REGULATIONS LEADING TO B.TECH / B.TECH. (HONS.) AND DUAL DEGREE

(Effective from 2008 [Senate Res. No. 1.A.I.2] and revised in October, 2019 with incorporation of Senate amendments)



भारतीय प्रौद्योगिकी संस्थान भुवनेश्वर Indian Institute of Technology Bhubaneswar

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INDIAN INSTITUTE OF TECHNOLOGY BHUBANESWAR

REGULATIONS leading to B. Tech/B. Tech. (Hons.) and Dual Degree (Revised 2019)

(The regulation is adopted from IIT Kharagpur with effective from 2008 [Senate Res. No. 1.A.I.2] and revised in October2019 with incorporation of Senate amendments)

1. Introduction

- 1.1 The provisions contained in this Regulation will govern the conditions for imparting courses of instructions, conducting examinations and evaluation of students' performance leading to the following Degrees:
 - 4 -year courses in Engineering/Technology leading either to the award of B. Tech/B. Tech. (Hons.) and 5 -year Dual Degree.
- **1.2** Disciplines: The disciplines in which the courses of studies are available are as named below:
 - 1. Civil Engineering
 - 2. Computer Science and Engineering (w.e.f. 2013)
 - 3. Electrical Engineering
 - 4. Electronics and Communication Engineering (w.e.f. 2016)
 - 5. Mechanical Engineering
 - 6. Metallurgical and Material Engineering (w.e.f. 2014)
- **1.3** The provisions of this Regulation shall also be applicable to any new disciplines that are introduced from time to time and added to the list in section 1.2.
- **1.4** The Board of Governors may, on the recommendation of the Senate, change any or all parts of this Regulation at any time considered appropriate by the Senate.

2. Academic Calendar

2.1 The academic session is divided into two semesters each of approximately 20 weeks duration: an Autumn Semester (July-December) and a Spring Semester (December-May).

- **2.2** The Senate-approved schedule of academic activities for a session, inclusive of dates for registration, mid-semester and end-semester examinations, inter-semester breaks etc., shall be laid down in the Academic Calendar for the session. The Academic Calendar shall strive to provide for a total of about 70 academic working days (*including classes and examinations*) in each semester.
- 2.3 The Puja holidays can be extended by accommodating additional two/three week days in the academic calendar and reducing the winter vacation by an equal number of days (there by maintaining the total number of vacation days for the students in an academic year the same) (Senate Res. No. 33.A.E.1)

3. Admission

- 3.1 Admission to all courses will be made in the Autumn Semester of each session, at the First Year level, through a Joint Entrance Examination JEE (Advanced) conducted by one of the IITs every year by rotation under the supervision of a Joint Admission Board, which comprises of representatives from all the IITs.
- 3.2 In special cases the Institute may admit students to a course on transfer from other IITs. Such admission may be made at any level considered appropriate except at first year level.
- **3.3** Provisions of this Regulation do not prevent the Institute from allowing students enrolled in a university in India or abroad to attend specified subjects in one or more semesters without leading to any degree on certain terms and conditions.
- **3.4** All students admitted to any of the courses including those accepted under clause above shall be required to pay at the time of joining and also in subsequent semesters prevalent tuition and other fees as prescribed by the Institute till they are on roll.
- 3.5 The Institute reserves the right to cancel the admission of any student, and ask him/her to discontinue his/her studies at any stage of his/her career on grounds of unsatisfactory academic performance, irregular attendance in classes or indiscipline.

4. Residence

4.1 The Institute is essentially a residential one and unless otherwise exempted/permitted, every student shall be required to reside in, and be

- a boarder of a Hall of Residence, to which they are assigned.
- **4.2** The terms and conditions that a student must fulfill during his/her stay in a Hall of Residence are mentioned in **Appendix-I**.

5. Attendance

- **5.1** Attendance in all classes (lectures, tutorials, laboratories, workshops, etc.) is compulsory. A student may be debarred from appearing at an examination on ground of unsatisfactory attendance.
- **5.2** Absence from classes without prior permission will be considered as an act of indiscipline. Such cases will be dealt with in accordance with clause 3.5.
- **5.3** Detailed rules regarding attendance in classes etc., are given in **Appendix-** II.

6. Conduct and Discipline

- **6.1** Students shall conduct themselves within and outside the precincts of the Institute in a manner befitting the students of an institution of national importance.
- **6.2** Detailed rules regarding conduct and discipline are given in **Appendix-III.**

7. Change of Branch

- **7.1** The students admitted to a Course leading to the B. Tech/B.Tech. (Hons.) Degree or Dual Degree in a particular branch will ordinarily be required to continue in that branch of studies.
- **7.2** However, the Institute may permit a few students, subject to their fulfilling the prescribed conditions, to change over from one branch to another, after first two semesters of continuous studies. Detailed rules governing the change of branch are given in **Appendix-IV**.

8. Course Structure

- **8.1** The duration of courses leading to B. Tech or B. Tech. (Hons.) Degree is four years and the duration of courses leading to Dual Degree is five years.
- **8.2** The curricula for the different degree programmes as proposed by the respective schools and recommended by the Undergraduate Programme and Evaluation Committee (UGPEC) shall have to have the approval of the Senate. The schools would also prepare the syllabus of each subject

- containing the scope of studies and detailed instructions to be imparted which must have the approval of the UGPEC.
- **8.3** All subjects would have a course code and a lecture-tutorial experiment/design component (L-T-P) to indicate the contact hours. 'T' and 'P' components of a subject may be void. Separate pure laboratory subject (0-0-P) need not exist unless there is a strong reason for exception. All subjects would have a credit count 'C'. Teaching of subjects would be reckoned in terms of credits. (Senate Reference: Appendix 21.C.A.1) **Appendix V**.

Every subject would have a list of subjects (may be void) as its prerequisite. A student who has qualified in all the subjects in the prerequisite would be allowed to register in the subject. The teacher concerned would have the prerogative to waive the prerequisite for a student if he/she is satisfied through a test that the student otherwise have gained sufficient proficiency to take up the subject.

Subject to availability a student, irrespective of his/her level or discipline of study, may be allowed to take a subject including an M.Tech. subject as an elective, breadth or additional subject, defined subsequently in this section, if he/she satisfies its pre-requisite.

- **8.4** The curricula to be followed in the first two semesters by students of all the programmes shall be common as given in **Appendix VI**.
- **8.5 a.** Every student admitted in the first year is required to register in the Extra Academic Activity (EAA) during the first two semesters.
 - **b.** Except as stated in clause 8.5(c) and (d) below.
 - i. All first year Indian students will register in the NCC/NSS.
 - ii. Foreign nationals will register in the NSS.
 - **c.** Physically handicapped will register in the NSS.
 - **d.** Any student who is proficient in sports may be permitted to register in the NSO.
- **8.6** During the next two semesters also the students will be required to register for one of the Extra Academic Activities. However, NCC will no longer be compulsory. Students may choose any one of the following activities: NCC, NSS or any sports/athletic activities of NSO as may be recommended by the Advisor, "Students' Gymkhana "and approved by the Senate.

8.7 The remaining course work requirements will be different for the respective degree courses. The requirements would be detailed out in the curriculum and syllabus for each of the disciplines as approved by the Senate. The overall structures for the B.Tech/B. Tech (Hons.) and Dual degree are given below:

8.7.1 B. Tech/B.Tech.(Hons.)

To get a degree a student has to earn a Major in a discipline. Earning a Major consists of fulfilling (i) the depth requirement corresponding to the discipline, (ii) the breadth requirement (iii) the lateral subject requirements and (iv) Industrial training and field work.

- **8.7.1.1 Depth Requirement:** The depth requirement would be specified by the school and would include (a) Basic science requirements, (b) Engineering science requirements, (c) Other requirements (e.g. workshops, engineering drawing and graphics etc.), (d) Professional subjects core and electives, (e) Projects and (f) Viva-voce.
- 8.7.1.2 Breadth Requirement: A student is required to take at least six subjects as his/her breadth subjects for which slots would be made available in the curriculum. The breadth subjects must be a subject offered by other disciplines but different from the subjects (including electives) enlisted for the requirement for his/her own depth. A student would be free to choose a breadth subject, provided it is available in terms of timetable, limitation of class size and his/her eligibility.
- 8.7.1.3 Lateral subject requirements: At least two HSS elective subjects, two IT subjects and one IEM subject would be included in the curriculum of any discipline. Out of these one HSS elective and one IT based design/application subject are to be included in the depth requirement. The other HSS elective, IT elective and IEM elective may be included in the breadth requirement.

8.7.1.4 Industrial Training and Field work

(i) The curricula for all B.Tech./B.Tech (Hons.) course would include compulsory industrial training for 8

- weeks carrying 2 credits, to be carried out in the summer vacation at end of the sixth semester.
- (ii) Any arrangement of training in industry or academia (within or outside the country) has to be routed through Training & Placement Section via the Professor-in-Charge of Training of the respective school.
- (iii) A student after being selected in an organization by Training & Placement Section cannot opt out of his training from that organization under any circumstances.
- (iv) The allotment of training programmes of all the students by Training & Placement Section will be frozen by a suitable and fixed deadline each year. No further change will be entertained under any circumstances.
- (v) The performance of the student in the Summer Training will be evaluated based on his submission of a certificate from the organization of his training followed by a combined viva-voce/ presentation and report examination.

