Rules & Regulations for undergraduate Programme B.Tech. 4-Year Degree Programme (URR-18)

(Applicable from the Academic Year 2018-19)

SYLLABI (I & II SEMESTERS)

VISION

To make our students technologically superior and ethically strong by providing quality education with the help of our dedicated faculty and staff and thus improve the quality of human life

MISSION

- To provide latest technical knowledge, analytical and practical skills, managerial competence and interactive abilities to students, so that their employability is enhanced
- To provide a strong human resource base for catering to the changing needs of the Industry and Commerce
- To inculcate a sense of brotherhood and national integrity

RULES AND REGULATIONS FOR UNDERGRADUATE PROGRAMME – B.TECH 4-YEAR DEGREE PROGRAMME (URR-18)

CHOICE BASED CREDIT SYSTEM (CBCS)

(Applicable from the academic year 2018-19)

1. INTRODUCTION

1.1 Kakatiya Institute of Technology & Science, Warangal (KITSW) is an UGC autonomous institute under Kakatiya University (KU) Warangal. The institute offers 4 year (8 semesters) Bachelor of Technology (B.Tech) degree programme, under choice based credit system (CBCS) with effect from the academic year 2018-19.

1.2 The provisions contained in these regulations given the conditions for imparting course of instructions, conducting examinations and evaluation of students performance leading to B.Tech. 4-year degree programme to be offered by the Kakatiya Institute of Technology & Science, Warangal and awarded by Kakatiya University, Warangal.

1.3 These regulations shall be called the ***Kakatiya Institute of Technology & Science, Warangal (KITSW) regulations for the award of B.Tech 4-year degree programme*** *by Kakatiya University, Warangal.*

1.4 They shall come into effect from the date of getting approval from the Academic Council of the Kakatiya Institute of Technology & Science, Warangal

1.5 They shall be applicable for all students enrolling for B.Tech 4-year degree programme at the Kakatiya Institute of Technology & Science, Warangal from the academic year 2018-19.

2. DEFINITIONS

2.1 ***"B.Tech."*** means Bachelor of Technology, an Undergraduate Degree awarded from the Kakatiya University, Warangal

2.2 ***"University"*** means Kakatiya University, Warangal

2.3 ***"Institute"*** means Kakatiya Institute of Technology & Science, Warangal

2.4 ***"UGC"*** means University Grants Commission, New Delhi

2.5 ***"AICTE"*** means All India Council for Technical Education, New Delhi

2.6 ***"MHRD"*** means Ministry of Human Resource & Development, Govt. of India, New Delhi

2.7 ***"TSCHE"*** means Telangana State Council for Higher Education, Govt. of Telangana, Hyderabad

2.8 ***"GB"*** means Governing Body of the Institute

2.9 ***"AC"*** means Administrative Committee of the Institute

2.10 ***"FC"*** means Finance Committee of the Institute

2.11 ***"Academic Council"*** means Academic Council of the Institute

2.12 ***"Principal"*** means Principal of the Institute

2.13 ***"Dean"*** means Dean of specific affairs of the Institute

2.14 ***"HoD"*** means Head of the Department of specific programme offered by the Institute

2.15 ***"BoS"*** means Board of Studies in the engineering of a specific programme offered by the Institute

2.16 ***"CoE"*** means Controller of Examinations of the Institute.

3. UNDERGRADUATE PROGRAMMES

3.1 The Institute shall offer the following Undergraduate Programmes under CBCS:

1. B.Tech., Civil Engineering (CE)
2. B.Tech., Mechanical Engineering (ME)
3. B.Tech., Electronics & Instrumentation Engineering (EIE)
4. B.Tech., Electrical & Electronics Engineering (EEE)
5. B.Tech., Computer Science & Engineering (CSE)
6. B.Tech., Electronics & Communication Engineering (ECE)
7. B.Tech., Information Technology (IT)
8. *B.Tech., Electronics Communication & Instrumentation Engineering (ECI)*
9. *B.Tech., Computer Science & Engineering (Networks) (CSEN)*

3.2 The provisions of these regulations shall also be applicable to any new undergraduate programmes that are introduced from time to time with approval from appropriate bodies such as MHRD / AICTE / UGC, etc.

