Program Regulations

Master of Technology (MTech)

(Applicable from 2024 admission onwards)



INDIAN INSTITUTE
OF TECHNOLOGY
PALAKKAD

Preface

IIT Palakkad started its first set of course based postgraduate programs in the academic year 2019-2020 with two MSc programs in Chemistry and Physics and two MTech programs in Geotechnical Engineering, and Manufacturing & Materials Engineering. In the next academic year, an MSc program in Mathematics, an MTech program in Power Electronics & Power Systems and three interdisciplinary MTech programmes in Computing & Mathematics, System-on-Chip Design and Data Science were started. These programs were designed and operated under the structure laid down by the MSc and MTech Regulations drafted by a committee comprising of Prof. K.V.G. Kutty, Prof. Vinod A. Prasad, Dr. Uma Divakaran, Dr. Madhu Karthik M., Ms. Thasnin Harish C.M., and Prof. Job Kurian (Chair) and approved in the 7th Senate Meeting of IIT Palakkad held on 11th April 2019. Following a major revision of the undergraduate programs of IIT Palakkad in 2022, the Chairperson, Senate appointed a committee comprising of Dr. Shanmugaraju Sankarasekaran, Dr. Amit Kumar Pal, Dr. Balakumar G.P., Dr. Swapnil Hingmire (later replaced by Dr. Mrinal Kanti Das), Dr. Arun Rahul S, Dr. Revathy Padmanabhan, Dr. Dupadu Chakradhar, Dr. Divya P.V., and Dr. Deepak Rajendraprasad (Chair) to revise the MSc and MTech Regulations.

The committee sought opinions from the graduating students and alumni of each postgraduate program and all faculty members of IIT Palakkad through an online survey. The committee distilled these responses and held multiple discussions in June-July 2022 to arrive at the revised regulations. Opinions on selected points were collected from the departments and the administration by the committee members at various points during the above discussions. A draft was circulated to all the departments for their critical reading and comments. The revision committee further discussed the comments raised by the departments and updated the draft. After a final scrutiny, the same was submitted to the BAC and Senate which approved the following.

Key highlights

- A **flexible credit-range** to design MSc and MTech curricula (Clause R2.2.1). The flexible range allows for the design of MTech and MSc programs with varying emphasis on course work and project work.
- Credits for **Early Bird Projects** done without any prior registration by students with a faculty mentor at IIT Palakkad (Section 5.5).
- A guideline to quantify credits associated with project work (Clause R2.1.1).
- Close monitoring of external projects (Section 5.4).
- Up to 6 credits from NPTEL/MOOC courses (Clause: R2.2.5) and up to 2 courses from undergraduate courses identified by the departments (Clause: R2.2.6) can be counted by MSc and MTech students towards their credit requirements.
- **Attendance policy** for each PG level course to be decided by the instructor and reported to the class committee (Section 4.3).
- **Early exit with PG Diploma** option.

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1. Admissions

R1.1 The basic eligibility for admission to an MTech program in IIT Palakkad is a four year Bachelor's Degree in Engineering/ Technology/ Science/ Mathematics or a Masters degree in Science/ Mathematics.

R1.2 Candidates in the final semester of their qualifying degree are eligible to apply. But the admission, if offered, will be conditional to the candidate clearing the requirements of the qualifying degree before the date of admission.

R1.3 Students are admitted under three different categories: Regular, Sponsored and Foreign National.

Regular: Candidates who satisfy the basic eligibility and who have a valid GATE score (Graduate Aptitude Test in Engineering) are eligible to apply for an MTech program as a *regular* candidate.

Regular-IIT BTech: B.Tech. Graduates from IITs getting a CGPA of 8 or above (on a scale of 10) are also eligible to apply for an MTech program as a *regular* candidate. GATE score is not required for such candidates.

Sponsored: Candidates who satisfy the basic eligibility, and are currently working in an industry, an established academic institute, an R&D Organisation, a National laboratory, a public-sector organization, or a Government Department are also eligible to apply provided (a) the employer grants 2 years of study leave and (b) the employer undertakes to financially support the candidate for the entire duration of 2 years. The candidate must have worked for a minimum of two years in the organization at the time of application. GATE score is not required for such candidates.

Sponsored-Defence: Candidates who are sponsored by the Defence Authority are eligible to apply as sponsored candidates. GATE score is not required for such candidates.

Foreign National: Foreign nationals who satisfy the basic eligibility are eligible to apply.

R1.4 Announcements for MTech Admission will be made by the Institute on its website (https://iitpkd.ac.in/) along with an *Information Brochure*. The application process and the deadlines will be indicated in the Information Brochure.

R1.5 Foreign Nationals have to apply through the *International Relations Portal* (https://ir.iitpkd.ac.in/). The portal will also have updated information regarding various schemes and fellowships available to prospective foreign students and also the deadlines.

R1.6 Additional eligibility criteria for admission to each program for each category of admission will be decided by the Senate of the institute and will be notified in the *Information Brochure* for MTech admissions.

R1.7 The Senate will decide the total number of seats in each program. The share of seats reserved for SC, ST, OBC-NCL, EWS, and PwD candidates will be decided as per Government of India rules.

R1.8 An *Admissions Committee* for MTech will be constituted by the Chairperson, Senate. The committee will decide on the operational aspects of selection of candidates based on the criteria laid down by the Senate and oversee the selection and admission process.

R1.9 Vacancies, if required to be filled up after the last date for admission, will be filled by the Admissions Committee with the approval of the Chairperson Senate, and reported to the Senate post-facto.

R1.10 The selected candidates should satisfy all the admission requirements indicated in the offer letter of admission including on-time payment of the prescribed fees. If any of the requirements are not fulfilled by the candidate, then her admission to the program may be canceled.

R1.11 In all matters concerning the selection of candidates, the decision of the Chairperson, Senate, or her nominee, viz. Chairperson, Admissions Committee, is final.

