13	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
23R4.1	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.
23R4.2	 A student shall be eligible for enrolment only if he/she completely satisfies the minimum requirement to continue the program only if he/she has cleared all the dues in the Institute, hostel & library up to the end of the previous semester he/she is not debarred from enrolment by a disciplinary action of the Institute he/she has paid all the tuition fees and all other relevant fees, if any, prescribed by the Institution.
23R4.3	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	6		
23R5.1	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.					
23R5.2	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 23R3.5 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.					
23R5.3	The Syllabus department and	of each course shall be d approved by Academi by Academic council	e recommended by t ic council. Any subse	he BoS of the quent modifi	cations shal	
	together follow interpreted as: Mode, S – Sen Number For eg: 23CET the third semes 23MEL408 - is in the fourth se 23CSP607 -	eight alpha numeric c yed by three digits) and YY – Regulation Year mester Number (it can ha '303- is a theory course tter of the 2023 scheme. Is a laboratory course off mester of the 2023 sche - is a laboratory cou	is represented as YY XX - Course Category we a number from 1 to offered by the civil ered by the mechanic me	(XXCSNN, v Code C- Cou o 8) NN- Cou engineering d al engineering	which can bo urse Delivery urse Sequence epartment in	
		partment in the sixth se	mester of 2023 schem		Science and	
	101		mester of 2023 schem		Science and	
	YY	YY		ie	51	
	YY Regulation Year	YY XX	mester of 2023 schem		Science and NN Serial No: of course	

		ELECTRONICS	COURSE			
		AND	L-LABORATORY			
		COMMUNICATION	COURSE			
		ENGINEERING	J - THEORY			
		EE - ELECTRICAL	EMBEDDED			
		AND	WITH PROJECT			
		ELECTRONICS	(PROJECT			
		ENGINEERING	BASED COURSE)			
		ER - ELECTRICAL	E –			
		AND COMPUTER	PROFESSIONAL			
		ENGINEERING	ELECTIVE			
		ES -	COURSE			
	1	ENGINEERING	O - OPEN			
	1.1	SCIENCE	ELECTIVE	10		
	11	COURSE	COURSE	6.40		
	1/2	HU - HUMANITY,	H - HONORS	16.11		
	112	SOCIAL SCIENCE	COURSE	1101		
	11.51	AND	M - MINOR	1 1 2 2 1		
	1/2/	MANAGEMENT	COURSE	A ADDAN		
	1151	MA -	S - SEMINAR	1. 1001		
	1-1-	MATHEMATICS	R - RESEARCH			
	151	MC- MANDATORY	BASED MINI	Z		
	21	COURSE	PROJECT	2		
	131	ME -	D - PROJECT	1.0		
	X	MECHANICAL	N - INTERNSHIP	1 2		
	11.11.11	ENGINEERING	Self. Self.	1 21		
	1-1	PY - PHYSICS	7.66	10011		
	121	1000 38	1775	1 18211		
	10.11	1.00		1 12711		
	1103	A331 3	1. Landada	1.2011		
	6. A	cademic Monitoring an	nd Student Support.	1811		
23R6.1				in the department and a		
2010011				al shall assign a regular		
				ience as the SFA as		
			nve year of exper-	lence as the SI'A as		
2206.2	recommended b					
23R6.2				ters of students under an		
		shall be kept under the o	custody of Faculty Adv	risor/Senior Faculty		
	Advisor.					
23R6.3	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, clarify	ications and permission	ns on academic matters.		
			-	the required guidance,		
			-	based on the prevailing		
			I I I I I I I I I I I I I I I I I I I			

	academic regulations.
23R6.4	 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: Immediately after the commencement of the semester. 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.
23R6.5	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.
23R6.6	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.
23R6.7	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.
23R6.8	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.
23R6.9	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
23R7.1	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 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.
	4. The audit shall also cover the quality criteria prescribed by NBA/NAAC.
	8.Assessment
	A S (A +) A A NON
23R8.1	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.
23R8.2	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 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
220021	Course.
23R8.2.1	The CIA marks for individual courses shall be computed by giving weightage to the

following parameters given in the table below.