4. ADMISSION

4.1 a) Candidates seeking admission to 1st year of the Four Year B.Tech. degree programme shall have passed the Intermediate Examination of the Board of Intermediate Education, Telangana with Mathematics and Physical Sciences (Physics and Chemistry) as optional subjects or any other examination recognized by the University as equivalent to it.

b) **Lateral Entry:** Candidates seeking admission directly into 2nd year of 4-year B.Tech. degree programme as **"Lateral Entry"** students shall have passed 3 year full-time Diploma (after 10th Standard/S.S.C.) offered by State Board of Technical Education and Training, Telangana or any other examination recognized by the University as its equivalent.

4.2 The Admissions shall be made in accordance with the guidelines issued by TSCHE.

4.3 **Change of Branch:** There is a provision for change of branch in B.Tech. III semester only in accordance with guidelines provided by Commissioner of Technical Education, Govt. of Telangana State. The change of Branch shall be strictly according to the merit list prepared by the Institute from the regular students on the basis of total marks obtained by the students in I and II semester examinations put together. Only those students who have passed in all the courses in single attempt, shall be eligible to apply for change of branch, provided there is a clear vacancy in a particular branch limited to prescribed / approved intake by AICTE in the previous academic session when the students were admitted at I semester.

Vacancy in a particular branch

= Approved intake – (No. of regular students + No. of repeaters)

5. ACADEMIC SESSION

5.1 Each academic session is divided into two semesters (odd and even), each of 16 weeks including two Mid Semester Examinations (MSE).

a) **Odd Semester**: From June/July to October/November of academic year. However, academic session of the first semester will be decided based on counseling schedule declared by the TSCHE.

b) **Even Semester**: From November/December to March/April of academic year.

5.2 The Institute shall announce the schedule for all the academic activities well before the commencement of the academic year and take all the necessary steps to follow them scrupulously.

5.3 The academic activities in a semester normally include registration, course work, Continuous Internal Evaluation (CIE), End Semester Examination (ESE) and declaration of results.

6. REGISTRATION

6.1 All the students are required to register in person at the beginning of each academic year on the dates specified in the academic calendar (almanac).

6.2 The sole responsibility for registration rests with the student concerned.

6.3 Registration of students will be centrally organized by the Academic Section.

6.4 The Registration procedure involves:

a) Filling-up of the prescribed registration form

b) Payment of fees and clearance of outstanding dues (if any)

c) Signing undertakings (undertaking for regular attendance, discipline and against ragging) along with the parents

6.5 If, for any compelling reasons like illness, etc., a student is unable to register on the announced day of registration, he/she can register within 12 working days from the beginning of the academic year on payment of an additional late fee as prescribed by the Institute.

6.6 **No late registration shall be permitted after 12th working day** from the scheduled date of commencement of class work for that academic year.

6.7 Only those students will be permitted to register who have

a) cleared all institute and hostel dues of previous semesters

b) paid all required prescribed fees for the current academic year

c) not been debarred / detained from registering for a specified period on disciplinary or any other grounds

d) cleared the minimum academic requirement as detailed in Regulation No. 15

7. CURRICULUM

7.1 The Model curriculum/ Course structure as suggested by AICTE, New Delhi; CBCS and Credit based semester system (CBSS) as denoted by UGC, New Delhi is followed for all UG programmes.

7.2 a) The duration of the programme leading to B.Tech degree will be 8 semesters (4 academic years)

b) However, for the lateral entry students, the duration of the program leading to B.Tech. degree will be 6 semesters (3 academic years)

7.3 The curricula for different degree programmes as proposed by the department and recommended by the BoS shall have the approval of the Academic Council.

7.4 As suggested by AICTE, the courses offered for UG programme are broadly classified as: Basic Science Courses (BSC), Engineering Science Courses (ESC), Humanities and Social Sciences including Management Courses (HSMC), Professional Core Courses (PCC), Professional Elective (PE) courses, Open Elective (OE) courses, Mandatory Courses (MC) and Project (PROJ) based courses.

7.5 The courses offered would have a ***Lecture – Tutorial – Practical (L-T-P)*** component to indicate contact hours. Separate laboratory (practical) course may exist (0-0-P) in certain cases as decided.

7.6 The academic programmes of the Institute follow the credit system.

7.7 Each course shall have credits(C), which reflects its weightage. The number of credits of a course in a semester shall ordinarily be calculated as under:

$$\textit{Number of credits of a course, } C = L + T + (P/2)$$

where ***L, T, P*** represent the No. of Lecture, Tutorial and Practical hours / week

7.8 The students admitted for B.Tech. programme under Lateral Entry scheme have to be offered a mandatory course on "Environmental Studies" in the 4th semester of B.Tech. programme.

