INSTITUTE OF INFRASTRUCTURE TECHNOLOGY RESEARCH AND MANAGEMENT- AHMEDABAD

M. TECH. NORMS

CONTENT SHEET

1. Introduction

IITRAM offers a semester based undergraduate, postgraduate and research programs with the following objectives:

i. to provide a system of technical education capable of responding to change requirements of Technical Manpower

ii. to bring about qualitative improvement in teaching and learning process

iii. to inculcate the practice of creating instructional experiences which make the acquisition of knowledge and skill more efficient and effective

iv. to facilitate and promote studies leading to award of degrees, diploma and certificates

v. to organize advance studies and promote research with a focus on basic and Applied Sciences, Engineering, Technology and Management

vi. to achieve excellence in Science, Engineering, Technology, Management and allied areas and matters connected therewith or incidental thereto

vii. to provide necessary help to encourage entrepreneurship amongst students

viii. to maintain live contact with Alumni and develop Alumni sponsored programmes

ix. to promote research, teaching methodology, application of scientific knowledge in the field of infrastructure

x. to help foster bond between research and academic institutions and infrastructural development agencies for better planning, management, execution, maintenance and standards of infrastructure

An academic year starts in the month of August each calendar year and ends in the month of July of the next calendar year. Each academic year is divided into Autumn semesters and Spring semesters.

2. Academic Administration

The Academic Council of the Institute governs all academic matters of the Institute, it is a supreme Academic body, and the rulings of Chairman of the Academic Council of the Institute are final concerning routine academic issues. Certain policy decisions on academic matters are discussed and approved by Board of Governors. A definite time schedule is set by the Academic Council for various academic activities, through an Academic Calendar issued in the beginning of each academic year. Dean / Associate Dean of Academic Programmes

(DOAP/ ADOAP) and Dean / Associate of Student Affairs (DOSA / ADOSA) are the two deans who steer all academic programs of the Institute. Matters pertaining to conduct, discipline and welfare of the students are overseen by the Dean of Students' Programmes.

Dean / Associate Dean of Academic Programmes (DOAP / ADOAP)

Dean/ Associate Dean of Academic Programmes (DOAP / ADOAP) addresses all the matters concerning student's academic. The office of the DOAP / ADOAP ensures the implementation of the decisions taken on academic matters by the Academic Council.

- DOAP/ADOAP acts as a nodal source of academic activities related communication, disseminates information pertaining to all academic matters.
- DOAP/ADOAP receives processes and is custodian of all records related to all academic programs including curricula, courses offered, academic calendar, registration, leave, examinations, grades and award of degrees.
- DOAP/ADOAP ensures the conduct of all academic programs including the formulation of rules and ensuring the adherence of such rules.
- DOAP/ADOAP handles the process of the admission of undergraduate and postgraduate students.

Dean/ Associate Dean of Students Affairs (DOSA/ ADOSA): All the issues pertaining to conduct, discipline and welfare of the students, which are non-academic in nature, are addressed by DOSA.

Head of the Department/Department Coordinator: Each department shall have Head / Co-ordinator of the Department, to be appointed by Director General for a nominal period of three years.

Faculty Advisor (FA): A faculty member assigned by the academic department regularly observes the academic performance of students assigned to her/him from her/his department. Based on the performance of a student, s/he may recommend overloading /reduction in academic load, semester drop, etc. S/he may suggest /advise special courses for a student. Department (s) may decide to have more than one FA.

Role of Faculty Advisor:

A student/students joining the Institute is/are assigned a Faculty Adviser. A student is expected to consult the Faculty Adviser on any matter relating to her/his academic performance and the courses s/he may take in various semesters for the required degree. Faculty Adviser is the person whom the parents/guardians contact for performance of their wards.

FA advises the students on effective utilization of available opportunities to students for accomplishing her/his academic dreams, and hence constant consultations with the Faculty Adviser are imperative. The role of the Faculty Advisor is to:

(i)   Guide the students about the rules and regulations governing the courses of study.

(ii)   Advises the students to register for courses as per the curriculum based on the performance of the student.

(iii) Ensure that students do not re-register for courses, which they have already passed.

(iv)   Make students aware that grades will not be awarded for any academic activity (course/Lab/seminar/ project/ non-credit requirement, etc.) without approved registration.

(v)   Approve the registration of the students.

(vi)   Monitor the performance of the students and recommend overloading /reduction in academic load.