Mark Distribution of CIA

			Theor	-	Pract		D		0	
Course Structure (L-T-P-J)	Attendance	Assignment*	Test-1	Test-2	Class work	Lab Exam	Evaluation 1	Evalaution-2 2	Report	Total Marks
1-0-0-0	5	4 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	15	10	-	20	10	-	-	-	60
3-1-2-0	5	15	10	10	20	V		6	15	60
2-1-2-0	5	10	10	10	15	10	1	3	-	60
3-0-2-0	5	15	10	10	10	10	X	ð	-	60
\$ 2-0-2-2	5	10	10		15		5	10	5	60
^2-0-2-2	5	15		10	20		10	20	20	100
^{&} 0-0-4-0	5				55	40				100

23R8.2.2

& For Manufacturing Practices only

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.

Course Category	L-T-P-J	Credi t	Assessment of Assignment component of CIA	
Theory Course	1-0-0-0	1		
Theory Course	2-0-0-0	2	One assessment per two and half	
Theory Embedded with Practical	1-0-2-0	2	module	
Project Based Course	2-0-2-2	5		
	2-1-0-0	3		
Theory Course	3-0-0-0	3		
	3-1-0-0	4		
	4-0-0-0	4	One assessment per module, bes of FOUR shall be considered fo	
	2-0-2-0	3	the calculation of CIA.	
Theory Embedded with	3-1-2-0	5		
Practical	2-1-2-0	4		
	3-0-2-0	4		
		1	L	
Evaluation Type, CIA &	ESE Mark	Distributi	on: for courses with various cou	

Assessment of Assignment component of CIA

	ion	e ry	t J			& ESE larks	CIA & ESE Percentage	
	Evaluation Type	Course Category	L-T-P.	L-T-P-J Credit	CIA Mark	ESE Mark	CIA	ESE
		Theory	1-0-0-0	1	50			
		Course	2-0-0-0	2				
		Theory Embedded with Practical	1-0-2-0	2	100			
			0-0-2-0	1	50		100%	-
2.0	CIA only	Practical	0-0-4-0	2		_		
		Seminar	0-0-6-0	3				
		Project [Minor/ Honors]	0-0-0-4	4	100			
		Project	0-0-12-0	6				
			2-1-0-0	3				
		Theory	3-0-0-0	3	40	60	40%	60%
		Course	3-1-0-0	4				
			4-0-0-0	4				
	CIA + ESE		2-0-2-0	3				
		Theory Embedded	3-1-2-0	5				
		with Practical	2-1-2-0	4				
			3-0-2-0	4	60	40	60%	40%
		Project Based Course	2-0-2-2	5	00		0070	

	given in the table given	/en 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% f. One third of the project shall be completed in VII semester 			
	Seminar	and two third in VIII semester. 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 nominated by Head of the Department 35% 			
23R8.3		ination Patterns: The end-semester final examination shall have from the following perspectives with respect to all courses:			
	Evaluation wEvaluation wEvaluation w	th respect to knowledge with respect to Understanding with respect to Applications marks of the ESE, separate evaluation pattern shall be followed			

