

सिनेट की अष्टम बैठक का कार्यवृत्त
MINUTES OF THE 8th MEETING OF THE SENATE

13th February 2004



भारतीय प्रौद्योगिकी संस्थान रुड़की
रुड़की - २४७ ६६७ (भारत)

INDIAN INSTITUTE OF TECHNOLOGY, ROORKEE
ROORKEE - 247 667 (INDIA)

Minutes of the 8th Meeting of the Senate held on 13th February 2004 at 11.00 A.M. in the Senate Hall.

The following were present: -

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|-----|-------------------------------------|----------|
| 1. | Prof. Prem Vrat, Director | Chairman |
| 2. | Prof. Najamuddin | |
| 3. | Prof. R. Sankar | |
| 4. | Prof. S. Y. Kulkarni | |
| 5. | Prof. G. S. Randhawa | |
| 6. | Prof. B. M. J. Periera | |
| 7. | Prof. H. S. Dhaliwal | |
| 8. | Prof. S. C. Gupta | |
| 9. | Prof. I. M. Mishra | |
| 10. | Prof. Bikas Mohanty | |
| 11. | Prof. Shri Chand | |
| 12. | Prof. A. K. Jain, Chemistry Deptt. | |
| 13. | Prof. G. Bhattacharjee | |
| 14. | Prof. R. N. Goyal | |
| 15. | Prof. Ravi Bhushan | |
| 16. | Prof. A. N. Garg | |
| 17. | Prof. V. K. Gupta, Chemistry Deptt. | |
| 18. | Prof. Anil Kumar | |
| 19. | Prof. (Ms) Mala Nath | |
| 20. | Prof. P. C. Jain | |
| 21. | Prof. S. K. Kaushik | |
| 22. | Prof. A. K. Mathur | |
| 23. | Prof. M. K. Mittal | |
| 24. | Prof. H. C. Mehndiratta | |
| 25. | Prof. N. M. Bhandari | |
| 26. | Prof. K. K. Singh | |
| 27. | Prof. S. S. Jain | |
| 28. | Prof. (Mrs) Renu Bhargava | |
| 29. | Prof. U. C. Kothiyari | |
| 30. | Prof. P. K. Garg | |
| 31. | Prof. S. Basu | |
| 32. | Prof. D. K. Paul | |
| 33. | Prof. V. H. Joshi | |
| 34. | Prof. Ashwani Kumar | |
| 35. | Prof. H. R. Wason | |
| 36. | Prof. H. Sinvhal | |
| 37. | Prof. V. N. Singh | |
| 38. | Prof. A. K. Awasthi | |
| 39. | Prof. Shri Niwas | |
| 40. | Prof. A. K. Pachauri | |
| 41. | Prof. H. K. Verma | |

42. Prof. A. K. Pant
43. Prof. R. N. Mishra
44. Prof. H. O. Gupta
45. Prof. Pramod Agarwal
46. Prof. Girish Kumar Singh
47. Prof. R. P. Agarwal
48. Prof. D. K. Mehra
49. Prof. A. K. Sarje
50. Prof. A. K. Saxena
51. Prof. (Ms) Kum Kum Garg
52. Prof. S. N. Sinha
53. Prof. Padam Kumar
54. Prof. Ranvir Singh
55. Prof. Dinesh Chandra Singhal
56. Prof. N. K. Goel
57. Prof. Sabiruddin
58. Prof. Pashupati Jha
59. Prof. (Ms) Asha Kapoor
60. Prof. N. J. Rao
61. Prof. M. C. Bansal
62. Prof. A. K. Ray
63. Prof. J. S. Upadhyaya
64. Prof. K. M. Mital
65. Prof. H. G. Sharma
66. Prof. U. S. Gupta
67. Prof. G. S. Srivastava
68. Prof. (Mrs.) R.R.Bhargava
69. Prof. S.P.Sharma
70. Prof. (Mrs.) Rama Bhargava
71. Prof. P. N. Agarwal
72. Prof. R. C. Mittal
73. Prof. J. S. Saini
74. Prof. S. H. Shan
75. Prof. V. K. Goel
76. Prof. S. C. Jain
77. Prof. S. C. Solanki
78. Prof. T. K. Bhattacharya
79. Prof. S. C. Sharma
80. Prof. Pradeep Kumar
81. Prof. D. B. Goel
82. Prof. Satya Prakash
83. Prof. S.Ray
84. Prof. Ishwar Singh
85. Prof. Jagdish Rai
86. Prof. Ravindra Nath
87. Prof. Rajesh Sriyastava

88. Prof. Gopal Chauhan
89. Prof. Devadutta Das
90. Prof. U. C. Chaube
91. Prof. S. K. Tripathi
92. Prof. G. C. Mishra
93. Prof. Ram Pal Singh
94. Prof. S. R. Bhatt, Delhi University, Delhi
95. Mr. Arun Kumar, Head, AHEC
96. Mr. Yogendra Singh, Librarian
97. Mr. S. N. Singh, Senior Scientific Officer, AHEC (Warden, Rajendra Bhawan)
98. Dr. Praven Kumar
99. Dr. B. K. Mishra
100. Dr. A. K. Saraf
101. Dr. (Mrs) Sunita Gakkhar
102. Dr. Anjan Sil
103. Lt.Col. (Retd.) A.K.Srivastava, Registrar

- Secretary

The Chairman (Director) welcomed the members to the 8th Meeting of the Senate.

Before taking up the agenda items, the Senate thanked the under-mentioned outgoing members and recorded its appreciation for their valuable contribution in the meetings of the Senate.

- (i) Prof. S.K.Thakkar, Department of Earthquake Engg.
- (ii) Prof. S.D.Bhattacharya, Department of Chemical Engg.
- (iii) Prof. A.P.Gupta, Department of Mathematics
- (iv) Prof. P.K.Jain, Department of Civil Engineering
- (v) Prof. B.Prakash, Department of Earth Sciences
- (vi) Prof. R.M.Vasan, Department of Civil Engineering
- (vii) Prof. S.P.Nigam, Department of Mech. & Indl. Engg.
- (viii) Dr. A.K.Singh, Ex-Chief Warden, Ravindra Bhawan
- (ix) Dr. M.J.Nigam, Associate Professor, E&CE
- (x) Dr. V.P.Singh, Associate Professor, DPT
- (xi) Dr. Rashmi Gaur, Asstt. Professor, Department of Hum. & Soc. Sciences
- (xii) Dr. Vijaya Agarwal, Associate Professor, Department of Met. & Mat. Engg.
- (xiii) Dr. Ajai Gairola, Asstt. Professor, Department of Civil Engineering
- (xiv) Dr. S.K.Barthwal, Associate Professor, Department of Physics

The Senate also welcomed the under- mentioned new members and hoped for their valuable contribution and active participation in its functioning.

- (i) Prof. Ben. M.J.Pereira, Department of Biotechnology
- (ii) Prof. Pradeep Kumar, MIED
- (iii) Prof. Satish Chandra Sharma, MIED
- (iv) Prof. D. K. Mukhopadhyaya, Department of Earth Sciences
- (v) Prof. Shri Chand, Department of Chemical Engineering

- (vi) Prof. H. S. Dhaliwal, Department of Biotechnology
- (vii) Prof. U. C. Kothiyari, Department of Civil Engineering
- (viii) Prof. P. K. Garg, Department of Civil Engineering
- (ix) Prof. C. S. P. Ojha, Department of Civil Engineering
- (x) Prof. Pramod Agarwal, Department of Electrical Engineering
- (xi) Prof. Girish Kumar Singh, Department of Electrical Engineering
- (xii) Prof. K.M.Mital, Department of Management Studies
- (xiii) Dr. Praveen Kumar, Associate Professor, Department of Civil Engineering
- (xiv) Dr. B.K.Mishra, Associate Professor, Department of Mech. & Ind. Engg.
- (xv) Dr. S.P.Srivastaa, Associate Professor, Department of Electrical Engineering
- (xvi) Dr. (Ms) Sunita Gakkhar, Associate Professor, Department of Mathematics
- (xvii) Dr. Anjan Sil, Associate Professor, Department of Met. & Mat. Engg.
- (xviii) Dr. A.K.Saraf, Associate Professor, Department of Earth Sciences
- (xix) Mr. S.N.Singh, SSO, AHEC, Warden, Rajendra Bhawan

The Senate recorded the apologies received from the following members for not attending the meeting:-

Apologies received from members for not attending the meeting:

- 1. Prof. K.G.Ranga Raju, Department of Civil Engineering
- 2. Prof. M.L.Kapoor, Dy. Director
- 3. Prof. A.K.Jain, Department of Physics
- 4. Prof. G.L.Asawa, Department of Civil Engineering
- 5. Prof. A.K.Singh, Department of Paper Technology
- 6. Prof. C.S.P.Ojha, Department of Civil Engineering

8.1.1 To confirm the minutes of the Seventh Meeting of the Senate held on 17th September 2003.

The minutes of the Seventh Meeting of the Senate held on 17th September 2003 were confirmed.

8.1.2. Presentation by Chairman, JEE on the participation of IITR in the conduct of JEE-2003.

Noted. Prof. Gopal Chauhan, Chairman JEE-2003 was felicitated by the Senators for the excellent conduct of the Examination.

8.1.3 Presentation by Chairman, GATE on the participation of IITR in the conduct of GATE-2003.

Noted. Prof. S. Ray, Chairman GATE-2003 was felicitated by the Senators for the excellent conduct of the Examination.

- 8.2.0 To receive a report on the actions taken to implement the decisions taken by the Senate in its Seventh Meeting held on 17th September 2003.

Noted.

8.3.0 **ITEMS FOR CONSIDERATION:**

- 8.3.1 To consider the number of seats available in various undergraduate courses and the offer of admissions to be made for the session 2004-2005.

RESOLVED that as considered and recommended by the Board of Undergraduate Studies in the meeting held on 6th January 2004, the number of seats available and offer of admissions to be made during the session 2004-2005, be the same as for the session 2003-04 except that the offer of admissions to be made for B.Architecture and B.Tech. in Pulp & Paper courses be increased by 10% i.e 4 seats each, in the general category, in these disciplines.

- 8.3.2 To consider the nomination of two nominees of the Senate on the Board of Undergraduate Studies for a period of two year w.e.f. 1st May 2004.