(vii) Monitor the performance of academically weak students and advise /recommend them on course adjustment / drop during the semester.

(viii) Advise the students seeking a semester drop about rules and regulations laid down for this purpose. She/he recommends such cases to the Program and Performance Assessment Committee (PPAC) through the Department Program and Performance Assessment Committee (DPPAC), for consideration.

(ix)   Strictly warn students that if s/he fails to register during any semester without prior approval, her/his studentship is liable to be cancelled.

Department Program and Performance Assessment Committee (DPPAC):

Every Academic Department shall constitute a committee consisting of Faculty Advisors to look after all the academic matters pertaining to that Department. The committee shall be responsible for considering teaching (UG and PG) and research programs of the Department. The committee shall formulate academic programs and courses as proposed by the Department and send its recommendation to Dean/Associate Dean of Academic Programmes for consideration in PPAC. The committee shall also be responsible for considering the performance evaluation of UG and PG students of the Department in every semester. There shall be two separate committees for UG and PG

DPPAC (UG) nominally constituted once every two years with the following composition;
  a. Head / Coordinator---Ex officio Chairman
  b. Members - 3 Faculty Advisors
  c. *Member invited- 1 - Student representative, term one year, no voting right

DPPAC (PG) nominally constituted once every two years with the following composition;
  a. Head / Coordinator---Ex officio Chairman
  b. Members - 3 Faculty Members
  c. *Member invited- 1 - Student representative, term one year, no voting right

*Student member will not be invited to meetings when assessment is being discussed.

Programme and Performance Assessment Committee (PPAC):

PPAC, constituted by DG shall have participation of all academic programs of the Institute. It shall consider all the academic programme related matters of UG and PG recommended by various Head / Coordinator of the academic programs through DPPAC.

- PPAC shall recommend the policy framework related to the UG and PG Programs offered by the Institute. The committee shall formulate academic programs and courses as recommended by the Department.
- PPAC shall evolve guidelines for evaluation of academic performance of UG and PG students every semester.
- PPAC shall be responsible to decide the academic plan for students with backlogs.
- Director General shall nominate the PPAC, it shall consist of

1. Member: One Faculty member from each of academic program

2. Member: DOSA / ADOSA / **Nominated member**

3. Chairman: DOAP/ADOAP

The total number of members shall not exceed fifteen at any given time. The committee shall send its recommendation to DG.

• A subcommittee of PPAC consisting of following members nominated by the DG shall ensure the timely declaration of the result of each semester:

1. Members: One Faculty member from DPPAC of each academic program

2. Member: Examination Convener

3. Chairman: DOAP/ADOAP

ADOAP will constitute this committee and get approved from DG.

3. Programmes of Study

The M. Tech. programme consists of courses in relevant disciplines of their specialization. These courses are from two broad categories of courses. The first category consists of a one or more General courses, giving exposure of Research Methodology in General and other allied areas. In the Second category, students are exposed to the subjects in their chosen specialization (or field) of study. Apart from courses, it is mandatory for each student to take one seminar course and dissertation in the second year.

3.1 Current Programmes

Masters of Technology (M. Tech.) degree program wherein a student is admitted as per the admission process is currently offered in the following departments;

• Civil Engineering – With specialization in

   (1) Urban Infrastructure (2) Geotechnical Engineering

• Electrical Engineering – With specialization in

   (1) Electrical Infrastructure (2) Communication Infrastructure

• Mechanical Engineering – With specialization in Industrial Infrastructure

3.2 Curriculum

Every department has a prescribed course structure for its UG and PG courses. It prescribes all the courses, laboratories, and other requirements for the degree. It also decides the progression of courses, gives the syllabus and a list of text/ reference book for each course.

3.3 Semesters

An academic year starts in the month of August each calendar year and ends in the month of July of the next calendar year. Each academic year is divided into three semesters – Autumn, Spring and Summer semesters. The Autumn and Spring semesters are two regular semesters while the Summer semester is a shorter semester.

3.4 Duration

The minimum duration for the programme is 4 semesters and the maximum duration is 3 years.

3.5 Course credit structure

For acquiring a particular degree, the student is required to put in a certain quantum of academic work, which will be measured in terms of credits. A student earns credits by successfully completing courses and other academic requirements every semester. The amount of credit associated with the course is dependent upon the number of hours of instructions per week in that course. Similarly, the credit associated with any of other activities is dependent upon the quantum of work expected to be put in.