2. Program Structure

IIT Palakkad adopts a credit-based system. The main feature of such a system is that courses are not attached to a fixed semester. Sequencing of courses is guided only by prerequisites. A student is free to take any course which is offered, in any semester provided she has done all prerequisite courses required for that particular course.

2.1 Credits

R2.1.1 The work done by a student as part of a course program is quantified in terms of credits. Each course comes with a pre-assigned number of credits. The credits associated with a course is determined based on the number of lecture hours, tutorial hours, lab hours and project work included in the course as per the table below.

	Credits per session
Lectures	1 credit for one session of 50 minutes per week for a semester (1 credit per 14 sessions)
Tutorials	1 credit for one session of 50 minutes per week for a semester (1 credit per 14 sessions)
Practicals	2 credits for three sessions (2 hours 45 minutes per week) for a semester 1 credit for two sessions (1 hour 50 minutes per week) for a semester
Projects	1 credit for 35 hours of work during the entire semester. This includes the contact hours with the mentor and the time spent by the student on all aspects of the project. These credits will be included in the P-component of the L-T-P split as is done for Practicals.

2.2 Curriculum

R2.2.1 Each MTech program will have a Senate-approved curriculum respecting the following credit requirements. This range allows for the design of MTech programs with varying emphasis on course work and project work.

Minimum credits for	*At least*	*At most*
Award of degree	54	60
Project based courses	18	30
Open Electives / HSS Electives	6	
Program Electives	6	
Communication Skills	1	
Technical Writing	1	

R2.2.2 *Program Electives* is a pool of courses carefully selected by each program.

R2.2.3 Communication Skills will be an institute common course, while each program may run the technical writing course separately. Both these courses will be evaluated on a Pass/Fail grade and hence the grades obtained will not be included while calculating the Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA) of the student. Apart from these, a program may make the institute level Research Methodology (2 credits) course mandatory.

R2.2.4 A program may add a short-term (up to 6 weeks) internship as an optional or mandatory requirement. But it will be treated as a course without credit and evaluated on a Pass/Fail scale.

R2.2.5 In the entire duration of the MTech program, a student is permitted to register for a maximum of 3 credits of Program Electives and 3 credits of Open/HSS Electives through online MOOC/NPTEL courses approved by the Senate provided that no similar course is offered simultaneously at the institute. The online courses will not be considered for SGPA and CGPA calculations but will be counted towards the earned credits. When a student is permitted to be away from the institute for reasons such as doing a project in an external organization, the student may be allowed to register for an online course even if a similar course is offered in the Institute simultaneously.

Students are also permitted to register for Co-curricular courses (CC courses) approved by the senate in the OE category. The number of MOOC and co-curricular elective courses in the non-PME categories which do not count towards CGPA, but count towards credit completion is limited to 3-credits[1].

[1] Modified as per the 30th Senate's recommendation.

R2.2.6 Typically only courses targeted at "UG/PG" or "PG" level will be counted towards credit in an MTech program. However, each program may allow the students to credit up to two courses which are targeted at the UG level. These two courses will be selected by the department and may be spread across program cores and program electives.

R2.2.7 Any course in the institute targeted at the "UG/PG" or "PG" level can be credited by an MTech student as an open elective as long as the prerequisites are satisfied.

2.3 Duration

R2.3.1 The MTech program will be of four semesters (two years) duration. Maximum duration allowed is six semesters (three years) excluding the period of break that the student may have taken on valid grounds.

R2.3.2 **Credits per semester.** The number of academic credits that a student can register for in a semester is at most 21 and at least 9. Under genuine special circumstances, the Dean (Academics) may permit a student to register for up to 24 credits. A student will be permitted to register for less than 9 credits in a semester if the minimum pending credits to complete the degree is less than 9.

R2.3.3 **Medium of Instruction.** The medium of instruction, examination, seminar, and project reports will be English

2.4 BTech + MTech Dual Degree[2]

BTech students of IIT Palakkad have an option of graduating with a BTech + MTech Dual degree by spending two additional semesters (minimum total duration: 10 semesters) and earning a total of 172-180 credits with at least 42 credits from MTech program.

Each BTech + MTech Dual Degree program will have a Senate-approved curriculum respecting following credit requirements.

a. The credits from BTech program should include all the courses under institute core (42 credits), Humanities and Social Sciences Electives (9 credits), Science and Mathematics Electives (6 credits), Open Elective (minimum 15 credits), and Program Major Core (42-48 credits) of the program.
b. The credits from MTech program may be split as Institute Core, Program Core, Program Electives, Open Electives and Projects, with the total project credits being bound between 18 and 30. The curriculum for each dual degree program will list out the details of this split.
c. Only PG level project-based courses will be counted towards the share of projects in the above MTech credits.

The details of eligibility, selection, financial support and exit options are described in the BTech regulations.

[2] Modified as per 33rd Senate's recommendation.

3. Faculty Advisor (FA)

R3.1 The coordinating department for a program will assign a certain number of students joining the program to a faculty member who will be designated as Faculty Advisor (FA) to those students. The duties of the faculty advisor include:

a. Apprising the incoming students about the opportunities in the program, the flexibility in the program and the requirements for the award of degree.

b. Advising each student on the selection of courses based on the curriculum requirements and their interest.

c. Approving the course registration and enrolment of the students in each semester

d. Advising the students to drop one or more courses/activities based on their academic performance.

e. Paying special attention to academically under-performing students and carefully monitoring the progress of such students.

4 Conduct of Courses

4.1 Course Registration

R4.1.1 A student has to decide the courses she will credit in a semester in consultation with her Faculty Advisor.

R4.1.2 The student has to register for these courses according to the procedure laid down by the institute.

Pre-registration/Registration Except for the first semester, there will be a *pre-registration* phase. Students will register for the courses during this phase.

Semester Enrolment All students have to enroll on a specified day at the beginning of each semester as indicated in the academic calendar. A student will be eligible for enrolment only if she has cleared all dues to the Institute, Hostel and Library up to the end of the previous semester and provided she is not debarred from enrolment on disciplinary grounds. Late enrolment will be permitted up to two weeks from the last date specified, with a late fee as decided from time-to-time. The student has to finalize her course registrations\ during this phase.

