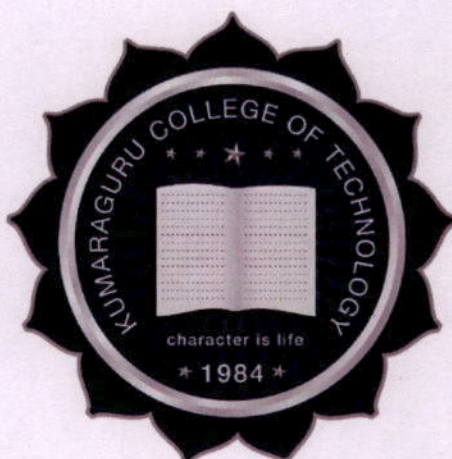


**KUMARAGURU COLLEGE OF TECHNOLOGY****COIMBATORE -641 049.****ACADEMIC REGULATIONS 2018****(R2018 - Amended)****M.E./M.Tech. Programmes****(R 2018 A)**

Applicable to students admitted from AY 2021-2022 onwards

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# CONTENTS

|   |            |
|---|------------|
| <b>CONTENTS.....</b>  | <b>III</b> |
| <b>LIST OF SYMBOLS AND ABBREVIATIONS .....</b>  | <b>VI</b>  |
| <b>1. PREAMBLE .....</b>  | <b>8</b>   |
| <b>2. SCOPE .....</b>   | <b>8</b>   |
| <b>3. PRELIMINARY DEFINITIONS AND NOMENCLATURE.....</b>   | <b>8</b>   |
| <b>4. ME/MTECH PROGRAMME OFFERED AT KUMARAGURU COLLEGE OF TECHNOLOGY .....</b>  | <b>10</b>  |
| <b>5. ADMISSION .....</b>   | <b>10</b>  |
| 5.1. FIRST YEAR M.E/M.TECH.....   | 10         |
| 5.2. RE-ADMISSION.....  | 10         |
| <b>6. ACADEMIC STRUCTURE.....</b>   | <b>11</b>  |
| 6.1. SEMESTER STRUCTURE .....   | 11         |
| 6.2. CATEGORIES OF COURSES .....  | 11         |
| 6.3. MEDIUM OF INSTRUCTION.....   | 12         |
| 6.4. CREDIT ASSIGNMENT .....  | 12         |
| 6.5. COURSE NUMBERING SCHEME:.....  | 12         |
| 6.6. EMBEDDED COURSE.....   | 12         |
| 6.7. CREDIT REQUIREMENT FOR PROGRAMMES.....   | 13         |
| <b>7. COURSE REGISTRATION .....</b>   | <b>13</b>  |
| 7.1 ONLINE COURSE REGISTRATION PROCESS FOR SOME COURSES OFFERED IN THE ODD AND EVEN SEMESTERS .....                                   | 13         |
| 7.2 MINIMUM AND MAXIMUM CREDITS FOR COURSE REGISTRATION .....   | 13         |
| 7.3 ADD /DROP PERIOD .....  | 14         |
| 7.4 ARREAR COURSE REGISTRATION .....  | 14         |
| <b>8. REQUIREMENTS FOR APPEARING FOR CONTINUOUS ASSESSMENT TEST (CAT - II) &amp; END SEMESTER EXAMINATION (ESE) OF A COURSE .....</b> | <b>15</b>  |
| <b>9. PROVISION FOR WITHDRAWAL FROM EXAMINATION.....</b>  | <b>16</b>  |
| <b>10. ASSESSMENT PROCEDURES FOR AWARDING MARKS.....</b>  | <b>17</b>  |
| <b>11. MARKS DISTRIBUTION.....</b>  | <b>17</b>  |
| 11.1. MARKS DISTRIBUTION OF CONTINUOUS ASSESSMENT MARKS (CAM) & END SEMESTER EXAM MARKS (ESM): .....                                  | 17         |
| 11.2. QUESTION PAPER PATTERN FOR THEORY AND THEORY COMPONENT OF EMBEDDED COURSES.....   | 19         |
| 11.3. CRITERIA FOR ASSESSMENT FOR LAB COURSES –CAM & ESM COMPONENTS   | 19         |
| 11.4. EMBEDDED COURSES WITH PROJECT COMPONENT .....   | 20         |
| 11.5. PROJECT WORK(PHASE I AND II) AND /OR INTERNSHIP .....   | 20         |
| 11.6. MALPRACTICE .....   | 27         |
| <b>12. ABSENCE FROM A CONTINUOUS ASSESSMENT TEST (CAT).....</b>   | <b>28</b>  |
| 12.1. ABSENCE FROM THE CAT .....  | 28         |
| <b>13. TEMPORARY BREAK OF STUDY FROM A PROGRAMME .....</b>  | <b>28</b>  |
| <b>14. PASSING REQUIREMENTS .....</b>   | <b>29</b>  |
| <b>15. METHODS FOR REDRESSAL OF GRIEVANCES IN EVALUATION.....</b>   | <b>30</b>  |
| <b>16. LETTER GRADE .....</b>   | <b>31</b>  |
| 16.1. GRADING POLICY .....  | 32         |

|        |  |    |
|--------|--|----|
| 16.2.  | GRADE SHEET .....  | 33 |
| 17.    | ELIGIBILITY FOR THE AWARD OF DEGREE.....   | 34 |
| 18.    | CLASSIFICATION OF M.E. / M.TECH. DEGREE.....   | 34 |
| 19.    | AWARD OF DEGREE.....   | 35 |
| 20.    | DISCIPLINE .....   | 36 |
| 21.    | SPECIAL PROVISIONS.....  | 36 |
| 21.1.  | GUIDED SELF-STUDY PROFESSIONAL ELECTIVE COURSE.....  | 36 |
| 21.2.  | ONE CREDIT COURSE OFFERED BY EXTERNAL/INTERNAL EXPERT .....                                  | 36 |
| 21.2.1 | . <i>Assessment for One credit courses</i> .....   | 36 |
| 21.3.  | ONLINE COURSES.....  | 37 |
| 22.    | REVISION OF REGULATIONS AND CURRICULUM.....  | 37 |
| 23.    | APPENDIX.....  | 38 |
| A1.    | COURSE CODE NUMBERING SCHEME.....  | 39 |
| A2.    | CLASS ADVISOR AND MENTOR .....   | 40 |
| A2.1   | CLASS ADVISOR.....   | 40 |
| A2.2   | MENTOR.....  | 40 |
| A3.    | VARIOUS COMMITTEES .....   | 41 |
| A3.1   | CLASS COMMITTEE .....  | 41 |
| A3.2   | COURSE COMMITTEE FOR COMMON COURSES.....   | 41 |
| A3.3   | ACC - ACADEMIC CONSULTATIVE COMMITTEE: .....   | 42 |
| A3.4   | DCC - DEPARTMENT CONSULTATIVE COMMITTEE .....  | 42 |
| A3.5   | DEC- DEPARTMENTAL EXAMINATION COMMITTEE .....  | 42 |
| A4.    | PROCESS TO CONSIDER THE APPLICATION FOR REVOCATION OF<br>DETAINMENT .....                    | 43 |
| A5.    | INTERNSHIP AGREEMENT (SOURCE: AICTE INTERNSHIP POLICY<br>2018) .....                         | 44 |
| A6.    | INDUSTRY SUPERVISOR TO EVALUATE THE INTERN (SOURCE: AICTE<br>INTERNSHIP POLICY – 2018) ..... | 46 |
| A7.    | DAILY INTERNSHIP DIARY (DID) (SOURCE: AICTE INTERNSHIP<br>POLICY – 2018).....                | 47 |

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# List of symbols and abbreviations

|             |                                       |
|-------------|---------------------------------------|
| <b>ACC</b>  | Academic Consultative Committee       |
| <b>AY</b>   | Academic Year                         |
| <b>CAM</b>  | Continuous Assessment Marks           |
| <b>CBCS</b> | Choice Based Credit System            |
| <b>CO</b>   | Course Outcome                        |
| <b>CoE</b>  | Controller of Examinations            |
| <b>CGPA</b> | Cumulative Grade Point Average        |
| <b>DCC</b>  | Department Consultative Committee     |
| <b>DEC</b>  | Departmental Examination Committee    |
| <b>ERP</b>  | Enterprise Resource Planning Software |
| <b>ESE</b>  | End Semester Examination              |
| <b>ESM</b>  | End Semester Examination Marks        |
| <b>CAT</b>  | Continuous Assessment Test            |
| <b>OBE</b>  | Outcome Based Education               |
| <b>PO</b>   | Programme Outcome                     |
| <b>PEO</b>  | Programme Educational Objective       |
| <b>SGPA</b> | Semester Grade Point Average          |

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## 1. PREAMBLE

The rapid transformation in every sphere of life is augmenting the need to prepare the present fast-paced generation to adapt to the changing knowledge & skill requirement on a life-long basis, in the fields of science, engineering, technology and humanities to influence society positively. The future looks up to multi-disciplinary, competent leaders who are Information and Communication Technology ready and driven by strong ethical values.

Kumaraguru College of Technology (KCT) envisions to nurture knowledge, skills, and attitude and values of the aspiring youth to enable them to become global citizens and towards that process, the institution has evolved a flexible integrated academic curriculum.

KCT introduced Outcome Based Education (OBE) in 2014 and Choice Based Credit System (CBCS) in 2015, which emphasized on honing the skills and knowledge of the graduates. To further enhance and improvise the educational process, this regulation, R2018 includes pedagogy changes leading to learner centric academic ecosystem. The key features of the Post Graduate (M.E/M.Tech.) Regulations-2018 are the competency based curricula for various programmes and ample amount of time for students to do project work or internship at industry or even go abroad to do internship/research work. The amended regulation (R2018 A) includes modifications criteria for assessments, grading, attendance requirements and retests

## 2. SCOPE

These regulations are applicable to all students admitted into M.E/M.Tech. programmes of the institution from the Academic Year (AY) 2021-22 and onwards.