(i)   Theory and Laboratory courses: Courses are broadly classified as Theory courses and Laboratory courses. A theory course consists of Lectures (L), and tutorial (T) hours. Practical (P) hours may be there in special cases. Laboratory courses consist of practical hours and may have tutorial hours in special cases. Credit (C) for a course is dependent on the number of hours of instructions per week in that course.

 (ii) Seminar: Seminar is a course wherein under the guidance of a faculty member, the student is expected to do an in-depth study in a specialized area. There will be a seminar presentation by the student, before a panel constituted for the purpose by the department. The panel will evaluate the performance of a student.

(iii) M. Tech. Dissertation: Under the guidance of a faculty member(s), a student in the M. Tech. third semester or later is required to do some innovative work related to his branch (or field).

(iv) Field Visit(s): A department may prescribe field visit(s) as an integral part of the subject. Students are taken through conducted tours to various industries, places of exemplary infrastructure to study various technologies employed by industries. Field visit(s) carries no credits and is evaluated as pass (PP) or not pass (NP).

3.6 Credit requirements

Each student is required to pass the prescribed minimum courses of the curriculum for his/her programme and fulfil the credit requirement in the range of 75-85, according to the structure prescribed by each discipline/department. Minimum number of credits is normally divided into credits at compulsory courses, credits at Institute requirement and credits at Department requirements. The courses generally progress in sequences. Hence, some courses may require passing in certain courses as prerequisites. Students are expected to follow the semester-wise schedule of courses given in the Course of Study. However, they may choose alternative schedules by adding additional courses. For students with backlog courses, rescheduling may become necessary. Such deviations should be done very carefully and always with the advice from Department.

4. Registration

Registration at the beginning of each semester on the prescribed dates announced in the Academic Calendar is mandatory for every student till he/she completes his/her programme. If a student does not register in a particular semester without prior permission of the Program and Performance Appraisal Committee (PPAC), his studentship is liable to be cancelled. Students are not permitted to re-register for the courses which they have already passed. Without registration, any academic activity undergone by a student will not be counted towards the requirements of his/her degree.

4.1 Semester wise registration

Students should register for prescribed courses with approval from Convener, DPPAC of their respective department. A student is required to register for all the courses listed in the curriculum for two semesters. From third semester onwards, the registration is dependent on the academic performance of a student in earlier semesters.

Practical trainings, field visits, projects also require prior registration. Since field visits involve logistics like permission from enterprises for the visits, transport arrangements etc., a student can only register for field visits during semester time (and not during the vacations).

4.2 Dropping of semester

A student may drop an entire semester with prior approval of Department Program and Performance Appraisal Committee (DPPAC) due to the following reasons:

a) During a semester, if a student finds that he/she is unable to cope with the studies and/or does not have sufficient exposure to most of the courses registered in that semester due to severe health problem(s) or some other valid reasons beyond his/her control., he/she can opt to drop the entire semester on advice from the Faculty Advisor and with the recommendation from Convener, DPPAC. All these cases must be approved by the PPAC. In case of severe health problems, medical certificate(s) issued by designated Medical Officer of IITRAM is essential. If the medical certificate issued by other hospitals, and/or private practitioners, the certificate should be duly authenticated by the Medical Officer at IITRAM.

b) If a student wants to work in an industry with the aim to gain valuable work experience, he/she may opt for dropping a semester.

c) A student will not be permitted to drop a semester after the awards of XX grade in end semester examination.

d) If a student drops the semester after the date of late registration, fees paid for that semester will not be refunded or adjusted in subsequent semesters. However, if a student drops the semester before the date of late registration, he/she has to pay the semester continuation fee for that semester. Semester continuation fee is equal to the 20% of the total stipulated fee, which is prescribed from time to time by institute.

e) Such break from studies is normally not permitted for a continuous period in excess of one year.

f) Hostel accommodation and other institutional facilities will not be extended in any semester for which the student has not registered.

5. Dissertation

5.1 Dissertation Allotment

(i)   All students shall be required to register for prescribed thesis credits requirement as per the academic program structure. They must choose their topic/ supervisor(s) as early as possible, preferably prior to start of the thesis work.

(ii) Each student will have a thesis supervisor from the faculty of parent department to which student is admitted. In addition, Co-supervisor(s) from the same department / other department may be co-opted by the supervisor with the approval of the DPPAC.