7.9 **Course Code:** Each course offered in the Undergraduate (B.Tech.) curriculum at this institute shall be listed by using a total of 8 alpha numeric characters, as follows:

Ex: **U18ME106**

a) The first character represents the **U**ndergraduate Programme
Ex. U for Undergraduate Course

b) The next two numericals represent the year in which the syllabus is proposed / revised.
Ex. 18 for the year 2018 from which syllabus is applicable for the batches admitted from academic year 2018-19

c) The next two characters represent the department offering that course.
Ex. ME for Mechanical Engineering

d) The last three numericals represent the semester and the course number in which it is being offered.
Ex. XYZ; X - Semester number ; YZ – Course number
106 represents course number 06 offered in first semester

In general, a **course code** "**U18ME106**" represents an **Undergraduate Course number-06 for the batches admitted from the year 2018 offered by the Department of Mechanical Engineering in first semester.**

7.10 The syllabus of each course in the B.Tech. curriculum shall be divided into four (4) units.

8. ATTENDANCE

8.1 All the students are normally required to have 100% attendance in aggregate. However, condonation for shortage of attendance upto 25% may be granted by the Principal based on recommendation of HoD concerned.

8.2 The condonation for shortage of attendance upto 25% (as mentioned in Regulation No. 8.1) shall be taken up only when the student takes prior permission for his/her absence stating fully the genuine reasons along with supporting documents to the HoD concerned.

8.3 The students not fulfilling the mandatory requirement of minimum 75% of attendance in aggregate shall be detained and shall not be permitted to appear for the MSE-II & ESE of that semester.

8.4 All such students, who are detained, have to repeat the entire semester when it is offered by following the due registration procedure.

8.5 Attendance of all courses shall be entered, before the end of each working day by the faculty concerned, in the College Management System (CMS) portal of the institute website. Students and their parents are advised to monitor the status of their attendance through this CMS portal.

9. CONDUCT AND DISCIPLINE

9.1 All students shall be required to conduct themselves in a manner befitting the reputation of the institute, within and outside the premises of the Institute; and are expected to complete their studies without any break.

9.2 As per the order of Hon'ble Supreme Court of India, the ragging in any form is strictly banned. Involvement of a student in ragging will be considered as a gross indiscipline and may lead to his / her expulsion from the Institute.

9.3 Detailed rules regarding the conduct and discipline (code of conduct) are made available on Institute website.

10. EVALUATION PROCEDURE

10.1 The evaluation of students in every course of 4-year B.Tech. programme (8 semesters) and Lateral Entry students of B.Tech. programme (6 semesters), is a continuous process and is based on their performance in different examinations as mentioned below:

a) Sessional, involving **Continuous Internal Evaluation (CIE)** conducted all through the semester which includes **Teachers Assessment (TA)** through assignments and **Mid-Semester Examinations (MSE)**

b) Terminal, often designated as **End Semester Examination (ESE)** which includes written examination for theory courses and practical/ design/ drawing examination with built-in oral part for laboratory/ design / drawing courses.

10.2 A student's performance in a course (subject) shall be judged by taking into account the result of CIE and ESE together.

10.3 CIE and ESE shall have 40:60 weightage i.e. CIE carrying 40% weightage and ESE carrying 60% weightage.

10.4 **Continuous Internal Evaluation (CIE) for Theory Course**:

10.4.1 CIE throughout the semester shall consist of TA and MSE.

10.4.2 The distribution given to each component of CIE for a theory course is given below:

S. No.	Particulars	Weightage
1.	Teacher's Assessment (TA) (**Assignments and minor exams**)	10%
2.	Mid Semester Examination (MSE) **(MSE-I & MSE-II**)	30%
	Total Weightage	**40%**

10.4.3 **TA**: a) There shall be 2 Assignments and 2 Minor exams (Quiz/Slip test, etc.) for each course at regular intervals of time

b) Minor exam-I shall be based on Unit-I syllabus, Minor exam-II shall be based on Unit-III syllabus, Assignment-I shall be based on Unit-I & Unit-II syllabi and to be submitted before MSE-I, Assignment-II shall be based on Unit-III & Unit-IV syllabi and to be submitted before MSE-II.