8.8 Dual Degree (B. Tech + M. Tech) Requirement (Senate Res. No. 30.A.B.0)

- (i) The curriculum will remain same as that of the respective B. Tech programme up to 3rd year.
- (ii) For 4th year and 5th year, there will be a combination of core and elective subjects from both the respective B. Tech and M. Tech programmes. All core subjects of B. Tech and M. Tech programmes are included.
- (iii) There will be a final year B. Tech project Part-1 and Part-2. In the 7thand 8th Semesters, respectively, similar to B. Tech programmes
- **(iv)** There will be M. Tech Thesis Part-1 and Part-1 in 9th and 10th Semesters respectively, similar to M. Tech Programmes.
- (v) There will be theory courses along with M. Tech thesis work.
- (vi) M. Tech Thesis Part-1 and Part-2will have 12 and 13 credits, respectively.
- (vii) Total credit range: 220-225.

9. Additional Credits

- (i) If a student has a Cumulative Grade Point Average (CGPA) equal to or greater than 7.50 without any backlog, he/she would be allowed to take additional subjects within and/or outside his/her own discipline to earn additional credits of up to 33% of his/her requirement for major. A student would be allowed to register in an additional subject only if he/she satisfies the pre-requisite, there is no clash in the time table and the class size permits.
- (ii) For computing the CGPA the student has to declare his/her contributing subjects at the beginning of a semester.
- (iii) Once a student has registered in an additional subject, the grade obtained (including F-grade) in that subject would invariably be recorded in his/her grade card. The credit contribution of these additional subjects to the computation of CGPA, however, would be considered as nil.
- **(iv)** For allowing a student to register further in additional subjects at any point of time, he / she has to maintain a grade point average of 7.00 in additional subjects taken up by him/her so far.

10. MINOR in a Discipline

- 1. A school would offer a MINOR in a discipline in which it offers a major.
- 2. The school would enlist a set of subjects from its curriculum for depth requirement and prescribe a requirement for minor taking six subjects (18-24 contact-hours plus 3-9 hours of laboratory) from this set. The subjects would be a combination of mostly core and some electives.
- 3. If a student of another discipline in course of his / her studies registers in a set of subjects that constitute the requirement for a Minor, passes in all of these subjects and scores a minimum grade point average of 6.00 then he/she earns a Minor in that discipline.
- 4. A student may cover these six subjects as either a depth subject, or a breadth subject or as additional credits. However, he/she has to take at least three subjects as additional credits to earn a Minor.
- 5. The opportunity of acquiring additional credits and the Minor would be available to the students of all the degrees and disciplines.

11. Registration

- **11.1** Every student of the B. Tech/B.Tech. (Hons.) and Dual degree course is required to be present and register at the commencement of each semester on the day fixed for and notified in the Academic Calendar.
- **11.2** Registration of students for the First (Autumn) Semester will be centrally organized by the Academic Section of the Institute. For all other semesters the registration will be organized school wise under the supervision of the respective Faculty Adviser and Head of the School.
- **11.3** A student who does not register on the day announced for the purpose may be permitted, in consideration of any compelling reason, late registration within the next seven working days on payment of a prevalent additional late fee as prescribed by the Institute. Normally no late registration shall be permitted after the seventh working day from the scheduled date.
- **11.4** Only those students will be permitted to register who have:
 - (a) cleared all Institute and Hall dues of the previous semesters,
 - (b) paid all required prescribed fees for the current semester, and
 - (c) not been debarred from registering for a specified period on disciplinary or any other ground.
- 11.5 To be able to register in the second year in the Institute at the end of the first year a student must complete satisfactorily 2/3 of the total credits i.e. 32 credits out of 48. A student failing to complete satisfactorily the above conditions, even after going through supplementary Examinations and/or Summer Quarter, is required to repeat the first year.Note: The GPA for a set of 'p' subjects will be calculated as follows:

A student failing to complete satisfactorily the above conditions, even after going through supplementary Examinations and/or Summer Quarter, is required to repeat the first year.

Note: The GPA for a set of p' subjects will be calculated as follows:

$$GPA = \frac{\sum_{i=1}^{p} c_i g_i}{\sum_{i=1}^{p} c_i}$$

where c_i is Credit Weightage allotted to a particular subject i in the set, and g_i is the Grade-point (vide clause 12.1) carried by the letter grade awarded to the student in that subject i.

- **11.6** From the Third (Autumn) Semester onwards in any Autumn (Spring) Semester:
 - (a) Students who have passed in all the subjects of previous Autumn (Spring) Semesters shall register for subjects as specified in the curricula of the concerned discipline.
 - (b) Students who have failed in one or more subjects (henceforth called backlog subjects) in the previous Autumn (Spring) Semesters must first register in as many of these backlog subjects as are offered in that Semester provided the time-table permits before registering in any new subject. However, total contact hours would not be allowed to exceed 28 hours.
 - (c) Students who have a backlog in a breadth or an elective subject may register in another breadth or an elective subject from and within the same group of electives offered in the Semester concerned.
 - (d) Students who have obtained CGPA lower than 6.00 may be allowed, on the recommendation of the Head of the School and the approval of the Dean (Academic Affairs), to re-register in one or more subjects in which he/she received 'P' grade(s), so as to improve his/her CGPA to 6.00 or above, provided that the subject(s) is/are otherwise being offered in that semester and there is no clash in the time table. The grade will be revised and recorded only if there is an improvement.
- 11.7 A student who has been debarred from appearing at an examination either (i) as per recommendation of the subject teacher for unsatisfactory attendance or (ii) by the Institute as a measure of disciplinary action or (iii) for adopting malpractice at an examination, and consequently awarded a grade 'X', may re-register for the subject(s) after the term of the debarment expires, provided that other provisions of this regulations do not prevent him.
- 11.8 With the concurrence of the Faculty Adviser a student may be allowed to change his/her registration of elective/ breadth/lateral subjects within one week from the day of registration.
- 11.9 If eligible (vide Section 9) a student may be allowed to register in additional Subjects, with the concurrence of the Faculty Advisor, within one week from the day of registration.
- **11.10** A pre-registration of the students in all the subjects including Breadth subjects for the ensuing semester would be conducted in the current

semester during a time slot to be fixed in the academic calendar. All preregistration would be confirmed during the normal registration time.

12. Grading System

12.1 As a measure of students' performance a 7-scale grading system using the following letter grades and corresponding grade points per credit, shall be followed:

Scale	Performance	Letter Grade	Grade point per Credit
1	Excellent	Ex	10
2	Very good	A	9
3	Good	В	8
4	Fair	С	7
5	Average	D	6
6	Pass	P	5
7	Fail	F	0

In addition, there shall be two transitional grading symbols which can be used by the examiners to indicate the special position of a student in a subject:

I - for 'Incomplete assessment'

X - for 'Debarred'

12.2 A Semester Grade Point Average (SGPA) will be computed for each semester.

The SGPA will be calculated as follows:

$$SGPA = \frac{\sum_{i=1}^{n} c_i g_i}{\sum_{i=1}^{n} c_i}$$

where 'n' is the number of subjects registered in a particular semester, ' c_i ' is the Credit weightage allotted to a particular subject, and ' g_i ' is the Grade-points carried by the letter corresponding to the grade awarded to the student for the subject. SGPA will be rounded off to the second place of decimal and recorded as such. The SGPA would indicate the performance of the student in the semester to which it refers.

12.3 Starting from the second semester at the end of each semester S, a Cumulative Grade Point Average (CGPA) will be computed for every student as follows:

$$CGPA = \frac{\sum_{i=1}^{m} c_i g_i}{\sum_{i=1}^{m} c_i}$$

where 'm' is the total number of subjects the student registered from the first semester onwards up to and including the semester S, $'c_i'$ is the Credit weightage allotted to a particular subject $'s_i'$ and $'g_i'$ is the Gradepoint carried by the letter corresponding to the grade awarded to the student for the subject $'s_i'$. CGPA will be rounded off to the second place of decimal and recorded as such.

The SGPA and CGPA are calculated in consideration of only the credits cleared, i.e. Grade F credits are not included for the calculation (for students admitted from 2008 onwards).

The CGPA would indicate the cumulative performance of the student from the first semester up to the end of the semester to which it refers. The CGPA, SGPA and the grades obtained in all the subjects in a semester will be communicated to every student at the end of every semester.

For determining the inter se merit ranking of a group of students, only the rounded off values of the CGPAs will be used.