(iii) If a student is working on a field / industry based project, the supervisor shall be from the parent department and co-supervisor can be from the organization where the project is pursued.

(iv) The thesis work will be evaluated in the III and IV semesters. The thesis grades shall be communicated to Dean / Associate Dean of Academic Programme by the DPPAC convener in consultation with supervisor (s).

5.2 Constitution of M Tech. Dissertation Project Oral Examination Committee

The dissertation/project will be examined in two stages with following members for evaluation:

(i)   First Stage: (a) Chairman DPPAC / Nominee of Chairman (b) Supervisor(s) & (c) One Internal Examiner at the end of M. Tech. 3rd Semester.

(ii) Second Stage: The evaluation will be done by the Dissertation Evaluation Committee (DEC) appointed by DPPAC. The committee shall consist of

   a. Thesis supervisor(s)
   b. Internal Examiner
   c. External Examiner, Approved by Dean / Associate Dean of Academic Programmes
   d. Chairperson: Department Coordinator / Senior Faculty Member from another department

(iii) The dissertation will be examined by Dissertation Evaluation Committee formed by the thesis supervisor(s) in consultation with the Co-ordinator of the Department. It must be recommended by the DPPAC and approved by the Director / Director General.

(iv) Upon the advice of Department Dissertation Evaluation Committee (DEC), a student will compile the work done, shall submit a written thesis for wholesome evaluation, as per the institute norms, in consultation with the thesis supervisor(s).

5.3 Submission and Evaluation of Dissertation

(i) Students are required to submit a soft bound copy of the dissertation to the supervisor for perusal and modification, if any.

(ii) The dissertation will be examined by an oral examination committee formed by the supervisor(s) in consultation with the Co-ordinator of the Department. The oral examination committee for M. Tech. thesis evaluation must be recommended by the Dean/ Associate Dean of Academic Programmes and approved by Director.

(iii) After the M. Tech. oral examination committee has been constituted, four (4 No.) loose bound copies of the thesis/project report one for each examiner of the oral board; will be submitted to Department, at least three weeks before the probable date of oral examination.

(iv) The concerned Department will arrange to send the copies of the thesis to the examiners. Two copies of the abstract (approximately 250 words) should also be submitted along with the thesis report. The members of the oral board must get the copy of the thesis at least a week prior to the schedule date of oral examination.

(v) The student shall be required to make a presentation of the thesis / project work to the department dissertation evaluation committee.

(vi) The vivavoce is to be conducted under departmental arrangements.

(vii) Forms for submission of Dissertation, duly completed must be deposited to the Academic section along with the provisional clearances from Accounts Section and from Hostel.

(viii) Final grade reports are to be submitted by the committee of examiners to the Head of the department / Department Coordinator, which in turn submits it to the Academic section on completion of vivavoce.

Late Submission of Dissertation: Whenever at any stage Dissertation is not submitted before the last date as specified in the academic calendar, the student is required to:

a) Make specific request for extension at least 15 days before the last date of submission with justification (without grade restriction) up to a specific date for submission.

b) Pay the Institute fees for the next semester.

c) Formally register for that semester.

6. Attendance and Leaves

6.1 Attendance

Attendance in the class is compulsory and is monitored. For every student, the institute expects full attendance during every semester of degree programme. However, due to minor illness and other reasons, absence upto 15% is considered on case to case basis. A student not having 85% attendance in a course will not be allowed to appear in the end semester examination and XX grade will be awarded in this case. The student is required to register for the same course in subsequent semesters.

6.2 Leaves

Postgraduate students shall be required to take appropriate leave of absence prior to leaving from the campus.

(i) Postgraduate students shall be permitted vacation leave of up to 30 days in an academic year. They shall be permitted to suffix or prefix Institute holidays to such vacation leave.

(ii) No student shall be allowed more than 9 days of absence from the Institute (including prefix or suffix of the Institute holidays).

(iii) Postgraduate students shall also be permitted casual leave of up to 8 days during the year with the permission to suffix Institute holidays to such leaves.

(iv) A female student shall be granted maternity leave as per the government rules.

(v) Absence without sanctioned leave may result in the termination of the student's program.

(vi) Absence without sanctioned leave may also entail loss of financial assistantship/scholarship for the period of absence.