c) Average of marks secured in Assignment-I, Assignment-II, Minor exam-I and Minor exam-II marks shall be taken under TA

10.4.4 **MSE**: a) There shall be two Mid Semester Examinations (MSE-I and MSE-II) of two hour duration each.

b) It is mandatory for the student to take both MSEs

c) MSE evaluation shall be done as given below:

MSE marks awarded = (70% of the best of MSE-I & MSE-II marks)
+ (30% of the other MSE marks)

Ex: A student secured following marks

MSE-I marks : 10 out of 30

MSE-II marks : 20 out of 30

MSE marks awarded = (70% of 20) + (30% of 10) = 14 + 3 =17

10.4.5 The marks obtained by the students in MSE must be submitted to the Controller of Examination (CoE) by the teachers within 1 week from the date of conduct of the examination.

10.4.6 The schedules for MSE and ESE will be declared by the CoE in consultation with the Dean, Academic Affairs.

10.5 **End Semester Examination (ESE) for Theory Course**:
There shall be an End Semester Examination (ESE) at the end of each semester for three hour duration for each course.

10.6 **Continuous Internal Evaluation (CIE) for Practical (Laboratory) Course:**

10.6.1 CIE for practical course shall carry 40% weightage.

10.6.2 CIE throughout the semester shall consist of the following:

Assessment	Weightage
Regular Experimentation / Job work and Viva-voce	20%
Regular submission of record	10%
Quiz / Skill test / Viva-voce at the end of semester	10%
Total Weightage	**40%**

10.7 **End Semester Examination (ESE) for Practical (Laboratory) Course:**

10.7.1 There shall be an ESE at the end of each semester for three hour duration for each practical course.

10.7.2 The ESE for practical course shall carry 60% weightage.

10.7.3 The marks distribution at ESE shall be as follows:

Assessment	Weightage
Procedure / Experimentation / Tabulation / Result, as applicable …	45%
Viva-voce	15%
Total Weightage	**60%**

10.8 **Continuous Internal Evaluation (CIE) for Seminar & Mini Project :**

10.8.1 **Seminar**:

a) The HoD shall constitute a *Departmental Seminar Evaluation Committee(DSEC)*

b) *DSEC* shall allot a faculty supervisor to each student for guiding on
(i) Selection of topic (ii) Literature survey and work to be carried out
(iii) Preparing a report in proper format and (iv) effective seminar presentation

c) There shall be only Continuous Internal Evaluation (CIE) for seminar

d) The CIE for seminar is as follows:

Assessment	Weightage
Seminar Supervisor Assessment	20%
Seminar Report	30%
DSEC Assessment: *Oral presentation (PPT) and viva-voce*	50%
Total Weightage:	**100%**

Note: It is mandatory for the student to appear for oral presentation and Viva- voce to qualify for course evaluation.

e) The student has to register for the Seminar as supplementary examination in the following cases:
i) he/she is absent for oral presentation and viva-voce
ii) he/she fails to submit the report in prescribed format
iii) he/she fails to fulfil the requirements of seminar evaluation as per specified guidelines

f) i) The CoE shall send a list of students registered for supplementary to the HoD concerned
ii) The DSEC, duly constituted by the HoD, shall conduct seminar evaluation and send the award list to the CoE within the stipulated time

10.8.2 **Mini Project**:

a) The HoD shall constitute a *Departmental Mini Project Evaluation Committee (DMPEC)*

b) Every student shall take up independent Mini project on innovative ideas. However, wherever not feasible, a group of 2 to 4 students shall be allowed to take up mini project. The *DMPEC* shall take a decision on number of students in a group.

c) *DMPEC* shall allot a faculty supervisor to each group for guiding on (i) selection of topic (ii) literature survey and work to be carried out (iii) preparing a report in proper format and (iv) effective mini project oral presentation.

d) There shall be only Continuous Internal Evaluation (CIE) for mini project

e) The CIE for mini project is as follows:

Assessment	Weightage
Mini project Supervisor Assessment	20%
Working model developed under mini project	40%
Final Report on mini project	20%
DMPEC Assessment: *Oral presentation (PPT) and viva-voce*	20%
Total Weightage:	**100%**

Note: It is mandatory for the student to appear for oral presentation and Viva- voce to qualify for course evaluation.

f) The student has to register for the Mini project as supplementary examination in the following cases:

i) he/she is absent for oral presentation and viva-voce
ii) he/she fails to submit the report in prescribed format
iii) he/she fails to fulfil the requirements of Mini project evaluation as per specified guidelines.

g) i) The CoE shall send a list of students registered for supplementary to the HoD concerned.

ii) The *DMPEC* duly constituted by the HoD, shall conduct Mini project evaluation and send the award list to the CoE within the stipulated time.