## 3. PRELIMINARY DEFINITIONS AND NOMENCLATURE

**Table 1 Preliminary Definitions and Nomenclature**

| Sl.No. | Name                                  | Definition   |
|--------|---------------------------------------|--|
| 1      | <b>Programme</b>                      | Refers to ME/MTech. Degree Programme   |
| 2      | <b>Course</b>                         | Refers to Theory, Practical, embedded, project courses   |
| 3      | <b>Head of the Institution</b>        | Refers to the Principal  |
| 4      | <b>Directorate of Academics (DoA)</b> | Refers to the authority of the Institution responsible for all the academic activities and for the implementation of relevant rules/regulations and audits |



| Sl.No. | Name   | Definition  |
|--------|--|---|
| 5      | <b>Controller of Examinations ( CoE)</b>       | Refers to the authority of the Institution who is responsible for all activities of the End Semester Examinations of the Institution  |
| 6      | <b>Director / Head of the Department</b>       | Refers to Director of School or Head of the Department concerned  |
| 7      | <b>University</b>                              | Refers to Anna University, Chennai  |
| 8      | <b>Institution</b>                             | Refers to Kumaraguru College of Technology, Coimbatore  |
| 9      | <b>L – T – P – J – C</b>                       | Refers to <b>L</b> ecture, <b>T</b> utorial, <b>P</b> ractical, <b>P</b> roJect and <b>C</b> redits respectively  |
| 10     | <b>Curriculum</b>                              | Refers to the various components / courses studied in each programme that provide appropriate outcomes (knowledge, skills and attitude/ behaviour) in the chosen branch of study. |
| 11     | <b>Humanities and Social Sciences (HS)</b>     | The courses include English, Research Ethics, Communication skills, Environmental Science and Engineering etc   |
| 12     | <b>Basic Sciences (BS)</b>                     | Courses like Mathematics.   |
| 13     | <b>Professional Core (PC)</b>                  | Courses include the core courses relevant to the programme  |
| 14     | <b>Professional Elective (PE)</b>              | Courses include the elective courses relevant to the chosen specialization/ programme   |
| 15     | <b>Project Work(PW)</b>                        | Refers to the project done by a student during the pre-final semester and Capstone during final semester.   |
| 16     | <b>Academic Consultative Committee (ACC)</b>   | The committee includes Principal, Director / DoA, CoE, Director / HoD concerned.  |
| 17     | <b>Department Consultative Committee (DCC)</b> | The committee includes Director / HoD (need basis), and a few faculty members of the department from various levels   |

#### 4. M.E / M.TECH PROGRAMMES OFFERED AT KUMARAGURU COLLEGE OF TECHNOLOGY

KCT offers 2 year (4 Semesters) M.E/M.Tech degree programmes affiliated to Anna University, Chennai under Choice Based Credit System (CBCS), in the following branches of Engineering and Technology as in **Table 2**

**Table 2 List of M.E./M.Tech Programmes offered**

| M.E. Degree Programmes   | M.Tech Degree Programmes  |
|--|---|
| <ul style="list-style-type: none"> <li>• Applied Electronics</li> <li>• CAD/CAM</li> <li>• Communication Systems</li> <li>• Computer Science and Engineering</li> <li>• Construction Management (2020 onwards)</li> <li>• Embedded system Technologies</li> <li>• Environmental Engineering</li> <li>• Industrial Engineering</li> <li>• Power Electronics and Drives</li> <li>• Structural Engineering</li> </ul> | <ul style="list-style-type: none"> <li>• Apparel Technology</li> <li>• Biotechnology</li> <li>• Data Sciences</li> <li>• Defense Technology (2022 onwards)</li> <li>• Masters of Technology Management</li> </ul> |

#### 5. ADMISSION

##### 5.1. First Year M.E/M.Tech.

The norms for admission, eligibility criteria such as marks, physical fitness and mode of admission will be as prescribed by the University from time to time.

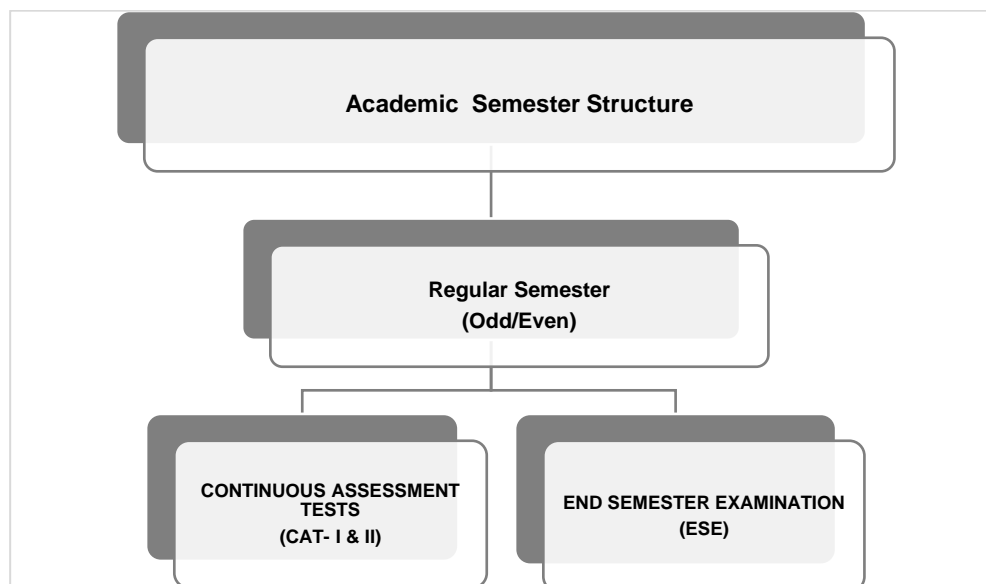
##### 5.2. Re-admission

Students under the 2018 autonomous regulations admitted before 2021, who have discontinued for reasons other than disciplinary action, may be readmitted to 2018 A (R 2018A) regulation. Department Consultative Committee (DCC) shall study and recommend on the exemption and addition of courses to be registered for, by the student concerned during re-admission. The details shall be forwarded to Academic Consultative Committee (ACC) for approval, whose decision shall be final.

## 6. ACADEMIC STRUCTURE

A student after securing admission shall pursue M.E/M.Tech. programme for a minimum period of 2 academic years (4 semesters) and a maximum period of 4 years (8 semesters) starting from the commencement of the first semester.

### 6.1. Semester Structure



**Figure 1 Semester Structure**

The regular semesters (Odd/Even) normally consist of about 90 working days. (Fig.1)

### 6.2. Categories of Courses

M.E/M.Tech. Programmes will have a curriculum consisting of theory, practical, project and embedded courses. The typical curriculum structure for M.E/M.Tech., degree programmes are based on AICTE and University norms. The courses consist of Foundational courses (including mathematics courses), Professional core and elective courses (relevant to branch of study), and Employment enhancement courses (Project work, Internship, Research methodology, product development etc). The course outcomes (CO's) are designed to align with the Programme Outcomes (PO's) and Programme Educational Objectives (PEO's) of the programme.

A student has the option of auditing some courses (alternatively the program may specify some courses to be mandatorily audited). Only non-core courses can be audited. The courses carry no credits and the grades obtained in audit courses are not counted for computation of grade point average. To successfully complete a mandatory audit course, the student is required to complete the minimum passing requirements as specified in Section 14.

In addition to the courses listed in the curriculum, the department can include elective courses offered by reputed Industry / Educational Institutions / Experts from time to time, approved by DCC/ACC and ratified by the Academic Council.

- The credits earned through such courses shall be considered equivalent to Professional Elective (PE) credits as decided by the Department Consultative Committee (DCC) on a course to course basis.
- Experts from the Industry / Institution may design such specialized elective courses based on the current technical skill requirements.
- The Department Consultative Committee (DCC) shall review and approve the course offered by the expert from the industry / Institution.

### 6.3. Medium of Instruction

The medium of instruction for the entire M.E/M.Tech. programmes will be English only.

### 6.4. Credit Assignment

Course work is measured in units called credits. Each course is assigned a certain number of credits as shown in Table 3

**Table 3 Credit allocation**

| Contact Period per week  | Credits |
|--|---------|
| 1 Lecture Period (L= Lectures given during class by the faculty)   | 1       |
| 1 Tutorial Period (T= Tutorial, also class based with more emphasis on problem solving)  | 1       |
| 2 Practical Period (P)/Project Period(J)<br>(Laboratory / Projects/ Capstone Project / etc.)<br>(P= Practical i.e. Lab Classes, J= Project ) | 1       |

**\*Extra Tutorial Periods can be handled by faculty if required**

### 6.5. Course Numbering Scheme:

Each course is denoted by a unique code consisting of 10 alphanumeric characters. The details of the numbering scheme are in Appendix A1

### 6.6. Embedded Course

An embedded course is a combination of theory component with the other components -viz Practicals, Project (P, J). The Course In-Charge will be a single person for that batch who handles theory, practical and project/laboratory part.

#### Types of embedded courses

1. Embedded Theory, Lab & Project Course

2. Embedded Theory & Lab Course
3. Embedded Theory & Project Course
4. Embedded Lab & Project Course

## **6.7. Credit Requirement for Programmes**

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The total number of credits that a student earns during the period of study is called the total credits. For the successful completion of the M.E/M.Tech. Programmes, a student must earn 65-70 credits (varies depending on branch) in a minimum of 4 Semesters.