6.2.1 Medical Leave

M. Tech. students may avail maximum of 8 days per semester and 4 days during the summer term leave on medical ground, duly supported by a medical certificate. Leave not availed may be carried over to the next semester/summer term. However, at a stretch, the medical leave shall not exceed 15 days during a semester and 8 days during the summer term. Such leave shall not entail any loss of financial assistantship.

6.2.2 Medical Certificate

If a student falls ill while on the IITRAM campus, the medical certificate must be obtained from the Institute's medical officer. If s/he falls ill outside the campus while on sanctioned leave, the medical certificate must be obtained from a registered medical practitioner.

If a registered student is absent on sanctioned leave for a period of 4 weeks or more during a semester or one week or more during the summer term at a stretch, Institute PPAC may decide to convert the leave to a semester/term leave, or reduce the thesis credits (in blocks of 4 credits) appropriately, in case the student is registered only for thesis credits.

6.2.3 Semester/Summer Term Leave

M. Tech. students may be sanctioned leave for up to a maximum of two semesters and a summer term for valid reasons, provided the student has completed her/his minimum total credit requirements and has spent two semesters and a summer term in the programme. However, on medical considerations such leave may be sanctioned after her/his stay of one semester. Leave for more than one semester/term at a time will not be granted.

6.2.4 Absence without Sanctioned Leave

Absence without sanctioned leave will entail loss of financial assistantship for the period of absence, and may result in the termination of the student's programme on the recommendation of the DPPAC and approval of Dean / Associate Dean of Academic Program.

6.3 Permission to Proceed for Academic Activities like field work

The M. Tech. students can be permitted to proceed for academic activities outside IITRAM to carry out field work, library work, computational work, experimental work, and Laboratory works, and also to attend conference, courses and to undertake other research work etc. as recommended by the department. Permission for duration up to 30 days may be sanctioned by the department with intimation to Dean/ Associate Dean of Academic Program and more than 30 days by the Chairperson, PPAC on the recommendation of the Department.

7.0 Evaluation System

7.1 Evaluation for theory courses

Various modes of assessment are used for rating student performance in theory course. These include quizzes, class tests, home assignments, group assignments, term project, viva-voce, mid semester and end semester examinations. Instructor may offer take home test or open book test. Relative weightage for in-semester evaluation is typically between 50-60%. This will consist of one mid semester test of minimum two hours duration of about 25-30% weightage to be held as per schedule fixed in the Academic Calendar. Two quizzes (or one quiz and one test), home assignments, group assignments, term project(s), viva-voce shall make up the rest of the assessment.

The end semester examination will be held as per the schedule fixed in the Academic Calendar and the relative weightage will be 40-50%. It is normally of three hours duration and will cover the full syllabus of the course but not necessarily close book only. The semester end examination is mandatory. The instructor awards an XX grade for those students not appearing in the end semester examination if they have sufficient attendance and satisfactory in-semester performance. Students are eligible for an end semester re-examination only on medical grounds authenticated by designated Medical Officer at IITRAM.

7.2 Evaluation for practical examination

The assessment in a laboratory course will be based on turn-to-turn supervision of the students work, her/his performance in viva voce examinations and group discussions. It is obligatory to maintain a laboratory journal as prescribed by the course instructor. In-semester work will normally carry 75% and the semester-end test 25% weightage respectively. The end semester test may consist of a written test and/or experiment(s). Final examination for laboratory courses will normally be held a week before the final theory examinations. In case of absence from end semester examination, the same rule as those for theory courses is applicable.

7.3 Evaluation of seminars

Seminars are evaluated based on a written report, and an oral presentation before a panel of examiners appointed by the DPPAC on the recommendation of supervisor. The supervisor /co-supervisor, when involved, are part of the panel. Grades carrying grade points are awarded based on the quality of the report and performance in the presentation. The evaluation of the seminars should be completed so that the grades can be submitted to the academic office one week before the commencement of the end semester examination.

7.4 Grading
7.4.1 Grades

For every course taken by a student, he/she is assigned a grade based on his/her combined performance over a semester in all the assessments in that course. These grades are described by the symbols AP, AA, AB, BB, BC, CC, CD, DD, EE, FR, XX, PP, NP and II. Each of these indicates a qualitative assessment of the students' performance and also carries the quantitative (numeric equivalent) called the grade point on the scale of 10 as per Table 1.