Add/Replace/Drop Phase A student may be allowed to add or replace or drop a course under special circumstances after the semester enrolment, but before a specified date indicated in the academic calendar. No course can be added by a student after this phase.

Drop Phase A student may be allowed to drop a course under special circumstances after the add/replace/drop phase, but before a specified date indicated in the academic calendar. No course can be dropped by a student after this phase.

R4.1.3 The registration requests for all the phases above are managed by a software. It is the responsibility of the student to ensure that she updates and/or verifies her registration status during each round without missing the deadline.

R4.1.4 All the registration requests have to be approved by the concerned instructor of the course (for elective courses) and faculty advisor of the student.

R4.1.5 Students are eligible to register for up to 9 extra credits over the requirements for the program. The courses could be at any level and are not limited by R2.2.6.

4.2 Class Committee (CC)

R4.2.1 Each course running in the institute during a semester will be assigned to a Class Committee (CC). The basic responsibilities of the CC are:

a. To review periodically the progress of the courses, to discuss issues concerning curricula, syllabi and the conduct of the classes including the method of teaching in the respective courses for ensuring effective learning.

b. The mode of assessment for a course will be decided by the teacher in consultation with the CC, and will be announced to the students at the beginning of the semester. It is recommended to have two tests followed by an end semester examination for the core courses.

c. The attendance policy should be announced in the class and minuted in the first class committee meeting. The students are expected to attend 100% of the classes.

d. The final CC meeting held without the student members will be responsible for the finalization of the course grades/semester results.

R4.2.2 The CCs for institute core courses will be constituted by the Dean (Academics) and communicated to the HoDs, HoCs and students. The CCs for program core /program electives will be constituted by the Head of the Departments/Centers and communicated to the instructors, students, and the Academics section.

R4.2.3 The number of courses assigned to a single CC should be typically eight or less.

R4.2.4 Each CC will comprise of

a. Instructors/Co-ordinators of all courses assigned to that CC.

b. One faculty member, preferably not offering any course assigned to that CC, as Chair

c. At least three student representatives. Each course should be represented by at least one student. A student representative can represent more than one course.

R4.2.5 The CC is required to meet a minimum of three times in a semester, first at the beginning of the semester, then once or more during the semester to discuss teaching-learning aspects, and once after the end-semester examination (without student representatives) to finalize the grades.

R4.2.6 The CC meetings shall be appropriately minuted, and its recommendations concerning the teaching-learning activity and attendance (if applicable) shall be reported to the constituting authority and the Dean (Academics). Details of the performance of specific students should not be revealed to the student representatives.

R4.2.7 The CC may share the entire CCM minutes including the student performance of its meetings with the Faculty Advisors of those students showing weak academic performance and with the Academics Section.

4.3 Attendance Policy

R4.3.1 For PG students crediting the course, the instructor can decide the attendance policy at the beginning of the course.

R4.3.2 The policy should be announced in the class and minuted in the first class committee meeting.

R4.3.3 In the courses where a minimum attendance is mandated, the student will be responsible for their attendance and should keep track of the same. They can cross check their record with that of the instructor any time during the semester.

R4.3.4 The students who do not have the minimum attendance mandated by the instructor will not be allowed to write the end semester examination and will be awarded a W grade in that course.

4. Assessment Procedure

R4.4.1 The assessment of Lecture based courses should be done by a component of Sessional Evaluation with a minimum weightage of 40% and a final evaluation with a minimum weightage of 40%.

R4.4.2 The assessment of Laboratory based courses should be done by a component of sessional evaluation based on regular Lab sessions with a minimum weightage of 60% and a final evaluation with a minimum weightage of 20%.

The assessment of Project based courses is detailed in Section 5.6.

R4.4.3 Within the above constraints, a detailed method of evaluation for a course will be decided by the instructor in consultation with the class committee and informed to the students at the beginning of the course.

4.5 Letter Grades

R4.5.1 Based on the performance, each student is awarded a final letter grade at the end of the semester for each of the registered courses. The letter grades and the corresponding grade points are as follows.

Grade	*Grade Point*	*Remarks*
S	10	Outstanding

A	9	Excellent
B	8	Very Good
C	7	Good
D	6	Satisfactory
E	4	Marginal
U	0	Unsuccessful
W	0	Failure due to insufficient attendance
I	0	Incomplete
Y	0	Successfully Completed (CWC/Pass/Fail)
N	0	Unsuccessful (CWC/Pass/Fail)

R4.5.2 **Success/Failure in a course.** A student is deemed to have completed a course successfully and earned the credit for the same if she secures an overall letter grade S/A/B/C/D/E/Y. Letter grades U/W/N in a subject implies failure in that subject and no credits are earned for the same.

R4.5.3 An I grade awarded to a student has to be resolved by the course instructor within one week of the start of the subsequent semester.

A student with an I grade in a course, has to approach the course instructor and get the I-grade resolved within one week of the start of the subsequent semester.

R4.5.4 **Prerequisites.** If a course mentions another course to be a prerequisite, then the student must have successfully completed the course mentioned as a prerequisite.

R4.5.5 **Course Without Credits (CWC**) do not fetch credits, but may be mandated by a program. The grade earned in a CWC will not be considered for CGPA/SGPA calculation.

R4.5.6 **Pass/Fail** course may be mandated by a program. The credits earned will be considered towards the completion of the credit requirement but not in CGPA calculation.

4.6 Grading, Results, Review.

R4.6.1 The answer scripts of the test 1 and test 2 exams should be returned to the students within two weeks.

R4.6.2 A final meeting of the class committee without the student members will be convened within a short time after the last day of the end semester examination. The letter grades to be awarded to the students for different courses will be finalized at this meeting.

R4.6.3 **Declaration of Results.** After finalization by the Class Committee the letter-Grade awarded to the students will be announced by the Academic section.