- When a student gets the grade 'I' for any subject(s) during a semester, the SGPA of that semester and the CGPA at the end of that semester will be tentatively calculated ignoring this (these) subjects.
 - After the 'I' grade(s) has (have) been converted to appropriate grades, the SGPA and CGPA for that semester will finally be recalculated after taking into account this (these) grade(s).
- When a student gets the grade 'F' in any subject during a semester, the SGPA and the CGPA from that semester onwards will be tentatively calculated, taking only 'zero point' for each such 'F' grade. After the 'F' grade(s) has/have been substituted by better grades during a subsequent semester, the SGPA and the CGPA of all the semesters, starting from the earliest semester in which the 'F' grade has been updated, will be recomputed and recorded to take this change of grade into account.

Incorporation: Revised calculation of CGPA and SGPA include the credits of all the registered subjects (including the credits of the failed subject) w. e. f. the admission batch of 2015-16 and onwards for all programmes vide Senate Res. No. – **26.A.C.4**.

13. Assessment of Performance

- There will be continuous assessment of a student's performance throughout the semester and grades will be awarded by the subject teacher/coordination committee formed for this purpose. The constitution of the Co-ordination committee is given in **Appendix-VII**.
- a. For arriving at a grade obtained by a student for a particular subject, initially a numeric mark obtained by the student out of 100 (hundred) is to be determined. Once the numeric mark is obtained, the same is to be converted to letter grade following the guidelines given in **Appendix VIII**.
 - b. For subject in which the theory component (contact hour) is greater than 1 (one), the subcomponents and the respective weights assigned to these are given below.

Subcomponent	Weight
Teacher's Assessment(T.A.)	20%
Mid-Semester Examination	30%
End-Semester Examination	50%

- c. For assigning marks in Teacher's Assessment (T.A.) performance in home assignments, class-tests, tutorials, viva-voce, attendance etc., are to be considered. At least two class tests are to be conducted for a subject. The weights of different sub-components of T.A. are to be announced by the teacher at the beginning of the Semester.
- d. For subjects in which the theory component (contact hour) is 1 (one), there would be no Mid-Semester or End-Semester Examinations. The marks of the theory component would be decided by performance in class-tests, home assignments, tutorials (if any), viva-voce, attendance etc. At least two class tests are to be conducted for the theory component of such a subject. The weights of different subcomponents are to be announced by the teacher at the beginning of the Semester.
- e. For assigning marks in the laboratory component (p-component) the relevant sub-components that are to be considered are day-to-

day work, regularity, tests (at least two must be conducted), assignments, viva-voce etc. Percentage weights of the different sub-components in deciding the final marks are to be announced at the beginning of the Semester.

13.3 The eight-week industrial training undergone by the students in the summer vacation after the sixth semester would be assessed within five weeks after the commencement of the seventh semester. The students are required to submit a written report on the training received and give a seminar, on the basis of which a grade would be awarded. The students are also required to submit to the Head of the School a completion certificate in the prescribed form from the competent authority of the organization where the training was received, without which he/she would not be assessed.

13.4 Assessment of Project Work

a. Performance in the various activities involved in the project would be assessed individually at the end of each semester in which it is being carried out as per the curriculum. The student is required to submit a written report at the end of the semester. The Head of the School would appoint a project evaluation board for the purpose of assessment.

The different components of evaluation and the weights assigned to these components are depicted below:

Subcomponent	Weight
Supervisor's assessment	40%
Project Report/Thesis(to be assessed by the board)	20%
Evaluation Board's assessment	40%

The student is required to give a seminar on the project work done. The evaluation board would conduct the viva-voce. Dates for conducting the seminar and the viva-voce, to be held within ten days after the end-semester examination, would be announced in the academic calendar.

b. If a student due to non-completion of the project work cannot submit the final project report at the end of eighth/tenth semester for B. Tech/B.Tech.(Hons.) and Dual degree and does not appear before the evaluation board for the viva-voce on the date fixed by

the school in conformity with the academic calendar, may be granted extension of time not exceeding two months on the following conditions:

- I. He/she would be awarded one grade lower than the grade obtained by him/her, and
- **ii.** He/she would be deemed to have completed the requirements for the degree if applicable in the succeeding session.
- 13.5 The Head of the School would constitute the Viva-Voce Board(s) for conducting the comprehensive viva-voce examination as per the requirement of the curriculum. The Board would decide the relative weights of the different aspects of the viva-voce and decide the grades to be awarded to the students. The dates of the viva-voce, to be conducted within ten days after the previous end-semester examination, would be announced in the academic calendar.

14. Examinations

- **14.1** The Academic Section of the Institute will centrally conduct the Mid-Semester and the End-Semester Examinations in respect of the theory component of the subjects unless otherwise permitted.
- **14.2 (I)** A student shall produce an Admit Card/Identity Card for appearing in an examination, only if he/she has:
 - **a.** attendance record to the satisfaction of the teachers in the theory and laboratory classes and has completed the assignment works given.
 - **b.** paid all Institute and Hall dues of the semester.
 - **c.** not been debarred from appearing in the examination as a result of disciplinary proceedings.
 - (ii) A student may be debarred from appearing at the Mid-Semester or End-Semester Examination on the report of a teacher/chairman, co-ordination committee, if his/her:
 - **a.** attendance at lecture/tutorial/laboratory classes has not been satisfactory during the period, and/or,
 - **b.** performance in the assignment works during the semester has not been satisfactory.

- (i) Class tests, mid-semester examinations, assignments, tutorials, viva-voce, laboratory assignments, etc., are the constituent components of continuous assessment process, and a student must fulfill all these requirements as prescribed by the teacher/co-ordination committee of the subject. If due to any compelling reason (such as his/her illness, calamity in the family, etc.) a student fails to meet any of the requirements within/on the scheduled date and time, the teacher/co-ordination committee in consultation with the concerned Head of the School may take such steps (including conduction of compensatory tests/examinations) as are deemed fit.
 - (ii) a. Appearing in the end-semester examination in the theory component of a subject is compulsory for a student, unless exempted as per clause 14.3(ii)(b) stated below. If a student fails to appear in the end-semester examination he/she will be assigned a 'F' grade in the subject and will not be permitted to register in the summer quarter or appear at the supplementary examination for the subject as stipulated in clauses 14.8 & 14.10 respectively.
 - **b.** However, if a student misses the end-semester examination due to a compelling reason like serious illness of himself/herself or a calamity in the family, he/she may appeal to the Dean, Academic Affairs, through his/her Head of the School for permitting himself/herself to register in the summer quarter or appear at the supplementary examination(s), as the case may apply. A sub-committee of the Undergraduate Program & Evaluation Committee (UGPEC) consisting of the following members may, after examining the documents and being convinced about the merit of the case, recommend permitting him/her to register in the summer quarter and/or appearing in the supplementary examination(s) with full credit condoning his/her absence:
 - (i) The Dean of Academic Affairs Chairman
 - (ii) The Dean of Students' Affairs
 - (iii) One Medical Officer
 - (iv) The Assistant Registrar (Academic) Secretary

- **14.4** Students will be permitted to appear in the examinations in only those subjects for which they have registered at the beginning of the semester and have not been debarred.
- 14.5 The final grades awarded to the students in a subject must be submitted through online in the ERP by the teacher, within seven days from the date of holding the examination and submit the signed hard copy of the grades to the concerned Head of the School for onward transmission to the Assistant Registrar (Academics).
- 14.6 The evaluation of performance in the Extra Academic Activities (EAA) will be done by the authorities conducting these. The grades will be communicated to the Assistant Registrar (Academics) by the following authorities through the coordinator of EAA:

	NCC	Commanding Officer		
NSS/NSO		Coordinator NSS/NSO		

- Any change of grade of a student in a subject, consequent upon detection of any genuine error of omission and/or commission on part of the concerned teacher, must be approved by the School UG academic committee, through the Head of the concerned School within 20 (twenty) days from the date of commencement of the next Semester.
- 14.8 For the benefit of and as a process of learning by the students, the scripts after correction of all class tests, mid-semester examinations, assignments etc., would be shown to the students within 4 weeks from the date of tests/examinations. The scripts of the end-semester examinations are to be shown within 15 days from the date of commencement of the next semester.
- 14.9 With a view to assist the students, who failed in one or more subjects in the autumn and/or spring semester in a year, a Summer Quarter will be conducted during the immediately following summer vacation for making up their deficiency and improve the performance. The regulations for running the Summer Quarter are given in **Appendix-IX**.
- 14.10 In order to provide an additional opportunity to the students who failed (obtained an 'F' grade) in one or more subjects, due to not being able to score higher than the cut-off marks in the theory components, in either the autumn and/or the spring semester in a year, Supplementary Examinations equivalent to the end-semester examination arranged centrally by the Academic Section, will be conducted in the month of

July (before commencement of the next session) every year. Regulations relating to the Supplementary Examination are given in **Appendix-X**.

14.11 A student in any degree programme must complete the prescribed course work of the first four semesters within a maximum period of 3 years and those of the last four or six semesters, as the case may be depending upon the duration of the course, within a further period of 3 or 4 years, respectively. In special cases the Senate may, on the recommendation of the School and the UGPEC, further extend the total time limit for completion of all the requirements up to 7 years for the B.Tech. (Hons.) degree.

