



K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

AN AUTONOMOUS INSTITUTION

(Approved by AICTE, New Delhi & Affiliated to Anna University)

K.S.R. Kalvi Nagar, Tiruchengode - 637 215, Namakkal Dist., Tamil Nadu, India.

REGULATION 2023 M.E./M.Tech.



K S R INSTITUTE FOR ENGINEERING OF TECHNOLOGY

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Tiruchengode – 637 215



M.E./M.Tech.

Regulation 2023

(Academic Year 2023-24 Onwards)

Note: The regulations here under are subject to amendments as may be made by the Academic Council of the College from time to time. Any or all such amendments will be effective from such date and to such batches of candidates (including those already undergoing the program) as may be decided by the Academic Council.

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K S R INSTITUTE FOR ENGINEERING AND TECHNOLOGY

Tiruchengode -637215

REGULATIONS 2023

CHOICE BASED CREDIT SYSTEM

Common to all M. E. / M. Tech. Full-Time Programmes

DEGREE OF MASTER OF ENGINEERING / MASTER OF TECHNOLOGY

This Regulation is applicable to the students admitted to M.E/M.Tech. from the academic year 2022-2023 onwards.

1 PRELIMINARY DEFINITIONS AND NOMENCLATURE

In these Regulations, unless the context otherwise requires:

- 1.1 **Programme** means Post Graduate Degree Programme e.g., M.E., M.Tech. Degree Programme.
- 1.2 **Branch** means specialization or discipline of M.E. / M.Tech. Degree Programme like “Big Data Analytics”, “Embedded System Technologies”, etc.
- 1.3 **Course** means a Theory or Practical subject that is normally studied in a semester, like Applied Mathematics, Design of Embedded Systems, etc.
- 1.4 **Head of the Institution** means the principal of a College / Institution who is responsible for all academic activities of that College /Institution and for implementation of relevant Rules and Regulations.
- 1.5 **Head of the Department** means the Head of the Department concerned.
- 1.6 **Controller of Examinations** means the Authority of the College who is responsible for all activities of the End Semester Examination.
- 1.7 **University** means the Affiliating University, i.e. Anna University, Chennai.
- 1.8 **College** means K S R Institute for Engineering and Technology, Tiruchengode, an Autonomous Institution affiliated to Anna University, Chennai and approved by AICTE, New Delhi.

2 PROGRAMMES OFFERED, MODES OF STUDY AND ADMISSION REQUIREMENTS

2.1 P.G. PROGRAMMES OFFERED:

S. No.	Programme	Branch
1.	M.E.	Big Data Analytics
2.	M.E.	CAD/CAM
3.	M.E.	Embedded System Technologies

2.2 MODES OF STUDY:

2.2.1 Full-Time:

Candidates admitted under 'Full-Time' should be available in the College / Institution during the entire duration of working hours (From Morning to Evening on Full-Time basis) for the curricular, co- curricular and extra-curricular activities assigned to them.

The Full-Time candidates should not attend any other Full-Time programme(s) / course(s) or take up any Full-Time job / Part-Time job in any Institution or Company during the period of the Full-Time programme. Violation of the above rules will result in cancellation of admission.

2.2.2 Part Time – Day Time Mode (M.E./M.Tech. only):

This mode of study is applicable to those candidates admitted under sponsored category (Teacher candidates). In this mode of study, the candidates are required to attend classes along with Full-Time students for the required number of courses and complete the course in three years.

2.2.3 Conversion from one mode of study to the other is not permitted.

2.3 ADMISSION REQUIREMENTS:

2.3.1 Candidates for admission to the first semester of the Post-Graduate Degree Programme shall be required to have passed an appropriate Under-Graduate Degree **Examination of Anna University** or equivalent as specified under qualification for admission as per the Tamil Nadu Common Admission (TANCA) criteria. This is applicable for students admitted both under Single Window Counselling process and through the Management Quota.

Note: TANCA releases the updated criteria during the admissions every academic year. Admission shall be offered only to the candidates who possess the qualification prescribed against each course.

Any other relevant qualification which is not prescribed against each programme shall be considered for equivalence by the committee constituted for the purpose. Admission to such degrees shall be offered only after obtaining equivalence to such degrees.

2.3.2 However, the Affiliating University may decide to restrict admission in any particular year to candidates having a subset of qualifications prescribed at the time of admission.

2.3.3 Notwithstanding the qualifying examination the candidate might have passed, he/she shall have a minimum level of proficiency in the appropriate programme / courses as prescribed by the Affiliating University from time to time.

2.3.4 Eligibility conditions for admission such as the class obtained the number of attempts in qualifying examination and physical fitness will be as prescribed by the Affiliating University from time to time.

2.3.5 All Part-Time (Day-Time mode) candidates should satisfy other conditions regarding Experience, Sponsorship etc. that may be prescribed by the Affiliating University from time to time.

3 STRUCTURE OF THE PROGRAMMES

3.1 Categorization of Courses

Every Post Graduate Degree Programme will have a curriculum with syllabi consisting of theory and practical courses that shall be categorized as follows:

- i. **Foundation Courses (FC)** may include Mathematics or other basic courses
- ii. **Professional Core Courses (PCC)** include the core courses relevant to the chosen specialization/branch.
- iii. **Professional Elective Courses (PEC)** include the elective courses relevant to the chosen specialization/ branch.
- iv. **Research Methodology and IPR Course (RMC)** covers topics on the process of research and patenting.
- v. **Employability Enhancement Courses (EEC)** include Project Work and/or Internship, Seminar, Professional Practices, Summer Project, Case Study and Industrial / Practical Training.
- vi. **Open Elective Courses (OEC)** include the courses credited from other post graduate Programmes of M.E./M.Tech. / M. Arch. and online courses.
- vii. **Audit courses (AC)** include the courses such as Constitution of India, Natramizh Ilakiam, etc.