RESOLVED that the Senate authorised the Chairman, Senate to nominate two nominees of the Senate on the Board of Undergraduate Studies for a period of two years w.e.f. 1st May 2004.

- 8.3.3 To consider the mercy appeal of Mr. Sumit Kumar Suman, student of B.Tech. I year for re-admission.

RESOLVED that as considered and recommended by the Board of Undergraduate Studies in the meeting held on 3rd February 2004, the appeal of Mr. Sumit Kumar Suman can not be accepted.

- 8.3.4 To consider for those students, who have not secured required CGPA i.e. 5.00 and their registration is likely to be cancelled due to not meeting CGPA requirements even after on completion of time period i.e. 6 years.

RESOLVED that as considered and recommended by the Board of Undergraduate Studies in the meeting held on 6th February 2004, the CGPA of such students admitted during the sessions from 1999-2000 to 2001-2002 be calculated based on the existing formula. They be considered eligible for the degree if their CGPA is 5.0 or more. However, in the grade sheet and degree document, CGPA will be shown as calculated based on the formulae prevalent during the period of their studies.

The above be made applicable only for those students admitted during the session 1999-2000 to 2001-2002, who were not able to obtain the required CGPA. Further, this relaxation be not extended to those students who have already

secured the required CGPA for the award of a degree, and this ruling may not be treated as precedence, in future.

8.3.5 To consider the curricular structure for the Integrated Dual Degree Programme in the Departments of Electronics & Computer Engineering and Chemical Engineering.

RESOLVED that as considered and recommended by the joint meeting of BUGS, Heads and Chairmen of DRC of Engineering Departments, the curricular structure for the Integrated Dual Degree Programme in the Departments of Electronics & Computer Engineering and Chemical Engineering as given in the agenda note be approved with the following observations:

1. The word 'UC' wherever written in subject code numbers be replaced by 'IC'.
2. Any correction, addition, deletions as pointed out by the Senators in the curricular structure be made.

8.3.6 To consider the Ordinances/ Regulations for the Integrated Dual Degree programmes.

The Senate considered the amendments to the Ordinances of UG programmes to incorporate the provision for the Integrated Dual Degree (IDD) programmes in the Institute as recommended by Prof. I.M.Mishra Committee and, after detailed deliberations, approved the same and recommended that the amendments to the Ordinances and the revised version of the Ordinances be put up to the Board of Governors for its consideration and approval.

Further, the Senate considered the Regulations for IDD programmes as recommended by Prof. I.M.Mishra Committee and approved the same with minor modifications in Section 33 (1) and Appendix 'B4' to the Regulations. The approved version of the Ordinances & Regulations is given as **Appendix -I**.

Still further the Senate resolved that the regulations for UG and PG programmes be thoroughly reviewed and necessary modification/ changes may be effected in the light of the Regulations for IDD programmes so that all the Regulations for UG/PG/IDD programmes and for the course work for Ph.D. programmes become compatible. The amendments/ changes so made may be put up to the Chairman, Senate for his approval, on behalf of the Senate. Further, the new Regulations, for the IDD programme and the amendments/ changes in the Regulations in other programmes may be printed and widely published for the information of students, teachers and other concerned person.

8.3.7 To consider the report of the committee constituted for reviewing the academic programmes in the WRDTC.

RESOLVED that the report of the committee constituted for reviewing the academic programmes in the WRDTC as given in the agenda note be approved and the following action be taken for implementation:

- (a) The curricula for the P.G. programmes be examined and the proposal sent to the Dean, PGS&R by the Head, WRDTC for consideration in the meeting of the Board, PGS&R.
- (b) If the curricula etc. of the restructured P.G. programme are approved by the Board, PGS&R, the P.G. programmes in Irrigation Water Management (IWM) and Water Resource Development (WRD) respectively, be introduced by the Department w.e.f. July 2004.
- (c) Only sponsored candidates be admitted in the session 2004-2005.

Further, arising out of the above decisions, a similar Advisory Committee for reviewing the academic programmes of other Departments/ Centres be constituted.

8.3.8 To consider the nature of Pre-Ph.D. credit courses over and above the minimum number of credits requirement as per regulation.

RESOLVED that the minimum number of credit requirements be modified to a range of credit requirements, as given below:-

	Minimum Credits	Range of Credits
(i)	8	8-12
(ii)	12	12-15
(iii)	16	16-20

8.3.9 To consider the issue regarding the maximum number of Ph.D. students a faculty can guide at a given point of time.

RESOLVED that after consideration and recommendation by the Board, PGS&R, a student under joint supervision be counted half with one supervisor and half with other, subject to the condition that the maximum number of Ph.D. scholars under a supervisor should not be more than 8 jointly and 5 singly, (including external / outside scholars), at any given time.

8.3.10 To consider the issue regarding supervision of Ph.D. students of other Institutes by faculty of IIT Roorkee as outside supervisors.

RESOLVED that as considered and recommended by the Board, PGS&R, supervision of Ph.D. students of other Institutes by faculty of IIT Roorkee as outside supervisors be approved with the under-mentioned conditions:

- (i) The host Institution / University is recognized by MHRD-UGC/AICTE.
- (ii) The request must be forwarded by the competent authority of the host institution e.g. Head/ Registrar/ Dean.
- (iii) The concerned faculty should have guided/ guiding at least one Ph.D. student registered at IITR.
- (iv) The total number of such externally enrolled Ph.D. students under any faculty of IITR, should not be more than 2(two) at any point of time. This number is to be included in the maximum number of Ph.D. students that a faculty of (IITR) may supervise.
- (v) Due to extension of this facility to the host institution, the work of the IITR should not suffer.
- (vi) If the concerned faculty of IIT Roorkee, as co-guide is required to visit the host Institution/ outside, he /she shall seek specific approval for the visit on Special Casual Leave/ leave as due, by the competent authority and shall not be on duty for the visit. Further, all expenses, facilities etc. in this regard shall be borne by the host Institution.
- (vii) If the external candidate wishes to avail the facilities at IITR, he/ she shall have to register as casual student for a period not exceeding six months as per rules & regulations.
- (viii) The host Institution /University as per its regulations, appoints a foreign expert as one of the examiners for Ph.D. thesis or else it is recognized by IIT Roorkee for this purpose. Wherever, the foreign examiner is not appointed, the Director be authorized to take such a decision. A Standing committee of Dean (PGS&R), Dean (Faculty Affairs) and the concerned Head of the Department / Centre is constituted to consider such requests from the host institution.

8.3.11 To consider the issue of allowing PG students to carry out dissertation in the organizations in which they get employed/ offer of employment.

RESOLVED that as considered and recommended by the Board, PGS&R in the meeting held on 29.1.2004, the guidelines for carrying out M.Tech. dissertation in Organization other than IIT Roorkee be approved as under:

1. A student may be allowed to work for his dissertation in an organization other than IIT, Roorkee provided he/she has successfully completed all courses except the dissertation.
2. Students who get employed/ are in employment in an organization shall be governed by the following:-
 - (i) No objection certification from the employer.
 - (ii) The concerned Department/Centre approves the topic of dissertation and supervisors from the department/center. There may be a supervisor from the organization employing the student.
 - (iii) On the recommendation of DRC, Dean, PGS&R to ascertain the feasibility of the dissertation being completed at place of work.
 - (iv) The student shall have to visit the department/IITR as and when required for monitoring progress of work, supervision and evaluation, failing which his/her registration may be terminated.
 - (v) They shall cease to get assistantship / fellowship etc.
 - (vi) Those who do not change the dissertation topic may be allowed to submit the thesis not before September of Spring Semester. They shall be evaluated as per the normal schedule.
 - (vii) Those who change the dissertation topic may be allowed to submit the thesis not before one year from the date of change of topic. Such students shall be evaluated for dissertation component of 3rd semester three months from the date of change of topic.
3. The minimum time for dissertation work shall be one year and the entire requirements of the P.G. Programme shall have to be successfully completed in three years from the date of initial registration.

8.3.12 To consider the eligibility criteria for M.Tech. Programme in the Department of Earthquake and syllabi of additional minor electives.

RESOLVED that as considered and recommended by the Board, PGS&R in the meeting held on 30.10.2003, the under-mentioned minimum eligibility qualification for admission to M.Tech. (Structural Dynamics) programme be approved:

Eligibility Qualification:

M.Tech. (Structural Dynamics)

B.E./B.Tech. in Civil/ Structural/ Mechanical Engineering* (or equivalent)

* Not more than 20% from Mechanical Engineering background.

M.Tech. (Soil Dynamics)

B.E./B.Tech. in Civil/ Structural Engg. or it equivalent.

FURTHER RESOLVED that the syllabi of minor electives of M.Tech. (Structural Dynamics) as given in the agenda note be approved with the proviso that the department would re-locate the structure of the course work.

8.3.13 To start a new M.Tech. (Disaster Mitigation and Re-Engineering) Programme.

RESOLVED that as considered and recommended by the Board, PGS&R in the meeting held on 30.10.2003, the proposal to start a new M.Tech. (Disaster Mitigation and Re-Engineering) Programme be accepted in principle. Further, the course structure, curriculum etc. be re-worked out and again placed before the Senate for consideration and approval.

8.3.14 To start Ph.D. Programme in the TIFAC CORE.

RESOLVED that the proposal to start a Ph.D. Programme in the TIFAC CORE be not accepted.

8.3.15 To consider guidelines for evaluation of M.Tech. dissertation and Comprehensive Examination of Ph.D. scholars.

RESOLVED that the guidelines for evaluation of M.Tech. dissertation and Comprehensive Examination of Ph.D. scholar be approved as given at Appendices - II & III, respectively.

8.3.16 To admit fresh employees from industry for higher studies leading to Ph.D.

RESOLVED that as considered and recommended by the Board, PGS&R, fresh employees (who fulfil the minimum qualification requirement) deputed from the industry with which IIT Roorkee has entered into bilateral arrangements be admitted for pursuing the Ph.D. programme as per the regulations.