15. Graduation Requirement

- **15.1** In order to qualify for a B. Tech/B.Tech.(Hons) and Dual Degree of the Institute covered under this Regulations a student must:
 - **a.** Complete all the credit requirements for the degree as laid down in the prescribed curriculum of the discipline with a minimum grade 'P' scored in every subject.
 - b. Obtain a CGPA of 8.5 or higher at the end of the semester in which he/she completes all the requirements for the B. Tech (Hons.) and obtain a CGPA between 5.00 8.49 for B. Tech degree. (Ref.: Senate Res. No. 26.A.C.3)
 - **c.** Have cleared all dues to the Institute, the Hall of Residence, the Library and the School.
- 15.2 The minimum total credit requirements that has to be satisfactorily completed for the award of a degree is depicted below:

Complete all the credit requirements for the degree as laid down in the prescribed curriculum of the discipline with a minimum grade 'P' scored in every subject.

For students admitted in 2008 B.Tech.(Hons.): 180-186 credits

For students admitted from 2009 onward B.Tech. (Hons.): 177-181 credits

For students admitted from 2013 onward B. Tech/B.Tech.(Hons.): 172-184 credits

Dual Degree: 220-225 credits for students admitted from 2016 onward

- 15.3 Normally a student should complete all the requirements consecutively in eight semesters for B. Tech/B.Tech. (Hons.) degree and ten semesters for Dual degree.
 - Academically weaker students may be granted time up to **16** semesters for 4-year courses and **20** semesters for five year Dual degree courses to complete all the requirements for the degree. However, in special cases the Senate may further extend this limit for completion of the requirements for all degrees.
- 15.4 A student, whose academic records at the end of any semester clearly indicate that he/she will not be able to qualify for the degree for which he/she had been admitted within the limits of time specified in clause 15.3 above, shall have to discontinue studies and leave the Institute when asked to do so.

16. Withdrawal from the Institute

- A student who has been admitted to a undergraduate degree course of the Institute may be permitted to withdraw temporarily for a period of one semester or more from the Institute on grounds of prolonged illness or acute problem in the family which compelled him to stay at home, provided:
 - **a.** He/she applies to the Institute within 15 days of the commencement of the semester or from the date he/she last attended his/her classes whichever is later, stating fully the reasons for such withdrawal together with supporting documents and endorsement of the father/guardian.
 - **b.** The Institute is satisfied that, inclusive of the period of withdrawal, the student is likely to complete his requirements for the degree within the time limits to be specified in clause **15.3**.
 - **c.** There are no outstanding dues or demands from him/her by the Institute/Hall/School/Library/Gymkhana/NCC.
- A student who has been granted temporary withdrawal from the Institute under the provisions of clause **16.1** will be required to pay the tuition fee and other essential fees/charges for the intervening period till such time as his/her name is borne on the Roll List
- 16.3 A student will be granted only one such temporary withdrawal during his/her tenure as a student of the Institute.

A student who has completed/attended the First and the Second semesters of studies in this Institute may, on grounds of health, be permitted to apply for transfer to any other IIT. If the Director approves such an application, the Dean of Academic Affairs may forward it to the other IIT concerned for their consideration. The decision of Competent Authority of the other IIT in the matter shall be final.

16.5 Termination of Studentship

The studentship shall be terminated (1) if he/she remains absent from classes or leave the campus without any intimation to the Institute authorities, and do not register for three (03) consecutive semesters and (2) the same rule shall be applicable for those students who would register online by merely paying necessary fees but do not report to the campus as per the academic calendar, do not attend any classes and away from the campus, for three (03) consecutive semesters. [Ref. Senate Res. 44.A.B.15 & 44.A.C.4]

17. Medals, Awards and Prizes

a. Institute

List of medals and prizes that the Institute awards from its own fund and the rules that govern such awards are stated in **Appendix-XI**.

b. Endowment

List of medals and prizes that are to be awarded through endowment fund and the rules that govern such awards will be prescribed time to time **Appendix-XI (A)**.

18. Scholarships

a. Merit-cum-Means and Institute Scholarship/Assistantship

These scholarships are awarded from the Institute funds. Rules pertaining to the award of Merit-cum-Means and Institute scholarship/assistantship are stated in **Appendix-XII** and **Appendix-XII(A)**.

b. Endowment Scholarship

List of medals and prizes that are to be awarded through endowment fund and the rules that govern such awards will be prescribed time to time

19. Relaxation

The Senate may, under exceptional circumstances, consider any case of a student having a minor deficiency in respect of any of the requirements stated in these Regulations and relax the relevant provision of these Regulations based on the merit of the case. The grounds on which such relaxation is granted shall invariably be recorded and cannot be cited as precedence.

20. Promotion/Discontinuation of Studies

- (i) A candidate has to clear 2/3rd of the registered credits (32 out of 48 credit) in 1st year (after supplementary examinations) to enable him/her to register for the 2nd year, failing which a student repeats the 1st year by registering for the subjects with grades F. The candidate may also register for some subjects with grade P to improve in GPA.
- (ii) The SGPA and CGPA are calculated in consideration of only the credits cleared, i.e. Grade F credits are not included for the calculation. (iii) If after repeating the 1st year, the students fail to clear the required credits (after the supplementary examination), the student be asked to leave the Institute.
- (iv) At the end of 2nd year, the student will have to clear all the 1st year subjects and in addition 2/3rd of the credits of the 2nd year level registered subjects, failing which the student repeats the 2nd year.
- (v) The same rules as in (iv) applies for promotion from 2nd year onwards.

21. Conversion of CGPA into percentage of marks [Senate Res.37.A.E.1]:

In case of a specific query by students/employers regarding conversion of CGPA into percentage of marks, the following formula be adopted for 'notional conversion of CGPA into percentage of marks'.

Formula: Marks in percentage = 10 * CGPA (notional)

APPENDIX - I

RULES RELATING TO RESIDENCE REQUIREMENTS (Vide Clause 4.2 of the Regulations)

Following are the detailed rules governing residence requirements of students:

- 1. The mess of each Hall of Residence shall function as a single integrated unit and shall not, under any circumstances be sub-divided into any kind of groups or sub-groups.
- 2. Under special circumstances, the Director/Dean of Students' Affairs may permit a student to reside with his Parent/Guardian in the Institute Campus or within a reasonable distance from the Institute. Such a student shall, however, be attached to a Hall of Residence and will be required to pay seat rent according to rules, and Hall establishment charges fixed by the Hall Management Committee (HMC) and the Warden of the Hall. However, this permission may be withdrawn at the discretion of the Institute, at any time considered appropriate without assigning any reason.
- **3.** No married accommodation shall be provided to any student of the undergraduate courses.
- **4.** No student shall come into or give up the assigned accommodation in any Hall of residence without the prior permission of the Chairman, HMC/Warden.
- **5.** A student shall reside in a room allotted to him/her and may shift to any other room only under the direction/permission of the Warden.
- 6. Students shall be required to make their rooms available whenever required for inspection, repairs, maintenance or disinfecting and shall vacate the rooms when leaving for the vacations/holidays.
- 7. Students shall be responsible for the proper care of the furniture, fan and other fittings in the rooms allotted to them and shall generally assist the Warden in ensuring proper use, care and security of those provided in the Halls of common use of all students.
- **8.** Students will be responsible for the safe keeping of their own property. In the event of loss of any personal property of a student due to theft, fire or any other cause, the Institute shall accept no responsibility and shall not be liable for payment of any compensation.
- **9.** Engaging personal attendants, keeping pets and use of appliances like electric heater, refrigerator, air conditioner, air cooler etc., by a student in the Hall of Residence are prohibited.
- **10.** All students must abide by the rules and regulations of the Hall of Residence as may be framed from time to time.

APPENDIX - II

RULES REGARDING ATTENDANCE

(Vide Clause 5.3 of the Regulations)

Following are the rules relating to attendance at classes:

- 1. Attendance in all classes (lectures, tutorials, laboratories, workshops, EAA including its related camps and other publicized activities etc.) is compulsory. A student may be debarred from appearing at an examination on the ground of unsatisfactory attendance.
- 2. The teacher concerned may condone absence from classes for a very short period due to unavoidable reasons provided he/she is satisfied with the explanation.
- 3. (a) If the period of absence is for a short duration (of not more than two weeks) Application for leave shall have to be submitted to the Head of the School concerned stating fully the reasons for the leave requested for along with supporting document(s). The Head of the School will grant such leave.
 - (b) Absence for a period not exceeding two weeks in a semester due to sickness or any other unavoidable reason for which prior application could not be made may be condoned by the Head of the School provided he is satisfied with the explanation.
- **4.** If the period of absence is likely to exceed two weeks, a prior application for grant of leave will have to be submitted through the Head of the School to the Dean, Academic Affairs, with the supporting documents.
 - The decision to grant or condone such leave shall be taken by the Dean (Academic Affairs) after considering the recommendation of the Head of the School.
- **5.** It will be the responsibility of the student to get his absence from classes condoned by the appropriate authority.
- **6.** A student must intimate his/her absence to the Warden of the Hall in which he/she is residing, before availing of any leave. Failing to do so will be construed as breach of discipline and will be dealt with as per provisions in **Appendix-III**.