Table 1: Grade Points

Letter Grade	Grade Point	Remarks
AP	10	Academic Excellence
AA	10	Outstanding
AB	9	Excellent
BB	8	Very good
BC	7	Good
CC	6	Average
CD	5	Below average
DD	4	Marginal; Minimum passing grade
EE	0	Poor, to repeat /re- appear in exam.
FR	0	Need improvement- Repeat the course
XX	0	Fail due to lack of attendance
PP	Pass	Do not carry any grade point
NP	Not Pass	Repeat the course or activity
II	--	Incomplete (due to illness)

PP grade is not used for the calculation of CPI/SPI.

7.4.2 Description of grades

AP – Grade for Academic excellence: AP grade can be awarded to less than or equal to 2% (or 1 in a course of student strength less than 50) of student strength with a Grade Point of 10 with a line of justification from a faculty member.

AA grade is awarded to students for outstanding achievement. Individual course coordinators may set a criterion for awarding an 'AA' grade. DD grade stands for marginal performance; i.e. it is the minimum passing grade in any course and the percentage requirements may be set different for different courses. Other grades vary between 'AA' and 'DD' as described above.

EE – Grade for Students who failed to meet the passing requirements by less than or equal to 10% of passing marks. EE – Grade can be awarded to students who failed to meet the passing requirements by less than or equal to 10% of passing marks, but have satisfactory performance in the semester. They would be allowed to appear for a make-up examination as described earlier. Such students can be offered a maximum of a 'DD' grade on clearing the course.

II – Grade to support candidates who missed the exams due to illness. II Grade can be awarded when a student does not appear for the final examination but has satisfactory performance

in the semester. In such a case the student can appear for the make-up examination as described earlier, provided he/she produces a medical certificate from the institute doctor or a proof of emergency. In such case, there would not be any upper cap of grade for that course. An `II' grade must, however, be converted by the Instructor-in-charge into an appropriate letter grade and communicated to the undergraduate office by the last date specified in the Academic Calendar. Any outstanding `II' after this date shall be converted automatically into an FR grade. In the case of project courses `II' may not be awarded for mere non-completion of the project due to lack of facility etc.

7.4.3 SPI and CPI

In order to graduate, a student must clear all courses as per the respective programme curriculum, satisfying the minimum credit requirement in each course category.

7.4.3.1 Semester Performance Index (SPI)

The performance of a student in a semester is indicated by a number called Semester Performance Index, SPI. SPI is the weighted average of the grade points obtained in all the courses registered by the student during the semester. For example, if a student passes courses (theory / laboratory / Projects / Seminar etc.) in a semester with credits $C1, C2, C3, C4,$ and $C5$ and her /his grade points in these courses are g1, g2, g3, g4, g5 respectively, then her/his SPI is equal to

$$SPI = \frac{C1g1 + C2g2 + C3g3 + C4g4 + C5g5}{C1 + C2 + C3 + C4 + C5}$$

The SPI is calculated to two decimal places. The SPI for any semester will take into consideration the FR grades awarded in that semester. For example, if a student has failed in course 4, the SPI will then be computed as:

$$SPI = \frac{C1g1 + C2g2 + C3g3 + C4 * zero + C5g5}{C1 + C2 + C3 + C4 + C5}$$

The courses which do not form the minimum requirement of the degrees will not be considered for calculation of the SPI. Such additional courses undertaken and the grades earned by the student will be shown separately.

7.4.3.2 Cumulative Performance Index (CPI)

An up to date assessment of the overall performance of a student from the time s/he entered the Institute is obtained by calculating a number called the Cumulative Performance Index, CPI, in a manner similar to the calculation of SPI. The CPI, therefore, considers all the courses registered by the student, towards the minimum requirement of the degree s/he has enrolled for, since s/he entered the Institute. The CPI is calculated at the end of every semester up to two decimal places.

The CPI will reflect the failed status in case of FR grade(s), till the course(s) is/are cleared. When the course(s) is/are cleared by obtaining a pass grade on subsequent registration(s) the CPI will only reflect the new grade and not the fail grades earned earlier.
Example: Up to semester 'X' a student has registered for n courses, among which s/he has an "FR" grade in course i. The semester grade report at the end of semester 'X' therefore will contain a CPI calculated as:

$$CPI = \frac{C_1 g_1 + C_2 g_2 + C_3 g_3 + \cdots + C_i * zero + \cdots C_n g_n}{C_1 + C_2 + C_3 + \cdots C_i + \cdots C_n}$$

Even if a student has failed in a course more than once, the course will figure only once in the numerator as well as the denominator.