8.3.17 To consider the recommendations of Prof. S.Ray (Chairman, GATE 2003) Committee on PG Admissions.

RESOLVED that the recommendations of Prof. S.Ray (Chairman, GATE 2003) Committee on PG Admission was discussed by the Senate and resolved as under:

- (a) The admission of M.Tech./ M.Arch. be made on the basis of 100% GATE score in this year.
- (b) P.G. Admission Cell be created.
- (c) Suitable mechanism be evolved to take care of the problem, faced during the admission to various PG programmes in the session 2003-2004.
- (d) The currently available M.Phil courses in the Department of Physics and Mathematics be phased out from the session 2005-2006.
- (e) Non GATE qualified students will not be admitted, except sponsored candidates and B.Tech. Students of IIT with a CGPA of 8 and above.
- (f) The basis of admission (100% GATE or 70% weightage to GATE and 30% to Test/ Interview) be reviewed by DFBs and PG Board, for admissions for the year 2005-2006.

8.3.18 To consider MoU between IIT Roorkee and Hanoi Water Resources University, Vietnam:

RESOLVED that the signing of the MoU between IIT Roorkee and Hanoi Water Resources University, Vietnam as given in the agenda note, be approved.

8.3.19 To consider MoU between IIT Roorkee and Swiss Federal Institute of Technology, Lausanne and the Swiss Federal Institute of Technology, Zurich.

RESOLVED that the signing of the MoU between IIT Roorkee and the Swiss Federal Institute of Technology, Lausanne and the Swiss Federal Institute of Technology, Zurich as given in the agenda note be approved.

8.3.20 To consider the report of the committee constituted to convert marks into grade on 10 point, 6 point and 4-point grade scale.

RESOLVED that the report of the committee constituted to convert marks into grade on 10 point, 6 point and 4 point grade scale as given in the agenda note and the Table given below be approved:-

TABLE: FOR CONVERSION OF MARKS INTO GRADES IN THE 10-POINT, 9-POINT, 6-POINT AND 4-POINT SCALE

Marks (x)	Grade Point Average (y)			
	10 Points	9 Points	6 Points	4 Points
30	3.15	2.55	1.75	1.27
35	3.85	2.95	2.00	1.45
40	4.50	3.45	2.30	1.62
45	5.15	3.90	2.55	1.80
50	5.75	4.37	2.85	1.98
55	6.25	4.78	3.19	2.13
60	6.75	5.34	3.56	2.38
65	7.15	5.76	3.85	2.55
70	7.50	6.19	4.13	2.75
75	8.50	6.70	4.45	2.95
80	8.90	7.15	4.75	3.16
85	9.25	7.60	5.05	3.35
90	9.60	8.05	5.35	3.58
95	9.85	8.50	5.70	3.80
100	10.00	9.00	6.00	4.00

8.3.21 To consider suggestions received from the students through e-mail on various academic issues.

RESOLVED THAT as recommended by the I.A. C. in the meeting held on 15th January 2004 and followed by Executive Committee of the Senate, (ECS) on 10th February 2004, the Senate resolved as under:

- (a) The criteria for evaluation of any subject be declared in the very first week of commencement of classes.
- (b) The duly evaluated answer books be returned (Mid Term Examination-I and Mid Term Examination- II), within a week from the date of the test. Objections will be entertained right then, and not even on the next day.
- (c) HODs to ensure that End Term Examination answer books are shown to the students before the day of moderation, on a date to be specified & prominently displayed by the respective teachers. Further, the answer books be preserved by the concerned teacher for 06 months, before handing over to the Departmental stock for disposal.
- (d) The date of moderation should be made a part of the Academic Calendar.
- (e) Two-tier moderation be done, both for the subject and for the semester (SGPA, CGPA). Minor adjustments should be possible during moderation, particularly in the marginal cases. Chairman, DUGC/ Chairman, DRC should

invariably retain a copy of the Grades sent to Academic Section so that CGPAs may be calculated without having to make a reference to the Academic Section for this purpose.

- (f) All concerned faculty members should invariably be present for the moderation committee meeting. In case, anybody is going out on Institute Duty, he/she will hand-over his/her inputs for moderation with a colleague, who should present it, in the meeting.
- (g) Software be procured for subjects related to software, by the Departments and the students be given exposure to work on the relevant software as problem solving tools of a particular subject.
- (h) Provision be made to keep the laboratories open beyond office hours/ holidays to facilitate the students to carry out practice and projects on software / hardware by flexibility of timing of lab staff.
- (i) Filling up of the Students' feedback response form is mandatory. This should be done at the start of a Lecture, two weeks prior to end of the Semester. It is also reiterated that Faculty Perks are contingent upon the completion of all formalities including the Faculty Appraisal Form and the Students' Feedback Response Form.
- (j) Answer books of tests and examination cannot be written in Pencil.
- (k) Evaluation of marks should not to be in pencil.

FURTHER RESOLVED that Chairman, Senate be authorized to consider and take appropriate decisions on issues such as marginal shortage of attendance and cases of marginal short fall in grade-point average in UG/PG/Ph.D courses on behalf of the Senate. However, the Chairman may consult ECS, if required. The decision of the Chairman, Senate so taken, would be final and binding, and would be reported to the Senate in the subsequent meeting.

8.3.22 To consider IPR policy with respect to IIT Roorkee.

RESOLVED that the IPR policy with respect to IIT Roorkee as given in the agenda note be approved with the proviso that a presentation on the same be made before the Senate in the next meeting. The IPR policy be placed before the BOG for specific approval, thereafter.

UNDER ANY OTHER ITEM:

- 8.3.23** The Senate **FURTHER RESOLVED** that the regulations pertaining to various approved items of Senate stand passed and amendments be made accordingly with the help of Prof. I.Mishra, Prof. S.Ray and Prof. Ravi Bhushan.

8.4.0 REPORTING ITEMS:

- 8.4.1 To report the nomination of two Senators (Professors) on the Board of Governors by the Director (Chairman of the Senate) on behalf of the Senate.**

Noted

- 8.4.2 To report that the Director has approved the Academic Calendar for the Spring Semester of the session 2003-2004.**

Noted with the remark that the date of submission of thesis be read as 30th June 2004 instead of 28th February 2004.

- 8.4.3 To report that the Director has approved the acceptance of a proposal for the Institution "Kaustubh Roy Memorial Cash Prize / Award of Rs. 6000/- p.a. to a student of B.Tech. Mechanical Engineering Course for obtaining highest CGPA in III year.**

Noted.

- 8.4.4 To report the Admission Procedure for admission to all post-B.Sc. programmes on the basis of JAM-2004, for the academic year 2004-2005, as approved by the Committee of IIT Directors on November 2, 2003.**

Noted.

- 8.4.5 To report that admission to the MCA programme shall be made on the basis of Joint Admission Test to M.Sc. (JAM-2004) as approved by the Senate, in its 7th meeting held on Sept. 17, 2003, notwithstanding the subsequent AICTE announcement to hold an All India MCA Common Entrance Test (AIMCET) and IIT Roorkee having consented to MHRD to organise the AIMCET for the year 2004.**

Noted.

- 8.4.6 To report the nomination of two Senators to the Students Affairs Council (SAC) for the academic session 2003-2004.**

The under-mentioned Senators was nominated to the SAC for the Academic Session 2003-2004 :

- (a) Prof. Vinod Kumar, Department of Electrical Engineering
- (b) Prof. R.R.Bhargava, Department Mathematics

The meeting ended with a vote of thanks to the Chair.

ORDINANCES AND REGULATIONS FOR UNDERGRADUATE AND INTEGRATED DUAL-DEGREE PROGRAMMES

Preamble

Indian Institute of Technology, Roorkee, inherits the legacy of excellence in undergraduate and postgraduate teaching of the erstwhile University of Roorkee as evident from its illustrious alumni and their engineering feats like Aswan to Bhakra-Nangal dam across the world, standing as testimonies of their capabilities and excellence. The aim of the education at the undergraduate level is to build on the knowledge gained by an undergraduate student through the school curriculum by imparting knowledge with the help of classroom instructions, training and other modes of teaching. After completing the curriculum, the student will acquire adequate knowledge base in the desired branch, which could be easily employed for the solution of real life problems and developed further through higher education, for reaching the frontiers of knowledge in his/her area of specialization.

The integrated dual-degree programme aims at the consolidation of the undergraduate programme with inputs of Master's level specialized courses and a one-year research component in the form of a dissertation. This is an ideal blend of the undergraduate and post-graduate programmes offered in a fast-track mode where B.Tech. and M.Tech. degrees may be awarded in 5 years rather than 6 years of the normal B.Tech. and M.Tech. programmes. A student under dual-degree programme pursues his studies in an integrated manner and has the advantage of obtaining two degrees, viz. B. Tech. (parent discipline) and M.Tech. (specialization of the parent discipline) after the completion of the programme.

The undergraduate and the integrated dual-degree programmes have both academic and extracurricular components designed for the integrated development of professionals possessing individual values of ethics and morality. Many of the students after completing undergraduate programme, start working in different organizations where teamwork is the predominant mode of functioning. Ethics and discipline are of paramount importance and without these values teamwork is impossible. The integrated dual-degree programme retains these extra-curricular components.

In these days of rapid evolution of knowledge, the academic programmes require provision for continuous updating of the content to incorporate new developments in a particular area of knowledge. The curriculum is, therefore, broadly defined to make it possible for the teacher to update it continuously by including the latest developments. In addition, the institute undertakes periodic review of the curriculum structure to prune the dead wood and incorporate new ingredients, which may become necessary in the changed context of a branch of study. Exchange of knowledge and methodology across the disciplines is important in furthering its frontiers. In keeping with this spirit, the undergraduate curriculum encourages students to learn across different branches. In the undergraduate programme in engineering, apart from the inputs of social sciences and management, biotechnology has been introduced across the branches since many novel ideas from this area are being borrowed in engineering. The curriculum at the undergraduate level has been so structured that it offers enough flexibility to the students to tailor his/her learning to individual inclinations and the desired career objectives.

The curriculum in a given branch at the undergraduate level includes academic programmes involving ingredients of classroom teaching, laboratory practices, training, seminar and project. These ingredients are specified in terms of courses with a given code specifying the subject(s) to be taught under it. Every course has credits depending on the workload it involves. The students are continuously evaluated during the conduct of a course and are awarded

a letter grade on the basis of his performance. The academic year is divided into semesters and in each semester the students have to register in a branch of study for a number of courses. When a student earns a minimum number of credits specified for a given curriculum, he becomes eligible for the award of the degree.