10.9 **Evaluation for Major Project Work:**

10.9.1 Major Project work shall be normally conducted in two stages: Major project work *Phase-I* in seventh semester and Major project work *Phase-II* in eighth semester.

10.9.2 **Major Project Work *Phase-I*:**

a) The HoD shall constitute a *Departmental Project Evaluation Committee (DPEC)*

b) There shall be only continuous Internal Evaluation (CIE) for Major Project *Phase-I*

c) CIE for the Major Project *Phase-I* in seventh semester is as follows:

Assessment	Weightage
Project Supervisor Assessment	50%
DPEC Assessment: *Registration Presentation, Progress presentation-I, Report submission, Oral presentation (PPT) and Viva-voce*	50%
Total Weightage:	**100%**

Note: It is mandatory for the student to appear for oral presentation and Viva- voce to qualify for course evaluation.

d) The student has to register for the Major Project Work *Phase-I* as supplementary examination in the following cases:

i) he/she is absent for oral presentation and viva-voce
ii) he/she fails to submit the report in prescribed format
iii) he/she fails to fulfil the requirements of Major Project Work *Phase-I* evaluation as per specified guidelines

e) i) The CoE shall send a list of students registered for supplementary to the HoD concerned

ii) The *DPEC* duly constituted by the HoD, shall conduct Major Project Work *Phase-I* evaluation and send the award list to the CoE within the stipulated time

10.9.3 **Major Project Work *Phase-II*:**

a) Student has to continue the Major Project work in 8th semester as Major Project Work *Phase-II*

b) The evaluation for Major Project work *Phase-II* is as follows:

Assessment	Weightage
Project Supervisor Assessment	30%
DPEC Assessment: *Progress presentation-II, Final presentation & Viva-voce and Final Project Report*	30%
End Semester Examination: *Oral presentation (PPT) & Viva-voce*	40%
Total Weightage:	**100%**

Note: It is mandatory for the student to appear for oral presentation and Viva- voce to qualify for course evaluation.

c) *DPEC* shall decide the course of action on the students, who fail to complete the Major Project work *Phase-II*, submit final project report and give oral (PPT) Presentation

10.10 **Evaluation for Internship:**

10.10.1 The students shall undergo 6-8 week internship during summer/winter vacation at industry/R&D organization / Academic Institutes like IITs & NITs

10.10.2 The students preferably shall undergo internship at one organization only. In case of any difficulty, the stipulated period of internship shall be completed at different organizations with minimum of one week internship at every stage

10.10.3 The internship evaluation shall be done in the VII semester of study and hence the students shall complete the prescribed period of internship before start of VII semester (from end of II semester to commencement of VII semester)

10.10.4 The internship evaluation shall be done by *Departmental Project Evaluation Committee (DPEC)* based on the report submitted by student and oral presentation

10.11 **Evaluation of MOOCs:**

10.11.1 a) **SWAYAM-MOOCs:** Massive Open Online Courses (MOOCs) are such online courses which are developed as per the pedagogy and made available on the SWAYAM (Study Web of Active-learning by Young and Aspiring Minds) platform of *Government of India.*

b) **SWAYAM** shall notify to all Institutions, on 1st June, 1st November every year, the list of online learning courses going to be offered in the forth coming semester.

10.11.2 a) The student shall be allowed to register for MOOCs courses for the designated Professional electives and Open electives mentioned in the curriculum.

b) The student shall select a relevant MOOCs course carrying 3 credits.

10.11.3 The Institutional MOOCs coordinator with the help of departmental MOOCs coordinator shall guide the students throughout the course.

10.11.4 **Evaluation and Certification of MOOCs**:

a) The Principal Investigator (PI) shall be a subject matter expert (SME) belonging to a reputed educational institution, called Host Institution.

b) The host Institution and PI shall be responsible for evaluating the registered students for MOOCs course.

c) After conduct of examination and completion of the evaluation, the PI through host institution shall award Marks/Grade as per the evaluation scheme announced.