3.2 Courses per Semester

Curriculum of a semester shall normally have a blend of lecture courses and practical courses including Employability Enhancement Courses. Each course shall have credits assigned as per Clause 3.3.

3.3 Credit Assignment

Each course is assigned certain number of credits based on the following:

Contact Period per week	Credits
1 Lecture Period	1
1 Tutorial Period	1
1 Practical Period (Laboratory / Seminar / Project Work etc.)	0.5

3.4 Project Work

3.4.1 The project work for M.E. / M.Tech. Programmes consist of Project Work–I and Project Work–II. The Project Work–I is to be undertaken during III Semester and Project Work–II, which is a continuation of Project Work–I, (except when project work II is carried out in the industry) is to be undertaken during IV Semester respectively.

3.4.2 In case of students of M.E. / M.Tech. Programmes not completing Project Work-I of project work successfully, the students can undertake Project Work-I again in the subsequent semester. In such cases the students can enroll for Project Work-II, only after successful completion of Project Work-I.

3.4.3 Project work shall be carried out under the supervision of a “Qualified Faculty” in the Department concerned. In this context “Qualified Faculty” means the faculty member possessing a Ph.D. degree or a PG degree with a minimum of 3 years experience in teaching.

3.4.4 A student may, however, undergo Project Work-II (M.E./M.Tech. Programme) in industry/academic institution of repute offering PG programmes in Engineering/Technology (other than affiliated colleges of Anna University)/research institutions for a minimum of 16 weeks during the final semester. In such cases, the students shall undergo the Project Work-II with the approval obtained from the Head of the institution preferably one month before the start of the industrial project.

The Project Work-II carried out in industry/academic institution of repute/research institutions need not be a continuation of Project Work-I. In such cases, the Project Work shall be jointly supervised by a supervisor of the department and an expert as a joint supervisor from the organization and the student shall be instructed to meet the supervisor periodically and to attend the review committee meetings for evaluating the progress. The review meetings, if necessary, may also be arranged in online mode with prior approval from the Head of the Institution and suitable record of the meetings shall be maintained.

3.4.5 The Project Work (Project Work-II in the case of M.E./M.Tech.) shall be pursued for a minimum of 16 weeks during the final semester.

3.5 The deadline for submission of final Project Report (Project Work-II for M.E. programmes) is 60 calendar days from the last working day of the semester in which project work / thesis / dissertation is done. However, the Project Work-I in the case of M.E. / M.Tech. Programmes shall be submitted within the last working day of the semester as per the academic calendar published by the Institution.

3.6 Industrial Training / Internship (Summer / Winter Vacation)

3.6.1 The students may undergo Industrial Training for a period as specified in the Curriculum during the summer / winter vacation. In this case, the training has to be undergone continuously for at least two weeks in an organisation.

The students may undergo Internship at a Research organization / University/ Industry (after due approval from the Head of the Institution and a copy of the same shall be forwarded to the Director, Centre for Academic Courses) for the period prescribed in the curriculum during the summer / winter vacation, in lieu of Industrial training. Attendance Certificate signed by the competent authority of the industry, as per the format provided by the Centre for Academic Courses shall be submitted to the Head of the Institution. The attendance certificate shall be forwarded to COE, Anna University by the Head of the Institution for processing results.

3.6.2 If Industrial Training/ Internship is not prescribed in the curriculum, the student may undergo Industrial Training/ Internship during Summer/ Winter vacation optionally and the credits earned will be indicated in the Grade Sheet. If the student earns three credits in Industrial Training/ Internship, the student may drop one Professional Elective (only one professional elective can be dropped). In such cases, Industrial Training / Internship need to be undergone continuously from one organization or with a combination one two week and one four week programme, from one/two organizations. However, if the

number of credits earned is 1 or 2, these credits shall not be considered for classification of the degree. Students shall get permission from the Head of the Institution for taking industrial training/internship and the Certificate of completion of Industrial Training / Internship shall be forwarded to COE.

DURATION OF TRAINING/INTERNSHIP	CREDITS
2 Weeks	1
4 Weeks	2
6 Weeks	3

*** 1 Week = 40 Internship Hours**

- 3.7** Instead of two electives (professional elective/open elective) in the curriculum, the student may be permitted to choose a maximum of 2 courses from other PG programmes with the approval of the Head of the Department offering such courses.

3.8 Value Added Courses

The students may optionally undergo Value Added Courses (VAC) over and above the topics covered in the curriculum to obtain practical and industry specific knowledge. The credits earned through the Value Added Courses shall be over and above the total credit requirements prescribed in the curriculum for the award of the degree. One / Two credit courses shall be offered by a Department of an institution **with the prior approval from the Head of the Institution and the Centre for Academic courses without any additional fee charged from the students.** The details of the syllabus, time table and course coordinator may be sent to the Centre for Academic Courses at least one month before the course is offered for approval. **Students can take a maximum of two one credit courses / one two credit course** during the entire duration of the Programme.

3.9 Online Courses

Students may be permitted to credit a maximum of two online courses, subject to a maximum of six credits, with the approval of the Head of the Institution and the Director, Centre for Academic Courses, in lieu of open elective / professional elective courses. The Head of the Institution shall form a three member committee with members as HOD and a faculty member from the Department of the student, HOD of any other branch of the Institution to ensure that the student has not studied such courses and would not repeat it again as Professional Core/Professional Elective/Open Elective courses. Suitable online courses shall be chosen from the SWAYAM platform.