APPENDIX - III

RULES REGARDING CONDUCT AND DISCIPLINE

(Vide Clause 6.2 of the Regulations)

Following rules shall be in force to govern the conduct and discipline of all students:

- 1. Students shall show due respect to the teachers of the Institute, the Wardens of the Halls of Residence, the Sports Officers of the Gymkhana and the Officers of the National Cadet Corps; proper courtesy and consideration should be extended to the employees of the Institute and of the Halls of Residence. They shall also pay due attention and courtesy to visitors.
- 2. Students are required to develop a friendly relationship with fellow students. In particular, they are expected to show kindness and consideration to the new students admitted to the Institute every year. Law bans ragging in any form to any body acts of ragging will be considered as gross indiscipline and will be severely dealt with.
- **3.** The following acts of omission and/or commission shall constitute gross violation of the code of conduct and are liable to invoke disciplinary measures:
 - · Ragging.
 - Furnishing false statement of any kind in the form of application for admission or for award of scholarship etc.
 - Displaying lack of courtesy and decorum; resorting to indecent behavior anywhere within or outside the campus.
 - Willfully damaging or stealthily removing any property/belongings of the Institute, Hall or fellow students.
 - Possession, consumption or distribution of alcoholic drinks or any kind of hallucinogenic drugs.
 - Adoption of unfair means in the examinations.
 - Organizing or participating in any group activity in company with others in or outside the campus without prior permission of the Dean of Students' Affairs.
 - Mutilation or unauthorized possession of library books.
 - Resorting to noisy and unseemly behaviour, disturbing studies of fellow students.
 - Misuse of Internet/e-mail facilities or tampering/ hacking with servers anywhere in the Halls of Residence/Schools/Library etc.
 - Not intimating his/her absence to the Warden of the Hall before availing any leave.

Commensurate with the gravity of the offence, the punishment may be reprimand, fine, and expulsion from the Hall, debarment from an examination, rustication for a specified period or even outright expulsion from the Institute.

4. For an offence committed (a) in a Hall of Residence, (b) in the School or a classroom and (c) elsewhere, the Warden, the Head of the School and the Dean of Students' Affairs, respectively, shall have the authority to reprimand or impose fine or take any other suitable measure.

All cases involving punishment other than reprimand shall be reported to the Chairman of the Standing Disciplinary Committee.

- 5. (a) All major acts of indiscipline, which may have serious repercussion on the general body of students, and/or which may warrant an uniform and more formalized nature of investigation, shall be handled by the **Standing Institute Disciplinary Committee** appointed by the Senate. The Standing Disciplinary Committee consists of the following exofficio and other Members [Senate Res. No.31.A.E.1]:
 - (i) Dean (Students Affairs) ... Chairman
 - (ii) 03 (Three) Faculty Members ... Members (to be nominated by the Senate)
 - (iii) Warden ... Member
 - (iv) President, Students Gymkhana ... Member
 - (v) Vice President, Students Gymkhana ... Member
 - (vi) Assistant Registrar ... Member-Secretary

In addition, the Chairman may invite any other person(s) to be associated with the proceedings of a particular case, if his/her participation is considered necessary in disposing of the matter.

- (b) Recommendation of the committee, which will include the suggested punishment in cases of guilt proven, will be forwarded to the Chairman Senate for necessary action. Cases of adoption of unfair means in an examination shall be dealt with by the Committee on Prevention of Examination Malpractices consisting of the following members: (Ref: Senate Res. No. 35.A.E.2)
 - (i) Dean, Academic Affairs Chairman
 - (ii) Dean, Student Affairs Member
 - (iii) PIC, Examination Member
 - (iv) The Invigilator reporting the case Member
 - (v) Head of the school of the concerned student Member
 - (vi) One faculty member (to be nominated by the Senate for two years)
 - (vii) The Assistant Registrar (Academic) Secretary

- Member

APPENDIX - IV

RULES FOR CHANGE OF BRANCH

(Vide Clause 7.2 of the Regulations)

- 1. A student admitted to a particular branch of the B. Tech/B.Tech. (Hons.) and Dual degree Course will normally continue studying in that branch till completion.
- 2. However, in special cases the Institute may permit a student, admitted through JEE, to change from one branch of studies to another after the first two semesters. Such changes will be permitted, strictly in accordance with the provisions laid down hereinafter.
- 3. Only those students will be eligible for consideration for a change of branch after the Second (Spring) Semester, who have
 - (a) Completed all the credits prescribed in the first two semesters of their studies, in their first attempt, without having had to pass any course requirement in the supplementary examination and/or summer quarter.
 - **(b)** Obtained a CGPA not lower than 8.5, at the end of the Second (Spring) Semester.
- 4. Application for a change of branch must be made by intending eligible students in the prescribed online form for this purpose. The Assistant Registrar (Academic) will call for application sometime in the Spring semester of each academic year and the completed forms must be submitted to him by the last date specified in his notification.
 - Students admitted to 4-Year B.Tech are eligible for consideration for a change of branch to any Engineering (4-Year or 5-Year Dual Degree) course.
 - Students admitted to 5-Year Dual degree are eligible for consideration for a change of branch within Dual degree programmes.
- 5. Students may enlist up to five number of choices of branch as the case may be in order of preference, to which they wish to change over. It will not be permissible to alter the choices after the application has been submitted.
- **6.** Change of branch shall be made strictly on the basis of inter se merit of the applicants. For this purpose the CGPA obtained at the end of the Second

- (Spring) Semester shall be considered. Ties will be broken by the JEE rank of the applicants.
- 7. (a) In making the change of branch, those applicants shall be first considered who have secured a rank within top 1% (one percent), rounded to the nearest integer, amongst all the first year student in terms of the CGPA scored at the end of the Second (Spring) Semester. Change of branch requested for by such applicants shall be made without any constraint.
 - (b) The remaining applicants may be allowed a change of branch, strictly in order of inter se merit, subject to the limitation that the actual number of students in the Third (Autumn) Semester, in the branch to which the transfer is to be made, does not exceed 110% of the sanctioned yearly intake for that branch, and at the same time a maximum 10% of students registered in a programme can go out from the programme due to branch change

Note: Clarification for Clause 7 Appendix IV above:

- 8. The sanctioned yearly intake of a particular branch shall be the number sanctioned by the Senate as the intake for that branch for the particular year of entry of the applicants. To compute the total number of students in the first year sum of the sanctioned yearly intake of all the branches will be taken. For the purpose of calculating the actual number of students in a particular branch, the number of students joining the branch under Clause 7(a) is to be included.
- **9.** All changes of branch made in accordance with the above rules will be effective from the Third (Autumn) Semester of the applicants concerned. No changes of branch shall be permitted here after.
- **10.** All changes of branch will be final and binding on the applicants. No student will be permitted, under any circumstances, to refuse the change of branch offered.
- 11. Notwithstanding the provisions of foregoing paragraphs, the Senate may under very special circumstances, permit the transfer of a student from one branch to another in deviation of the above mentioned rules. In each such case the special reasons for which the transfer is permitted must be recorded in the Senate resolution. Such transfers, if any, will be over and above the regular transfers, and their number will not be counted in the computation of 'Actual Number of Students' in a given branch.

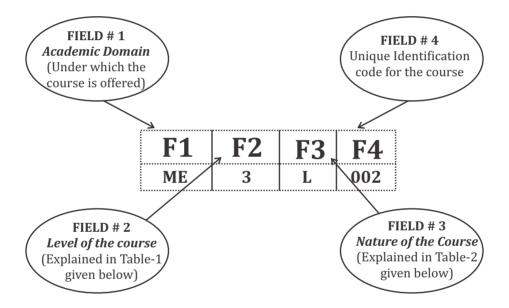
APPENDIX - V

RULES FOR COURSE STRUCTURE

(Vide Clause 8.3 of the Regulations)

Ref: Senate- Appendix 21.C.A.1

Course Numbering Scheme



Field 1: Code for the "Academic Domain under which the course is offered"

It consists of two alphabets which describe the academic domain that offers the course. For example, the code 'ME' in the first field in a course number denotes that the course belongs to Mechanical Engineering domain. The code "ID" is reserved for the interdisciplinary courses.

Field 2: Code for the 'Level of the Course'

This consists of a single numeral that indicates the tevel of the course. For example, the number '3' in the field denotes that this course is being offered In the third year B. Tech. Programme. Details are provided fn Table 1.

Field 3: Codes for the nature of the course

This consists of a single alphabet which describes the predominant nature of the course. For example, the alphabet 'L' in this field denotes that the course is predominantly a lecture based course. Details are provided in the Table 2.