10.11.5 **Credit Mobility of MOOCs**:

a) The Institute shall allow the credit mobility for the courses earned through MOOCs.

b) A certificate regarding successful completion of the MOOCs courses shall be issued through host Institution and sent to the parent institution.

c) The parent institution shall give equivalent credit weightage to the students for the credits earned through online learning courses through SWAYAM platform in the credit plan of the programme.

10.11.6 In case the student is unable to successfully complete the MOOCs course, he/she shall be allowed to select one of courses listed under respective PE/OE offered at institute/department concerned and appear for supplementary examination. In such case, the student is deemed to have passed the course, if he/she scores minimum 35% of maximum marks allotted to the course in the registered supplementary ESE only (i.e. 35 marks out of 60 in ESE)

11. MINIMUM REQUIREMENT FOR PASSING A COURSE

11.1 **Theory Course**: A student is deemed to have passed a theory course, if he / she secures

(a) 35 percent of marks assigned to End Semester Examination (ESE) **and**

(b) 35 percent of marks assigned to the Mid Semester Examination (MSE) & End Semester Examination (ESE) of the course taken together **and**

(c) 35 percent of marks assigned to Teacher's Assessment (TA), Mid Semester Examination (MSE) and End Semester Examination (ESE) of the course taken together.

11.2 The marks assigned to MSE will be considered as per the Regulation no. 10.4.4

11.3 **Laboratory Course**: A student is deemed to have passed a laboratory course, if he / she secures

(a) 35 percent of marks assigned to End Semester Examination (ESE) **and**
(b) 35 percent of marks assigned to the Teacher's Assessment (TA) and End Semester Examination (ESE) of the laboratory course taken together.

12. GRADING SYSTEM

12.1 The Institute shall follow absolute grading system.
At the end of the semester a student is awarded a letter grade for each of his / her courses taking into account the total marks secured (X) in that course. (X = Marks secured in CIE + Marks secured in ESE)

12.2 For arriving at a grade obtained by a student in a particular course (subject), initially numeric marks obtained by the student out of 100 are to be determined. Once a numeric mark is obtained, the same is to be converted to a letter grade following the guidelines given in 12.3 below.

12.3 The grades will be awarded to each course as under:

Grade	Total Marks Secured (X)
S	$X \geq 90$
A	$80 \leq X < 90$
B	$70 \leq X < 80$
C	$60 \leq X < 70$
D	$45 \leq X < 60$
P	$35 \leq X < 45$
F	$X < 35$

12.4 The typical grades and their numerical equivalents on 10-point scale (called Grade Points) are as follows:

Performance	Letter Grade	Grade Points (G_i)
Superior	S	10
Excellent	A	9
Very Good	B	8
Good	C	7
Average	D	6
Pass	P	4
Fail	F	0

12.5 **F-Grade** is a Fail Grade. The course in which the student has secured F-Grade will be termed as backlog course.

12.6 In addition, there shall be a transitional **M-Grade.** M-Grade for "Debarred" due to indiscipline / malpractice during examination.

12.7 A Semester Grade Point Average (SGPA) will be computed for each semester. The SGPA will be calculated as follows:

$$\text{SGPA} = \sum_{i=1}^{n} C_i G_i \Big/ \sum_{i=1}^{n} C_i$$

where 'n' is the no. of courses (subjects) offered (excluding mandatory non-credit courses) for the semester, 'C_i' is the credits allotted to a particular course, 'G_i' is the grade-points carried by the letter corresponding to the grade awarded to the student for the course as illustrated in 12.4.

12.8 The SGPA would indicate the performance of the student in the semester to which it refers. SGPA will be rounded off to the second place of decimal and recorded as such.

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

$$\text{CGPA} = \sum_{i=1}^{m} C_i G_i \Big/ \sum_{i=1}^{m} C_i$$

where 'm' is the total number of courses (subjects) the student has been offered from the first semester onwards upto and including the present semester, (excluding mandatory non-credit courses) 'C_i 'and 'G_i' are as explained in 12.7.

12.10 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. CGPA will be rounded off to the second place of decimal and recorded as such.

12.11 SGPA and CGPA are calculated in consideration of only credits cleared, i.e. F-Grade credits are not included for calculation.

13. SUPPLEMENTARY EXAMINATIONS

13.1 A student who obtained the F-Grade in a course (theory or practical) can appear in a subsequent End Semester Examination (ESE) in the same course as supplementary candidate.

13.2 However the marks secured in Continuous Internal Evaluation (CIE) by the student in that course during the semester study shall remain unaltered.