R4.6.4 **Reviewing of Answer Papers.** In case any student feels aggrieved regarding the final Grade obtained in any course after the end semester examination and the announcement of

Grades, she can contact the teacher concerned within one week from the commencement of the semester immediately following the announcement of the results.

R4.6.5 The student shall have access to her answer paper(s) in the end semester examination which may be shown to her by the teachers concerned. If the teacher feels that the case is genuine, she may review the case and revise the grade under intimation to the Dean (Academics) through Chairperson of the Class Committee, within two weeks from the acceptance of review. After approval by the Dean (Academics) the revised grade will be reflected in the grade card.

4.7 Makeup Examinations

R4.7.1 Students who have missed the tests or end-semester examination for valid reasons are eligible for a make-up examination.

R4.7.2 The students should make an application to the Dean (Academics) within a week, from the date of the examination missed, explaining the reasons for their absence.

R4.7.3 To request for a make-up examination due to medical reasons, the student staying in IIT Palakkad Hostels should produce a Medical Certificate issued by a Registered Medical Officer stationed in Palakkad that she was indisposed admitted in the Hospital during the period of the missed test / exam. Outstation medical certificates will be accepted only if the treatment / hospitalization is outside Palakkad. Such certificates should be endorsed by parents/guardians.

R4.7.4 A slot-wise make-up examination for the end semester will be held during the makeup/ supplementary week as announced by the Academic Section for those who are permitted to take the make-up examination.

R4.7.5 A student who misses this make-up examination will not normally be given another make-up examination. However, in exceptional cases of prolonged illness resulting in the student missing a make-up examination, the Dean (Academics) may permit the student to appear for the make-up examination on a different date.

R4.7.6 A student who missed tests and the end semester examination in the same course due to genuine reasons such as illness, family calamities etc., may be permitted to write a make-up examination for the missed end-semester examination alone. In such exceptional cases, the Dean (Academics) can permit changes in the Make-up Examination Rules, including assigning full weightage to end semester examinations taken through the Make-Up Examination route.

4.8 Supplementary Examination

R4.8.1 Students who get “U” grade and attendance grade “G” (Good) or “VG” (Very Good) in a lecture based core course are eligible to seek one[3] Supplementary Examination for each such course.

R4.8.2 Students who get “U” grade in one lecture-based elective course in the final semester with attendance grade “G” or “VG”, are eligible to seek a Supplementary Examination provided that is the only lecture-based course keeping the student from graduating[4]

[3] Modified as per 27th Senate recommendation.
[4] Modified as per 29th Senate recommendation.

R4.8.3 For taking Supplementary Examinations, the students need not attend classes in that course once again. The attendance grade earned in the earlier examination will be retained for the Supplementary Examination.

R4.8.4 For those students who take the Supplementary Examination during the same semester in which they have done the regular course, both the options of 100% supplementary and the supplementary exam considering the continuous evaluation will be considered while deciding the final grade. For the option of 100% weightage to the supplementary exam, the highest grade possible is limited to E grade. The grade as per the option which benefits the student will be recorded, after evaluation. In case of those students who take the Supplementary Examinations in later years, if offered, the Supplementary Examination will carry 100% weightage. In such cases, the maximum possible grade to be awarded will be E and the cut off for grades will be decided by the instructor conducting the Supplementary Examination.[5]

R4.8.5 Normally, the Supplementary Examination will be held during the Supplementary Examination week as per the Academic Calendar approved by the Senate from year to year. In certain situations, it may also be conducted at some other time. In addition, a regular end-semester examination may also be treated as a Supplementary Examination for some students with a backlog in that course.

4.9 Course Repetition

R4.9.1 A student obtaining a U grade in a lecture-based core course may repeat it when the course is offered next or write a supplementary exam.

R4.9.2 A student obtaining a U or W grade in a laboratory-based core course has to repeat it compulsorily when the course is offered next.

R4.9.3 A student who obtains a U or W grade in an elective course has an option to repeat it in order to get a successful grade or substitute it with another elective, with the approval of the Faculty Advisor.

R4.9.4 A course successfully completed cannot be repeated. In some cases, the students may have taken all core and elective courses but still failed to obtain a minimum CGPA of 5.0 and thus will not be eligible to get the degree. In such cases, the student shall be permitted to repeat core or elective courses to earn the minimum CGPA with the approval of the Dean (Academics).

4.10 Contact Courses

R4.10.1 A contact course may be offered during the regular semester or summer by a Department to final year students who have obtained a U grade in a core course.

R4.10.2 Such final year students who are desirous of registering for a contact course, should make a request, in the prescribed form, to the Dean (Academics) through the Faculty Advisor and Head of Department/Center well before the commencement of the semester in which the contact course is to be taken.

[5] Modified as per 27th Senate recommendation.

R4.10.3 A contact course will be offered only when a teacher who is willing to offer this course is identified by the Department

R4.10.4 A contact course will not be offered if a regular course is offered on the same subject during that period.

R4.10.5 A student can register for at most two contact courses during the semester or in summer.

R4.10.6 The assessment procedure for a contact course will be similar to that of the regular semester course.

R4.10.7 Withdrawal from a contact course is not permitted.

5. Projects and Internships

Apart from Laboratory based courses, students can learn hands-on by doing multiple internships and projects, within and outside the institute. An *internship* is a period of time spent by a student in an organization (industry or academic institution) to gain relevant exposure to the practices of the trade. A *project* is a piece of planned work, activity or study that is finished over a period of time and intended to achieve a specific goal.

5.1 Credits for Projects

R5.1.1 The curriculum for each PG program will specify a range of credits to be earned through projects.

R5.1.2 A project is called an *internal project*, if the primary mentor is a faculty member at IIT Palakkad and an *external project* otherwise.

R5.1.3 The project's scope should align with the broad goals of the program; the quality of the proposed work should meet the expectations from a post-graduate project; and the quantity of proposed work should meet the requirements of the credits assigned for the project.