The integrated dual-degree programme, while retaining the characteristics of the undergraduate programme and flexibilities of the elective courses and the courses in science, humanities and engineering science, enriches it with the specialized subjects of the Master's programme alongwith the dissertation. The IDD programme lays emphasis on excellence and encourages the students in the top-talent pool of the country, selected through the JEE, to opt for both Bachelor's and Master's education at one stretch. This will accelerate the capacity-building exercise of the country and encourage top students to opt for research and development as a career.

The integrated programme also offers the normal scholarships, stipends, fee-waivers, etc. offered to the undergraduate students besides offering MHRD assistantship during the fifth year of the programme. A student earning a minimum number of credits specified for the programme and satisfying all the requirements becomes eligible for the award of a B. Tech. (parent discipline) degree and an M.Tech. (specialization of the parent discipline) degree.

The Ordinances as embodied here are for specifying the provisions required for the purpose of smooth functioning of undergraduate and the integrated dual-degree academic programmes.

**ORDINANCES FOR THE UNDERGRADUATE (UG) AND
INTEGRATED DUAL-DEGREE (IDD) PROGRAMMES**

Short title & Commencement	1	(i)	These ordinances shall be called the Ordinances for the Undergraduate <i>and the Integrated Dual-Degree Programmes</i> of the Indian Institute of Technology, Roorkee;
		(ii)	These ordinances shall come into force with effect from such date as the Senate/Board may appoint in this behalf.
Definitions	2		Unless the context requires otherwise,
		(i)	" Applicant " shall mean an individual who applies for admission to any undergraduate (UG) or <i>integrated dual-degree</i> programme of the Institute;
		(ii)	" Board " shall mean the Board of Governors of the Institute;
		(iii)	" BUGS " shall mean the Board for Undergraduate studies of the Institute;
		(iv)	" Casual Student " shall mean a student who is registered for a degree in a recognized Institution/ University in India or abroad and is officially sponsored by his parent institute to avail laboratory and other academic facilities or for attending a formal set of courses;
		(v)	" CGPA " shall mean the cumulative grade point average of a student;
		(vi)	" Coordination Committee " shall mean the committee of the faculty members involved in a course;

	(vii)	"Council" shall mean the council of the Indian Institutes of Technology;
	(viii)	"Course" shall mean a curricular component identified by a designated code number and a title;
	(ix)	"Course Coordinator" shall mean a faculty member who shall have full responsibility for the course, coordinating the work of other faculty member(s) involved in that course, including examinations and the award of grades;
	(x)	"Degree" shall mean the Bachelor's degree viz. B.Tech., or the integrated dual-degrees viz. B. Tech. and M.Tech. and such other degrees of the Institute as may be approved by the Board;
	(xi)	"Direct Admission Student" shall mean the students who are admitted directly from abroad and not through JEE, and registered for undergraduate or integrated dual-degree programmes for full time study;
	(xii)	"DRC" shall mean the Departmental Research Committee of the Department/ Academic Centre;
	(xiii)	"DUGC" shall mean the Undergraduate Committee of the Department/ Academic Centre;
	(xiv)	"DUGS" and "Dean UGS" shall mean the Dean, Undergraduate Studies;

	(xv)	" Faculty Advisor " shall mean a teacher nominated by the Department / Academic Centre to advise a student on the courses to be taken by him and other matters related to the academic programme;
	(xvi)	" Grade Moderation Committee " shall mean the committee appointed by the department/academic centre to moderate grades awarded by the course coordinators in different courses in a semester at a given level of a curriculum;
	(xvii)	" Institute " shall mean the Indian Institute of Technology, Roorkee;
	(xviii)	" Integrated Dual-Degree or IDD " shall mean the integrated dual-degrees, namely B.Tech. (parent discipline) and M.Tech. (specialization of the parent discipline) of the Institute;
	(xix)	" JEE " shall mean the Joint Entrance Examination for admission to Indian Institutes of Technology;
	(xx)	" PG " shall mean Post Graduate;
	(xxi)	" Student " shall mean a student registered for an undergraduate <i>or integrated dual-degree</i> programme for full-time study leading to the Bachelor's degree <i>or the dual Bachelor's and Master's degree</i> , as the case may be;
	(xxii)	" Scheme of Teaching and Examination " shall mean the scheme of teaching and examination for a branch of study as approved by the Senate;

		(xxiii)	"SC/ST" shall mean the scheduled castes and scheduled tribes as notified by the Government of India from time to time;
		(xxiv)	"SGPA" shall mean the semester grade point average;
		(xxv)	"UG" shall mean Undergraduate;
	Note: 'He' & 'His' imply 'he'/'she' and 'his'/'her', respectively		
Ordinances	3	(1)	<p>The Institute shall offer such UG and <i>IDD programmes</i> and of such minimum duration as the Board may approve on the recommendation of the Senate either on its own or on the initiative of a Department/Academic Centre, and/or on the direction of the Board/Council/ Government of India.</p> <p>Provided that the UG Board shall recommend all such programmes.</p> <p>Provided further that an interdisciplinary programme may be proposed by a Department/Academic Centre or by a committee appointed by the Director for the consideration of the BUGS, the senate and the Board.</p>
		(2)	The procedure for starting a new programme, temporarily suspending a programme or phasing out a programme shall be such as may be laid down in the regulations.
		(3)	The minimum entry qualifications for admission to UG and <i>IDD programmes</i> shall be such as may be laid down in the Regulations.

	(4)	<p><i>A UG or an IDD student shall be required to earn a minimum number of credits through various curricular components like teaching/laboratory courses, Seminar, Project etc. at the Institute or at such other Institutions as have been approved by the Institute. For an IDD student, the Dissertation, Project and other similarly designated academic activities shall have to be undertaken under the guidance of a supervisor(s) from the Institute :</i></p> <p><i>Provided that an IDD student may be permitted by the DRC/CRC to carry out in full or part of his Dissertation outside the Institute. In such cases, an additional supervisor, from outside Organization/Institute if considered necessary, may be appointed by the DRC/CRC on the recommendation of the supervisor from the Institute;</i></p>
	(5)	<p>An undergraduate or an IDD student shall be required to complete all the requirements for the award of the Bachelor's degree or the integrated dual-degrees, viz. B. Tech. in parent discipline and M.Tech in a specialized sub-discipline of the parent discipline, as the case may be, within such period as may be specified in the Regulations, including those credits earned at such other institutions as have been recognized by the Institute for this purpose;</p>
	(6)	<p>The date of initial registration for the UG or IDD programme shall normally be the date on which the student formally registers for the first time. This date shall be construed as the date of joining the programmes for all intents and purposes.</p>

	(7)	A student shall be required normally to attend every lecture, tutorial and practical class. However, for late registration, sickness or other such exigencies, absence may be allowed as provided for in the regulations.
	(8)	An undergraduate <i>or an integrated dual-degree</i> student may be granted such scholarship / studentship / assistantship / stipend, etc. and awarded such prizes and medals as may be specified in the regulations in accordance with the directions of the Government of India and/or the decision of the Council/ Board from time to time.
	(9)	The procedure for the admission of a student or a direct admission student to an undergraduate <i>or an integrated dual-degree</i> programme shall be such as may be specified in the regulations; the casual students may be allowed access to academic programmes in the manner provided under the regulations.
	(10)	In case all the reserved seats for SC/ST category are not filled even with relaxed admission norms, the students in this category who satisfies some minimum norms specified for this purpose, may be offered admission to one year preparatory programme; on successful completion, these students may be offered direct admission against the unfilled quota of seats as provided for, in the regulations.

	(11)	The procedure for the withdrawal from an undergraduate <i>or an integrated dual-degree programme</i> , rejoining the programme, the award of grades and the SGPA/CGPA, the examination and all such matters as may be connected with the running of a UG <i>or a IDD</i> programme shall be such as may be specified in the regulations.
	(12)	The award of the UG degree <i>or the Integrated dual-degrees</i> to an eligible candidate shall be made in accordance with the procedure laid down in the regulations.
	(13)	A student admitted to the UG <i>or the IDD</i> programme shall abide by the "Standing Orders for Students" issued by the Institute from time to time. These standing orders shall deal with the discipline of the students in the Bhawans/Hostels, Departments/Academic Centres, the Institute premises and outside. The Standing Orders may also deal with such other matters as are considered necessary for the general conduct of the students, and co-curricular and extra-curricular activities. These Standing Orders shall be approved by the Director on the recommendation of the Dean of Students Welfare.
	(14)	Notwithstanding anything contained in the above Ordinances, no regulations shall be made in contravention of the decision of the Board/Council and/or the direction of the Government of India, in regard to the duration of the UG <i>or the IDD</i>

			programme, the amount and number of scholarship/assistantship and the number of studentships and the procedure thereof. The regulations for the UG or the IDD programme shall be framed by the BUGS, which shall be considered and approved by the Senate.
		(15)	<i>In special circumstances, the Chairman of the Board may, on behalf of the Board, approve amendment, modification, insertion or deletion of an Ordinance(s), which in his opinion is necessary or expedient for the smooth running of a programme: Provided that all such changes shall be reported to the Board in its next meeting for approval.</i>

**REGULATIONS FOR THE INTEGRATED DUAL-DEGREE (IDD)
PROGRAMMES**

Short title & Commencement	1	(1)	These regulations shall be called the regulations for the IDD programmes of the Institute;
		(2)	These regulations shall come into force on such date as the Director may appoint in this behalf.
Integrated Dual-Degree Programmes	2	(1)	The Institute may offer such IDD programmes leading to Bachelor's degree in Technology, i.e. B. Tech., in a parent discipline and Master's degree in Technology, i.e M.Tech. in a specialization of the parent discipline, as may be approved by the Senate and the Board;
		(2)	The list of currently run IDD programmes and the broad course structure are given in Table-1 and Table-2; respectively. The structure and programmes may be amended/modified in accordance with the decisions of the Senate and the Board;
		(3)	The duration of an IDD programme leading to dual-degrees of B. Tech. and M. Tech. is normally five years and the maximum duration is seven years from the date of initial registration. The maximum duration of the programme includes the period of withdrawal, absence and different kinds of leaves permissible to a student but it shall exclude the period of rustication. The duration for the IDD programme may be altered in accordance with the decision of the Board.
Semester System	3	(1)	The academic programmes in the Institute shall be based on semester system: Autumn and Spring Semesters in a year with winter and summer vacations. A number of courses shall be offered in each Semester. In summer vacation, some courses may be offered as provided for in the regulations;