3.10 A student is permitted to register a maximum of two courses in total from clause 3.7 and 3.9.

3.11 Audit courses

The student may optionally study audit courses prescribed by the University and it will be mentioned in the Grade Sheet. However, it will not be considered for computation of CGPA.

3.12 Medium of Instruction

The medium of instruction is English for all courses, examinations, seminar presentations and project / thesis / dissertation reports.

4 DURATION AND STRUCTURE OF THE PROGRAMMES

4.1 The minimum and maximum period for completion of the P.G. Programmes are given below:

Programme	Minimum Number of Semesters	Maximum Number of Semesters
M.E. / M.Tech. (Full Time)	4	8
M.E. / M.Tech. (Part Time)	6	12

** Bridge courses are to be conducted for students from non-computer science background.*

4.2 The Curriculum and Syllabi of all the P.G. Programmes shall be approved by Board of Studies and Academic Council. The number of credits to be earned for the successful completion of the programme shall be as specified in the Curriculum of the respective specialization of the P.G. Programme.

4.3 Each semester shall normally consist of 75 working days or 540 periods of each 50 minutes duration, for full-time mode of study or 250 periods for part-time mode of study. The Head of the Institution shall ensure that every teacher imparts instruction as per the number of periods specified in the syllabus and that the teacher teaches the full content of the specified syllabus for the course being taught. For the purpose of calculation of attendance requirement for writing the end semester examinations (as per clause 10) by students, following method shall be used.

$$\text{Percentage of Attendance} = \frac{A}{B} \times 100$$

A -Total no. of periods attended in all the courses per semester

B - (No. of periods / week as prescribed in the curriculum taken together for all courses of the semester) x 15

- 4.4** The minimum prescribed credits required for the award of the degree shall be within the limits specified below:

Programme	Prescribed Credit Range
M.E. / M.Tech.	70 - 75

5. COURSE REGISTRATION

5.1 Flexibility to Drop courses

- 5.1.1** A student has to earn the total number of credits specified in the curriculum of the respective Programme of study in order to be eligible to obtain the degree.

- 5.1.2** From the first to pre-final semesters, the student has the option of dropping existing courses in a semester during registration. Total number of credits of such courses cannot exceed 6 for P.G. (Full Time) programmes and cannot exceed 3 for P.G. (Part Time) programmes. The student is permitted to drop the course(s) within 30 days of the commencement of the academic schedule.

- 5.2** The Institution is responsible for registering the courses that each student is proposing to undergo in the ensuing semester. Each student has to register for all courses to be undergone in the curriculum of a particular semester (with the facility to drop courses to a maximum of 6 credits (vide clause 5.1). The registration details of the student shall be approved by the Head of the Institution and forwarded to the Controller of Examinations. This registration is for undergoing the course as well as for writing the End Semester Examinations.

The courses that a student registers in a particular semester may include:

- i. Courses of the current semester and
- ii. Courses dropped in the lower semesters.

The maximum number of credits that can be registered in a semester is 36. However, this does not include the number of Re-appearance (RA) and Withdrawal (W) courses registered by the student for the appearance of Examination.

6 EVALUATION OF PROJECT WORK

The evaluation of Project Work for Project Work-I & Project Work-II in the case of M.E. / M.Tech. shall be done independently in the respective semesters and marks shall be allotted as per the weightages given in Clause 6.1.

- 6.1** There shall be three assessments (each 100 marks) during the Semester by a review committee. The student shall make presentation on the progress made before the Committee. The Head of the Institution shall constitute the review committee for each programme. The review committee consists of supervisor, expert from the Department and a project coordinator from the Department. If the project coordinator/expert member happens to be the Supervisor then an alternate member shall be nominated. In the case of project work II carried out in industry/academic/research institutions, the review committee shall have the supervisor, coordinator from industry/ academic/ research institutions and the project coordinator from the Department. The total marks obtained in the three assessments shall be reduced to 60 marks and rounded to the nearest integer (as per the Table given below). There will be a vice-voce Examination during End Semester Examinations conducted by a Committee consisting of the supervisor, one internal examiner and one external examiner. The internal examiner and the external examiner shall be appointed by the Controller of Examination. The distribution of marks for the internal assessment and End semester examination is given below:

Internal Assessment (60 Marks)			End Semester Examinations (40 Marks)				
Review I	Review II	Review III	Thesis Submission		Viva-Voce Examination		
			Internal	External	Internal	External	Supervisor
20	20	20	5	5	10	10	10

- 6.2** The Project Report prepared according to approved guidelines and duly signed by the supervisor(s) and the Head of the Department concerned, shall be submitted to the Head of the Institution.
- 6.3** If the student fails to obtain 50% of the internal assessment marks in the Project Work-I and Project Work-II / final project, he/she will not be permitted to submit the project report and has to register for the same in the subsequent semester.

If a student fails to submit the project report on or before the specified deadline as mentioned in clause 3.5, he/she is deemed to have failed in the Project Work and shall register for the same in a subsequent semester. This applies to both for Project Work–I and Project Work–II in the case of M.E. / M.Tech.

If a student fails in the end semester examinations of Project Work–I, he/she has to resubmit the Project Report within 30 days from the date of declaration of the results. If he / she fail in the End semester examination of Project Work–II of Project work of M.E. / M.Tech., he/she shall resubmit the Project Report within 60 days from the date of declaration of the results. The resubmission of a project report and subsequent viva-voce examination will be considered as reappearance with payment of exam fee. For this purpose the same Internal and External examiners shall evaluate the resubmitted report.

If a student has submitted the project report but did not appear for the viva-voce examination, it will be considered as fail and he/she will be permitted to resubmit the report within 30/60 days from the declaration of results and permitted for reappearance in viva-voce examination, for Project Work-I and II respectively.