R5.1.4 The projects will be evaluated on a letter grade and the grade will be included in the SGPA and CGPA calculation

R5.1.5 The student should ensure that she is not under a **Non-Disclosure Agreement (NDA)** with an external organization which prevents her from presenting the work in front of the project evaluation panel and including the results in the project report. The project evaluation will be done based only on the content that is a part of the presentation as well as the report.

R5.1.6 Each program will designate a faculty member as the **Internships and Projects Coordinator (IPCo)** to oversee the allocation and evaluation of internships and projects. Two separate coordinators may be designated for internships and projects if needed.

R5.1.7 IPCo will represent all the internships and project based courses in the corresponding class committees and liaison with the Career Development Cell (CDC).

5.2 Internships

R5.2.1 A PG program may have a mandatory or optional internship component in the curriculum. Students are encouraged to do internships even if it is not mandatory.

R5.2.2 An internship will only be evaluated on a Pass/Fail scale and hence will not factor in the SGPA or CGPA calculations.

R5.2.3 Only those internships which have a prior approval from the IPCo will be considered for evaluation.

R5.2.4 Students are required to apply for long academic leave for the period of absence from the institute. No HTTA will be paid when the student is on long leave.

R5.2.5 Final year MSc and MTech students can do remote part-time internships while being at the institute subject to the institute regulations on the same and R5.2.5 for MTech (Annexure 1).

R5.2.6 For internships done in a remote mode, no HTTA will be paid if the student is receiving a payment from the external organization during the internship or if the student is unable to perform her TA duties during the period.

R5.2.7 The work done by the student during a long internship in an external organisation can be considered and evaluated as an external project, provided that all the procedures laid out for external projects in Section 5.4 are followed and work meets the requirements of a project.

5.3 Registration of Internal Projects

R5.3.1 The student starting an internal project should submit a request approved by the primary mentor to the program's IPCo before the date of semester enrolment/registration for the relevant semester (as announced in the academic calendar of the institute). This step is waived for Early Bird Projects (Section 5.5).

R5.3.2 The IPCo may extend the deadline for genuine reasons, but no extension can be given beyond the last date for adding new courses for the relevant semester (as announced in the academic calendar of the institute).

R5.3.3 The student should submit a detailed project report or dissertation at the end of the project and make a presentation/demonstration of the work done. Interim reports and/or presentations may be demanded by the IPCo for longer duration projects.

R5.3.4 For academic evaluations and procedures, the primary mentor will be the sole point of contact for the institute. The primary mentor is free to discuss with the other mentor(s) in **matters of** evaluation and if need be, the other mentor(s) may be invited to participate in the evaluation process.

5.4 Registration and Monitoring of External Projects

R5.4.1 The student starting an external project should fill an application form and prepare a detailed proposal outlining the scope and plan for the project in consultation with the primary mentor**.**

R5.4.2 The proposal should be vetted by the internal mentor for its quantum, quality and alignment to program goals.

R5.4.3 Once the internal mentor vets and approves the proposal, the application has to be approved by the program's IPCo and the Dean (Academics).

R5.4.4 All the above steps should be completed by the student before the date of semester enrollment/registration for the relevant semester (as announced in the academic calendar of the institute).

R5.4.5 The IPCo may extend the deadline for genuine reasons, but no extension can be given beyond the last date for adding new courses for the relevant semester (as announced in the academic calendar of the institute).

R5.4.6 The internal mentor can demand that regular monthly reports should be submitted by the student during the course of the project**.**

R5.4.7 The student should submit a detailed project report or dissertation at the end of the project and make a presentation/demonstration of the work done. Interim reports and/or presentations may be demanded by the IPCo for longer duration projects.

R5.4.8 For academic evaluations and procedures, the internal mentor will be the sole point of contact for the institute. The internal mentor is free to discuss with the other mentor(s) in matters of evaluation and if need be, the other mentor(s) may be invited to participate in the evaluation process.

R5.4.9 Students should avail a long-term academic leave for the period of absence from the institute. No HTTA will be paid for the period.

R5.4.10 For external projects done in a remote mode, no HTTA will be paid if the student is receiving a payment from the external organization during the project or if the student is unable to perform her TA duties during the period.

R5.4.11 The work done by the student during a long internship in an external organization can be considered and evaluated as an external project, provided it meets the same requirements above.

5.5 Early Bird Projects

Students are encouraged to associate with any faculty member of the institute on short and long term projects. Once the project is completed, or a significant amount of work is done, the student can apply to the program's project coordinator for the project to be evaluated for credits.

R5.5.1 The project should be done under the mentorship of a faculty member of the institute.

R5.5.2 For a single project, based on the quantum of work, the student may apply for one or two or three credits as recommended by the faculty mentor. 35 hours of work is roughly treated as one credit. If the student feels that the credits awarded are inadequate they can appeal to the evaluation panel at the time of evaluation.

R5.5.3 The period of project need not align with the academic semesters of the institute, but evaluations will be done only at the end of an academic semester and the grades will be considered as part of the academic semester in which the project was evaluated.

R5.5.4 The application, together with a project report approved by the faculty mentor should be submitted to the program's IPCo one week before the last instructional day of an academic semester.

R5.5.5 The evaluations will be based on the report and a presentation/demonstration and it will be done by a panel constituted by the program's IPCo.

R5.5.6 The evaluation policy will be the same as the one followed for other project-based courses in the program.

R5.5.7 At most three credits can be earned by a student through early bird projects during the entire program.

R5.5.8 The credits earned through early bird projects will be counted under the Open Electives category.

R5.5.9 Since credits will be awarded only if a significant amount of work is done as part of the project, students in the final semester of a program are recommended against relying on the early bird credits for completing the credit requirements of their degree.

5.6 Evaluation of Projects

R5.6.1 Each project is evaluated by a panel consisting of the internal mentor(s), and at least two examiners who are not mentoring that project.

R5.6.2 In the total evaluation, the weightage given to the assessment by the mentor(s) will be at most 50% and the remaining weightage will be given to the assessment by the remaining members of the panel.

R5.6.3 The evaluation panel for each project will be constituted by the IPCo as soon as the project registration is over (except for post-facto projects).