		(2)	Each course shall have a certain number of credits assigned to it depending upon the academic load of the course assessed on the basis of weekly contact hours of lecture, tutorial and laboratory classes, assignments, or field study and/or self study;
		(3)	The courses offered in a semester shall be continually assessed and evaluated to judge the performance of a student.
Course Codes	4		Each course offered by the institute shall be identified by a course code, normally consisting of a string of five alphanumeric characters followed by a course title. The first two characters in a course code shall be capital letters identifying the responsible Department/ Academic Centre offering the course or a course common to different branches. The next three characters are numerical digits: the first one normally specifies the year of study and the last two digits specify the course number and the semester in which the course shall be offered. Normally, odd numbers in the course code will indicate that the course will be offered in the Autumn semester and the even numbers indicate that the course will be offered in the Spring semester of the year. The first numerical digit for a preparatory course shall be zero.
Course Credits	5		Each course shall have an integer number of credits, which reflects its weightage. The number of credits of a course in a semester shall ordinarily be calculated as under:-
			(a) Lectures/Tutorials: One lecture hour per week shall normally be assigned one credit. One or two hours of tutorials per week shall be assigned one credit. However, the credits may be adjusted further by taking into consideration the quantum of work required to be put in by a student for learning the course;

			<p>(b) Practicals: One laboratory hour per week shall normally be assigned half a credit. Not more than three credits may be assigned to a practical course having only laboratory component. The courses having three hours of contact every alternate week shall have one credit only;</p> <p>(c) Special courses like minor project, practical training, seminar, project, dissertation, group discussion, discipline, proficiency, National Cadet Corps (NCC)/ National Service Scheme (NSS)/ National Sports Organization (NSO) in the IDD programme shall be treated as any other course and shall be assigned such number of credits as may be approved by the Senate.</p>
Courses of special nature	6	(1)	The IDD programme may contain the following courses of special nature in different curricula, some of which are already indicated in section 5(c) of these regulations:
NCC/NSS/NSO/Rangering			<p>(a) Every student shall register for the specified number of credits in the first year, for participation in the NCC/ NSS/ NSO/ Rangering for the overall development of his/her personality. Students shall be admitted to NCC/ NSS/ NSO/ Rangering on the basis of their preference and by virtue of their aptitude and abilities as decided by a committee constituted by DOSW. The student shall be continually evaluated for his/her participation and awarded grade following the procedures specified. There shall be at least 80 hours of engagement in an academic year and the attendance regulations for the courses shall apply. This requirement shall be completed in the first year. If, however, a student is not able to complete this requirement in the first</p>

			year, he/she shall complete it by the end of second year failing which he/she will not be allowed to register in the fifth semester;
Proficiency/ NSO			(b) Every student shall be admitted to proficiency and various games and sports in NSO from the second year onwards upto the Spring Semester of fourth year on the basis of their preference and by virtue of their aptitude and abilities as decided by a committee constituted by DOSW. In case of proficiency/ NSO, minimum engagement shall be at least 5 hours per week and it will be evaluated continuously as specified for the courses. A special course on 'Hindi' may be offered to foreign/non-Hindi-speaking students under proficiency;
Independent study			(c) A curriculum may contain a 4-credit course on independent study as a Departmental Elective, which may be offered in any Semester during the third and fourth year of the programme. It may involve any of the following: (i) in-depth study and critical review of a specified topic, (ii) specialized laboratory work / experimental project/ feasibility studies, (iii) work on a research project and (iv) software development of a specialized nature. A student having CGPA of 7.5 or more may register for this course only once, with the prior approval of the Chairman, DUGC, during his enrolment for the IDD programme;
Minor-project			(d) A curriculum may contain a 4-credit course on minor project as a Departmental Elective, which may be offered in any Semester during the third and fourth years of the programme to carry out a design and fabrication type of

			project. Not more than three students, each having CGPA of 7.0 or more, may carry out the project together and register for this course only once during their enrolment for IDD programme, with the prior approval of the Chairman, DUGC;
Industrial/Field Training			(e) A curriculum shall contain a 2-credit component of Departmental Core Course on Industrial/Field Training for 8-weeks, generally carried out during the summer vacation following the Spring Semester of third year. The evaluation of this course will be carried out in the Autumn Semester of fourth year;
Group Discussion and Viva-Voce			(f) A curriculum shall contain a 2-credit component of Departmental Core Course on Group Discussion and Viva-Voce on contemporary issues of technological importance, generally offered in the third year of the programme;
Self study course			(g) One self study course may be offered under special circumstances from the list of regular courses of study, to a student in his/her Eight semester when he/she is short by a maximum of 6 earned credits to become eligible for the degree. This course shall be offered only if approved by the Dean, UGS on the recommendation of the Chairman, DUGC/DRC, as the case may be, with the provision that the evaluation process will not be diluted;

Project			(h) Every student shall have to work on a Project under the supervision of a faculty member assigned by the DRC. The Project topic shall be assigned during the Spring Semester of the fourth year of the programme and shall be evaluated in the Autumn Semester of the fifth year of the programme;
Dissertation			(i) Every student shall have to work on a Dissertation. The Dissertation topic shall be allotted to a student at the end of the Spring Semester examination of fourth year. The Dissertation work involves in-depth study and critical review of the topic and the creation of new knowledge in the area either through development of new techniques, instruments, experimental facility and new experimental findings and/or theoretical and fundamental insight or by reinterpretation of the existing facts to propound a new theory;
Discipline			(j) Every student shall have to be evaluated take a total of 8 credits of discipline for the requirements of the IDD programme. The student shall be continuously evaluated for discipline during his/her enrolment.
Board of Undergraduate Studies (BUGS) or UG Board	7		The Board of Undergraduate Studies (BUGS) shall be a subcommittee of the Senate, which shall consider all the academic matters recommended by the DUGC and coordinate their activities. It shall also consider and recommend to the Senate the broad framework and policies related to the Undergraduate and Integrated Dual-Degree programmes offered by the institute.

Departmental/ Centre Faculty Board (DFB/CFB)	8		There shall be a Faculty Board consisting of all the faculty members of a Department/ Centre, which may be called the Departmental/Centre's Faculty Board (DFB/CFB). It shall be constituted by every Academic Department / Centre. The DFB/CFB shall be responsible for considering all the policy issues concerning academic and research programmes of the Department/Academic Centre. The DFB/CFB shall formulate academic programmes and courses as recommended by the DUGC and the DRC to it and send its recommendation(s) to the BUGS or the BPGS&R, as the case may be, for consideration. For IDD programmes, the recommendation of the DFB/CFB shall be sent to the Dean, UGS for his consideration and necessary action.
Departmental Academic Committees	9	(1)	The IDD programme shall be monitored and administered through the Departmental Academic Committees viz. the Departmental Undergraduate Committee (DUGC) and the Departmental Research Committee (DRC). All the courses of the UG programme (i.e. those bearing UG course numbers -100 to 400 series) shall be governed by the DUGC, and all the courses of the PG programme (i.e. those bearing PG course numbers -500 to 600 series) shall be governed by the DRC;
Departmental Undergraduate Committee (DUGC)		(2)	The Departmental Undergraduate Committee (DUGC) shall be constituted by the DFB/CFB to look after all academic matters pertaining to the Undergraduate Programmes and the undergraduate courses of the Integrated Dual-Degree Programme(s) offered by the Department/Centre. For an interdisciplinary programme, a Programme Faculty Board (PFB) shall be constituted by the Dean, UG Studies to look after all the academic matters pertaining to that programme. A Programme Coordinator shall be appointed by the

			<p>(i) CGPA for general category students ≥ 7.5 (ii) CGPA for SC/ST category student ≥ 6.5 (iii) Earned credits at the end of first year $\geq 50^*$</p> <p>*The credits for NCC/NSS/NSO/Rangering, proficiency and discipline shall not be counted for this purpose.</p>
		(3)	<p>While making the change of branch of a student the strength of a class should not fall below the existing strength by more than 10% and should not exceed the sanctioned strength by more than 5%. For this purpose the strength refers to the total strength of the students in the class of a given branch excluding the direct admissions and failures.</p>
		(4)	<p>A student who has secured a rank within the top 1% and satisfies the criteria for eligibility of change of branch, shall be allowed change of branch to his/her choice without any constraint if he/she applies for it. The remaining eligible applicants shall be allowed change of branch strictly on the basis of inter-se-merit as reflected in their CGPA. In case the CGPA of more than one student seeking the change of branch is the same, their inter-se-merit shall be decided on the basis of their ranks in JEE.</p>
		(5)	<p>If a student of higher CGPA is not offered a particular branch because of other constraints, this will not be offered to any other student with a lower CGPA even if he/she is eligible for change of branch on the basis of regulations in section 13(2) to 13(4).</p>

Registration	14	(1)	Every student shall register for the courses that he/she wants to study for earning credits and his/her name will appear in the roll list of each such course. No credit shall be given if a student attends a course for which he or she is not registered. However, a student who has completed 100 earned credits, may be allowed to register for audit of elective courses to the extent of 8 credits out of which at least four credits should be from outside the Department. The performance of a student in all the courses, for which he/she has registered, shall be included in his/her grade card;
		(2)	Registration of courses to be taken in a particular Semester, shall be done according to a specified schedule on payment of necessary fees. In-absentia registration may be allowed only in rare cases at the discretion of the Dean, UGS, in case of illness or any other contingencies;
		(3)	The Dean, Undergraduate studies shall assign the time slots for the next Semester and inform the Departments/Academic Centres, who shall then assign the teachers and decide the time schedule of the courses to be offered in the next Semester. These tasks shall be completed at least ten days before the scheduled date of registration and the time schedule shall be made available by the Departments/Centres to the academic section where it will be centrally displayed for the students at least one week prior to the date of registration;
		(4)	Those students who are joining the first year of the UG or the IDD programme shall complete the registration procedure on a specified registration date prior to the commencement of their classes. Under special circumstances, the students may be allowed late registration by the Dean, UGS till a specified date, by paying a late fee fixed by the Institute, along with other necessary fees;