13.3 The students, who have passed in the supplementary examination, will be awarded grade with **'*'** marked on the courses passed in the supplementary.

13.4 **Makeup Examination for VIII semester courses:**
Makeup Examination for the students having backlog courses at VIII semester of 4 year B.Tech. programme shall be conducted immediately after the release of VIII semester regular examinations result.

14. REVALUATION

a) Revaluation is allowed for only theory courses.

b) If the award of the revaluator varies from the original award by less than 20% of maximum marks prescribed for the course, best of the two awards thus available shall be taken as final.

c) If the award of the revaluator varies from the original award by more than 20% of the maximum marks prescribed for the course, the answer script will be examined by the second revaluator. If the award of the both revaluators is more than 20% of the maximum marks, then average of the two awards thus available shall be taken as final. Otherwise, best of the original award and the second revaluator award shall be taken as final.

15. CONDITIONS FOR PROMOTION

15.1 A student shall have to satisfy the attendance requirements for the semester (as per the Regulation No. 8) for promotion to the next higher semester. In addition,

a) for promotion to the fifth semester, a student should not have more than four backlogs in the first and second semesters taken together.

b) for promotion to the seventh semester, a student should not have more than four backlogs in the courses of first to fourth semester taken together.

c) the grade (marks) secured in mandatory non-credit courses will not be counted for the purpose of backlogs. However, a minimum P-Grade is compulsory in those courses for the award of the degree.

16. IMPROVEMENT EXAMINATION

16.1 Students who wish to improve their SGPA / CGPA are permitted for SGPA / CGPA improvement only for theory courses. The student may opt to re-appear all the courses of a semester at the immediately succeeding End Semester Examination (ESE) for improving his / her grades. However, the students should pass all the courses of a particular semester in which he / she intends to take an improvement examination.

16.2 Further, once the student appears for the improvement examination he / she shall forego the grades secured in the earlier End Semester Examination (ESE) in the whole set of courses prescribed for that semester. However, the marks secured in Continuous Internal Evaluation (CIE) by the student in those courses during the semester study shall remain unaltered.

16.3 Students, who have appeared for improvement, will be awarded grade with **'$'** marked on the courses appeared for improvement examination. **'$'** will state the grade improvement. Such improved grades will not be counted for the award of Prizes, Medals and Rank.

16.4 However, the students who register for improvement examinations and wish to drop from appearing for the examinations, by written application to the CoE, before commencement of examinations, shall be permitted to retain their earlier grades.

17. GRADUATION REQUIREMENT

17.1 A student shall be declared to be eligible for award of the B.Tech. degree, if he / she has registered and completed all the courses with a minimum P-grade scored in every course

17.2 Normally a student should complete all the requirements consecutively in 8 semesters (4 academic years) for the award of B.Tech. degree. However, the students who fail to fulfill all the requirements for the award of B.Tech. degree within a period of 16 consecutive semesters (8 academic years from the registration in 1st semester) shall forfeit his / her enrolment to the program.

17.3 The students admitted in the lateral entry scheme should complete all the requirements consecutively in 6 semesters (3 academic years) for award of B.Tech. degree. However, the students who fail to fulfill all the requirements for the award of B.Tech. degree within a period of 12 consecutive semesters (6 academic years from the registration in 3rd semester) shall forfeit his / her enrolment to the program.

17.4 a) CGPA to Percentage conversion: The CGPA will be converted to percentage of marks as below:

Percentage of marks = (CGPA – 0.5) x 10

Ex: If CGPA is 6.5, the equivalent Percentage of marks = (6.5-0.5) x 10 = 60%

b) CGPA to Division conversion:

S. No.	Division	Eligibility Criteria
1	First Division with Distinction	a) Student should secure CGPA$\geq$8.0 b) Student should pass all the courses along with the batch of students admitted with him / her within 8 consecutive semesters (6 consecutive semesters for lateral entry students) c) Student who appeared for improvement examination upto 6th semester will also be considered for this division d) Student who has cleared any course in supplementary examination shall not be awarded Distinction
2	First Division	a) Student should secure CGPA, which is $6.5 \leq$ CGPA < 8.0 within the time frame of the programme i.e. 16 semesters (12 semesters in case of lateral entry students) b) Student who have cleared any course in supplementary examination and secured CGPA$\geq$6.5
3	Second Division	Student should secure CGPA, which is $5.5 \leq$ CGPA < 6.5 within the time frame of the programme i.e. 16 semesters (12 semesters in case of lateral entry students)
4.	Pass Division	Student should secure CGPA, which is $4.0 \leq$ CGPA < 5.5 within the time frame of the programme i.e. 16 semesters (12 semesters in case of lateral entry students)
5.	Fail	Student with CGPA < 4.0 will not be eligible for award of degree