At the end of semester 'X'+1 s/he has registered for four more courses including the backlog courses and has cleared all the courses including the backlog course, the CPI at the end of this semester is calculated as:

$$CPI = \frac{C_1 g_1 + C_2 g_2 + C_3 g_3 + \cdots + C_i g_i + \cdots C_n g_n}{C_1 + C_2 + C_3 + \cdots C_i + \cdots C_n}$$

The courses which do not form the minimum requirement of the degrees will not be considered for calculation of the basic CPI. These courses will be shown separately, and a separate CPI will be calculated for these courses. There will also be a combined CPI calculated which considers all the credits earned by the student.

7.4.4 Grade norms

(a) A student is considered to have passed a course if he/she obtains either DD or a better grade.

(b) The grade FR is awarded if in the opinion of the instructor:

　　(i) The performance of the student is very poor,

　　(ii) The student has inadequate exposure to the course, or

　　(iii) The student engages in any kind of malpractice during the semester.

(c) The candidate with FR grade(s) will have to register for the same course(s) in subsequent semesters when the course(s) are offered again. However, he will not be awarded any grade better than BB.

(d) The grade XX is awarded:

　　(i) If the student has less than 85% attendance in the course, or

　　(ii) If the student has missed a significant number of in-semester evaluations for non-medical reasons.

　　The candidate with an XX grade will not be allowed to take the end semester examination.

(e) The candidate with XX grade(s) will have to register for the same course(s) in subsequent semesters when the course(s) are offered again. However, he will not be awarded any grade better than BB except for medical grounds.

(f) The grade XX is awarded in a theory/laboratory course if the student as the requisite 85% attendance and has successfully completed all the in-semester evaluation requirements but has not appeared in the end-semester examination due to medical reasons. Such a student is eligible for a make-up examination before the commencement of the next semester if he/she provides the relevant medical documents approved by designated Medical Officer at IITRAM. Upon completion of the make-up examination, due grade will be assigned in the place of XX. If the reason for absence is not medical, the XX grade will revert to an FR grade.

(g) Valid reasons for end-semester make-up examination (including the reasons mentioned elsewhere in this document):

　　(i) Serious illness/personal accident of student and/or

　　(ii) Serious illness/death/ accident of parent/guardian of student

Each of such cases is to be approved by PPAC.

(h) Academic malpractices: In case of malpractice during any of the in semester evaluations like assignments, quizzes, tests and examinations, the instructor(s) can award an FR grade in the course immediately and report it to the Dean / Associate Dean of Academic Programme. If the Dean / Associate Dean of Academic Programme feel that the seriousness of the situation warrants it, the matter may be referred to the PPAC and/or Academic Council and serious actions like termination for one semester/term or even from the programme shall be imposed.

7.4.5 Semester grade reports

At the end of each semester, semester grade report (SGR) which reflects the performance of the student in that semester is prepared. This report includes the FR and XX grades as awarded. Four copies of SGR are prepared. The students copy will be disbursed by the academic office of IITRAM. A copy will be sent to respective Faculty Advisor(s) for their information. The parents' copy of the grade report will be dispatched to their respective addresses by the academic office. The office copy of the SGR will be retained by the academic office for their record. The SGR of the student with the XX grade for medical reasons is prepared only after the XX grade is converted to a suitable grade after the end semester re-examination. When a failed course with FR grade is cleared at later semester, no new modified grade report for that semester in which the failed grade was awarded will be issued. It shall reflect in the grade sheet of the semester in which it is cleared.

7.4.6 Transcripts

Transcript is the consolidated statement of the academic performance of the student for all the semesters since joining the programme and is given to a student on successful completion of programme along with the degree certificate. Student, who has taken multiple attempts to take a course, the transcript will only contain earned pass grade (BB to DD, PP or NP). The course will however be shown in the earlier semester with FR grades with a * mark indication that the student has finally cleared the course. The transcript will list all the courses with semester-wise record of grades with SPI and CPI. Additional courses will be

shown separately indicating minor/ honours earned by the student, if institute offers such courses.

7.4.7 Display of end semester performance

In-semester performance of all students is communicated by the instructor before the end semester examination. Those awarded XX grade will be clearly identified in this list. Based on the end semester performance, an instructor may declare FR grade even when a student is absent in end semester examination on valid grounds.