## **7. COURSE REGISTRATION**

Each student, on admission shall be assigned to a mentor (vide Appendix A2.2), who shall advise and counsel the student about the details of the academic programme and the choice of courses, considering the student's academic background and career objectives. Some courses require students to register through a Course Registration Process via the online Enterprise Resource Planning software (ERP).

### **7.1 Online Course Registration Process for some courses offered in the Odd and Even Semesters**

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- 7.1.1** The registration process for the courses offered in under online registration mode in the forthcoming semester, will commence 10 working days prior to the last working day of the current semester.
- 7.1.2** A Department shall offer a course only if a minimum number of students register for that course. This minimum number may vary from course to course and shall be specified by the department from time to time.
- 7.1.3** After registering for a course, a student shall attend the classes, satisfy the attendance requirements, earn Continuous Assessment Marks (CAM) and appear for the End Semester Examinations (ESE).

### **7.2 Minimum and Maximum Credits for Course Registration**

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- 7.2.1** A student has to earn the total credits specified in the curriculum of the respective programme of study, in order to be eligible to obtain the degree. However, if the student wishes, then he/she is permitted to earn more than the total number of credits prescribed in the curriculum
- 7.2.2** The number of credits, most students are expected to register for, in a semester, will be about 20 credits, so that they complete the programme within the specified duration of the programme. However, a student can register for a maximum of 24 credits (provided one 3-credit course is registered as a self-study course). The minimum credits a student can

register for, in a regular semester shall be 16. Normally a student shall not be permitted to register for credits beyond/below these limits.

**7.2.3** The courses of the final/pre-final semesters may be conducted in an accelerated mode to enable the student to focus on project work / internship

**7.2.4** Students shall register for the project work the project work/internship (except short summer/winter internships) in the 3<sup>rd</sup> and 4<sup>th</sup> semesters only for M.E/M.Tech. Programmes.

### **7.3 Add /Drop Period**

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A student can add or drop the courses registered within the first 5 instructional days, from the commencement of a regular semester, subject to the availability of resources and the minimum/ maximum number of credits required to be registered in a semester as specified vide clause 7.2.2

### **7.4 Arrear Course Registration**

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**7.4.1** If the student obtains a “U” grade (re-appearance grade) in a regular exam for a Theory / lab /project course he/she has to register for the arrear exams when offered next.

**7.4.2** If a student obtains an “U” grade in any of the components (Theory or Lab or Project) of an embedded course, he/she has to re-register and appear for the arrear exam for all the components (Theory, lab/project) of that course, along with the regular examinations in the subsequent semester(s). Until the student passes all the components of an embedded course it will be considered as an “U” grade for that course. If a student obtains an “U” grade in a professional elective, the student may register for the same or any other professional elective course respectively when offered next.

**7.4.3** The pattern of evaluation for the arrear exams will be the same as that of end semester examinations

**7.4.4** A student who has appeared and passed any course is not permitted to re-enroll / reappear in the exam for the purpose of improvement of the grades.

**7.4.5** Controller of Examination (CoE) will publish a schedule of arrear examinations after the last date of registering for the examinations.

**7.4.6** If the student obtains an “U” grade in a mandatory non-credit course (CAM only course) he/she will re-register for that course when offered next and complete the requirements.

**7.4.7** From third attempt onwards if a student fails to obtain pass marks (CAM + ESM), CAM will be nullified and student will be declared passed if

he/she secures a minimum of 50% marks prescribed for the end semester exam alone (also refer clause 14)

## 8. REQUIREMENTS FOR APPEARING FOR CONTINUOUS ASSESSMENT TEST (CAT - II) & END SEMESTER EXAMINATION (ESE) OF A COURSE

- 8.1.** A student is expected to maintain 100% attendance in all courses. Considering the fact that a student may need leave due to ill-health or to attend some family emergency, he/she is permitted to maintain an attendance of 75% (i.e. absent for 25% of instructional hours) in each course. This 25% includes medical, personal, casual, and official on duty leave, leave of absence (On Duty) for organizing events / seminars / workshops / YUGAM / Design competitions / participation in co-curricular / extra-curricular events / NSS & NCC camps, and any other valid reason. **Table 4** illustrates the mandatory attendance requirement.

**Table 4: Attendance Eligibility to appear for CAT-II & ESE**

| Test/Examination Type   | Period of calculation   | Minimum percentage of attendance required |
|---|---|---|
| Continuous Assessment Test- II (CAT-II)   | First Semester M.E./ M.Tech.<br>from the date of joining of the course to three working days before start of CAT II | 60%                                       |
|   | Second to Fourth Semester:<br>From the date of commencement of the course to one week before start of CAT II        | 75%                                       |
| End Semester Examination (ESE)  | From the date of commencement of the course to the last day of instruction.   | 75%                                       |
| Any exam component other than End Semester Examination (ESE) under Project Based courses / Embedded Courses | From the date of commencement of the course to the last day of instruction.   | 75%                                       |

- 8.1.1.** For an embedded course, a student is permitted to maintain his/her attendance as mentioned in **Table 4** (i.e. absent for 25% of instructional hours) viz. For an embedded course comprising of theory, lab, or/and project component, the student has to maintain an overall attendance of 75% putting together theory and lab /project instructional hours.



**8.1.2.** Students having a CGPA of 9.0 and above and with no standing arrears will be exempted from the minimum attendance requirements (from 2<sup>nd</sup> sem onwards)

**8.2** A student shall normally be permitted to appear for End semester examination of the course if he / she has satisfied the attendance requirements (vide Clause 8.1). He /she is eligible to register for ESE in that semester by paying the prescribed fee.

8.3 If a student has a lack of attendance in 4 or more courses which are 3 or 4 credit courses offered in a particular semester, he/she will be detained in that semester and hence cannot proceed to the next semester. He/she shall seek re-admission as per the norms of the affiliating University/DOTE (Directorate of Technical Education). However, in cases of absence due to genuine reasons, he/she may apply to the CoE, for revocation of detainment. The committee composition and the process are as in **Appendix A4**. The Committee's decision is final.

8.4 If the course, in which the student has lack of attendance, is a professional elective, the student may register for the same or any other professional elective course respectively, in the subsequent semesters provided he/she submits an application well in advance via his mentor to the COE/ERP, with approval of the DCC.

8.5 The days of suspension on disciplinary grounds will be considered as days of absence for calculating the percentage of attendance for each individual course

## **9. PROVISION FOR WITHDRAWAL FROM EXAMINATION**

**9.1.** A student may, for valid reasons (medically unfit / unexpected family situations), be granted permission to withdraw (after registering for the examinations) from appearing for any course or courses in the End Semester Examination of a particular semester. The student may withdraw by following the due process of the CoE's office before the commencement of examination. This facility can be availed **only once** during the entire duration of the degree programme.

**9.2.** Withdrawal from ESE will be valid only if the student is, otherwise, eligible to write the examination and the application for withdrawal is made to the CoE, prior to the examination in the course or courses concerned. The application for withdrawal should be recommended by the Head of the Department concerned and approved by the Head of the Institution.

## 10. ASSESSMENT PROCEDURES FOR AWARDING MARKS

The total marks for each course generally (Theory, Practical, Embedded Course, Project Work) will be 100, comprising of two components namely Continuous Assessment Marks (CAM) and End Semester Examination (ESE). However, there could be one credit industry courses (offered as add-on course, beyond minimum credit requirements), audit courses etc that have only continuous assessment for 100 marks without an End-Semester Examination. The Department Consultative Committee (DCC) has to approve such courses every semester. The scheme of assessment may also be decided by the faculty handling the course concerned with the approval from DCC and shall be made available to the students during the online course registration. Each course shall be evaluated for a maximum of 100 marks as illustrated in Table 5

**Table 5: Assessment components**

| S.No | Category of course   | Continuous Assessment Marks (CAM) | End Semester Examination Marks(ESM) |
|------|--|-----------------------------------|-------------------------------------|
| 1    | Theory Courses   | 40 Marks                          | 60 Marks                            |
| 2    | Embedded Courses with Theory & Lab                                   | 50 Marks                          | 50 Marks                            |
| 3    | Laboratory/ Project Courses  | 60 Marks                          | 40 Marks                            |
| 4    | Employability Enhancement Courses (One credit industry courses, etc. | 100 Marks                         | -                                   |

Students may take national/international reputed professional certification (NPTEL/SWAYAM) courses after due approval from DCC. After completion of the course and submission of relevant verified documents the credits and grades shall be mapped by the DCC.

## 11. MARKS DISTRIBUTION

### 11.1. Marks Distribution of Continuous Assessment Marks (CAM) & End Semester Exam Marks (ESM):

**Table 6** presents the details of various types of courses and their assessment patterns. The mark distribution is dependent on the credit weightages of various components of the courses such as Theory, Lab, and Project. For theory component two Continuous Assessment tests (CAT I & CAT II), course faculty shall decide on the question paper pattern. The question paper must follow Revised Bloom's Taxonomy action verbs and indicate expected knowledge level and course outcome (CO). In addition to the CAT tests, three to five presentations will be conducted periodically, spread out through the semester and reflected in the course plan. In some cases, other modes of assessment

viz. Journal paper review, Group Presentation, Project report, Poster preparation, Prototype or Product Demonstration etc, may be administered as applicable (**Table 6**).