17.5 A student will be eligible to get Under Graduate degree with Honours (or) additional Minor Engineering, if he/she completes an additional 20 credits. These 20 credits could be acquired through MOOCs/ NPTEL (These additional 20 credits earned through MOOCs/ NPTEL should be in addition to the credits acquired through SWAYAM - MOOCs offered in the curriculum as part of Professional Electives/ Open Electives).

17.6 The University will award degrees to the students who are evaluated and recommended by the Institute.

18. MALPRACTICE IN EXAMINATION

18.1 Malpractice in examination is an illegal activity and is prohibited.

18.2 Mobile phones and any other electronic devices which can be used for communication are strictly prohibited in the examination hall.

18.3 Exchange of question paper and material like pen, pencil, sharpener, eraser, scale, calculator, etc., during examination is strictly prohibited.

18.4 Malpractice in examination is viewed very seriously. Malpractice includes oral communication between candidates, possessing forbidden material, mobile phones (switched off/on) etc.

18.5 Any malpractice or engaging in any improper conduct and violation of the examination code by the student during examinations is liable for the punishment as given below:

S. No	Nature of Malpractice	S. No	Punishment
1.	Taking help from others, consulting and or helping other examinees during the examination period inside the examination hall or outside it, with or without their consent or helping other candidates to receive help from anyone else	a)	Cancelling the examination of the paper in which he / she indulged in malpractices
2	If the examinee attempts to disclose his / her identity to the valuer by writing his / her Hall-Ticket Number at a place other than the place prescribed for it or any coded message including his / her name or addressing the valuer in any manner in the answer book		Cancelling the examination of the paper in which he / she indulged in malpractices
3.	Candidate is found in possession of forbidden material; relevant or not relevant but not used	b)	Cancellation of the result of (i) all examinations taken including current examination in that session (or) (ii) current examination and proposed to be taken during that session (or) (iii) current examination
4.	Destroying the material found in his / her possession or acting in any other manner with a view to destroying evidence	c)	Cancellation of the result of all examinations taken or proposed to be taken during that session and prohibiting his/her admission to or continuation in any course of the Institute for a period of one year. The student will be eligible to appear for the next corresponding semester / year examination in the succeeding academic year
5.	Smuggling main answer book / additional answer book / question paper / matter in to or out of the examination hall & Conspiring to interchange Hall Ticket Numbers		-do-
6.	Candidate is found in possession of forbidden material, relevant or not relevant but used		-do-
7.	In case of (i) impersonation, (ii) misbehavior with the invigilators/any person related to examination work, (iii) insertion of written sheets in different hand writing in the main/additional answer book, and (iv) creation of disturbance in and around the examination hall during or before the examination	d)	Cancellation of the result of all examinations taken or proposed to be taken during that session and prohibiting his/her admission in to or continuation in any course of the Institute for a period of two years. Further, the candidate shall not be allowed to appear for any examination during the period of punishment
8.	If a candidate is found guilty of malpractice in the improvement examination (after completion of course)	e)	Punishment will be awarded subject to the above rules and further, he/she will not be permitted to appear for further improvement examination

19. ROLL NUMBER ALLOTMENT

The Roll Number given to the student shall have a total 8 alpha numeric characters as follows:

Ex: **B18CE108**

a) The first character represents Bachelors (B.Tech.) degree programme.
Ex: B for B.Tech. programme

b) The next two numericals represent the year in which the student admitted into I semester.
Ex: 18 for 2018

c) The next two characters represent the concerned department to which the student belongs.
Ex: CE for Civil Engineering

d) The last three numericals represent the three digit roll number of the student.

In general, a **student with roll number** "**B18CE108**" represents a **B.Tech. Student of Civil Engineering department admitted in the year 2018 bearing a roll number of 108.**

20. AMENDMENTS

Notwithstanding anything contained in this manual, the Academic Council of the Institute reserves the right to modify / amend the curricula, requirements and rules & regulations pertaining to its undergraduate programmes, without any further notice.