R5.6.4 The panel, the detailed evaluation scheme, and timelines for evaluation will be announced to the students at the beginning of the project and minuted in the first Class Committee Meeting of the semester.

R5.6.5 The scholar shall submit a soft copy of the project report in the standard template of the institute at least one week before the end-semester evaluation.

R5.6.6 The above report should be checked using plagiarism detection software provided by the institute and the generated report should be made available to the evaluation panel. The scholar may obtain a special permission to skip this step from the Dean (Academics) on grounds of IP implications or National Security, if applicable

R5.6.7 On successful completion of final project evaluation, and after making necessary corrections (if any) in the Project Report each student shall submit a copy to the mentor(s) and to

the library. The student should obtain approval of the mentor(s) before submitting the corrected version of the project report.

R5.6.8 The project grades for the student shall be forwarded to the academic section only on receipt of the corrected version of the report from the student.

R5.6.9 All soft copies of MTech Project Reports of a batch of students will be deposited to the Central Library.

R5.6.10 In case the evaluation panel recommends a major revision and recommends a re-examination of the project, Grade 'I' shall be awarded and the student shall be required to continue the project and resubmit the Project Report within a period of two months.

R5.6.11 If the student has not satisfactorily performed even after the extension (if granted), she will be awarded a U grade

6. Financial Assistance, Leaves, Breaks

6.1 Half-Time Teaching Assistantship (HTTA)

R6.1.1 HTTA is available for regular full-time students admitted to an MTech program subject to the following rules of Government of India.

a. The student should have a valid GATE score at the time of admission or have a BTech degree from an IIT with a CGPA of at least 8.0.

b. Students availing HTTA are required to assist the academic and curricular activities of the institute for 8 hours per week. No HTTA will be paid if the student is unable to perform the Teaching Assistantship (TA) duties due to commitment to a project or internship.

c. HTTA is tenable for a maximum period of 24 months.

d. Students availing HTTA are not entitled to avail any other scholarship /stipend during the period.

R6.1.2 Students joining the M.Tech program under sponsorship scheme with full salary will not be granted any HTTA even if they have qualified GATE.

R6.1.3 Foreign nationals are not eligible for HTTA.

6.2 General Leave Rules

R6.2.1 M.Tech students are eligible for 8 days of casual leave and 15 days of vacation leave per academic year.

R6.2.2 During a semester, a student is NOT allowed to take more than 5 days of leave at a stretch. This is to avoid any impact on the Teaching Assistantship (TA) duties.

R6.2.3 Leave applications should be forwarded to the academics section, with the recommendation of the faculty advisor, faculty mentor of the main project (if ongoing), and

course instructors of the courses for which the student is performing teaching assistantship at the time, through the program coordinator/HoD.

R6.2.4 Unauthorized leave of absence, even if they are within the allotted amount of eligible leave for a student, will lead to cancellation of HTTA during the period of absence.

6.3 Academic Leave Rules

R6.3.1 **Short-term academic leave** may be requested by MTech students to attend conferences/seminars/workshops/training/short-term courses.

R6.3.2 Short-term academic leave is permitted for a maximum of 10 days, and only during the second year of the programme.

R6.3.3 **Long-term academic leave** may be requested by an MTech student to carry out full/part of her project work or a long-term internship in another institute/R&D organization/industry.

R6.3.4 Maximum duration permitted for long-term academic leave is one semester. Further, leave for one more semester may be given as per the requirement.

R6.3.5 For sanction of long-term academic leave, a letter of consent from the host organization/institute should be submitted.

R6.3.6 It is necessary that a student granted academic leave enroll for each semester.

R6.3.7 No HTTA will be paid to the student during a long term academic leave.

R6.3.8 Both short and long-term academic leave require prior approval from the Head of the Department/Centre. An application shall be submitted to the Head with the recommendation of the faculty advisor and project guide. Recommended applications will be sent to the academic section for approval.

6.4 Temporary Discontinuation from the programme

R6.4.1 A student may be permitted by the Dean (Academics) to withdraw from the program for a semester or longer for reasons of ill health or other valid grounds. Normally a student will be permitted to discontinue from the program only for a maximum continuous period of two semesters. The student shall get her application forwarded through the Faculty Advisor and Head of the Department to Dean (Academics).

R6.4.2 An M.Tech student may be allowed to discontinue temporarily from the programme and take up other assignments, after successfully completing all required coursework except for 3 credits of programme major electives and 3 credits of open electives that may be completed through NPTEL. These students will be permitted to register for Senate-approved NPTEL courses during the break.[6]

[6] Modified as per 34th Senate recommendation

R6.4.3 For M.Tech students who are permitted to withdraw temporarily according to R6.4.2, the maximum stipulated time for completion of the programme is 3 years excluding the period of leave.

7. CGPA, Grade Card, Transcript, Degree

R7.1 **Grade Card.** The academic section will issue a transcript to each student at the end of each academic semester. It will contain the following.

- Course code, course title, category, credit, grade and attendance grade of all the courses that the student registered for in that academic semester. This will exclude those courses dropped by the student following the due process.
- Semester Grade Point Average (SGPA) of that academic semester.
- Total Credits earned and Cumulative Grade Point Average (CGPA) up to and including that academic semester.

R7.2 The **Semester Grade Point Average (SGPA)** will be calculated **(on a 10-point scale)**[7] according to the formula

$$\mathbf{SGPA=\Sigma(CixGP_i)/\Sigma Ci}$$

where C_i and GP_i are the number of credits and the grade point obtained in the i-th course taken during the semester, *including* those in which the student has secured U and W grades and additional courses as per Clause R7.5 (if any)

R7.3 The **Cumulative Grade Point Average (CGPA)** will be calculated **(on a 10-point scale)**[8] according to the formula

$$\mathbf{CGPA=\Sigma(Ci\ x\ GPi)/\Sigma Ci}$$

The CGPA at any point in time will be calculated based on all the core courses completed by the student until that time (*including* those in which the student gets a fail grade) and all the elective courses successfully completed by the student until that time (*excluding* those in which the student gets a fail grade and including additional courses (see Clause R7.5), if any).