**Table 6: Scheme for Assessment for Theory, Lab and Embedded courses**

| S. No | Course Type  | Mark breakup                     |                |                     |  |  |                    |                         |                |                          |       |
|-------|--------------|----------------------------------|----------------|---------------------|--|--|--------------------|-------------------------|----------------|--------------------------|-------|
|       |              | Continuous Assessment components |                |                     |  |  |                    | End semester components |                |                          |       |
|       |              | CAT-I                            | CAT-II         | Other Assessments # | Average of Pre/post -test/viva for each experiment * | Average of marks for Experiment report for each experiment * | Model exam/Report* | Written exam            | Practical exam | Practical exam Viva-voce |       |
| 1     | Theory       | 20(50)                           | 20 (50)        | 20 (50)             | -  | -  | -                  | 100                     | -              | -                        |       |
|       |              | 40 % weightage                   |                |                     |  |  |                    | 60 % weightage          |                |                          |       |
| 2     | Lab          | -                                | -              | -                   | 10(100)  | 20(100)  | 30 (100)           | 36 (90)                 |                | 4(10)                    |       |
|       |              |                                  |                |                     | 60% weightage  |  | 40% weightage      |                         |                |                          |       |
| 3     | Theory + Lab | Theory                           | 20 (50)        | 20 (50)             | 20 (50)  | -  | -                  | -                       | 100            | -                        | -     |
|       |              |                                  | 50 % weightage |                     |  |  |                    |                         | 50 % weightage |                          |       |
|       |              | Lab                              | -              | -                   | -  | 10(100)  | 20(100)            | 30 (100)                | 36 (90)        |                          | 4(10) |
|       |              |                                  |                |                     |  | 50% weightage  |                    | 50% weightage           |                |                          |       |

\* maximum marks for the exam conducted (in brackets).

# Journal paper review, Group Presentation, Project report, Poster preparation, Prototype or Product Demonstration etc (as applicable). Three to five assessments for 10 marks each may be conducted periodically, spread out through the semester and reflected in the course plan.

### 11.2. Question Paper Pattern for Theory and Theory component of embedded courses

Question paper pattern for CAT I and II will be based on the patterns shown in **Table 7 (a and b)** and shall be informed to students by the course handling faculty.

**Table 7: Question Paper patterns for theory/theory components**

#### a) Continuous Assessment Tests (CAT I and CAT –II)

| Question paper pattern | 1 Marks | 2 Marks | 5 Marks | 10 Marks | 15 Marks | Total Marks |
|------------------------|---------|---------|---------|----------|----------|-------------|
| A                      | 5       | 5       | 5       | 1x10     | -        | 50 Marks    |
|                        |         |         | 3       | 2x10     | -        |             |
| B                      | 50      | -       | -       | -        | -        |             |
| C                      | 20      | -       | -       | -        | 2        |             |
| D                      | 20      | 15      | -       | -        | -        |             |

#### b) End Semester Examinations

| Question paper Pattern | 1 Marks | 2 Marks | 5 marks | 10 marks | Total marks |
|------------------------|---------|---------|---------|----------|-------------|
| A                      | 10      | 10      | 10      | 2        | 100 Marks   |
|                        |         |         | 6       | 4        |             |

Normally forty percent of the questions in the End Semester Examinations will address “remember, understand and apply” (Lower Order Thinking Skills-LOTS) levels of the Revised Blooms Taxonomy and the remaining sixty percent of the questions will address the “analyze, evaluate and create” (Higher Order Thinking Skills-HOTS) levels of The Revised Blooms Taxonomy. The end semester question papers shall also uniformly cover all the course outcomes. **Table 7(a & b)** presents different types of question paper patterns for the assessment of theory and theory component of embedded courses.

### 11.3. Criteria for Assessment for Lab Courses –CAM & ESM components

Every exercise / experiment in all practical courses shall be evaluated on a continuous basis. The criteria for Continuous Assessment (for each cycle of exercise/experiment) are given in **Table 8**.

**Table 8 : CAM & ESM break-up for LAB courses/Component of Embedded courses**

| Sl. No.  | Description  | Weightage  |
|----------|--|------------|
| <b>1</b> | <b>Continuous Assessment Marks</b>                             |            |
| a        | Average of Pre/Post - experiment Test/Viva for each experiment | 10         |
| b        | Average of Experimental Report / Workbook for each experiment  | 20         |
| c        | Model examination  | 30         |
|          | <b>Total CAM</b>   | <b>60</b>  |
| <b>2</b> | <b>End Semester Exam Marks</b>                                 |            |
| a        | Lab examination  | 36 (90)    |
| B        | Viva voce  | 4 (10)     |
|          | <b>Total ESM</b>   | <b>40</b>  |
|          | <b>Total Marks</b>   | <b>100</b> |

#### **11.4. Embedded courses with Project Component**

The theory component of a project embedded course will be assessed individually for 100 marks as for theory courses (vide clause 14). The Project component of an embedded course will be evaluated on a continuous basis with two internal reviews and a report (**Table 9**).

**Table 9. Embedded Course with Project component**

| S.No | Description    | Weightage |
|------|----------------|-----------|
| 1    | Review 1       | 25        |
| 2    | Review 2       | 50        |
| 3    | Project Report | 25        |
|      | Total          | 100       |

#### **11.5. Project Work(Phase I and II) and /or Internship**

Project work shall be supervised by a faculty of the concerned department. A student may, however, in certain cases, be permitted to work on the project in an industrial/Research Organization, on the recommendation of Head of the Department, with the approval of the Head of the institution. In such cases, the project work shall be jointly supervised by a

supervisor of the department and by an Engineer/Scientist from the organization/industry and the student shall be instructed to meet the supervisor periodically and to attend the review committee meetings at the institution for evaluating the progress.

**Composition of the Review Committee:** The Head of the Department shall constitute a review committee for the project. There shall be a minimum of three faculty members in the review committee. There shall be three reviews in total during the semester by the review committee. The student shall make presentation on the progress made before the committee. The interim report shall be submitted before the project reviews with the approval of the guide. Project report prepared according to the approved guidelines and duly signed by the guide and Head of the department shall be submitted to the department as per the timeline announced by the department. Mark allotment by the review committee will be as follows:

**Table 10: Mark allotment by the Review Committee**

| S.No | Description |                    | Weightage |    |
|------|-------------|--------------------|-----------|----|
| 1    | Review 1    | Review committee # | 10        | 15 |
|      |             | Guide              | 5         |    |
| 2    | Review 2    | Review committee # | 10        | 20 |
|      |             | Guide              | 10        |    |
| 3    | Review 3    | Review committee # | 15        | 25 |
|      |             | Guide              | 10        |    |
|      | Total CAM   |                    |           | 60 |

#### 11.5.1 Phase I Project

- Phase I project work will be in third semester for M.E/M. Tech programme. There shall be minimum of three assessments (each for 50 marks) by a review committee during the semester (**Table 11**). The student shall make presentation on the progress made before the committee. The Head of the institution will constitute a review committee for each branch/course of study. There will be a terminal examination at the end of Phase I. The Student has to submit a report which will carry 15 marks.

**Table 11: Scheme of Assessment for Phase I and II Projects**

| Course Type        | Mark breakup                      |          |          |                         |                |           |
|--------------------|-----------------------------------|----------|----------|-------------------------|----------------|-----------|
|                    | Continuous Assessment components* |          |          | End semester components |                |           |
|                    | Review 1                          | Review 2 | Review 3 | Publication Quality     | Project Report | Viva-voce |
| Project (Phase I)  | 15 (50)                           | 20 (50)  | 25 (50)  | -                       | 15             | 25        |
| Project (Phase II) | 15 (50)                           | 20 (50)  | 25 (50)  | 10                      | 10             | 20        |

\* Mark weightage is indicated outside brackets and maximum marks for the exam conducted is indicated within brackets.

### 11.5.2 Phase II Project (Capstone Project)

#### Internal Assessment

- For project Phase-II there shall be three assessments, by an internal committee. The student shall make presentation on the progress made before the committee. These three assessment marks will be added and converted to 60 marks.

#### External Assessment

- The evaluation of the Project work at the end of the semester will be based on the project report and a Viva-Voce Examination by a team consisting of the supervisor (as one of the internal examiners), one internal examiner and one external examiner for each programme. The controller of Examinations shall appoint the internal examiner and external examiner. Prior to the viva, the controller of examination will send the project report to an external examiner selected from a panel of examiners submitted by the concerned Head of the department and get the evaluation report from the examiner for 50 marks (weightage 10 marks). Students are required to publish M.E /M. Tech based on his/her project work has to publish or present a paper in a reputed journal/ national or international conference. The published paper and certificate of participation in the conference has to be a part of the project report. The breakup of marks for the viva-voce and mark allotment for Publications is as follows in **Table 11**. The guideline for mark allotment for publications maybe on the lines listed in **Table 12**.



**Table 12: Guideline for mark allotment for Publications**

| Criteria   | Marks |
|--|-------|
| Publication in a reputed journal with impact factor  | 10    |
| International National Conference publication which can be located on the internet and/or are included in hard-copy volumes /proceedings, published by reputed publishers  | 05    |
| Publication in any other journals, including open access journals  | 05    |
| International National Conference publication in in hard-copy volumes /proceedings for conferences organized by reputed institutions (like IIT, IISc, NIT, Govt Aided Colleges etc,) published by reputed publishers | 04    |
| Publication in any other conference  | 02    |

- The End semester mark component will be a combination of assessment marks awarded by the external examiner for the - report, viva-voce and publication quality (total of 100 marks, converted to 40). The CAM (maximum of 60) will be added to the ESM (maximum 40) to get the total marks to determine the grade.
- The Project Report Prepared according to approved guidelines and duly signed by the Supervisor(s) and the Head of the Department shall be submitted to the Controller of Examinations.
- The deadline for submission of final Project Report is 10 calendar days from the last working day of the fourth semester for M.E/ M. Tech programs.
- If a student fails to submit the project report on or before the specified deadline, he/she is deemed to have failed in the project work and shall re-register for the same in a subsequent semester.
- If a student registers for the project but fails to submit project report / does not appear for the ESE /fails in the End Semester Examination (ESE), he/she is deemed to have failed in the project work and shall have to re-register for the same when offered next.
- A copy of the approval project report shall be kept in the library of the institution.