		(5)	A student may register for a minimum of 15 credits and a maximum of 28 credits. But on the recommendation of the Department/Centre, Dean, UGS, may allow a student to register for a maximum of 32 credits in not more than two Semesters during the entire programme for fulfilling the requirements of minimum earned credits. However, the credits for NCC/NSS/NSO/Rangering, proficiency and discipline shall not be counted for this purpose;
		(6)	A student shall have the option to add or delete courses from his/her registration during the first ten days of the Semester;
		(7)	Before the commencement of classes, Academic Section shall give each student a registration record which shall be the official record of the courses registered; add, drop or any other changes like withdrawal will be marked on this registration record by the Academic Section;
		(8)	At the time of completing the registration form or any subsequent change in the registration, every student shall consult his/her Programme Advisor, who shall be appointed by the Chairman, DUGC of a Department. The Programme Advisor shall advise the students in regard to the minimum and the maximum numbers of total and lecture credits in the context of his/her past performance, backlog of courses, SGPA/CGPA and individual interest.
Termination of Enrolment due to Absence	15	(1)	If a student registered in the first year of the programme is continuously absent from the classes for more than four weeks without informing the Course Coordinators, the Coordinator shall immediately bring it to the notice of First Year Class Coordinator / the Head of the concerned Department as the case may be, for informing the

Termination of Enrolment on Academic Grounds			Academic Section. The names of such students shall be removed from the Institute rolls and such absence during first year will render the student ineligible for readmission;
		(2)	The enrolment of a student in a curriculum may be terminated if he/she fails to earn minimum number of credits specified at different yearly levels in the programme as given in Table-3, notwithstanding the fact that the student has or has not been put under academic probation. Semester withdrawal will be excluded to determine the yearly level of a student for this purpose. The communication regarding termination of enrolment shall be issued by the Academic Section within fifteen days from the date of declaration of results;
		(3)	The enrolment of a student may be terminated on disciplinary grounds, in accordance with the Standing Orders for the Students;
		(4)	A student whose enrolment has been terminated, may appeal to the Director for reconsideration within fifteen days from the date of issuance of the communication of termination and the appeal will be disposed off within fifteen days. If the appeal is allowed, his/her registration and enrolment shall be restored.
Refund of Fees	16		The fees and other charges deposited by a candidate seeking admission to the programme will be refunded if the student does not join the programme and leaves the Institute by applying for refund on or before the date of registration. The Institute shall decide the amount to be refunded but no refund of fees will be permissible to students who have registered for the programme and leave thereafter. In such cases only caution money will be refunded at the end of the semester.

Course Coordinator	17		Every course offered by a Department / Academic Center shall be coordinated by a Course Coordinator appointed by the Head of the Department/Centre. The Course coordinator shall have full responsibility for the course. He shall coordinate the work of other faculty member(s) involved in that course in respect of their participation in various activities related to the course including continuous evaluation of the students through tests, quizzes, assignments, Mid-Term and End-Term examinations and the award of the grades.
First Year Class Coordinator	18		The courses in the first year shall be coordinated by a First Year Class Coordinator appointed by the Dean, UGS. The First Year Class Coordinator shall coordinate the time schedules for the first year classes and shall perform such other duties and exercise such other powers of the Head / Chairman, DUGC, as are necessary for the organization of the courses offered in the first year.
Preparatory Courses Coordinator	19	(1)	The preparatory courses shall be offered to SC/ST students admitted to these courses through JEE, prior to their joining UG or IDD programme. A Coordinator appointed by the Dean, UGS, shall coordinate these courses. The Coordinator shall also be responsible for fixing the time schedule and finalization of the results to be submitted to the Dean, UGS, immediately on completion of the second Semester, as per schedule prescribed by the Dean, UGS;
Advisor, SC/ST students		(2)	The Coordinator, Preparatory Courses, shall also act as the advisor, SC/ST students, to advise them and provide assistance on academic matters;

Programme Advisor		(3)	A programme advisor shall be appointed by the Head of the Department/Academic Centre. The programme advisor shall be responsible for advising the students on registration to the courses.
The Course Evaluation	20	(1)	A student shall be evaluated for his/her academic performance in a course through tutorials, practicals, home work assignments, term papers, field work, seminars, quizzes, Mid Term Examinations (MTE), and the End-Term Examination (ETE), as applicable according to the guide lines formulated by BUGS for this purpose;
		(2)	The distribution of weightage for each component shall be decided and announced by the Course Coordinator at the beginning of the course, subject to such stipulations as are given in the Scheme of Teaching and Examination for a given programme;
		(3)	The Summer Training shall normally be evaluated through the quality of work carried out, the report submission and presentation(s) but the minor project and the project shall be evaluated normally by mid-term seminar(s), quality of work carried out, project report submission and the viva-voce examination;
		(4)	The evaluation of performance in the Summer Term will follow the standards followed previously when the course was offered last during a regular Semester. The record copy of that evaluation including the statistical parameters will be provided to the Course Coordinator by the Chairman, DUGC or the First Year Class Coordinator, as the case may be.
The Grading System	21	(1)	The academic performance of a student shall be graded on a ten-point scale as per guidelines given in Appendix-B. The letter grades and their equivalent grade points are listed in Table 4;

		(3)	The grades for NCC/NSS/NSO/Rangering, proficiency and discipline shall be moderated by the Grade Moderation Committee with the Dean of Students Welfare as its Chairman and the Course Coordinators as its members. The Chairman, Grade Moderation Committee shall also retain the record copy of marks and grades along with the statistical parameters for all the courses moderated by the Committee.
Scrutiny of Grades	23	(1)	A student may apply for scrutiny of grades to the Chairman, DUGC/DRC, as the case may be, by paying the specified fees, within three days from the date of scheduled display of grades. A Committee consisting of the Chairman, DUGC/DRC, as the case may be, the concerned Chairman of the Grade Moderation Committee and the Course Coordinator may check the entry of the weightage from different components of evaluation and their addition, the addition of marks in the final answer scripts and unchecked questions, if any. The results of scrutiny may lead to either a change in grade due to mistake(s) in any of the aspects scrutinized by the committee or the grade may remain unchanged. The results will be intimated to the Academic Section within three days from the date of receiving the application in the Department. For the first year classes, the Chairman of the Grade Moderation Committee and the Course Coordinator shall constitute the Scrutiny Committee;
		(2)	In exceptional circumstances, the grade(s) of a student or a number of students may be scrutinized by a Committee constituted by the Dean, UGS.
Unfairmeans & Plagiarism	24	(1)	In case a student is found adopting or suspected of adopting unfair means before, during or after the examination, or lifting of some other's work(s) and inserting it in his Class Work Submissions, Project, Seminar Reports and Dissertation, etc. without

			proper acknowledgement, credit and reference, or plagiarizing the Dissertation/Project/Class Work Submissions/Reports, etc., such penal action shall be taken by the Institute as may be necessary to uphold the sanctity and integrity of the examination system and the credibility of the Institute;
		(2)	All such cases may be taken suo-moto cognizance of by the Institute Standing Committee appointed by the Senate for this purpose. Such cases may also be reported by any person, including invigilator(s)/examiner(s) to the Dean, UGS and/or the Institute Standing Committee for its consideration. General Instructions for penal action for use of unfair means and plagiarism shall be notified to the students and the faculty of the Institute by the Dean, UGS from time to time.
		(3)	For Project, Class Work Submissions, Seminar Reports, Mid-Term Examination etc., the Course Coordination Committee may report the matter to the concerned DUGC/DRC (or CRC), as the case may be. The DUGC/DRC(or CRC) may, after considering the matter reported to it and after giving an opportunity to the concerned student(s) to explain his/her conduct, impose appropriate penalty, including the award of F Grade in the concerned course(s) on the concerned student(s).
Absence, Leave Rules and Withdrawals.	25	(1)	All the students are expected to be present in every lecture, tutorial, practical or drawing classes, seminars, etc. scheduled for them;
		(2)	An IDD student must have a minimum attendance of seventy five percent of the total number of classes including lectures, tutorials and practicals, held in a course in order to be eligible to appear at the End-Term Examination for that course;

		(3)	<p>A student should meet the above attendance requirement irrespective of the number of days, he/she is on medical and/or other leave for any reason whatsoever.</p> <p>Attendance of the students shall be monitored and displayed during a Semester as per the guidelines approved by the UG Board;</p>
		(4)	<p>The names of the IDD students who have remained absent with or without leave, for more than 25% of the actual classes held in a course as specified in section 25(2) will be intimated by the Course Coordinator on the last teaching day, to the First Year Class Coordinator/Chairman, DUGC/DRC, as the case may be, who will consolidate the list for all such students for all the courses of a given yearly level of a programme and display it on the notice board of the Department/Centre/Academic Section. The list of such students shall also be forwarded to the Dean, UGS. These students shall not be allowed to appear in the End-Term Examination of that course and shall be awarded F grade, irrespective of their performance in Class Work (CW)/ Mid Term Examination (MTE), etc.</p>
Second Examination on Medical/Extra-ordinary Grounds	26	(1)	<p>If a student is absent during End-Term Examination of a course due to medical reasons or other special circumstances, he/she may apply for the award of 'I' grade to the Chairman DUGC/DRC, as the case may be, of the concerned Department/Academic Centre offering the course, through the Course Coordinator and Program Advisor, provided that he/she has attended 75% of the classes held. The Chairman DUGC may grant this request under intimation to the Academic Section. A second examination shall be held normally within ten days of the last day of End-Term Examination to convert 'I' grade to a proper letter grade not exceeding 'B'. Under special</p>

			circumstances and due to the student's inability to be present at the Institute during ten-days period following the last day of End-Term Examination, the Dean, UGS, on the recommendation of the concerned Chairman, DUGC, may extend the period for conversion of I-grade as mentioned above, to the first week of the next Semester;
		(2)	The application for second examination on medical grounds should be supported by a Medical Certificate of the Institute Medical Superintendent or in his/her absence by the Medical Officer of the Institute. If, however, a student is outside the Campus at the time of illness or a mishap/accident, his/her application should be supported by a Medical Certificate issued by a Medical Officer of the rank of the Deputy Chief Medical Officer or above, of the concerned District. The Institute reserves the right to accept or reject such an application and the decision of the Dean, UG studies shall be final in this respect;
		(3)	In special cases and on the specific recommendation of the Institute Medical Superintendent, a student may be permitted to appear in his/her regular examination in the Institute Hospital;
		(4)	A student who fails to appear in the Mid-Term Examination due to sudden illness or mishap/accident and is supported by Medical Certificate as per 25(2) above, may be allowed to take another examination with the permission of the concerned Chairman, DUGC/DRC/CRC, as the case may be.
Withdrawal from a course	27	(1)	A student who wants to withdraw from a course shall apply through the Chairman, DUGC/DRC, as the case may be, to the Dean, UGS, on a prescribed form within one week from the end of the first Mid-Term Examination under the advice of his/her