6.3.1 A copy of the approved Project Report after the successful completion of viva-voce examinations shall be kept in the library of the college / institution.

6.3.2 Practical / Industrial Training, Summer Project if specified in the Curriculum shall not exceed the maximum duration of 4 weeks and should be organized by the Head of the Department for every student.

6.3.3 At the end of Practical / Industrial Training, Summer Project, the student shall submit an Attendance certificate from the organization where he/she has undergone training and also a brief report. The evaluation for 100 marks will be carried out internally based on this report and a viva-voce Examination will be conducted by a Departmental Committee constituted by the Head of the Institution. The attendance certificate submitted by the students shall be attached to the mark list sent by the Head of the Institution to the Controller of Examination.

7 CLASS ADVISOR

There shall be a class advisor for each class. The class advisor will be one among the (course-instructors) of the class. He / She will be appointed by the Head of the Department concerned. The class advisor is the ex-officio member and the Convener of the class committee. The responsibilities for the class advisor shall be:

- To act as the channel of communication between the HOD and the students of the respective class.
- To collect and maintain various statistical details of students.
- To help the chairperson of the class committee in planning and conduct of the class committee meetings.
- To monitor the academic performance of the students including attendance and to inform the class committee.
- To attend to the students' welfare activities like awards, medals, scholarships and industrial visits.

8 CLASS COMMITTEE

8.1 A Class Committee consists of teachers of the concerned class, student representatives and a chairperson who is not teaching the class. It is like the 'Quality Circle' (more commonly used in industries) with the overall goal of improving the teaching-learning process. The functions of the class committee include:

- Solving problems experienced by students in the class room and in the laboratories.
- Clarifying the regulations of the programme and the details of rules therein.
- Informing the student representatives, the "academic schedule" including the dates of assessments and the syllabus coverage for each assessment period.
- Informing the student representatives, the details of regulations regarding the weightage used for each assessment. In the case of practical courses (laboratory / project work / seminar etc.) the breakup of marks for each experiment/ exercise/ module of work,
- should be clearly discussed in the class committee meeting and informed to the students.
- Analyzing the performance of the students of the class after each test and finding the ways and means of improving the performance of the students.
- Identifying the slow learners, if any, in any specific subject and requesting the teachers concerned to provide some additional help or guidance or coaching to such students as frequently as possible.

- 8.2** The class committee for a class under a particular programme is normally constituted by the Head of the Department. However, if the students of different programmes are mixed in a class, the class committee is to be constituted by the Head of the Institution.
- 8.3** The class committee shall be constituted within the first week of each semester.
- 8.4** At least 2 student representatives (usually 1 boy and 1 girl) shall be included in the class committee.
- 8.5** The chairperson of the class committee shall invite the Class advisor(s) and the Head of the Department to the meeting of the class committee.
- 8.6** The Head of the Institution may participate in any class committee of the institution.
- 8.7** The Chairperson of the Class Committee is required to prepare the minutes of every meeting, submit the same to the Head of the Institution within two days of the meeting and arrange to circulate among the concerned students and teachers. If there are some points in the minutes requiring action by the management, the same shall be brought to the notice of the management by the Head of the Institution.
- 8.8** The first meeting of the class committee shall be held within one week from the date of commencement of the semester in order to inform the students about the nature and weightage of assessments within the framework of the Regulations. Two or three subsequent meetings may be held at suitable intervals. During these meetings the student members, representing the entire class, shall meaningfully interact and express the opinions and suggestions of the class students to improve the effectiveness of the teaching-learning process.

9 COURSE COMMITTEE FOR COMMON COURSES

Each common course offered to more than one group of students shall have a “Course Committee” comprising all the teachers teaching the common course with one of them nominated as Course Coordinator. The nomination of the Course Coordinator shall be made by the Head of the Department / Head of the Institution depending upon whether all the teachers teaching the common course belong to a single department or to several departments. The ‘Course Committee’ shall meet as often as possible and ensure uniform evaluation of the tests and arrive at a common scheme of evaluation for the tests. Wherever it is feasible, the course committee may also prepare a common question paper for the Assessment Test(s).

10 ATTENDANCE REQUIREMENTS FOR COMPLETION OF A SEMESTER

10.1 A student who has fulfilled the following conditions shall be deemed to have satisfied the attendance requirements for completion of a semester.

Ideally every student is expected to attend all classes and earn 100% attendance. However in order to allow provision for certain unavoidable reasons such as prolonged hospitalization / accident / specific illness the student is expected to earn a minimum of 75% attendance to become eligible to write the End-Semester Examinations.

Therefore, every student shall secure not less than 75% of overall attendance in that semester as per clause 4.3.

10.2 However, a student who secures overall attendance between 65% and 74% in that current semester due to medical reasons (prolonged hospitalization / accident / specific illness) / participation in sports events may be permitted to appear for the current semester examinations subject to the condition that the student shall submit the medical certificate /sports participation certificate to the Head of the Institution. The same shall be forwarded to the Controller of Examinations for record purposes.

10.3 Students who could secure less than 65% overall attendance will not be permitted to write the end-semester examination of that current semester and are not permitted to go to next semester. They are required to repeat the incomplete semester in the next academic year.

11 PROCEDURES FOR AWARDING MARKS FOR INTERNAL ASSESSMENT

For all theory, laboratory courses, theory courses with laboratory component and project work the continuous assessment shall be awarded as per the procedure given below:

11.1 THEORY COURSES

Two assessments each carrying 100 marks shall be conducted during the semester by the Department / College concerned. The total marks obtained in all assessments put together out of 200, shall be proportionately reduced for 40 marks and rounded to the nearest integer (This also implies equal weightage to the two assessments).