R7.4 A course will be included in the CGPA calculation at most once, irrespective of how many times the student has registered for the course. The grade-point for that course will be the best grade-point that the student obtained in that course.

R7.5 **Additional Courses.** If a student can exclude an elective of a particular category (Program Elective, Open Elective) and still meet the minimum credits required under that category as per their curriculum, a course from that category with the minimum grade-point among such courses is excluded from the final CGPA calculation. Such a course will be termed as an *additional*

[7] Modified as per 35th Senate's recommendation.
[8] Modified as per 35th Senate's recommendation.

course. Upon request from the student, if excluding a course (not necessarily the one with the minimum grade point), will result in the best CGPA, then that course may be excluded[9]. The grades for electives (excluding additional courses) will be considered for the final CGPA calculation.[10]

R7.6 A student will be allowed to register for a maximum of nine credits worth of additional courses during the entire program. This does not include the courses a student repeats.

R7.7 A course entry once made in a grade sheet or transcript will not be removed even if the course is repeated in a later semester. Once a course is marked as additional as per Clause R7.5 an appropriate footnote is added in grade cards and transcripts issued thereafter.

R7.8 A consolidated grade card mentioning only the successful courses will be issued at the time of graduation.[11]

R7.9 **Minimum requirements to continue the programme.** A student should earn a minimum of 9 credits with a minimum SGPA of 5 in each semester to enroll for the subsequent semester. If a student fails to meet this requirement for the first time, she will be issued a warning. If this happens for two consecutive semesters, she will be terminated from the programme.

R7.10 **Eligibility for the Degree.** A student shall be declared to be eligible for the award of the degree if she has

a. Successfully acquired the minimum number of credits prescribed in the curriculum under each category within the stipulated time

b. Secured a minimum CGPA of 5.0.

R7.11 **Award of Degree.** The final award of the degree must be recommended by the Senate and approved by the Board of Governors of the Institute.

R7.12 No class/division/rank will be awarded to the students at the end of the program.

R7.13 **Early Exit Option.** A student who leaves the program that she has joined can get a transcript indicating all the courses completed by her up to the time of exit. In addition, the following degree option is available in case of an early exit from the program:

Sl. No	Exit Degree/ Qualification	Exit Degree Requirement	Time period for re-entry
1	PG Diploma in the program of study	Minimum Program Requirement: Program Major Core (PMC) + Program Major Electives (PME) and/or Open	Re-entry after 6 months and within 2 years of exit, provided the student had secured CGPA of at least 5.0 for the exit degree

[9] Modified as per the 31st Senate's recommendation
[10] Modified as per 30th Senate recommendation.
[11] Modified as per 26th Senate recommendation.

		Electives (OE): 30 Credits with at most 3 OE credits GN5005: Communication Skills (1 credit) and GN5002 Technical Writing (1 credit) Minimum Total Credits: 32[12] Minimum CGPA: 5.0 for the courses considered for the exit degree Expected duration: Around one year	

The student must surrender the PG Diploma certificate prior to re-entry into the program. The reason for exiting the program must also be stated by the student.[13]

R7.14 **Credit Transfer from Other Institutes.** In case of students doing courses outside the Institute, the policy regarding credit transfer will be decided by the Senate from time to time.

R7.15 **CGPA vs. Percentage.** For conversion between CGPA and Percentage, when needed for admissions as well as for issuing certificates to the alumni for their professional career, the Senate has approved the following conversion formula

$$^{14}Percentage = 10 \times CGPA$$

8. Upgradation to MTech+PhD Dual Degree Program

R8.1 Eligibility

Meritorious scholars who have registered for the MTech programme at IIT Palakkad are eligible to upgrade their registration to the PhD programme in any discipline in IIT Palakkad which accepts the corresponding MTech degree as an eligibility for PhD if they satisfy the following criteria:

a. The scholar should have been registered for a minimum of 2 semesters in the MTech programme and at the time of request for upgradation should have completed all the courses of the MTech programme (except for the project).

b. Minimum CGPA of 8 (7.5 for OBC-NCL/GEN-EWS and 7 for SC/ST/PwD) on a 10 point scale with no pending backlogs in the prescribed courses in the MTech Programme.

R8.2 Procedure for upgradation

[12] Modified as per 39th Senate recommendation
[13] Modified as per 34th Senate recommendation.
[14] Modified as per 30th Senate recommendation.

a. Applications may be submitted against the admission notification circulated by the academics section.[15]

b. The scholar should make a written request to the Dean (Academics) at that time.

c. The selection will be done through a direct interview conducted by a panel of faculty members formed by the target discipline.

R8.3 Fellowship

A scholar upgrading to the MTech+PhD dual degree programme is entitled to regular PhD fellowship from the date of approval of upgradation by the Chairperson, Senate and as per PhD regulations. While applying the PhD regulations, the scholar's duration in the PhD programme will be interpreted as the time spent by the scholar from their date of upgradation to MTech+PhD dual degree.

R8.4 Course requirements

a. The student should complete all the courses in the original discipline towards the MTech programme at the time of upgradation. She will not need to do an MTech project.

b. In addition, they should separately complete the minimum course requirements for PhD as recommended by the doctoral committee.

R8.5 **Exit from dual degree.** The students who upgrade to MTech+PhD dual degree will be permitted to exit with the MTech degree alone anytime after their 6th semester (from the date of joining the MTech programme) provided they complete all the course requirements for the regular MTech programme including the project. The research work done during the PhD programme can be part of the project. The project work has to be approved by the original discipline in which the student registered before the award of the MTech degree.

The upgraded students to MTech+PhD dual degree, who quit at or after 3 years may be given the option of MS (by Research) degree, in lieu of MTech, at their exit. However, such students who opt for MS (by Research), must satisfy the course requirement, except the project work, for MTech. The student will submit an MS thesis in place of Project-II report (or Major Project) and the same may be evaluated as per MS thesis submission and evaluation guidelines of the Institute[16].