	Evaluation pa	ttern for End Seme	ster Examination					
	PATTERN	PART A	PART B	ESE Marks				
		10 Questions,	2 questions will be given					
	PATTERN 1	each question	from each module, out of					
		carries 2 marks	which 1 question should be					
			answered. Each question can	60				
		Marks: (2x10 = 20	have a maximum of 2 sub					
		marks)	divisions.					
			Each question carries 8					
		1	marks.					
	2.5	A A T	Marks: $(5x8 = 40 \text{ marks})$	(1)				
	1	/ NIM	Time: 3 hours					
	1.1	Total Marks: 20	Total Marks: $[5x8 = 40]$					
	11	3/	marks]	11				
	PATTERN 2	1/2	2 questions will be given	11				
	118	10	from each module, out of	110				
	1151	193	which 1 question should be	1100				
17	121		answered. Each question can	1.11				
6	131		have a maximum of 2 sub	40				
	121	1.01 1.014	divisions.	1211				
		111-7 98	Each question carries 8	151				
		1.0.1.10	marks.	Q I				
	X	1	Marks: $(5x 8 = 40 \text{ marks})$	in the second se				
	1.000	1	Time: 2.5 hours [150	1211				
1	1-1	100	minutes]	Imil				
- Y	121	Total Marks: 0	Total Marks: $[5x8 = 40]$	1211				
	10.11	1.1.1	marks]	2911				
23R8.4	Students, who	have completed a	course but could not write the	e end semester				
	examination, shall be awarded "I' Grade, provided they meet other eligibility criteria							
	23R8.5. 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 registrat	ion) for the course ag	gain					
23R8.5	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. Students who							
	do not meet thes	se eligibility criteria a	re awarded an FE grade.					
23R8.6			ister for the courses during the n					
			owever, for the seventh and eight					
	grade students c	an register for the co	urses in the next immediate chance	ce.				
23R8.7	A student who	does not register fo	or all the courses listed in the c	urriculum for a				
	semester shall n	ot be eligible to enrol	ll for the next higher semester.					
23R8.8	The maximum	number of credits a s	student can register (course regis	tration) for in a				

	semester is limited to 1 curriculum for that sem		tal mandatory credits allotted in the						
23R8.9	satisfying the following	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.	-	-						
	-		pecified in the curriculum for the						
	branch of study (R3	·							
23R8.10	3. No pending disci		e course regularly and undergo the						
23K6.10	Continuous Internal Examinations (ESE). C	Assessment (CIA) and	appear for the End Semester eemed to be earned only on getting						
23R8.11	CIA, and 50% of CIA component, then the stu- theory and practical co- component.	and ESE aggregate. If a coudent shall appear in the encomponents and separate min	End Semester Examination, 40% of ourse has both theory and practical d semester examinations of both the nimum of 40% is required for each and of 50% of CIA mark is required						
23R8.12	regular ESE of the resp (i) who could not obta grade though he/she ha However, the maximu	ective semester. in minimum 40% marks in s got 40% in ESE.	nt after the first chance of the CIA (ii) who could not obtain a P led through sessional improvement of 40 marks)						
23R8.13	in 23R8.13.1 . The grastudent has registered.	ade card shall only give t Semester grade card shall ade Point Average (SGP2	by the student in a course, as given he grades against the courses the give the grade for each registered A) for the semester as well as						
23R8.13.1		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%						
	А	8.5	80% and above but less than 85%						

	D								
	В		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					
		1		than 55%					
	F (Fail)	1	VAROCO	Below 50% (CIA + ESE) or					
	110	52		Below 40 % for ESE or					
	11.03	0		Below 40% for CIA					
	11.07	6.	1	Below 50% for courses					
	11.51	1		with only CIA and no					
	151	(9	3 3	ESE					
	FE	FE		Failed due to lack of					
	1/3/	19	2 1 11/	eligibility criteria					
	1/2/1	14	0	Could not appear for					
		11	T 918 1 42	the end semester					
		1		examination but fulfills					
	X	<i></i>		the eligibility criteria.					
	Classification	of	First Class with	CGPA 8.0 and above					
	B.Tech Degree.		Distinction	The ITT					
	121		First Class	CGPA 6.5 and above					
	Equivalent percentage mark shall be = $10 * CGPA - 2.5$								
23R8.14									
251(0.11	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 Instit	- 2 -	the second se	anon, who shan initiate appropriate					
23R8.15	-			on of the answer books of the end					
2310.13				ed. The Controller of Examination					
				ons based on rules available in the					
	Institute Examination			ions based on rules available in the					
	Institute Examination	Ivial	iuai.						