Assessment I (100 Marks)		Assessment II (100 Marks)		Total
Individual Assignment / Case study / Seminar / Mini project / any other experiential Learning	Written test	Individual Assignment / Case study / Seminar / Mini project / any other experiential Learning	Written test	Internal Assessment
40	60	40	60	200*

***The weighted average shall be converted into 40 marks for internal assessment.**

Two internal assessments will be conducted as a part of continuous assessment. Each internal assessment is to be conducted for 100 marks and will have to be distributed in two parts viz., Individual Assignment/Case study/Seminar/Mini project and Test with each having a weightage of 40% and 60% respectively. The tests shall be in written mode. The total internal assessment marks of 200 shall be converted into a maximum of 40 marks and rounded to the nearest integer.

11.2 LABORATORY COURSES

The maximum marks for Internal Assessment shall be 60 in case of practical courses. Every practical exercise / experiment shall be evaluated based on conduct of experiment / exercise and records to be maintained. There shall be at least one test. The criteria for arriving at the Internal Assessment marks of 60 is as follows: 75 marks shall be awarded for successful completion of all the prescribed experiments done in the Laboratory and 25 marks for the test. The total mark shall be converted into a maximum of 60 marks and rounded to the nearest integer.

Internal Assessment (100 Marks)*	
Evaluation of laboratory observation, Record	Model Test
75	25

* Internal assessment marks shall be converted into 60 marks

11.3 THEORY COURSES WITH LABORATORY COMPONENT/ LABORATORY COURSES WITH THEORY COMPONENT

Weightage of internal assessment and end semester examination marks will be 50% each. The distribution of marks for the theory and laboratory components in the internal assessments and end semester examination for different types of courses are provided in the table.

L	T	P	C	Internal		End Semester
				Assessment 1	Assessment 2	
1	0	4	3	Laboratory (25%)	Theory (25%)	Laboratory only (50%)
1	0	2	2	Laboratory (25%)	Theory (25%)	Laboratory only (50%)
2	0	2	3	Theory (25%)	Laboratory (25%)	Theory (25%) Laboratory (25%)
3	0	2	4	Theory (25%)	Laboratory (25%)	Theory (35%) Laboratory (15%)
2	0	4	4	Theory (25%)	Laboratory (25%)	Theory (15%) Laboratory (35%)

The procedure for the conduct of internal assessments for theory and laboratory components shall be as per the clause 11.1 and 11.2 respectively*.

***The weighted average shall be converted into 50 marks for internal Assessment.**

11.4 OTHER EMPLOYABILITY ENHANCEMENT COURSES

- (a) The Seminar / Case study / Mini project course is to be considered as purely INTERNAL (with 100% internal marks only). Every student is expected to present a minimum of 2 seminars per semester before the evaluation committee and for each seminar marks can be equally apportioned. A three member committee appointed by Head of the Institution consisting of course coordinator and two experts from the Department, will evaluate the seminar and at the end of the semester the marks can be consolidated and taken as the final mark. The evaluation shall be based on the seminar paper (40%), presentation (40%) and response to the questions asked during presentation (20%).
- (b) The Industrial / Practical Training shall carry 100 marks and shall be evaluated through internal assessment only. At the end of Industrial / Practical training / Internship / Summer Project, the candidate shall submit an attendance certificate from the organization where he / she has undergone training and a brief report. The evaluation will be made based on this report and a viva-voce Examination, conducted internally by a three member Departmental Committee constituted by the Head of the Institution consisting of course coordinator and two experts from the Department. The certificates submitted by the candidate shall be attached to the mark list sent by the Head of the Department.
- (c) For all the courses under Employability Enhancement Courses Category, except the Project Work, the evaluation shall be done with 100% internal marks and as per procedure described in 11.1 (iv) (a/b).

11.5 Assessment for Value Added Course

The one / two credit course shall carry 100 marks and shall be evaluated through **continuous assessments only**. Two Assessments as per the clause 11.1 or 11.2 shall be conducted by the Department concerned. The total marks obtained in the assessments shall be reduced to 100 marks and rounded to the nearest integer. A committee consisting of the Head of the Department, staff handling the course and a senior faculty member nominated by the Head of the Institution shall do the evaluation process. The list of students along with the marks and the grades earned shall be forwarded to the Controller of Examinations for appropriate action at least one month before the commencement of End Semester Examinations. The grades earned by the students for Value Added Courses will be recorded in the Grade Sheet, however the same shall not be considered for the computation of CGPA.

11.6 Assessment for Online courses

Students may be permitted to credit two online courses (which are provided with certificate), subject to a maximum of six credits. **The online course of 3 credits can be considered instead of one elective course.** These online courses shall be chosen from the SWAYAM platform, provided the offering organisation conducts regular examination and provides marks. The credits earned shall be transferred and the marks earned shall be converted into grades and transferred, provided the student has passed in the examination as per the norms of the offering organisation. The details regarding online courses taken up by the student and marks/credits earned and the approval for the course from Head of the department shall be sent to the Controller of Examinations in the subsequent semester(s) along with the details of the elective(s) to be dropped.

11.7 Internal marks approved by the Head of the Institution shall be displayed by the respective HODs within 5 days from the last working day.

11.8 Every teacher is required to maintain an 'ATTENDANCE AND ASSESSMENT RECORD' which consists of attendance marked in each lecture or practical or project work class, the test marks and the record of class work (topics covered), separately for each course. This should be submitted to the Head of the Department periodically (at least three times in a semester) for checking the syllabus coverage and the records of test marks and attendance. The Head of the department will put his/her signature and date after due verification. At the end of the semester, the record should be verified by the Head of the institution who will keep this document in safe custody (for five years). The University or any inspection team appointed by the University may inspect the records of attendance and assessments of both current and previous semesters.