### 11.5.3 Industrial / Research Internship

Students may also do internship(s) at reputed Industry or reputed academic institutions in India or abroad, with the goal integrating the theoretical knowledge learned in the classrooms and laboratories with real world experiences, and exposure to various cultures. The work done during the internship must be evaluated and may be considered equivalent to Phase I and/or Phase II projects.

#### 11.5.3.1 Eligibility and Process:

- The students may undergo training or internship during summer / winter vacation at Industry/ Research organization / University (after due approval from the Mentor, Class advisor and DCC) beyond the 2nd semester
- The student must also have completed at least 25 to 30 credit-hours or more (depending on credit spread of the programme) of his/her study and completed any special departmental requirements.
- The student must also not have been subject to dismissal for academic /disciplinary reasons
- Students must get necessary approvals before going for internship program and must register in the ERP portal
- A student is required to spend the approved duration of internship work in an industry/academic institution that is relevant to the student's discipline of study
- Students are required to submit weekly progress reports during their Internship period
- After finishing the internship period, they are required to submit a final report and give a presentation about their work experience and knowledge gained during their work
- Evaluation is based on the Progress reports, Final report, Viva-voce by Evaluation committee, Feedback by Industry/external Research Supervisor (**Table 13**)
- Normally, the internship/training should be undergone continuously (unbroken period) in one organization, and no extension of time period is allowed. However, DCC may consider exception on a case to case basis.

#### 11.5.3.2 Role of Host industry/Institution:

The Host industry/institution has the major role in promoting the success of the training program. To achieve this goal, they are requested to provide the following:

- Provide the intern student with a training plan reflecting his training assignment during the period of his internship. It needs to be related to the student's academic field of study (unless prior authorization given by DCC/ACC on a case-to-case basis). An agreement has to be arrived at, involving the student, industry supervisor and faculty mentor (**Appendix A5**). The internship program should be approved by the DCC/Mentor of the student at KCT
- Student should be assigned to a professional in his field of study (field mentor/guide), who will be responsible for making the student's training program meaningful and effective.
- The student should be treated like any other employee in the organization. If he does not show up to work either on time or at all, the Industry/institution should inform the mentor, so that corrective action can be taken. Absence should be reflected in the evaluation reports.
- If the student does not perform well or his performance does not meet the Industry's standard then the employer should inform the mentor of the student, so that corrective action is taken.
- Students should be encouraged and allowed to prepare technical reports and conduct oral presentations during the training period.
- The Industry/Institution should allow and encourage visits by the mentor/guide of the student at KCT
- By the end of the internship period the Industry mentor has to fill out the Evaluation Form and mail/fax it to the mentor of the student (**Appendix A6**).

#### 11.5.3.3 Roles of stakeholders within KCT:

KCT will collaborate with the Industry/institution to make the Internship program a success. To achieve this, the following people will be involved: Department Consultative Committee (DCC); Mentor/Class advisor of the student; Project coordinator of the department

##### (a) Role of Project coordinator is to:

- Convene the DCC for approving Internship
- Assign the examining committee for each Intern
- Report final grades of all registered students.
- Be responsible for the entire process
- Coordinate/Liason with the Industry mentor/HR as the case maybe
- Ensure adequacy of the work assignment by ensuring timely collection of student weekly/monthly reports

- Review the progress reports prepared by the students and send feedback to them within a week of submission.

**(b) Student responsibilities during the Internship period:**

- a. During the internship, students need to provide several documents in a timely fashion. Students need to be sure to regularly check their email/ Microsoft Teams account for any announcements.
- b. During the first weeks, the student must send the Internship plan for the next few weeks in consultation with the Industry mentor and send it via email
- c. The student must maintain a Daily Internship Diary (DID) detailing scheduled and completed work of each day (**Appendix A7**)
- d. Students will need to submit weekly progress reports (based on DID entries) via email to their respective mentor/project coordinator. The hardcopy of the report should be signed by the Industry supervisor.
- e. The student will need to submit a detailed final report about his work in the company. Thus, it is recommended he starts writing it from the first week of the training program while the details are still fresh. Before submitting a final report, he/she must prepare a draft copy of the final report then contact their Internship supervisor and discuss it with him/her.
- f. Submit the final report incorporating the supervisor's comments via email. The prescribed format for Report must be adhered to
- g. Also, submit a hardcopy to the project coordinator (suggested period - within one week of end of internship period or Final viva voce date, whichever earlier)
- h. To prepare a presentation describing the Internship and submit the PPT file via email. (suggested presentation duration 30 mins. + 10 mins. Q&A)

**11.5.3.4 Assessment for Industrial /Research Internship**

- The Industrial / Research Internship shall carry 100 marks and shall be evaluated through continuous assessment only.
- At the end of Industrial / Practical training / internship, the student shall submit a brief report on the training undergone and a certificate from the organization concerned.
- The evaluation will be made based on the breakup as shown in **Table 13**:

**Table 13: Break-up of marks for assessment of Internship work**

| Component | Category  |                               | Marks |
|-----------|---|-------------------------------|-------|
| CAM       | Progress reports  | Punctuality – 10 marks        | 30    |
|           |   | Maintenance of DID – 10 marks |       |
|           |   | Skill set – 10 marks          |       |
|           | Company/Institution Feedback  |                               | 30    |
| ESM       | Viva-Voce Examination (conducted internally by a three-member Departmental Committee constituted by the Head of the Department) |                               | 30    |
|           | Final Report  |                               | 10    |

- Duly attested copies of Certificates (issued by the Organization) submitted by the student shall be attached to the mark list and sent to Controller of Examinations by the Head of the Department for awarding Grades.

#### **11.5.3.5 Duration and credit distribution of Industrial /Research Internship**

- The student is allowed to undergo Industrial Training / Internship (in India or abroad) for a period spanning semesters four and/or three. This activity undergone in this category shall be part of/ in-lieu of the Phase I and/or II projects. However, this shall not be a part of any other credit requirements.
- Students can also undergo internships in International Universities/industries with the approval of KCT International office, CoE, and DCC for Semester abroad (courses/ Project/ Research) courses; Summer schools; Short-term specialized courses / internships (2-6 weeks) or other specialized courses. Credits can be mapped through International Exchange Programmes with proper prior approvals from KCT. University Level Courses (ULC) equivalent to the courses in KCT are permitted for credit transfer. ULC should match the courses in specific programmes of KCT satisfying AICTE/ AU norms.

### **11.6. MALPRACTICE**

- Students taking exams shall be prohibited from entering into the Examination Halls / Laboratories with any book or portion of book, manuscript, or any unauthorized written/ printed/ electronic content, communicating with or copying from each other or communicating with

anyone outside the Examination Hall / Laboratories. Programmable calculator and mobile phone shall not be permitted inside the Examination hall / Laboratories. However, any required code-books and data sheets / books as specified in the question paper will be supplied inside the Examination hall / laboratories by the office of the Controller of Examinations. The students are warned that any form of malpractice will be dealt with severely. The punishment may include debarring/cancelling all the examinations registered for by the student in that semester and debarring him/her permanently from all the examinations, and/or award of Zero marks to all registered courses of that Semester. Severe violations would attract stricter punishments. Disciplinary action will be taken against the students by the college authorities after conducting enquiry.

## **12. ABSENCE FROM A CONTINUOUS ASSESSMENT TEST (CAT)**

### **12.1. Absence from the CAT**

A student who has not appeared for a CAT (theory courses/component of embedded courses) shall be permitted to be eligible for retest only under the following conditions subject to DCC and ACC approval. The student shall apply to the DCC and the ACC will approve the application for eligibility retest only for the following reasons:

- a. Absence due to prolonged illness of more than 7 working days or due to hospitalization (in-patient treatment)
- b. Absence due to death of immediate family members
- c. Absence due to participation in NCC/NSS/NSO camps
- d. Absence due to participation and representation of college in Government conducted sports events, National level design competitions and off-campus placements with prior approval

For genuine cases, recommended by DCC, Retest for the missed CAT will be conducted. Retest can be conducted for one missed CAT only.

## **13. TEMPORARY BREAK OF STUDY FROM A PROGRAMME**

- 13.1.** Break of study is normally not permitted. However, if a student intends to temporarily discontinue the programme in the middle of a semester / year for valid reasons (such as Internships, accident or hospitalization due to prolonged ill health) and wishes to re-join the programme in the next academic year, he / she shall apply in advance to the Principal through the Head of the Department, stating the reasons. The application shall be

submitted not later than the last date for registering for the semester examinations. Break of study is permitted **only once** during the entire period of the degree programme.

- 13.2.** The student permitted to re-join the programme after the break shall be governed by the rules and regulations in force, at the time of re-joining.
- 13.3.** The duration specified for passing all the courses for the purpose of classification of degree (vide Clause 18) shall be increased by the period of such break of study permitted (vide Clause 12.1).
- 13.4.** If a student is detained for want of requisite attendance, academic progress and good conduct, the period spent in that semester shall not be considered as permitted Break of Study and Clause 13.3 is not applicable for such cases.