R8.6 Award of Degree.

Upon completion of all requirements, and on the recommendation of the Senate and with the approval of the Board of Governors of the institute, an MTech+PhD dual degree will be awarded. The MTech part of the degree will be awarded in the original MTech discipline.

[15] Updated as per recommendation of 28th meeting of the Senate

[16] Updated as per recommendation of 20th meeting of the Senate

R8.7 Award of M. Tech degree to upgraded M. Tech + PhD Dual Degree program

a. The students must satisfy all the requirements for the MTech degree including the MTech projects. The MTech report should be evaluated and recommended by the relevant committee before awarding the degree. Note that different degrees require non-overlapping content of the report and coursework. Therefore, the PhD thesis content should not overlap with work presented in the MTech project report.

b. The issuance of separate degree certificates may be given as an option to the students upon their request, on choosing which the student shall receive the MTech degree upon approval, and the student shall receive only a PhD degree after the completion of the requirements for a PhD.

c. The students must choose this option after three years and before the end of the fourth year after joining the original programme.

d. In case the students do not opt for the MTech degree option within the period mentioned above, they will be awarded MTech+PhD Dual Degree after the successful completion of all the requirements of the PhD programme.

9. Discipline, Honour Code, Termination

9.1 Discipline

R9.1.1 Students shall follow the Code of Ethics and Honour prescribed by the Senate of the Institute and conduct themselves within and outside the precincts of the Institute in a manner befitting the students of an institution of national importance.

R9.1.2 Every student is required to observe decorous behavior towards faculty, staff, fellow students, and guests of the institute.

R9.1.3 Any act of indiscipline of a student reported to Dean (Academics) will be referred to the Institute Disciplinary Committee constituted by the Senate, for enquiry and for suitable action if the charges are substantiated. The recommendation will be forwarded to the Senate for appropriate action.

R9.1.4 In cases of action by the Disciplinary Committee, the student may appeal to the Chairman, Senate, whose decision will be final.

9.2 Termination from the program

A student may be terminated from the program under the following circumstances:

R9.2.1 A student will be terminated from the program if she does not fulfill the course credit requirements mentioned in Clause R7.9.

R9.2.2 If the student is absent for more than six weeks in a semester without leave sanctioned by the institute.

R9.2.3 Under disciplinary grounds

R9.2.4 On having been found to have produced false documents or having made false declarations at the time of seeking admission.

R9.2.5 On having been found to be pursuing regular studies and/or courses (leading to degree or diploma) in any other college, university or an educational institution.

10. Residual Powers and Power to Modify

R10.1 In all other cases, not covered by the above Regulations, the matter will be referred to the Dean (Academics).

R10.2 Notwithstanding all that has been stated above the Senate has the right to modify any of the regulations from time to time.

— End of Document —

11. Annexure 1. Regulations for Remote-Internship by Students

11.1 Objective

Enable students belonging to UG and PG course programs in gaining industrial and/or academic research experience through long-term internships that run in parallel with the regular academic schedule without affecting their academic learning and progress. The duration of these internships could overlap with the academic semester and the adjoining vacations. Proposed regulations

R11.1 Students in their final year/pre-final year of BTech or final year of MSc/MTech programs are eligible to apply for remote-internships, provided they do not have any active backlogs (pending backlog or a backlog that the student is repeating in the current semester). A remote-internship could be in association with an industry/university or could be a significant open source project or socially relevant technical work recommended by a faculty member of the discipline.

R11.2 The student shall submit an application for permission to do a remote-internship to the CDC, along with a one-page proposal describing the nature of the remote-internship work to be undertaken, its proposed start date, end date, the estimated number of hours of work for completing the work, and the estimated number of hours of work per week. In case the internship offer is not made through the Institute Career Development Cell (CDC), the proposal should also include the contact details and signature of the internship mentor, indicating the willingness to supervise the student. A student's application needs to be recommended by the discipline specific CDC representative and the faculty advisor of the student.

R11.3 The CDC representative's recommendation shall be based on the technical relevance of the proposal. A student who has already obtained a job offer / internship offer through the CDC will not be recommended for another internship through the CDC, though internship offers obtained through other channels may be allowed. However, an application for a remote-internship at the same industry that has issued a placement offer to the student through the CDC will not be recommended by the CDC representative.

R11.4 The faculty advisor's recommendation shall be based on an assessment of the potential of the students ability to engage in a remote-internship during the semester, without affecting the regular academic work. In case the academic activities or attendance in courses attended by the student is found to be unsatisfactory during the term of internship, the faculty advisor shall recom- mend termination of the internship. When unsatisfactory performances of such students are observed in class committee meetings, the class committee chairpersons may update the corresponding faculty advisors of the same.

R11.5 The time allowed to be spent by a student for remote-internship is limited to a maximum of 10 hours per week during a semester. A student and the industry mentor shall jointly arrive at a work-schedule that does not conflict with the academic hours of the student. In general, students are not supposed to engage in remote-internship related activities during the academic hours of the institute (that is, between 8am to 5pm on academic days). In case of any unforeseen

conflicts in schedule between academic activities and internship related activities during academic hours, the academic activities shall get a higher priority.

R11.6 While allowing a student for a remote-internship, the CDC shall formally inform the internship mentor about the above conditions and get an undertaking signed by the student that they will adhere to the above conditions and they will not neglect nor will they ask for any leniency in any academic activities and evaluations.

R11.7 The CDC may set an appropriate minimum salary limit for remote-internship offers. If the applicant is a recipient of HTTA from the institute, then the applicant has to duly perform the TA duties during the internship.

R11.8 If the total number of working hours of the remote-internship is equivalent to a full-time 6 weeks internship (equivalent to around 240 hours of work), then the student may request the department to consider this towards the 6 weeks internship requirement prescribed in the curriculum and get it evaluated. In such cases, the student's request for evaluation must be submitted before the normal schedule of full-time internship evaluations by the department.