11.9 Conduct of Academic Audit

The purpose of the academic audit is to encourage departments to evaluate the quality of their education processes, thereby assure and regularly improve the quality of teaching learning process and the outputs. A regular academic audit is conducted in the Institute to evaluate the performance of various departments so that the issues that need attention can be identified to improve the overall quality of curriculum design, teaching learning process, and evaluation. The academic audits are conducted by internal and external academic experts.

12 REQUIREMENTS FOR APPEARING FOR SEMESTER EXAMINATION

- 12.1** A student shall normally be permitted to appear for the University examinations of the current semester if he/she has satisfied the semester completion requirements as per clause 10.1 & 10.2 and has registered for examination in all courses of the current semester.
- 12.2** Further, examination registration by a student is mandatory for all the courses in the current semester and all arrear(s) course(s) for the university examinations failing which, the student will not be permitted to move to the higher semester.
- 12.3** A student who has passed all the courses prescribed in the curriculum for the award of the degree shall not be permitted to re-enroll to improve his/her marks in a course or the aggregate marks / CGPA.

13 UNIVERSITY EXAMINATIONS

- 13.1** There shall be an End-Semester Examination of 3 hours duration in each lecture based course.

The examinations shall ordinarily be conducted between October and December during the odd semesters and between April and June in the even semesters.

For the practical examinations (including project work), both internal and external examiners shall be appointed by the University.

13.2 WEIGHTAGE

The following will be the weightage for different courses:

Lecture or Lecture cum Tutorial based course	
Internal Assessment	40%
End Semester Examination	60%
Laboratory based courses	
Internal Assessment	60%
End Semester Examination	40%
Project work	
Internal Assessment	60%
Evaluation of Project Report	10%
Viva-Voce Examination	30%
Industrial training/Internship/ Practical training / Summer project / Seminar (All Employability Enhancement Courses except Project Work)	
Internal Assessment	100%

14 PASSING REQUIREMENTS

- 14.1** A student who secures not less than 50% of total marks prescribed for the course [Internal Assessment + End semester Examinations] with a minimum of 45% of the marks prescribed for the end-semester Examination, shall be declared to have passed the course and acquired the relevant number of credits. This is applicable for both theory and laboratory courses (including project work).
- 14.2** If a student fails to secure a pass in a theory course (except electives)/ laboratory courses, the student shall register and appear only for the end semester examination in the subsequent semester. In such case, the internal assessment marks obtained by the student in the first appearance shall be retained and considered valid for all subsequent attempts till the student secures a pass. However, from the third attempt onwards if a student fails to obtain pass marks (IA + End Semester Examination) as per clause 14.1, then the student shall be declared to have passed the examination if he/she secures a minimum of 50% marks prescribed for the end semester examinations alone.

14.3 If the course, in which the student has failed, is a professional elective or an open elective, the student may be permitted to complete the same course. In such case, the internal assessment marks obtained by the candidate in the first appearance shall be retained and considered valid for all subsequent attempts till the candidate secures a pass. However, from the third attempt onwards if a candidate fails to obtain pass marks (IA + End Semester Examination) as per clause 14.1, then the candidate shall be declared to have passed the examination if he/she secure a minimum of 50% marks prescribed for the end semester examinations alone.

If any other professional elective or open elective course is opted by the student, the previous registration is cancelled and henceforth it is to be considered as a new professional elective or open elective course. The student has to register and attend the classes, earn the continuous assessment marks, fulfill the attendance requirements as per Clause 10 and appear for the end semester examination.

14.4 If a student is absent during the viva voce examination, it would be considered as fail. If a student fails to secure a pass in project work even after availing clause (6.3), the student shall register for the course again.

14.5 The passing requirement for the courses which are assessed only through purely internal assessment (EEC courses except project work), is 50% of the internal assessment marks only.

14.6 A student can apply for revaluation of his/her semester examination answer paper in a theory course as per the guidelines of COE, on payment of a prescribed fee along with prescribed application to the COE through the Head of the Institution. The COE will arrange for the revaluation and the results will be intimated to the student concerned through the Head of the Institution. Revaluation is not permitted for laboratory course and EEC courses.

15 AWARD OF LETTER GRADES

15.1 The award of letter grades will be decided using relative grading principle except Laboratory Courses and Project Work. The performance of a student will be reported using letter grades, each carrying certain points as detailed below:

Letter Grade	Grade Points
O (Outstanding)	10
A ⁺ (Excellent)	9
A (Very Good)	8
B ⁺ (Good)	7
B (Average)	6
C (Satisfactory)	5
U (Re-appearance)	0
SA (Shortage of Attendance)	0
WD (Withdrawal)	0

A student is deemed to have passed and acquired the corresponding credits in a particular course if he/she obtains any one of the following grades: “O”, “A⁺”, “A”, “B⁺”, “C”.

‘SA’ denotes shortage of attendance (as per clause 10.3) and hence Prevention from writing the end semester examinations. ‘SA’ will appear only in the result sheet.

“U” denotes that the student has failed to pass in that course. “WD” denotes withdrawal from the exam for the particular course. The grades U and W will figure both in the Grade Sheet as well as in Result Sheet. In both cases, the student has to appear for the End Semester Examination as per the Regulations.

If the grade “U” is given to Theory Courses/ Laboratory Courses it is not required to satisfy the attendance requirements (vide clause 10), but has to appear for the end semester examination and fulfil the norms specified in clause 14 to earn a pass in the respective courses. If the grade U is given to Project work, the course has to be registered again and attendance requirement (vide clause 10) should be satisfied.