Rustication/ Suspension, Withdrawal from a Semester/Year		(5)	A student rusticated from the Institute or suspended or debarred from attending the classes due to any reason whatsoever or having withdrawn from a Semester/year on medical grounds, shall have to meet the requirement of 75% attendance in each course in a Semester and shall have to complete the IDD programme within its maximum time limit of seven years as specialized in Regulations.
Summer Term	28	(1)	The students of the first and second year of the IDD programme who have registered but failed to clear Institute core courses in the previous semesters may be allowed to register themselves for such courses in the Summer-Term during summer vacation following first year and second year of the programme, on payment of necessary fees on a specified date. The Summer Term is a compressed Semester where all the regulations for the normal Semester shall apply but the registration shall be limited to three courses having total credits not exceeding 14;
		(2)	The concerned Department shall offer the required summer courses, as intimated by the Academic section before the beginning of the Summer-Term. A course will be offered in the Summer-Term provided that there are a minimum of five students registering for it. The Department shall organize the courses in the Summer Term.
Academic Performance Monitoring	29.	(1)	A student shall be put on academic probation by the Dean, UGS, at the end of each semester for monitoring his/her academic progress under one or more of the following conditions: (a) His/her CGPA becomes 4.0 or less (b) His/her SGPA is below that of the last Semester by two points or more (c) The earned credits in a Semester are less than 15, or

			<p>(d) The cumulative earned credits are less than 17 times the number of semesters a student has registered except in the first Semester.</p> <p>The credits for NCC/NSS/NSO, proficiency and discipline shall not be counted for the purpose of (c) and (d) above;</p>
		(2)	The academic progress of all such students, who are put on academic probation, shall be monitored by a committee appointed for this purpose by the Chairman, DUGC or the DRC, as the case may be, of the concerned Department.
Course Audit	30.	(1)	A student may register to audit a maximum of 8 credits from the Institute or Departmental Elective Courses out of the minimum earned credits specified for a given academic curriculum, as advised by the Programme Advisor appointed vide Section 19(3). A student may also register for an audit course in any Semester within prescribed credit limits mentioned in Section.14(5);
		(2)	A student registered for an audit course may be awarded by the concerned teacher an AP (Audit-Pass) grade if his performance is satisfactory (equivalent or higher than 'D' grade) or an AF (Audit-Fail) grade if his performance is unsatisfactory;
		(3)	A student registered in a course may request for conversion to audit registration in that course within one week from the end of the first Mid-Term Examination and it will be recorded in the registration record.
Minimum students requirement for an elective course	31.		An elective course in a Department shall run only if a minimum of ten students register for it in a regular Semester. However, under special circumstances, a course may run with fewer students with the prior permission of the chairman, Senate.

Earned Minimum Credits and Minimum CGPA for the Degree	32.	(1)	The credits for the courses in which a student has obtained 'D' grade (minimum passing grade for a course) or higher shall be counted as credits earned by him/her. A student who has a minimum CGPA of 5.0 and earned a minimum number of credits as specified in the IDD curriculum, he/she is registered for, is eligible for the award of the dual degrees, viz. B. Tech. and M. Tech.;
		(2)	A student, who has earned the minimum credits required for a degree but fails to obtain the minimum specified CGPA for this purpose, shall take additional courses till the minimum CGPA is attained within the maximum time limit for the IDD programme.
Scholarships, Prizes and Certificates	33.	(1)	The institute shall award the merit-cum-means (MCM) scholarships, fee-waivers, SC/ST category Institute scholarship and such other scholarships and MHRD assistantships, awards and prizes as approved by the senate. The other scholarships may be instituted by grant from individuals, trusts, organizations and the Governments with a view to provide financial assistance to needy students under the terms and conditions specified by the Institute. A student registered for the fifth year of the IDD programme and who has cleared all the coursework requirements upto fourth year of the programme and (i) has a CGPA not less than 8.0, or (ii) has qualified GATE, may be offered MHRD scholarship/assistantship on the basis of his/her attendance in the courses registered in a semester and his/her fulfilling the requirement of weekly workhours assigned to him/her. Sixty percent (60%) of the amount of scholarship/assistantship shall be paid on the basis of monthly attendance of a student and the rest forty percent (40%) on the basis of weekly workhours assigned to a student. The deduction from the scholarship/assistantship due to absence in class or non-fulfillment of the

			weekly workhours assignment shall be made on pro-rata basis. If the portion of the Dissertation carried out by a student in the Autumn Semester of fifth year of the programme is graded unsatisfactory (U), the student shall cease to get scholarship/assistantship in the next semester. Announcements on these scholarships/assistantship stating eligibility and the value of scholarships/assistantship etc. shall be made while inviting applications from time to time;
		(2)	A student may draw scholarships or stipends from outside sources with the necessary permission from the Dean, UGS.
Leave (Assistantship holder)	34	(1)	Subject to his/her fulfilling the attendance requirements as detailed in Regulation 24 above, a student of IDD programme and receiving Institute assistantship will be entitled for 30 days leave (including leave on medical grounds) during fifth year of the programme. He/She will not be entitled to mid-semester breaks, and summer and winter vacations;
		(2)	The leave will be subject to approval of the concerned Head of the Department/Academic Centre/Programme Coordinator;
		(3)	The Department/Academic Centre /Programme Coordinator concerned shall maintain a proper leave account of each student;
Interpretation of Regulations	35		In case of any dispute, difference of opinion in interpretation of these regulations or any other matter not covered in these regulations, the decision of the Chairman, Senate shall be final and binding;
Emergent Cases	36		Notwithstanding anything contained in the above regulations, the chairman of the Senate may, in emergent situations, take such action on behalf of the Senate as he deems appropriate and report it to the next meeting of the Senate.

**TABLE-1: UG PROGRAMMES LEADING TO
BACHELOR'S DEGREE**

Branch	Degree
Architecture	B. Arch.
Chemical Engineering	B. Tech. (Chemical Engineering)
Civil Engineering	B. Tech. (Civil Engineering)
Computer Science & Engineering	B. Tech. (Computer sc. & Engineering)
Electrical Engineering	B. Tech. (Electrical Engineering)
Electronics & Communication Engineering	B. Tech. (Electronics & Communication Engineering)
Production & Industrial Engineering	B. Tech. (Production & Industrial Engineering)
Mechanical Engineering	B. Tech.(Mechanical Engineering)
Metallurgical and Materials Engineering	B. Tech. (Metallurgical and Materials Engineering)
Pulp & Paper Engineering	B. Tech. (Pulp & Paper Engineering)

TABLE-2: STRUCTURE OF UNDERGRADUATE PROGRAMMES

CURRICULAR COMPONENTS	B.Tech Credits	B. Arch Credits	Co-ordinating Department(s)
(a) Institute core			Department of Humanities & Social Sciences, Department of Management
Humanities, Social Studies and Management	16	16	
Basic sciences	27	12	Departments of Physics, Chemistry, Mathematics & Biotechnology
Engineering Science and Arts	35	34	As assigned by Dean, UGS, to the departments of Engineering, Mathematics and Biotechnology
(b) Department Core (including 12 credits for Project work 2 credits for Practical Training and 2 credit for Group Discussion and Viva Voce)	86-90	120-124	The department offering the curriculum
(c) Department Electives	16-20	21-25	The department offering the curriculum
(d) Institute Electives	12	12	The department offering the elective*
(e) Others			
Discipline	08	09	Dean of Students Welfare
NCC/NSS	02	02	Dean of Students Welfare
NSO(Proficiency)	04	04	Dean of Students Welfare
Total	206-214	230-238	

* Each department shall normally offer at least one institute elective and the departments shall specify as to whether the students of a given branch have done an equivalent course and therefore, are not allowed to register for that institute elective.

Table-3: MINIMUM REQUIREMENT OF EARNED CREDITS FOR CONTINUATION OF REGISTRATION

	Year	Dual-Degree Programme
1.	I yr**	28
2.	II yr**	60
3.	III yr	94
4.	IV yr	130
5.	V yr	170
6.	VI yr	210***
7.	VII yr	242

** Excluding Proficiency / NCC / Discipline credits

** Including credits, if any, earned during summer term

*** The figure should not be less than the minimum prescribed

Table 4: STRUCTURE OF GRADING OF ACADEMIC PERFORMANCE

Academic Performance	Grades	Grade Points
Outstanding	A+	10
Excellent	A	9
Very Good	B+	8
Good	B	7
Average	C+	6
Below Average	C	5
Marginal	D	4
Poor	E	2
Very Poor	F	0
Pass in Audit Courses	AP	-
Fail in Audit Courses	AF	-
Incomplete	I	-
Withdrawal	W	-
Continued Project	X	-
Non Completion of course requirement	Z	-

Explanation:

'E' and 'F' Grades

The 'E' and 'F' grades denote poor and very poor performance, i.e. failing a course 'F' grade is also awarded in case of poor attendance (see Attendance Rules). A student has to repeat all compulsory (core) courses in which she/he obtains either 'E' or 'F' grades, until a passing grade is obtained. However, if 'E' or 'F' grade is awarded to a student in Project, he/she will not be eligible to repeat the same and will not be eligible for the award of degree.

For the other (elective) courses in which 'E' or 'F' grades have been obtained, the student may take the same course or any other course from the same category. Further, 'E' or 'F' grades secured in any course stay permanently on the grade card. The weightage of these grades is not counted in the calculation of the CGPA, however, these are counted in the calculation of the SGPA.

AP/AF Grades

These grades are awarded to an audit course as specified in Regulation 30. These grades are not counted in the computation of SGPA/CGPA.

'I' Grade

This refers to an 'incomplete' grade, which is required to be converted into a regular letter grade as provided for in a course other than Project/Dissertation in Regulation 26(1). The guidelines for the award of 'I' grade are given in Appendix -B3.