Field 4: Codes for the 'Unique Identification Number of the course'

This field consists of three numerals in the range of '001 to 999' which describe the unique Identification number of the course.

Table 1: Description of Field-2 for the level of the course*

Code	Description	
0	Course for preparatory students	
1/2/3/4	Offered, for 1 st /2 nd /3, rd /4 th year UG Programme	
5	Course for M.Sc. Programme	
6	6 Course for M.Tech., M.S.(Research) and M.B.A. Programme	
7 These courses are advanced courses for Ph.D. Programme		

Table 2: Description of Field-3 for the nature of the course*

Code	Description
L	Predominantly lecture based courses (These courses can also have Tutorial and/or Practical components)
Predominantly laboratory based courses (These courses can also have Lecture/Tutorial components)	
D	Project based courses leading to dissertation/review report
Т	Internship/training
S	Seminar

APPENDIX - VI CURRICULUM FOR THE FIRST YEAR B.TECH. / B.TECH. (HONS.) AND DUAL DEGREE

SEMESTER - I (AUTUMN)				
Subject Name	Code	L-T-P	Credit	Contact Hour
Mathematics-1	MA1L001	3-1-0	4	4
Physics/ Chemistry	PH1L001/ CY1L001	3-1-0	4	4
Mechanics / English for Communications or Learning English	ME1L001/ HS1L001 or HS1L002	3-1-0/ 3-0-2 or 3-1-0	4	4/ 5 or 4
Electrical Technology / Introduction to Programing and Data Structures	EE1L001/ CS1L001	3-1-0	4	4
Introduction to Manufacturing Processes / Engineering Drawing and Graphics	ME1P001/ CE1P001	0-0-3/ 1-0-3	2/3	3/4
Physics Laboratory/Chemistry Laboratory	PH1P001/ CY1P001	0-0-3	2	3
Electrical Technology Laboratory / Introduction to Programing and Data Structures Laboratory	EE1P001/ CS1P001	0-0-3	2	3
Extra Academic Activity-1	ID1T001	0-0-3	1	3
		Total	22/23+1	25/27 or 26+3
SEMEST	TER - II (SPRING)	T		
Subject Name	Code	L-T-P	Credit	Contact Hour
Mathematics-2	MA1L002	3-1-0	4	4
Chemistry/Physics	CY1L001/ PH1L001	3-1-0	4	4
English for Communication or Learning English / Mechanics	HS1L001 or HS 1L002/ ME1L001	3-0-2 or 3-1-0/ 3-1-0	4	5 or 4/ 4
Introduction to Programming and Data Structures/ Electrical Technology	CS1L001/EE1L001	3-1-0	4	4
Engineering Drawing and Graphics / Introduction to Manufacturing Processes	CE1P001/ ME1P001	1-0-3/ 0-0-3	3/2	4/3
Chemistry Laboratory/ Physics Laboratory	CY1P001/ PH1P001	0-0-3	2	3
Electrical Technology Laboratory / Introduction to Programing and Data Structures Laboratory	EE1P001/ CS1P001	0-0-3	2	3
Extra Academic Activity -2	ID1T002	0-0-3	1	3
		Total	23/22+1	27 or 26/ 25+3

APPENDIX - VII

RULES FOR CO-ORDINATION COMMITTEES FOR U.G. STUDIES (Vide Clause 13.1 of the Regulations)

Composition:

One Co-ordination Committee would be constituted for each subject taught by more than one teacher of one or more Schools/Centres. Each committee would consist of all the teachers who are involved with the teaching of the subject during the semester.

One of its members would be nominated by the Head of that School, under whose name the subject is being offered, to act as its Chairman.

Tenure:

The semester in which the subject is being offered.

Functions:

- (i) To lay down the course plan for the subject.
- (ii) To coordinate instructions and progress of teaching in the subject and to ensure that the full syllabus is covered.
- (iii) To review periodically the performance of students who have registered in the subject.(iv) To moderate the question papers on the subject and ensure that the syllabus is well covered by the question papers.

Frequency of Meetings:

 $Each \ Co-ordination \ Committee \ shall \ meet \ at \ least four \ times \ during \ the \ semester.$

The following academic advisory committee will review and monitor the academic performance of the under graduate students

(a) 1st year Undergraduate Advisory Committee

Composition:

Dean, Academic Affairs - Chairman

1st Year Subject Teachers - Members

1st Year Faculty Advisors - Members

Two student representatives from each section - Members

Function:

- To review the teaching, learning and delivery System.
- To identify the shortcomings, if any
- To suggest corrective steps

Frequency of the Meeting: Once in a semester

(b) School Academic Advisory Committee

There shall be an Academic Advisory Committee for each year of Undergraduate (Second year onwards) Programmes offered by the school.

Composition:

Head of the School - Chairman
Subject Teachers - Members
Faculty Advisors - Members
Four student representatives from the concerned year - Members

Function:

- To review the teaching, learning and delivery System.
- To identify the shortcomings, if any
- To suggest corrective steps

Frequency of the Meeting: Once in a semester

(c) Result Review and Moderation BoardThere shall be a result review and Moderation Board for each year in the School.

Composition:

Head of the School- ChairmanTeacher Concerned- MembersFaculty Advisors- Members

Function:

- To review the result of each and every student and performance of the students in each subject.
- To identify the weak students and suggest corrective measures.
- To review the unusual results and to moderate, if necessary.

Frequency of the Meeting: Once in a semester

APPENDIX - VIII

GUIDELINES FOR AWARD OF LETTER GRADES

(Vide **Clause 13.2** of the Regulations)

- 1. In general there shall be no rigid marks-to-grade linkage. Difficulty levels of the examinations, tests, assignments, viva-voce and other factors that contributed to the final marks are to be considered by the teacher/co-ordination committee of a subject while converting marks into letter grades.
- 2 (a) The grades F and Ex are to be considered as bench mark grades.
 - **(b)** For subjects which have a laboratory component (P component), to secure any grade higher than **'F'** a student has to achieve individually more than the cutoff marks in both the theory component and the laboratory component. Otherwise, he/she has to achieve higher than the cut-off marks in the theory component alone.
 - **(c)** The range of cut-off marks below which a student would be assigned an **'F'** grade is **30-35** for the theory component and 35-40 for the laboratory component, the exact cut-off marks is to be decided by the teacher/co-ordination committee.
 - (d) The exceptionally brilliant performance is to be assigned an 'Ex' grade. Even the best student of any class needs to be good enough to be awarded the 'Ex' grade.
- **3.** In the case of a relatively large class and/or classes where the performance level depicts more or less a normal distribution:
 - (a) The average performance (around mean value of marks) is to be assigned 'C' grade. However, if by teacher's/co-ordination committee's perception the general level of the class is considered to be appreciably high, the average performance may be assigned 'B' grade.
 - **(b)** All other marks to grade conversion are to be done relatively with respect to the average performance in between (but excluding) the 'F' and 'Ex' grades, which have already been assigned, by choosing appropriate boundary marks between grades.
 - (c) Normally, in a reasonably large class of students distribution of grades is expected to be as follows:

Ex	:	< = 10 %
A	:	10 - 20 %
B, C, D	:	20 - 35 %
P	:	10 - 25 %
F	:	< = 5 %

- **4.** In the case where a student appears in the supplementary examination or attends summer quarter, the conversion from marks to grade would be done applying the same norm as was framed for the original class.
- 5. For classes where excessive bunching occurs resulting in all most all the marks tending to cluster into same category, conversion from marks to grade may be done using the table given below, where 'm' stands for the marks obtained. However, the teacher may, on his/her perception of the difficulty level of assessment process undertaken, alter the boundary (cut-off) marks by +/-5 marks.

Range of Marks	Grade
m > = 90	Ex
80 < = m < 90	A
70 < = m < 80	В
60 < = m < 70	С
50 < = m < 60	D
35 < = m < 50	P for Theory Component
40 < = m < 50	P for Laboratory Component
m < 35	F for Theory Component
m < 40	F for Laboratory Component

- **6.** Co-ordination committee would moderate the results of the different sections of a class if wide disparity in performance across sections were observed.
- 7. All the requirements for the laboratory component are to be satisfied by a student within deadline set-up by the teacher/co-ordination committee before the start of the end- semester examination. If a student due to a genuine reason like illness of himself/herself or calamity in the family cannot complete a particular sub-component, the teacher/co-ordination committee may allocate him/her additional time. In this case an 'I' grade, if needed may temporarily be allocated to the student in the subject.
- **8.** There is no provision for supplementary examination or summer quarter in the laboratory component. If a student cannot clear the laboratory component of a particular subject, he/she will be assigned the grade 'F' in that subject and has to re-register in the subject, if permitted, in the immediately following semester in which it is offered.

APPENDIX - IX

RULES RELATING TO SUMMER QUARTERS

(Vide **Clause 14.9** of the Regulations)

1. Introduction

- 1.1 1.1To enable the undergraduate students to make up deficiencies a Summer Quarter will be organized every year during the summer vacation. Summer Quarter shall, however, be offered only in the theory components of the subjects.
- **1.2** The students of 4-year B. Tech/B.Tech. (Hons.) and 5-Year Dual Degree courses are eligible to register for the Summer Quarter, if any is offered.