23R8.16	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
	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.
23R8.17	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.
23R8.18	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.
23R8.19	SGPA/CGPA Calculation: Semester Grade Point Average (SGPA) and CumulativeGrade Point Average (CGPA) are calculated as follows.SGPA = Σ (Ci×GPi)/ Σ Ci ,
	where 'Ci' is the credit assigned for a course and 'GPi' is the grade point for that course. Summation is done for all courses specified in the curriculum of that semester. The failed and incomplete courses shall also be considered in the calculation.
	$CGPA = \Sigma(Ci \times GPi) / \Sigma Ci$, where 'Ci' is the credit assigned for a course and 'GPi' is the grade point for that course. Summation is done for all courses 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 = $10 * CGPA - 2.5$
23R8.20	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
23R8.21	recommendation from BoS. Activity Points: A student shall earn 3 credits by actively involving in co-curricular
2010.21	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 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.
23R8.22	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, 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
23R9.1	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, have to 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

	 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.
23R9.2	 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
23R10.1	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, accidents, 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%.
23R10.2	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.
23R10.3	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.
23R10.4	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
23R11.1	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
23R12.1	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.
23R13.1	All B. Tech students shall be eligible to register for Minor in Engineering.
23R13.2	The Minor in Engineering registration shall be along with the registration of the 3 rd semester.
23R13.3	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.
23R13.4	The student shall earn additional 20 credits to be eligible for the award of B. Tech Degree with Minor.
23R13. 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.

23R13.6	Curriculum and the syllabus of the three courses shall be approved by the Board of studies and the Academic Council.
23R13.7	The assessment of the courses other than MOOCs and earning of credits shall be as per 23R8.1 to 23R8.22 . The assessment and certification of the MOOCs shall be as per the prescribed norms of the MOOCs. The candidate shall produce the certification issued
23R13.8	by the MOOCs conducting agency in proof of credit attainment.Under graduate Degree with minor shall be issued by the University to the students
23813.6	who fulfill all the academic eligibility requirements for the B. Tech program and Minor in Engineering.
	14. B. Tech (Honors)
23R14.1	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).
23R14.2	The B. Tech (Honors) registration shall be along with the registration of the 4 th semester.
23R14.3	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.
23R14.4	The student shall earn additional 20 credits to be eligible for the award of B. Tech (Honors) Degree.
23R14.5	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.
23R14.6	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.
23R14.7	The institutions shall not charge any additional fees other than examination fees from the students for the Honors course.
23R14.8	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.
23R15.1	Only bonafide, regular candidates are eligible for the award of Grace Marks.

23R15.2	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
23R15.3	University/Institution for representing the University/Institution.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 End Semester Examinations.
23R15.4	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.
23R15.5	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.
23R15.6	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.
23R15.7	The Grace Marks shall be awarded for all theory courses in a semester.
23R15.8	Redistribution shall be done only for enabling a candidate to obtain the minimum marks required for a pass.
23R15.9	Grace Marks shall not be redistributed from one semester to another semester.
23R15.10	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.
23R15.11	Eligible Grace Marks shall be awarded for the regular examination of the performing semester only. Grace Marks shall not be awarded for supplementary examinations.
23R15.12	The performing semester shall be considered from 1st July to 31st December (Odd semester) and 1st January to 30th June (Even Semester).
23R15.13	Grace Marks shall be awarded on the basis of performance in the respective semester.
23R15.14	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.
23R15.15	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)
23R16.1	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.
23R16.2	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.
23R16.3	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.
23R16.4	PWD candidates who are eligible for Grace Marks shall be awarded Grace Marks for
	regular and supplementary chances until they pass the whole examination.
23R16.5	Grace Marks shall be awarded only for the marks of the End Semester Examinations.
23R16.6	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
23R17.1	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:
23R18.1	Award of Degree: Upon satisfying all the conditions noted in 23R8.9, Institution
23K10.1	shall recommend to affiliated university for awarding the B.Tech degree to such
	students. Affiliated University is the authority for awarding the degree certificate.
23R18.2	Provisional Degree Certificate & Consolidated Semester grade card: Upon satisfying
251(10.2	all the conditions noted in 23R8.9 , institution shall issue consolidated grade card and
	Provisional Degree certificate for the students.
	19. Transcript
23R19.1	Transcript will be issued to students on request by paying a prescribed fee.
23819.1	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.
23R20.1	
23N20.1	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.
	B. reen program with such mountcations as may be necessary.

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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 cocurricular 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 assigning activity 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 certain activities. Additional activities under these segments can be considered, after approval from the Academic Council.