7.4.8 Disclosing the evaluated answer scripts after examinations

• The evaluated answer scripts of quizzes, tests, mid semester test, assignments, and term project reports are returned to the student immediately after evaluation during the semester.

• After the end semester examination, evaluated answer scripts of the end semester examination are shown to the students before the finalization of the grades. Evaluated answer scripts are preserved by the academic office for a minimum period of one semester.

8. Continuation and Termination of Programme

Academic performance of students will be monitored regularly by the concerned department and efforts will be made to identify those who are unable to cope with the studies.

8.1 Guideline for Clearing Backlogs

Students having backlogs may clear the backlog course(s) by taking them as a Self-Study course.

    i. Students should apply for a self-study course through the FA of the student's programme and with appropriate recommendation of the Instructor in charge of the course. The list of students permitted for the self-study courses shall be as per PPAC sanction.

i. Normally, no formal lectures shall be held for a self-study course but laboratory, design and computation exercises may be conducted if they form an integral part of the course.

ii. The course instructor will arrange for Mid and End semester examinations and other internal tests like quizzes etc. for assessment of the student during the semester.

iii. The self-study course will run during the total duration of the semester.

iv. A student can take one (01) self-study course throughout the programme.

v. The maximum grade that a student can get if s/he clears a course under this mode is 'BB'.

8.2 Exit from M. Tech. Programme

A postgraduate student may withdraw anytime from her/his academic programme, provided s/he makes a written request to this effect, and her/his request is endorsed by DPPAC and approved by PPAC. A letter of withdrawal will be issued by the Head /Co-ordinator of the Department of the student.

9. Award of Degree

9.1 Award of degree

On successful completion of the prescribed requirements for the M. Tech. programme the required degree will be conferred on a student in an annual convocation of the institute. The degree certificate will indicate the relevant branch and specializations if any in the engineering branch in which the student has graduated (For example, Master of Technology in Civil Engineering with specialisation in Urban Infrastructure). Along with the degree certificate the student will be given a transcript giving semester wise details of academic accomplishments. The additional courses taken will be separately mentioned in the transcript. An overall CPI for all the academic work done by the student will be given. For conferment of degree, a student has to fulfil the following requirements:

(i) The student should have taken and passed all the courses prescribed for the degree under the general and departmental requirements.

(ii) He/she should have satisfactorily fulfilled other academic requirements like practical training, field visits, seminars and projects as specified by the discipline.

(iii) The student should have paid all the dues to the institute.

(iv) The student should have no case of indiscipline pending against him/her.

The final degree certificate will not mention any class whatsoever. Only the CPIs will be given in the transcript. However, for all practical purposes, following guidelines can be followed to interpret the division using CPI figure of a student:

Table 2: Interpretation of the Class

CPI	Division
CPI≥8.5	Distinction
7.0≤CPI<8.5	First Class
6.0≤CPI<7.0	Second Class
5.0≤CPI<6.0	Pass Class

9.2 Award of medals

Institute will award the medals to outstanding students based on the policy for award of medals prevailing at the time of convocation.

10. Plagiarism Policy

Definitions pla·gia·rism (noun \ ˈplā-jə- ˌri-zəm \): the act of using another person's words or ideas without giving credit to that person pla·gia·rize (verb \ ˈplā-jə-ˌrīz \): to use the words or ideas of another person as if they were your own words or ideas (http://www.merriam-webster.com/dictionary/plagiarize). Students copying from each other or from any other sources (including Internet, books, monographs, research papers, etc.) for their academic activities without giving proper reference to the original source fall under plagiarism.

At IITRAM, plagiarism is strictly prohibited. A case of plagiarism will be dealt by DPPAC and could be referred to the institute disciplinary action committee; the committee, depending upon the severity of the case may give FF in the course, suspend the student for a certain period, or may expel the student from the institute. A faculty has the right to check the students' submission at any time and take necessary action. It is the responsibility of students to ensure the originality of their work, be aware of this policy and abide by it.

11. Change, Modification and applicability of Academic Policies

Academic policies should be reviewed by PPAC every year before commencement of a semester and changes /modifications should be recommended to Academic Council for approval. On the other hand, in the interest of students or in the interest of institute, any formal or informal decision taken by PPAC, Dean/Associate Dean of Academic Program, Dean/Associate Dean of Student Affairs, Faculty Advisor or any other institute body may be changed by Director General (DG) of institute.