## **14. PASSING REQUIREMENTS**

- 14.1.** A student is declared to have successfully passed a theory based course if he/she has secured:
- A minimum of 45% marks in the end semester examinations.
  - A minimum of 50% marks on combining both Continuous Assessment Marks (CAM) and End Semester Examination Marks (ESM).
- 14.2.** A student is declared to have successfully passed a practical / project based course if he/she has secured:
- A minimum of 45% marks in the end semester examinations.
  - A minimum of 50% marks on combining both Continuous Assessment Marks (CAM) and End Semester Examination Marks (ESM).
- 14.3.** A student is declared to have successfully passed an embedded course if he/she has secured
- A minimum of 45% marks in the theory end semester examination.
  - A minimum of 50% marks on combining both Continuous Assessment Marks (CAM) and End Semester Examination Marks (ESM) of the theory component
  - A minimum of 45% marks in the end semester practical examinations for laboratory component.
  - A minimum of 50% marks on combining both Continuous Assessment Marks (CAM) and End Semester Examination Marks (ESM) of the practical component



- A minimum of 45% marks in the project component
- 14.4.** For a student who does not meet the minimum passing requirements, the term “U” against the course will be indicated in his/her grade sheet. He/she shall reappear in the arrear exams (Vide clause 7.4.1)
- 14.5.** For a student who is absent for end-semester theory / practical / project viva- voce, the term “AB” will be indicated against the corresponding course. He/she shall reappear in the arrear exams
- 14.6.** The letter grade “W” will be indicated for the courses for which the student has been granted authorized withdrawal (refer Clause 9).
- 14.7.** From third attempt onwards if a student fails to obtain pass marks (CAM + ESM), 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 exam alone
- 14.8.** If a student fails in an embedded course, he/she has to reappear for both the theory and lab components
- 14.9.** For courses evaluated on the basis of continuous assessment alone, the pass mark will be 50%

## 15. METHODS FOR REDRESSAL OF GRIEVANCES IN EVALUATION

Students who are not satisfied with the grades awarded in the End Semester Examination of Theory and Embedded Courses (with theory component) for regular and arrear exams can seek redressal as illustrated in **Table 14**.

**Table 14 : Grievance Redressal Mechanism**

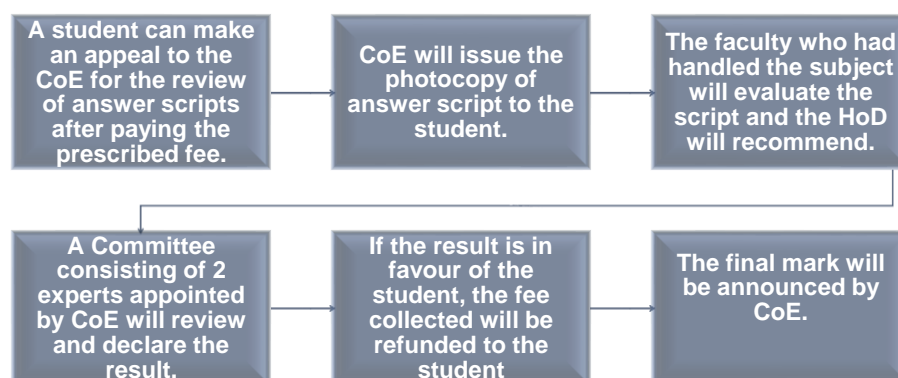
| Sl.No. | Redressal Sought | Methodology   |  |
|--------|------------------|---|--|
|        |                  | Regular exam  | Arrear exam  |
| 1      | Re-totaling      | <ul style="list-style-type: none"> <li>• Apply for photo copy of answer book</li> <li>• Then apply for re-totaling</li> </ul>                                   | <ul style="list-style-type: none"> <li>• Apply for photo copy of answer book</li> <li>• Then apply for re-totaling.</li> </ul> |
|        |                  | (within 5 days of declaration of result)  |  |
| 2      | Revaluation      | <ul style="list-style-type: none"> <li>• Apply for photo copy of answerbook</li> <li>• Then apply for revaluation after course expert recommendation</li> </ul> | <b>Not permitted</b>   |
|        |                  | (within 5 days of declaration of result)  |  |

| Sl.No. | Redressal Sought                   | Methodology  |  |
|--------|------------------------------------|--|--|
|        |                                    | Regular exam   | Arrear exam  |
| 3      | Challenge of Evaluation (Figure 4) | <ul style="list-style-type: none"> <li>• Apply for photo copy of answer book</li> <li>• Then apply for revaluation after course expert recommendation</li> <li>• Next apply for challenge of evaluation</li> </ul> | <ul style="list-style-type: none"> <li>• Apply for photo copy of answer book</li> <li>• Then apply for challenge of evaluation after course expert recommendation</li> </ul> |
|        |                                    | (within 3 days of publication of revaluation result)   |  |

The process for challenge of evaluation is in Figure 2

*Note: All applications to be made to CoE along with the payment of the prescribed fee.*

### 15.1. Challenge of Evaluation – Flow Chart



**Figure 2 : Challenge of Evaluation**

## 16. GRADING POLICY

- Relative grading will be applicable to only those students who has passed the course (Theory, Embedded, CAM only courses) as per the passing requirements listed in Clause 14. The marks of only the students who has passed, shall be inputted in the software for relative grading. The software normalizes the results using BOX-COX transformation and computes the grade range for each course separately and awards grade to each student (**Table 15a**).
- For relative grading to be done the student strength for the course must be greater than 30. However, if the students' strength is less than or equal to 30 then absolute grading system is adopted for converting marks to grades (**Table 15b**).
- Also, for laboratory / Project work courses absolute grading will be done.

## 16.1. LETTER GRADES

**Relative Grading:** For reporting the performance of a candidate, letter grades, each carrying certain number of points, will be awarded as given in **Table 15a**

**Table 15a: Relative Grading – Letter Grades**

| Sl. No. | Letter Grade                                    | Grade Points |
|---------|---|--------------|
| 1.      | O (Outstanding)                                 | 10           |
| 2.      | A+ (Excellent)                                  | 9            |
| 3.      | A (Very Good)                                   | 8            |
| 4.      | B+ (Good)                                       | 7            |
| 5.      | B (Average)                                     | 6            |
| 6.      | C (Satisfactory)                                | 5            |
| 7.      | U (Reappearance)                                | 0            |
| 8.      | SA (Reappearance due to Shortage of Attendance) | 0            |
| 9.      | AB (Reappearance due to absence)                | 0            |
| 10.     | WD  | 0            |
| 11.     | P   | 0            |
| 12.     | F   | 0            |

### Absolute Grading:

For the courses in which absolute grading is done, the performance of a candidate is reported as letter grades, each carrying certain number of points, will be awarded as per the mark range given in **Table 15b**, based on the percentage of marks obtained by the candidate in each subject:

**Table 15b : Absolute Grading - Letter Grade and mark range**

| Sl. No. | Range of percentage of total marks | Letter Grade     | Grade Points |
|---------|------------------------------------|------------------|--------------|
| 1.      | 91 to 100                          | O (Outstanding)  | 10           |
| 2.      | 81 to 90                           | A+ (Excellent)   | 9            |
| 3.      | 71 to 80                           | A (Very Good)    | 8            |
| 4.      | 61 to 70                           | B+ (Good)        | 7            |
| 5.      | 56 to 60                           | B (Average)      | 6            |
| 6.      | 50 to 55                           | C (Satisfactory) | 5            |
| 7.      | <50                                | U (Reappearance) | 0            |

|     |  |   |   |
|-----|--|---|---|
| 8.  | Shortage of Attendance                     | SA (Reappearance due to Shortage of Attendance) | 0 |
| 9.  | Absent                                     | AB (Reappearance due to absence)                | 0 |
| 10. | Withdrawal from examination                | WD  | 0 |
| 11  | Pass in mandatory-non- credit Audit course | P   | 0 |
| 12  | Fail in mandatory-non- credit Audit course | F   | 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+", "B", "C". Reappearance registration is mandatory for that course for which "U", "AB", "SA" is obtained.

P and F grades are awarded in a course that the student opts to audit. The audit pass (P) grade is awarded if the student meets attendance requirements as for other credit courses and he/she has obtained at least 50% marks in the CAM. If the stipulated requirements are not fulfilled, the audit fail (F) grade is awarded. The grades obtained in an audit course are not considered in the calculation of GPA

## 16.2. GRADE SHEET

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

- The College Name and Affiliating University.
- The list of courses registered for during the semester and the grades scored.
- The Grade Point Average (GPA) for the semester.
- The Cumulative Grade Point Average (CGPA) of all courses enrolled from first semester onwards.

On completion of a semester, each student is assigned a Semester Grade Point Average which is computed as below for all courses registered for, by the student during that semester.

$$\text{Semester Grade Point Average} = \frac{\sum(C_i \times GP_i)}{\sum C_i}$$

Where **C<sub>i</sub>** is the credit for a course in that semester and **GP<sub>i</sub>** is the Grade Point earned by the student for that course. The **SGPA** is rounded off to two decimals.

The overall performance of a student at any stage of the Degree programme is evaluated by the

Cumulative Grade Point Average (**CGPA**) up to that point of time.

$$\text{Cumulative Grade Point Average} = \frac{\sum (C_i \times GP_i)}{\sum C_i}$$

where **C<sub>i</sub>** is the credit for each course in each of the completed semesters at that stage and **GP<sub>i</sub>** is the grade point earned by the student for that course. The **CGPA** is rounded off to two decimals.

## 17. ELIGIBILITY FOR THE AWARD OF DEGREE

A student shall be declared to be eligible for the award of the M.E/M.Tech. Degree provided the student has

- Successfully gained the required number of total credits as specified in the curriculum corresponding to the student's programme within the stipulated time.
- Successfully completed the course requirements and has passed all the prescribed examinations in all the four semesters within a maximum period of 4 years reckoned from the commencement of the first semester to which the candidate was admitted.
- Successfully passed any additional courses prescribed by the Department concerned whenever readmitted under regulations 2018 (R18) (vide Clause 5.2)
- No disciplinary action pending against him/her.