2. Duration

- 2.1 The duration of the Summer Quarter shall be seven weeks from around the middle of May till around the end of June. The exact dates for holding the Summer Quarter for a particular session shall be decided by the Senate every year while finalizing the Academic Calendar.
- **2.2** The attendance requirement for the Summer Quarter shall be the same as for a regular semester. A student who does not satisfy the norms will not be allowed to appear at the examination.

3. Eligibility

- **3.1** Only those students will be permitted to register themselves for a subject offered in the Summer Quarter who have cleared all Institute and Hall dues till date and have paid the necessary fees and Mess Advances for the Summer Quarter for which they are registering.
- **3.2** A student will be eligible to register in a subject if he/she actually appeared at the last end-semester examination in that subject and obtained the grade 'F'. There is no provision for summer quarter in the laboratory component.
- **3.3** A student, who could not appear at the end semester examination due to self-illness or calamity in the family, will also be eligible to register for the subjects concerned in the Summer Quarter as per clause 14.3(ii)(b) if his/her attendance was satisfactory in the judgement of the teacher.

- **3.4** No Supplementary Examination shall be held in a subject that is being offered in the Summer Quarter of the session unless extraordinary circumstances justify it.
- 3.5 Students who have obtained CGPA lower than 6.00 may be allowed, on the recommendation of the Head of the School and the approval of the Dean (Academic Affairs), to re-register in one or more subjects in which he/she received 'P' grade(s), so as to improve his/her CGPA to 6.00 or above, provided that the subject(s) is/are otherwise being offered in that semester and there is no clash in the time table. The grade will be revised and recorded only if there is an improvement.

4. Registration

- **4.1** All students intending to join a Summer Quarter must register themselves for the subjects concerned on the day fixed for the purpose. No late registration shall be permitted on any ground.
- **4.2** A prevalent Summer Quarter registration fee, as decided by the Institute from time to time shall have to be paid along with the application in a prescribed form.
- **4.3** Registration of students for the Summer Quarter in a subject shall be done by the Faculty Adviser in the School concerned under the supervision of the Head of the School.
- **4.4** The weekly lectures and tutorials of a subject taught in the Summer Quarter shall be twice the corresponding loading it carries during the normal semester. The credits allotted to it shall, however, remain the same.
- **4.5** A student shall not be allowed to register for more than two subjects during a Summer Quarter.
- **4.6** Summer Quarter in a subject shall be offered only if at least 5 students register for that subject.
- **4.7** If a subject is offered in the Summer Quarter, students will not be allowed to sit for Supplementary examination on that particular subject except as specified in the regulation. (**Ref: Senate Res. No. 20.C.B.1**)

5. Assessment

The teacher offering a particular subject during the Summer Quarter shall

- **5.1** Take care of all aspects of the theory component of the subject, viz., lectures, tutorials, assignments etc.
- **5.2** Conduct all class tests, mid-semester examination, end-semester examination, viva- voce etc. The end-semester examinations may, however be centrally arranged.
- **5.3** Compute the grade as per rules laid down in Clauses **13.2 (a)** through (e) of Section-**13**. The contribution of the laboratory component, if there is any in the subject, ascertained in the original semester has to be used for computing the numeric marks out of **100**.
- **5.4** The grades awarded to the registered students must be sent to the Assistant Registrar (Academic) within 3 days from the date the examination was held.

APPENDIX - X

RULES REGARDING SUPPLEMENTARY EXAMINATION

(Vide Clause 14.10 of the Regulations)

(No Supplementary Examination shall be held in a subject that is being offered in the Summer Quarter of the session unless extraordinary circumstances justify it)

- 1. Except as specified in Clause 14.3(ii)(b), a student will be eligible to appear in the supplementary examination in a subject if he/she actually appeared at the last end-semester examination in that subject and obtained the grade 'F'. There is no provision for supplementary examination in the laboratory component.
- 2. A student will not be allowed to appear in more than 5 (five) subjects in the supplementary examinations and Summer Quarter put together.
- 3. Intending students must submit their application, countersigned by the teacher(s) of the subject(s) or the Head of the School concerned, along with the necessary fees to the Assistant Registrar (Academic) by the date as announced by a notification.
- 4. The supplementary examinations shall be held on such dates as laid down in the Academic Calendar for the year or as notified separately.
- 5. The grade in the subject scored by the student appearing in the supplementary examination will be recomputed by substituting the marks of the end-semester in the total marks scored by that scored in the supplementary examination. Unless exempted as per regulation in Clause 14.3(ii)(b), a student is entitled only to one grade lower than the actual grade thus scored, except that the performance grade 'P' remains unaltered, as elucidated in the table below:

Grade obtained	Grade to be awarded
F	F
P	P
D	P
С	D
В	С
A	В
Ex	A

6. The final grades awarded to the students must be uploaded in the ERP and the hard copy be sent to the Assistant Registrar (Academic) within 3 days from the date of the supplementary examination was held.

APPENDIX - XI

RULES FOR THE AWARD OF INSTITUTE MEDALS, AWARDS AND PRIZES

(Vide **Clause17(a)** of the Regulations)

Eligibility Criteria:

A student is eligible for the award of any medals or prize if:

- (i) He/she has passed in all the prescribed subjects and cleared all other requirements, if any, obtaining a **CGPA** not lower than **8.35** in the semester after which the Medal or Prize is to be awarded.
- (ii) He/she has not failed in any subject at any stage during his/her academic career till the time of the award.
- (iii) No disciplinary action has been taken against him/her for any offence at any time prior to the award.
- (iv) He/she has not been punished under examination malpractice and involved in violation of code of conduct at any stage of the course in the Institute/Hall of Residence/School/Gymkhanaetc.

The medals and prizes awarded by the Institute are listed below. Specific rules that govern these awards have been mentioned against each. In the event of a tie between two or more students, their performance at the end of the immediately preceding semester will be taken into consideration for deciding the award. This criterion will be exclusively applied including using the All-India-Rank in the JEE till the tie is broken.

1. INSTITUTE GOLD AND SILVER MEDALS

(i) PRESIDENT OF INDIA GOLD MEDAL

This gold medal is awarded to the outgoing B.Tech. (Hons.) student who is adjudged to be the academically best, securing the highest CGPA at the end of the eighth semester for B.Tech. (Hons.).

(ii) INSTITUTE SILVER MEDALS

The silver medal is awarded to the outgoing B. Tech. (Hons.) students who secures the highest CGPA at the end of the 8th semester for B. Tech (Hons.) degree among the graduating students of each of the B. Tech. (Hons) course. (Ref.: Senate Appendix 9.C.A.5)

2. INSTITUTE PROFICIENCY PRIZES

The Institute will award one prize of ₹ 5,000.00, to be called as 'Proficiency in Project Work Prize', for the best Project work in each of the Undergraduate courses.

3. ENDOWMENT PRIZES

- (i) B. K. De Memorial Award (for most innovative project for graduating B. Tech students) (Ref: Senate Res. No. 21.C.A.3) Rules are given in Appendix-XI (A)
- (ii) Prof. P. Rama Rao Award (for the Best Lady Graduate) and Dr. K. Kasturirangan Award (for the Best Male Graduate)

The eligibility criteria are same as applicable for award of Institute Medals and Prizes, as given in **Appendix-XI**. The Cash award is given to the best lady graduate and best Male graduate every year from the "T V Mohandas Pai Endowment Fund".

(iii) Tejaswi Memorial Award and Dinesh Memorial Award

Tejaswi Memorial Award and Dinesh Memorial Award are given for the best B.Tech. Thesis from School of Electrical Sciences and School of Mechanical Sciences respectively. A cash awards of ₹ 10,000/- each for the best B.Tech. Thesis in Electrical Sciences and Mechanical Sciences are given from the endowment fund created by MGM Group, Odisha.

APPENDIX -XI (A)

RULES FOR B. K. DE MEMORIAL AWARD FOR MOST INNOVATIVE PROJECT

(Ref: Senate Res. No. 21.C.A.3)

1. Preamble

An endowment of Rs. 16.00 Lakhs has been created at IIT Bhubaneswar by Ms. Piyali De to institute a high value award for most innovative B.Tech. project in the memory of her father Late B. K. De, an eminent technologist and entrepreneur pioneering in fire protection and security domain. Life profile of B.K. De has been given in the Annexure.

2. Title of the Award and Presentation

The award will be entitled as "B.K. De Memorial Award for Most Innovative Project" to be presented to the recipient at the Annual Convocation.

3. Value of the Award

The value of the Award is rupees one lakh only.

4. Target Set of Students

The graduating B.Tech. students in every year, who would complete all the requirements for being awarded the Degree, will only be considered for the Award in that year.