Activity Head	-	Activity	Achi			els and Points	d Assigned	** Approval Documen t	Max. Points	Min. Durat ionof activi ty
		*Level	I	II	III	IV	V			
ç	1	NCC	-	-	-	-	-	a/b	60	2 Year
rticipati	2	N S S or C certificate / outsta	2	-	-	-	-	a/b	60	2 Year
National Initiatives Participation	5	Best NSS Volunteer A Camp/ PreRepublic additional marks upt Best NSS Volunteer A Parade Camp / Interna additional marks upt	c Day o 10 c warde ationa	Parade anbe p ee (Sta I Youth	e Camp provide ite / Na n Excha	o (Sout ed subj ational ange P	h India), sup ected to ma level) / Part rogramme, s	ported by ce ximum limit icipation in I supported by	rtificatior of 70 poi Republic I / certifica	ı, nts Day tion,
<u>n</u>	3	Sports:	8	15	25	40	60	а	60	1 Year
ticipat	4	Games	8	15	25	40	60	а	60	1 Year
Sports & Games Participation	3	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.		
& Gan	1	Second Prize	8	8	8	16	16			
Sports	1	Third Prize	5	5	5	12	12			
	5	Music	8	12	20	40	60	5ª /	60	1 Year
Cultural Activities Participation	6	Performing arts	8	12	20	40	60	a	60	1 Year
	7	Literary arts	8	12	20	40	60	а	60	1 Year
		First Prize	10	10	10	20	20	Additional points can provided for winning		ning.
		Second Prize	8	8	8	16	16	The maximum limit f activity points is 60. I for Level IVand V		
		Third Prize	5	5	5	12	12	winning, the maximu point limit is enhance to 80.		mum

	8	Tech Fest, TechQuiz	10	20	30	40	50	а	50				
	9	MOOC with final assessment certificate			5	0		а	50				
	10	Competitions conducted by Professional Societies - (IEEE, IET, ASME, SAE, NASA etc.)	10	15	20	30	40	а	40				
	11	Attending Full timeConference/ Seminars / Exhibitions/ Workshop/ STTP conducted at IITs /NITs	12/ 12	XF 1+	1		11/1	a	30				
Professional Self Initiatives	11 a	Attending Full timeConference/ Seminars / Exhibitions/ Workshop/ STTP conducted at KTU or its affiliated institutes		1		а	12						
	12	Paper presentation/ publication at IITs /NITs	1	1	2	а	40						
	N	Additional 10 points for certificate of recognition.											
	12. a	Paper presentation/ publication at KTU or its affiliated institutes	1/*	1 10	£	-	1	a	16				
		Additional 2 points f	or cert	ificate	ofrec	ognitic	on.	1					
	13	Poster Presentationat IITs / NITs	ntationat 10						20				
		Additional 10 points	for ce	rtificat	te of re	cognit	ion.						
	13. a	Poster Presentationat KTU or its affiliated institutes			۷	1		а	8				
			or cert	ificate	of reco	ognitic	m.						

	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	а	50
	17	Start-up – Company Registered legally	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 andtested	60	d	60
l Innovatior	23	Awards for Products developed	60	d	60
Entrepreneurship and Innovation	24	Innovative technologies developed and usedby industries/users	60	d	60
	25	Got venture capitalfunding for innovative ideas/products.	80	d	80
	26	Startup Employment (Offering jobs to two persons not lessthan Rs. 15000/- per month)	80	d	80
	27	Societal innovations	50	d	50

			Core coordinato r	Sub coordinato r	Volunteer			
	28	Student Professional Societies (IEEE, IET, ASME, SAE, NASA etc.)	15	10	5	d	40	
Leadership & Management	29	College Association Chapters (Mechanical, Civil, Electrical etc.)	15	10	5	d	40	
adership & I	30	Festival & Technical Events (College approved)	15	10	5	d	40	
a l	31	Hobby Clubs	15	10	5	d	40	
	32	Elected student representativ es	30 (Chairman)	25 (Secretary)	15 (Other Council Members)	d	60	
*Level I *Level II *Level III *Level IV	Z S	College Events Conal Events tate/ University Ever lational Events	nts	K	8	GINE		

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*Level V International Events

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

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