## 18. CLASSIFICATION OF M.E. / M.TECH. DEGREE

The degree awarded to eligible students will be classified as given in Table 16

Table 16 :Classification of the M. E. / M.Tech. Degree

| Sl.No. | Class Awarded                | Criteria  |
|--------|------------------------------|---|
| 1      | First class with distinction | <p>A student who satisfies the following conditions shall be declared to have passed the examination in First class with Distinction:</p> <ul style="list-style-type: none"> <li>a) Should have passed the examination in all the courses of all the four semesters in the student's First Appearance within 3 years, which includes authorized break of study of one year (if availed)</li> <li>b) Withdrawal from examination (vide Clause 9) will not be considered as an appearance.</li> <li>c) Should have secured a CGPA of not less than 8.50</li> <li>d) Should NOT have been prevented from writing end semester examination due to lack of attendance in any of the courses</li> </ul> |
| 2      | First class                  | <p>A student who satisfies the following conditions shall be declared to have passed the examination in First class:</p> <ul style="list-style-type: none"> <li>a) Should have passed the examination in all the courses of all the four semesters within three years, which includes authorized break of study of one year (if availed)</li> <li>b) Should have secured a CGPA of not less than 6.50</li> <li>c) Should NOT have been prevented from writing end semester examination due to lack of attendance in any of the courses</li> </ul>   |
| 3      | Second class                 | <p>a) All other students (not covered in clauses at S.No.1&amp;2 under Clause18) who qualify for the award of the degree (vide Clause 19) shall be declared to have passed the examination in Second Class.</p>   |

**Note:** A student who is absent for the end semester examination in a course / project work Viva Voce after having registered for the same will be considered to have appeared for that examination (except approved withdrawal from end semester examinations as per Clause 9) for classification purpose.

## 19. AWARD OF DEGREE

The Academic Council of the institution will approve the award of Degree to all eligible students. The degree will be issued by Anna University, Chennai and the consolidated Grade Sheet will be issued by the institution. The consolidated grade sheet will specify

any specializations, additional credits and distinctions that the student has earned during the course of the study.

## 20. DISCIPLINE

Every student is required to maintain discipline and decorum both inside and outside the institution campus. They shall follow all the rules and regulations and should not indulge in any activity which can tarnish the reputation of the University or Institution. The Principal shall refer any act of indiscipline by students to the Discipline and Welfare Committee and other appropriate committees.

## 21. SPECIAL PROVISIONS

### 21.1. Guided Self-study Professional Elective course

- If a student, after his/her second year of study, has no history of arrears and his/her CGPA is greater than 8.0, then he/she is eligible to register for one professional elective course of his/her programme as a guided self-study course with the approval of DCC. This shall be allowed only once during the entire period of study.
- One faculty member approved by the DCC shall be responsible for the periodic monitoring and evaluation of the student(s) who has/have registered for the guided self-study of the Professional Elective course. Though the student need not attend the classes, he/she shall appear for continuous assessment tests, submit assignments and appear for End Semester Examination (ESE).

### 21.2. One credit course offered by External/Internal Expert

Students can register for one credit courses for a minimum of 15 periods (lecture mode) or 30 hours (practical mode) duration during any semester when it is offered. Experts from the industry/Institution (KCT) may design such specialized one-credit courses based on the current technical skill requirements. The Department Consultative Committee (DCC) shall review and approve the syllabus, course plan, and pedagogy and assessment pattern for the course.

***Note:** One credit courses offered by internal expert shall be value-added courses beyond the curriculum. The faculty members from other departments (not belonging to the specific discipline of the programme) also can offer such courses to the students with the approval of DCC.*

#### 21.2.1 . Assessment for One credit courses

- A one - credit course shall carry 100 marks and shall be evaluated through continuous assessment only. The QP pattern



and scheme will be decided by the course faculty and will be approved by the DCC

- The Head of the Department may identify a faculty member as the coordinator for the course. A committee consisting of the Head of the Department, staff handling the course (if available), coordinator and a senior Faculty member nominated by the Head of the Department shall monitor the evaluation process.
- The faculty coordinator shall coordinate with the external expert for conducting one Continuous Assessment Test (CAT-I).
- The grades shall be assigned to the students by the above committee based on their performance and included in the calculation of CGPA.

### **21.3. Online Courses**

Students may be permitted to register in reputed online course platforms (NPTEL / SWAYAM) for those listed as professional electives and are provided with certificate after evaluation of the performance, with prior approval from Mentor, DCC of the department concerned.

#### **21.2.1 Assessment for Online courses**

On successful completion of the course, he/she has to submit the digitally signed/ verified certificate to the Head of the department. The assessment pattern will be decided and approved by the DCC. Based on the recommendation by the DCC, the student will be awarded grades which will be included in the calculation of CGPA.

## **22. REVISION OF REGULATIONS AND CURRICULUM**

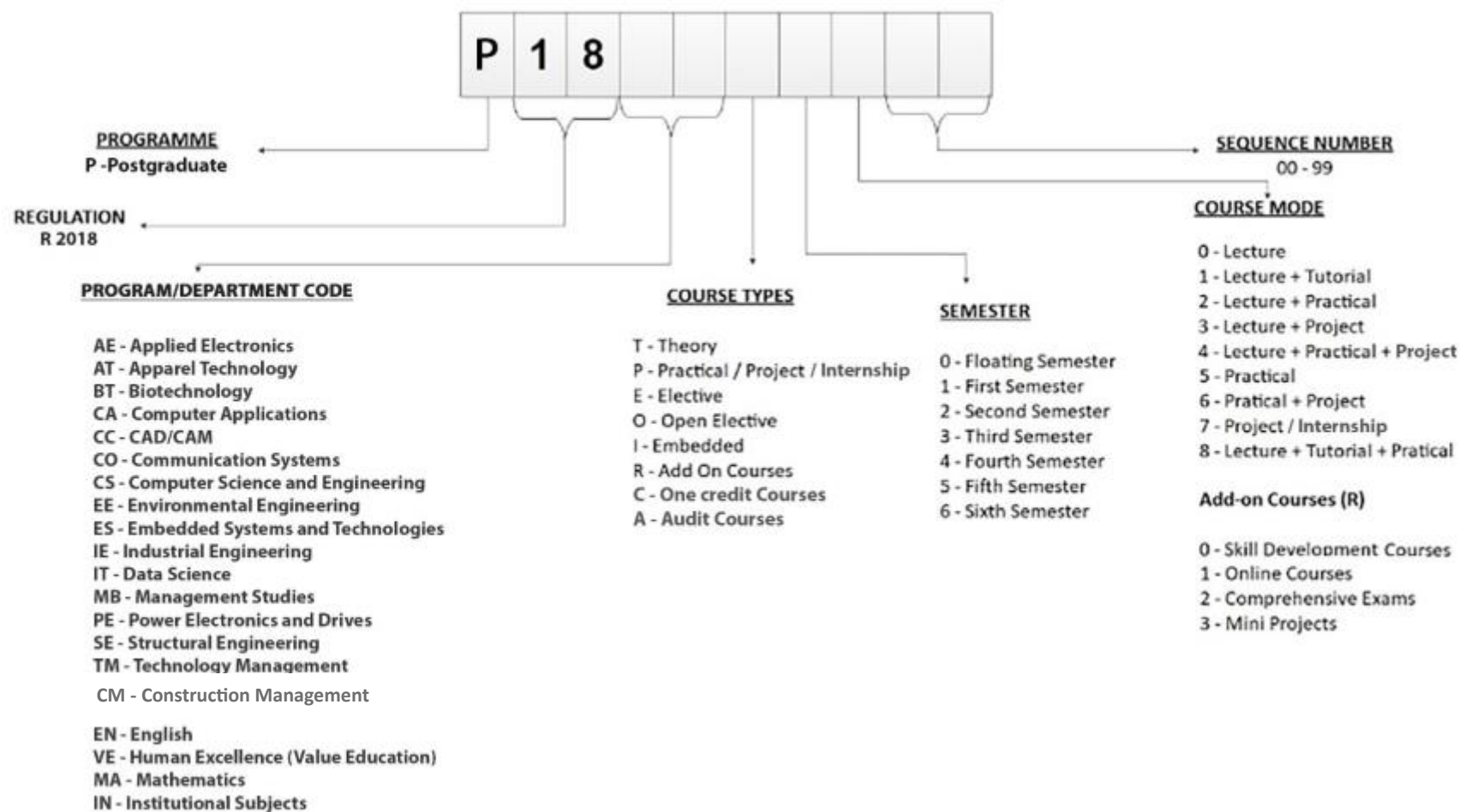
The institution may from time to time revise, amend or change the Regulations, scheme of Examinations and syllabi, if found necessary. Academic Council assisted by Board of Studies and Standing Committee will make such revisions / changes.

*Note: Any ambiguity in interpretation of this regulation is to be put up to the Standing Committee, whose decision will be final.*

## 23. APPENDIX

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## A1. COURSE CODE NUMBERING SCHEME



## A2. CLASS ADVISOR AND MENTOR

### A2.1 Class advisor

The Head of the Department will allot one faculty member to be the Class advisor for a particular class of students throughout their period of study. The role of Class advisor are as follows:

- To motivate and closely monitor the performance of the students and Mentor.
- To build a strong alumni base for the institution by maintaining a meaningful rapport with students and parents.
- To maintain all important documents of the students for reference/inspection by all committees.
- To work closely with the mentors on matters related to students.

Class advisor shall also play the role of Mentor for a set of 25 students (maximum) in the class allotted to him or her.