If the grade “U” is given to EEC course (except project work), which are evaluated only through internal assessment, the student shall register for the course again in the subsequent semester fulfil the norms as specified in Clause 14 to earn pass in the course. However, attendance requirement need not be satisfied.

15.1.1 Relative Grading

For those students who have passed the course (theory course/ laboratory integrated courses/ theory integrated courses/ all other EEC except laboratory course/ Project Work Course), the relative grading shall be done. The marks of those students who have passed only shall be inputted in the software developed for relative grading.

The evolved relative grading method normalizes the results data using the BOX-COX transformation method and computes the grade range for each course separately and awards the grade to each student. (theory course/ laboratory integrated courses/ theory integrated courses/ all other EEC courses). If the students' strength is greater than 30, the relative grading method shall be adopted.

15.1.2 Absolute Grading

For all the courses, if the students' strength is less than or equal to 30 then the absolute grading shall be followed with the grade range as specified in the table.

For the Project Work / Internship and Laboratory Courses absolute grading procedure shall be followed as given in the Table.

Table – Grade range for absolute grading

O	A⁺	A	B⁺	B	C	U
91 – 100	81 – 90	71 – 80	61 – 70	56 – 60	50 – 55	< 50

15.2 The grades O, A+, A, B+, B, C obtained for the one/two credit courses (not part of curriculum) under the title 'Value Added Courses' and 'internship/industrial training' (if not part of curriculum) shall figure in the Grade Sheet. For these courses if the grades obtained is SA, it will not figure in the Grade Sheet.

15.3 For the students who complete the Audit Course satisfying attendance requirement, the title of the Audit Course will be mentioned in the Grade Sheet. If the attendance requirement is not satisfied, it will not be shown in the Grade Sheet.

15.5 GRADE SHEET

After results are declared, Grade Sheets will be issued to each student which will contain the following details:

- The college in which the student has studied.
- The list of courses registered during the semester and the grades scored.
- The Grade Point Average (GPA) for the semester and
- The Cumulative Grade Point Average (CGPA) of all courses enrolled from first semester onwards.

GPA for a semester is the ratio of the sum of the products of the number of credits acquired for courses and the corresponding points to the sum of the number of credits acquired for the courses in the semester. CGPA will be calculated in a similar manner, considering all the courses registered from first semester. RA grades will be excluded for calculating GPA and CGPA.

$$\text{GPA / CGPA} = \frac{\sum_{i=1}^n C_i GP_i}{\sum_{i=1}^n C_i}$$

where

C_i is the number of credits assigned to the course

GP_i is the Grade point corresponding to the grade obtained for each Course

n is number of all Courses successfully cleared during the particular semester in the case of GPA and during all the semesters in the case of **CGPA**.

16 ELIGIBILITY FOR THE AWARD OF THE DEGREE

16.1 A student shall be declared to be eligible for the award of the P.G. Degree (M.E. / M.Tech.) provided the student has

i. Successfully gained the required number of total credits as specified in the curriculum corresponding to the student's programme within the stipulated time.

ii. a. M.E./ M.Tech.

Successfully completed the course requirements, appeared for the End-Semester examinations and passed all the subjects prescribed in all the 4 semesters within a maximum period of 4 years reckoned from the commencement of the first semester to which the student was admitted.

b. M.E./ M.Tech.(Part Time)

Successfully completed the course requirements, appeared for the End-Semester examinations and passed all the subjects prescribed in all the 6 semesters within a maximum period of 6 years reckoned from the commencement of the first semester to which the student was admitted.

iii. Successfully passed any additional courses prescribed by the Director, Centre for Academic Courses whenever readmitted under regulations R-2021 (vide clause 19.3)

iv. No disciplinary action pending against the student.

v. The award of Degree must have been approved by the Affiliating University.

17 CLASSIFICATION OF THE DEGREE AWARDED

17.1 FIRST CLASS WITH DISTINCTION:

A Student who satisfies the following conditions shall be declared to have passed the examination in First class with Distinction:

M.E. / M.Tech.

- Should have passed the examination in all the courses of all the four semesters in the student's First Appearance within three years, which includes authorised break of study of one year (if availed). Withdrawal from examination (vide Clause 18) will not be considered as an appearance.
- Should have secured a CGPA of not less than **8.50**.
- Should NOT have been prevented from writing end Semester examination due to lack of attendance in any of the courses.

M.E. / M.Tech. (Part Time)

- Should have passed the examination in all the courses of all the six semesters in the student's First Appearance within four years, which includes authorised break of study of one year (if availed). Withdrawal from examination (vide Clause 18) will not be considered as an appearance.
- Should have secured a CGPA of not less than 8.50.
- Should NOT have been prevented from writing end Semester examination due to lack of attendance in any of the courses.

17.2 FIRST CLASS:

A student who satisfies the following conditions shall be declared to have passed the examination in First class:

M.E. / M.Tech.

- Should have passed the examination in all the courses of all four semesters within three years, which includes one year of authorized break of study (if availed) or prevention from writing the End Semester Examination due to lack of attendance (if applicable).
- Should have secured a CGPA of not less than 6.50

M.E. / M.Tech. (Part Time)

- Should have passed the examination in all the courses of all six semesters within four years, which includes one year of authorized break of study (if availed) or prevention from writing the End Semester Examination due to lack of attendance (if applicable).
- Should have secured a CGPA of not less than 6.50.

17.3 SECOND CLASS:

All other students (not covered in clauses 17.1 and 17.2) who qualify for the award of the degree (vide Clause 16.1) shall be declared to have passed the examination in Second Class.

- 17.4** A student who is absent in End Semester Examination in a course / project work after having registered for the same shall be considered to have appeared in that examination (except approved withdrawal from end semester examinations as per clause 18) for the purpose of classification.