5. Criteria for the Award

The sole criteria for selecting the recipient(s) of the award is the element of innovation involved in conceptualizing, designing and executing the final year B.Tech. project. The novelty may be manifested in the form of creation of an original idea and/or in the innovative implementation of an inventive or established concept resulting in a new product or process. Either the concept or the product or the process should preferably have the potential to generate an intellectual property.

Only those projects, which have been carried out by either a single student or at most two students jointly, will be considered.

6. Number of Awards

Normally only one project will be selected for the award. If the project has been carried out by a single student, the total Award money would be given to

Only as an exceptional case, at most two projects may be chosen as joint winners. In such a case, first the Award money will be equally divided among the two projects and then the amount allotted to a project will be shared by the recipients as per the previous paragraph.

No project may be selected for the Award in any particular year if no School forwards any project for consideration or no project forwarded by the Schools possesses the requisite merit as envisaged in Section 5. In such a case the Award money will be rolled back to endowment sum.

7. Selection Procedure

- In the beginning of each Semester, Dean, Academic Affairs would give a notification concerning the Award, which would be widely circulated to the students and faculty members of all the concerned Schools. It would be circulated to other Schools also as general information.
- II. In the first week of April every year, the Heads of the School offering B.Tech. programs will forward at most two project titles, which have the potential to win the Award, to the Dean, Academic Affairs, after consultations with all the Project Guides in the School in a formal meeting.
- **III.** The complete project reports are to be subsequently forwarded to the Dean, Academic Affairs, by a date to be fixed by him immediately before or just after the End 8th Semester Examination.
- **IV.** Composition of the standing Selection Committee for the Award would be as follows:
 - (i) Dean, Academic Affairs

-Chairman

(ii) Minimum three faculty experts, other than the concerned project guides, to be nominated by the Director

- Members

(iii) DR (Academic)/AR (Academic)

-Secretary

V. Within one week of the stipulated last date for receiving the contesting project, the Chairman of the Committee shall announce a date and schedule for an open presentation followed by demonstration of the projects by the contestants in presence of the Selection Committee. The date and schedule of presentation are to be widely circulated. Following the presentation and demonstration by all the contestants, the Selection Committee after due deliberations will decide the winner(s).

VI. The Chairman would take necessary action for placing the decision for ratification in the Senate and presenting the Award in the next Annual Convocation after Senate's approval.

8. Eligibility Criteria

A student is eligible for the Award if

- i) He/she has successfully completed all academic and other requirements as stipulated in the concerned Rules and Regulations to be eligible for the award of the B.Tech. Degree in the year under consideration.
- **ii)** He/she has completed the B.Tech. project in exactly two consecutive semesters as per the curriculum.
- iii) He/she, at any stage of his/her study, has not been penalized for violation of examination rules and/or code of conduct of the Institute/ School/ Hall of Residence/ Gymkhana or any other approved/ recognized students' body.
- **iv)** No disciplinary action has been taken or pending against him/her for any other offence done.

APPENDIX -XII

RULES FOR THE AWARD OF MERIT-CUM-MEANS AND INSTITUTE SCHOLARSHIP/ASSISTANTSHIP

(Vide **Clause 18(a)** of the Regulations)

A. MERIT-CUM-MEANS SCHOLARSHIP (To be included from Senate Res. No. Appendix: 32.A.C.10)

The Institute shall award scholarships on the basis of merit-cum-means to all eligible students of the 4-year B. Tech/B.Tech.(Hons.) and Dual degree courses, in accordance with the following rules:

1. All students admitted to any of the 4-year B. Tech/B.Tech. (Hons.) course, except the students belonging to SC and ST (who are eligible for Post-Matric Scholarship of their respective State Governments), who fulfill the conditions hereinafter appearing shall be eligible for the award of the Merit-Cum-Means (MCM) scholarship.

1.1 Eligibility Criteria: Appendix-XII (A)

- **2.** These scholarships will be awarded to not more than 25% of the students admitted each year to the Undergraduate and Dual Degree courses.
- **3.** The value of these scholarships shall be as determined by the Board of Governors from time to time.
- **4.** All MCM scholarship holders will be entitled to exemption from payment of Institute tuition fee. They shall, however be required to pay all other prescribed fees.
- **5. (a)** The MCM scholarships will be payable for all 12 months of the academic session, from the month of July of one year to the month of June of the following year.
 - **(b)** Scholarships for the month of July shall be paid in full regardless of the date in July when the Institute reopens after the Summer Vacation, provided the student joins the Institute on the prescribed date of registration. Otherwise, the scholarship for the month of July shall be paid on a pro-rata basis.
- **6.** No student will be permitted to enjoy more than one scholarship during the same period. In the event of an awardee becoming eligible for another

- scholarship from any other source, he/she will have the option to accept either of the two. In such a case he/she is required to communicate in writing his/her choice to the Dean of Academic Affairs.
- 7. The initial award of the scholarship and its annual renewal through proper application shall be governed by the following conditions:
 - (a) The student satisfies the merit criterion laid down for the award of these scholarships.
 - (b) The parent/guardian of the student satisfies the means criterion laid down for the award of the scholarship.
 - (c) No disciplinary action has been taken or pending against him/her during the preceding year.
 - (d) He/She has not been punished under examination malpractice and involved in violation of code of conduct at any period of time in the Institute/Hall of Residence/School/Gymkhana etc.
- 8. The merit criterion for the award of the scholarship shall be as follows:
 - (a) The guidance and mechanism of MCM for fresh entrants is given the Appendix-XII (A) (Ref: Senate Res. No. 21.C.A.3)
 - (b) For subsequent renewals, a student has to clear the prescribe credits of the preceding year and has to obtained a minimum GPA of 7.00 as updated after the supplementary / summer quarter examination. Otherwise the vacancy will be filled up by the fresh applicant.
- **9.** The upper limit of annual income as laid down by the Government of India from time to time shall be applicable as the means criterion for the award of the scholarships. The income during the financial year completed before the session commences shall be taken into consideration for this purpose.
- **10.** An employer's certificate/copy of the income tax return/income affidavit for the financial year preceding the grant or renewal of the award, as the case may be, shall have to be submitted by the parent/guardian of the student along with the application for the scholarship.
- **11.** In the event of a tie among two or more applicants for the award of the last available scholarship, every student involved in the tie will be awarded the scholarship even if the total number of scholarships exceeds the **25%** limit.
- **12.** The scholarship holder must (a) obey all the regulations laid down in the **Appendix-II** regarding attendance (b) appear in all the semester examinations

- except for illness or calamity in the family (to be supported by documents). In case of any breach the scholarship would be terminated.
- **13.** Outstanding Institute and Hall dues, if any, may be deducted at the source and the balance, if any, would be paid to the scholar.
- **14.** Those students who satisfy the specified means criterion but are unable to satisfy the specified merit criterion may be granted exemption from the payment of tuition fees. The number of such tuition-free students shall be restricted to 10% of the students admitted each year.
- **15.** In the event it is detected at any period of time that a student has availed the MCM scholarship by furnishing false documents or suppressed any material information leading to the grant of scholarship, the scholarship will be stopped immediately and inquiry will be conducted to verify the facts. The Standing Disciplinary Committee may in such cases submit its recommendation for the approval of the Chairman, Senate.

APPENDIX-XII (A)

RULES FOR B. K. DE MEMORIAL AWARD FOR MOST INNOVATIVE PROJECT

(Senate Res. No. Appendix: 32.A.C.10)

MECHANISM FOR AWARD OF MERIT-CUM-MEANS (MCM) SCHOLARSHIP TO THE B.TECH. STUDENT

For the first year B.Tech. students, 50% weightage to the computed JEE Score and 50% weightage to the score/percentage of marks in the qualifying examination shall be given.

 $JS \equiv Computed JEE (Advanced) Score$

 $\mathbf{QS} \equiv \mathbf{Score}$ from the Qualifying Examination



 $\mathbf{R} = \text{Rank in the JEE (Advanced)}$

L = Lowest rank of the student admitted to

IIT Bhubaneswar

 $\mathbf{H} = \mathbf{Highest} \, \mathbf{rank} \, \mathbf{of} \, \mathbf{the} \, \mathbf{student} \, \mathbf{admitted} \, \mathbf{to}$

IIT Bhubaneswar

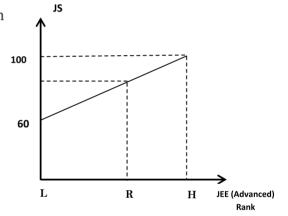
$$m = \frac{40}{H - L}$$

 $JS = m x (R-L) + 60$

QS = % of marks in the qualifying examination (or $CGPA \times 10$

Aggregated Score (AS) = $(0.5 \times JS) + (0.5 \times QS)$

- (a) The MCM Scholarship for the 1st year B.Tech. students will be decided based on the aggregated score.
- (b) For 2nd year, 3rd year and 4th year B.Tech. students, the MCM Scholarship will be decided based on the latest CGPA of the student.
- (c) The monthly stipend will be directly transferred to the individual student's bank account at the end of each month.



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