### A2.2 Mentor

In order to facilitate the students' progress and welfare, the Head of the Department will allocate a fixed number of students to a teaching faculty of the department who shall function as Mentor for them throughout their period of study. Each mentor will have a maximum of 25 students allotted to him/her. The responsibilities of the mentor are:

- Advise students in course registration, monitor their attendance and academic performance and counsel them periodically.
- If necessary, the mentor may also discuss with, or inform the parents about the progress of the student concerned.
- During the Course Registration Process, the mentor shall advise the mentee about the academic programme and counsel him/her on the number and nature of courses to be registered for in the ensuing semester, considering the academic background and career objectives of the mentee.
- Mentors shall maintain an e-Record of each of his/her mentees, which shall contain information about the students' attendance, grades obtained in the End Semester Examinations, Continuous Assessment Tests, achievements if any in Curricular, Co-curricular and Extra-curricular activities, Medical History and disciplinary proceedings if any, taken against the student.
- Mentors shall organize regular meetings with their mentees in the semester, to keep track of their academic progress and to solve grievances if any and minute the same in the e-Record.
- Mentors will encourage students and help them in obtaining Internships. They also will interact with the industry supervisor, make visits to industry to monitor progress, and to serve as a liaison with industry personal and project supervisor of the department.

- Mentors shall organize one meeting with their respective mentees' parents in a semester.

### A3. VARIOUS COMMITTEES

For smooth execution of the regulation, policies, various committees are formed and a few of them are briefed here

#### A3.1 Class Committee

The Class Committee Meeting (CCM) shall be conducted by the Academic department faculty and shall be done class wise to assess the quality of the academic and non-academic activities in a stipulated period. The class committee meetings shall be conducted as scheduled below and the minutes shall be submitted to Academic Consultative Committee (ACC). Table 17 shows the schedule for organizing the class committee meetings.

**Table 17: Schedule for organizing class committee Meeting**

|           |  |
|-----------|--|
| Meeting 1 | One week before the commencement of CAT-I  |
| Meeting 2 | One week before the commencement of CAT-II |

ACC will to address the feedback collected from the various departments before the start of the next meeting.

#### A3.2 Course Committee for Common Courses

Each common theory course offered to more than one class / branch shall have a Course Committee comprising all the teachers teaching the common course with one of them nominated as Course Coordinator as detailed in **Table 18**

**Table 18: Common Course Committee**

| SL. No. | Nature of common course                                       | Person responsible for forming course committee and nominating Course-Coordinator                                     |
|---------|---|---|
| 1.      | For common course / course handled in a particular department | Respective HoD will nominate and intimate the concerned faculty.  |
| 2.      | For common courses handled in more than one department        | DoA to put up the course committee details to the Principal, get the same approved and intimate the concerned faculty |

The course committee will ensure that a common question paper is prepared for the tests / exams and uniform evaluation is carried out. The course committee should meet at least 3 times in a semester. The schedule for the course committee meetings is shown in **Table 19**

**Table 19: Schedule for organizing Course Committee Meetings**

|           |  |
|-----------|--|
| Meeting 1 | Before one week of the start of the semester |
| Meeting 2 | One week before CAT – I                      |
| Meeting 3 | One week after CAT – II                      |

### **A3.3 ACC - Academic consultative committee:**

The committee includes the Principal, Director, DoA, CoE, Director / HoD concerned. The committee meets to carry out business related to academic matters which require central decision making and approval viz. retest approval of missed CAT, addressing the feedback collected from the various departments' class committee meetings

### **A3.4 DCC - Department consultative committee**

The committee includes Director or HoD (need basis), and a few faculty members of the department from various levels. The committee meets to carry out business related to academic matters that can be addressed within the department viz. course equivalence of common courses for readmitted students; approval of new courses to be offered by the department; consider and approve the credit equivalence of courses offered by industry, review the course offerings; Consider the merit of applications involving lack of attendance in PE courses to take up another PE; Approve CAM only courses every semester; Approve scheme of assessment for each course; Consider credit mapping request from students for online courses (SWAYAM/NPTEL) and transfer the credits accordingly; Approval of guided self-study of Professional elective course for students with no history of arrears and CGPA >8.0; periodic monitoring and evaluation of the student(s) who has/have registered for the guided self-study of the PE course

### **A3.5 DEC- Departmental Examination Committee**

The committee includes Director or HoD (need basis), and a few faculty members of the department from various levels including the exam coordinator of the department and CoE if required. The committee shall schedule, conduct, scrutinize the quality of CAT question papers, project/ lab reviews and maintain records and carry out decisions related to project work and internships.

**A4. PROCESS TO CONSIDER THE APPLICATION FOR REVOCATION OF  
DETAINMENT**

The process to consider the application for revocation of detainment on account of lack of attendance in 4 or more courses, due to genuine reasons (viz. sports participation, NCC, Medical grounds etc) is as follows:

The student submits an application for consideration via a request letter to the CoE, not later than 3 days from the last working day, along with the HOD's recommendation, Class Advisors report and Mentors recommendation. A committee consists of the Principal, CoE, DoA (1 representative), Head (OSA), LC (1 representative), HODs - 2 from departments other than the student's own). The committee shall meet within 4 working days, to consider the case. Stakeholders may be called to be meeting as may be required, and decision arrived at. The decision approved by Principal shall be final.

**A5. INTERNSHIP AGREEMENT (SOURCE: AICTE INTERNSHIP POLICY 2018)****Part I: Contact Information****Student**

Name: \_\_\_\_\_ Student ID# \_\_\_\_\_ Class Year: \_\_\_\_\_

Campus Address: \_\_\_\_\_

City, State: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

**Industrial Supervisor**

Name: \_\_\_\_\_ Title: \_\_\_\_\_

Company/Organization: \_\_\_\_\_

Internship Address: \_\_\_\_\_

City, State, Pin: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

**Faculty Mentor**

Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Campus Address: \_\_\_\_\_

**Academic Credit Information**

Internship Title: \_\_\_\_\_ Department: \_\_\_\_\_

Course #: \_\_\_\_\_ Credits: \_\_\_\_\_

Grading Option: \_\_\_\_\_ Credit/Non-credit \_\_\_\_\_

Beginning Date: \_\_\_\_\_ Ending Date: \_\_\_\_\_

Hours per Week: \_\_\_\_\_ Internship is: \_\_\_\_\_ Paid \_\_\_\_\_ Unpaid \_\_\_\_\_



**Part II: Internship Objectives/Learning Activities**

Internship Objectives: What do you intend to learn, acquire and clarify through this internship? Try to use concrete, measurable terms in listing your learning objectives under each of the following categories:

- Knowledge and Understanding

- Skills

**Learning Activities:** How will your internship activities enable you to acquire the knowledge/understanding, and skills you listed above?

**On the job:** Describe how your internship activities will enable you to meet your learning objectives. Include projects, research, report writing, conversations, etc., which you will do while working, relating them to what you intend to learn.

**Teaching/Mentoring Activities:** How your technical knowledge can be applied at the site of the internship. How you can create value through mentoring/help people learn new things.

**Off the job:** List reading, writing, contact with faculty supervisor, peer group discussion, field trips, observations, etc., you will make and carry out which will help you meet your learning objectives.

**Evaluation:** Your Internship supervisor will provide a written evaluation of your internship. Describe in detail what other evidence you will provide to your faculty Mentor to document what you have learned (e.g. journal, analytic paper, project, descriptive paper, oral presentation, etc.) Include deadline dates.

## A6. INDUSTRY SUPERVISOR TO EVALUATE THE INTERN (SOURCE: AICTE INTERNSHIP POLICY – 2018)

### A6. INDUSTRY SUPERVISOR TO EVALUATE THE INTERN (SOURCE: AICTE INTERNSHIP POLICY - 2018)

Student Name: \_\_\_\_\_ Date: \_\_\_\_\_

Work Supervisor: \_\_\_\_\_ Title: \_\_\_\_\_

Company/Organization: \_\_\_\_\_

Internship Address: \_\_\_\_\_

Dates of Internship: From \_\_\_\_\_ To \_\_\_\_\_

Please evaluate your intern by indicating the frequency with which you observed the following behaviors:

| Parameters                                 | Needs improvement | Satisfactory | Good | Excellent |
|--|-------------------|--------------|------|-----------|
| Behaviors                                  |                   |              |      |           |
| Performs in a dependable manner            |                   |              |      |           |
| Cooperates with co-workers and supervisors |                   |              |      |           |
| Shows interest in work                     |                   |              |      |           |
| Learns quickly                             |                   |              |      |           |
| Shows initiative                           |                   |              |      |           |
| Produces high quality work                 |                   |              |      |           |
| Accepts responsibility                     |                   |              |      |           |
| Accepts criticism                          |                   |              |      |           |
| Demonstrates organizational skills         |                   |              |      |           |
| Uses technical knowledge and expertise     |                   |              |      |           |
| Shows good judgment                        |                   |              |      |           |
| Demonstrates creativity/originality        |                   |              |      |           |
| Analyzes problems effectively              |                   |              |      |           |
| Is self-reliant                            |                   |              |      |           |
| Communicates well                          |                   |              |      |           |
| Writes effectively                         |                   |              |      |           |
| Has a professional attitude                |                   |              |      |           |
| Gives a professional appearance            |                   |              |      |           |
| Is punctual                                |                   |              |      |           |
| Uses time effectively                      |                   |              |      |           |

Overall performance of student intern (circle one):

(Needs improvement/ Satisfactory/ \_\_\_\_\_ Good/ \_\_\_\_\_ Excellent)

Additional comments, if any:

Signature of Industry supervisor \_\_\_\_\_ HR Manager \_\_\_\_\_

**A7. DAILY INTERNSHIP DIARY (DID) (SOURCE: AICTE INTERNSHIP POLICY – 2018)**

|                            |  |                          |         |
|----------------------------|--|--------------------------|---------|
| DAY-1                      |  | DATE                     |         |
| Time of arrival            |  | Time of Departure        | Remarks |
| Deptt./Division            |  | Name of finished Product |         |
| Name of HOD/<br>Supervisor |  |                          |         |
| With e-mail id             |  |                          |         |
| Main points of the day     |  |                          |         |
|                            |  |                          |         |

**Signature of Industry Supervisor**