17.5 Photocopy / Revaluation

A student can apply for photocopy of his/her semester examination answer paper in a theory course, as per the guidelines of COE on payment of a prescribed fee through proper application to the Controller of Examination through the Head of Institution. The answer script is to be valued and justified by a faculty member, who handled the subject and recommend for revaluation with breakup of marks for each question. Based on the recommendation, the student can register for the revaluation through proper application to the Controller of Examination. The Controller of Examination will arrange for the revaluation and the results will be intimated to the student concerned through the Head of the Institution. Revaluation is not permitted for practical courses and for EEC courses.

A student can apply for revaluation of answer scripts for not exceeding 5 subjects at a time.

17.6 Review

Students not satisfied with Revaluation can apply for Review of his/ her examination answer paper in a theory course, within the prescribed date on payment of a prescribed fee through proper application to Controller of Examination through the Head of the Institution.

Students applying for Revaluation only are eligible to apply for Review.

18 PROVISION FOR WITHDRAWAL FROM EXAMINATION:

- 18.1** A student may, for valid reasons, (medically unfit / unexpected family situations / sports approved by Head of the Institution) be granted permission to withdraw from appearing for the End Semester Examination in any course or courses in **ANY ONE** of the semester examinations during the entire duration of the degree programme. The application shall be sent to COE through the Head of the Institution with required documents.

- 18.2** Withdrawal application is valid if the student is otherwise eligible to write the examination (Clause 10) and if it is made within TEN days after the date of the examination(s) in that course or courses and recommended by the Head of the Institution and approved by the Controller of Examination. For a student to withdraw from a course /courses, he/she should have registered for the course, fulfilled the attendance requirements (vide clause 10) and earned continuous assessment marks.
- 18.2.1** Notwithstanding the requirement of mandatory 10 days notice, applications for withdrawal for special cases under extraordinary conditions will be considered on the merit of the case.
- 18.3** In case of withdrawal from a course / courses, it will figure both in Marks Sheet as well as in Result Sheet. However, withdrawal shall not be considered as an appearance for the eligibility of a student for First Class with Distinction.
- 18.4** If a student withdraws from writing end semester examinations for a course or courses, he/she shall register for the same in the subsequent semester and write the end semester examination(s).
- 18.5** If a student applies for withdrawal from Project work, he/she will be permitted for the withdrawal only after the submission of project report before the deadline. However, the student may appear for the viva voce examination within 30/60 days after the declaration of results for Project Work I and II respectively and the same is not considered as reappearance.
- 18.6** Withdrawal is permitted for the end semester examinations in the final semester, as per clause 17.1.

19 AUTHORIZED BREAK OF STUDY FROM A PROGRAMME

- 19.1** A student is permitted to avail authorised break of study for a maximum period of one year in a single spell.
- 19.2** Break of Study shall be granted only once for valid reasons for a maximum of one year during the entire period of study of the degree programme. However, in extraordinary situation the student may apply for additional break of study not exceeding another one year. If a student intends to temporarily discontinue the programme in the middle of the semester for valid reasons, and to rejoin the programme in a subsequent year, permission may be granted based on the merits of the case provided he / she applies to the Director, DOTE and Student Affairs in advance, but not later than the last date for registering for the end semester examination of the semester in question, through the Head of the Institution stating the reasons therefore and the probable date of rejoining the

programme. However, if the candidate has not completed the first semester of the programme, Break of Study will be considered only on valid medical reasons.

- 19.3** The students permitted to rejoin the programme after break of study / prevention due to lack of attendance, shall be governed by the Curriculum and Regulations in force at the time of rejoining. The students rejoining in new regulations shall register for additional courses, if any, as notified by the Centre for Academic Courses under change of regulations. These courses may be from any of the semesters of the curriculum in force, so as to bridge the curriculum in force and the old curriculum. In such cases, the total number of credits to be earned by the student may be more than or equal to the total number of credits prescribed in the curriculum in force.
- 19.4** The authorized break of study of maximum of one year is included in the duration specified for passing all the courses for the purpose of classification (vide Clause 17.1).
- 19.5** The total period for completion of the Programme reckoned from, the commencement of the first semester to which the student was admitted shall not exceed the maximum period specified in clause 4.1 irrespective of the period of break of study in order that he/she may be eligible for the award of the degree.
- 19.6** If any student is prevented for want of required attendance, the period of prevention shall not be considered as authorized 'Break of Study' (Clause 19.1).
- 19.7** If a student in Full Time mode wants to take up job / start-up / entrepreneurship during the period of study he/she shall apply for authorised break of study for one year. The student shall undertake the job / start-up / entrepreneurship only after getting approval of the same by The Director, Centre for Academic Courses with due proof to that effect.
- 19.8** No fee is applicable to students during the Break of Study period.

20 DISCIPLINE

- 20.1** Every student is required to observe disciplined and decorous behavior both inside and outside the college and not to indulge in any activity which will tend to bring down the prestige of the College. The Head of Institution shall constitute a disciplinary committee consisting of Head of Institution, Heads of Departments to which the student concerned belongs, and the Head of another Department to enquire into acts of indiscipline and notify the University about the disciplinary action recommended for approval. In case of any serious disciplinary action which leads to suspension or dismissal, then a committee shall be constituted by the Head of Institution for taking final decision.

20.2 If a student indulges in malpractice in any of the examinations, the student shall be liable for punitive action as prescribed in the regulations from time to time.

21. REVISION OF REGULATIONS, CURRICULUM AND SYLLABI

The college may from time to time revise, amend or change the Regulations, Curriculum, Syllabus and Scheme of examinations through the Board of Studies with the approval of Academic Council and Governing Council of the college.