'W' Grade

This refers to withdrawal from a course other than Dissertation as provided for in Regulation 27(1).

'X' Grade

This grade is awarded for incomplete Project/Dissertation work as per guidelines given in Appendix - B4 and will be converted to a regular grade on the completion of the Project/Dissertation work and its evaluation.

Appendix-A

Calculation of Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA)

$$(i) \text{ SGPA} = \frac{\sum_{i=1}^n C_i \cdot p_i}{\sum_{i=1}^n C_i}$$

Where

C_i = Number of credits earned in the i^{th} course of a semester for which SGPA is to be calculated.

p_i = Grade point earned in i^{th} course.

i = 1,n, represent the number of courses in which a student is registered in the concerned semester.

$$(ii) \text{ CGPA} = \frac{\sum_{j=1}^m C_j \cdot p_j}{\sum_{j=1}^m C_j}$$

Where

C_j = Number of credits earned in the j^{th} course, upto the semester for which CGPA is to be calculated.

p_j = Grade point earned in j^{th} course. A grade lower than D (i.e. grade point < 4) in a course shall not be taken into account.

j = 1,m; represent the number of courses in which a student was registered upto the semester for which CGPA is to be calculated.

Appendix - B

General Guidelines for Award of Grades

The following are the general guidelines for the award of grades:-

- (i) All evaluations of different components of a course shall be done in marks for each student.
- (ii) The marks of various components shall be reduced to approved weightage (as decided by the DFB/CFB) and/or indicated in the scheme of Teaching and Examination and added to get total marks secured on a 100-points scale. The rounding off shall be done on the higher side.
- (iii) For less than 15 students in a course, the grades shall be awarded on the basis of natural cut-off in the absolute marks (Appendix B-1).
- (iv) For more than 30 students in a course, the statistical method shall be used for the award of grades with or without marginal adjustment for natural cut-off. The salient features of statistical method are given in Appendix B-2.
- (v) The overall distribution of different grades shall be as indicated in the statistical distribution to the extent possible. (Appendix B-2)
- (vi) For the strength of students in any course between 15 to 30, any of the above methods (Appendix B-1/B-2) may be used for the award of grade.
- (vii) A+ (A Plus) grade shall not be awarded for percentage of marks less than 80 under any circumstance. There will not be more than 10 % (rounded off to integer value) A+ grade in any course.
- (viii) D grade shall not be awarded for percentage of marks less than 35 in any case. Further no student having 40 % or more marks would be awarded failing grade E or F.
- (ix) The provisional grades shall be awarded by the Coordination Committee of the course headed by the Course Coordinator and consisting of all the teachers involved in that course. The grades should be finalized within 3 days of the Semester examination. The Course Coordinator shall have full responsibility for this purpose.
- (x) The grades so awarded shall be moderated by a Grade Moderation Committee appointed by the DUGC/DRC, as the case may be. This committee will finalize the grades and display a copy of the grades awarded on the Department's/Center's Notice Board. All the final

grades shall be communicated to the Academic Section within seven days from the last date of the End-Term Examination. The Chairman, Grade Moderation Committee shall retain the records of all the marks and grades and shall send one copy of all records to the Chairman, DUGC/DRC, as the case may be.

- (xi) The procedure for evaluation and award of grades for Project/Training/Seminar/Comprehensive viva-voce shall be such as may be decided by the respective DFB/CFB or the Senate.
- (xii) For Dissertation, each student will be evaluated individually and the grades shall be awarded on the basis of absolute marks (Appendix B-1). The Dissertation shall be presented before a Dissertation Viva-Voce Board consisting of the following, for evaluation.
 - (a) A Nominee of the Head of Department/Academic Center for each specialization, who shall be the Chairman.
 - (b) One nominee of DRC.,
 - (c) Supervisor(s),
 - (d) External Examiner

The distribution of weightage for the Dissertation amongst the examiners shall be as follows:

(a)	Supervisor(s)	:	25%
(b)	External Examiner	:	25%
(c)	Viva-Voce Board together	:	50%

The above weightage shall be summed up and converted out of 100 marks. The grades will be awarded on the basis of absolute marks as given in Appendix B-1.

A student securing U (unsatisfactory) grade in the Autumn Semester of fifth year of the IDD programme, shall not be awarded final grade higher than B plus (B+) in the Dissertation as a whole at the end of the Spring Semester of fifth year.

Appendix-B1

Award of Grades Based on Absolute Marks System

The award of grades based on absolute marks out of 100 shall be made as follows :

<u>Marks</u>		<u>Grade</u>		<u>Marks</u>
91	≤	A+	≤	100
82	≤	A	≤	90
73	≤	B+	≤	81
64	≤	B	≤	72
55	≤	C+	≤	63
46	≤	C	≤	54
40	≤	D	≤	45

Note:-

- (1) The grade boundaries as indicated above may be marginally adjusted.
- (2) The upper and lower limits are subject to limitations of percentage of marks.

Appendix -B2

Statistical Method for the Award of Grades

For the award of grades in a course, all component-wise evaluation shall be done in marks. The marks of different components viz. Mid-Term Examinations (MTE), End-Term Examination (ETE), Course Work Sessionals (CWS), Practical Sessionals (PS) etc. would be reduced to relative weightage of each component as approved by the Senate and added. Marks so obtained shall be out of 100 and the same would be converted to grades following the guidelines given below :

For 30 or more number of students in a course, the statistical method shall invariably be used with marginal adjustment for natural cut-off. The mean (\bar{X}) and the standard deviation (σ) of marks obtained of all the students in a course shall be calculated and the grades shall be awarded to a student depending upon the marks and the mean and the standard deviation as per Table given below.

Awards of Grade Using Statistical Method

Lower Range of Marks	Grade	Upper Range of Marks
	A+	$> \bar{X} + 1.5 \sigma$
$\bar{X} + 1.0 \sigma <$	A	$\leq \bar{X} + 1.5 \sigma$
$\bar{X} + 0.5 \sigma <$	B+	$\leq \bar{X} + 1.0 \sigma$
$\bar{X} <$	B	$\leq \bar{X} + 0.5 \sigma$
$\bar{X} - 0.5 \sigma <$	C+	$\leq \bar{X}$
$\bar{X} - 1.0 \sigma <$	C	$\leq \bar{X} - 0.5 \sigma$
$\bar{X} - 1.5 \sigma <$	D	$\leq \bar{X} - 1.0 \sigma$
$\bar{X} - 2.0 \sigma <$	E	$\leq \bar{X} - 1.5 \sigma$
	F	$\leq \bar{X} - 2.0 \sigma$

Appendix - B3

Award of 'I' Grade

- (a) If a student is absent during End-Term Examination of a course due to medical reasons or other special circumstances, he/she may apply for the award of 'I' grade to the chairman, DUGC/DRC/CRC through the Course Coordinator and the Programme Advisor, provided that he/she has attended 75% of the classes held.

The concerned Course Coordinator shall have to be convinced about the extraordinary circumstances and shall have to certify the attendance record before this rarely used option to award 'I' grade is recommended. The Chairman DUGC/DRC/CRC may award 'I' grade.

- (b) The 'I' grade so awarded shall be notified by the Department/Centre to which the student belongs and a copy of the notification will be endorsed to the Academic Section and to the concerned Course Coordinator (e.g., the notification for 'I' grade of a Chemical Engineering student will be notified by the Department of Chemical Engineering on the recommendation of the concerned Course Coordinator, even if the course pertains to another Department/Academic Centre).
- (c) The 'I' grade shall be converted into a proper letter grade not exceeding 'B' and shall be sent to the Academic Section within 10 days from the date on which the End-Term Examination is over and the requirements of the course are completed by the student.
- (d) In extraordinary circumstances, the period of conversion of 'I' grade may be extended to the next semester, with the approval of the Dean, UG studies on his own or on the recommendation of the Course Coordinator and the Head of the Department /Centre to which the student belongs.
- (e) In extra-ordinary circumstances, on the recommendation of the Dean, UG studies, the Director may order the award of 'I' grade to a student/class or a batch of students taking a particular course. The conversion of 'I' grade into a regular grade or any other action shall be as per direction of the Director.

Appendix - B4

Award of 'X' Grade

A student who is unable to complete his/her Project/Dissertation may be awarded an 'X' grade on the recommendation of an Evaluation Committee consisting of (i) The nominee of the Head of the Department/Academic Centre for each specialization, who shall be the Chairman (ii) Nominee of the D.R.C./C.R.C.; and (iii) The Supervisor(s) of the Project/Dissertation. The student concerned shall have to present his/her work to the Evaluation Committee for the Project/Dissertation, 4 to 6 weeks before the date of registration to the next semester.

A student who has been awarded an 'X' grade shall be required to formally register for the next Semester and pay the requisite fees. A student may be awarded 'X' grade only once.

'X' grade will be awarded in exceptional circumstances beyond student's/supervisor's control. Normally, the following grounds may be considered for the award of 'X' grade:

- (a) Medical grounds to the satisfaction of the Institute Medical Officer and the approval of the Dean, UG studies.
- (b) Technical reasons/grounds such as the Supervisor/equipment not being available.

Appendix-C

Guidelines for Deduction of Marks for Mass Abstention from Classes

A fine of 5 marks out of the discipline group will be imposed on each of the student by the Head of the Deptt on the recommendation of course coordinators and chairman DUGC , for mass abstention from a class. The maximum fine for a day would be limited to 15 marks. For first year students such fine shall be imposed by the First Year Class Coordinators. All such fines shall be communicated to Dean of Students Welfare for records. The marks so fined will not be converted into monetary fine.

If the disciplinary marks are exhausted for a student, additional fine of marks would be converted to monetary fine. For the purpose of calculating equivalent monetary fine from marks or vice-versa, one mark shall be treated as Rs. 50/- or the amount approved by the Director from time to time on the recommendation of Dean of Students Welfare.

The fine of marks shall be imposed on the students upto fourth year of the IDD programme only.

Appendix-D

Structure/Scheme of M.Tech. in Engg., M.Arch./MURP, M.Tech.(SSEM) & PG Diploma programmes

The duration of one and half year M.Tech/M.Arch., M.U.R.P. programme shall be increased from 18 months to 24 months (4 Semesters) duration to strengthen project work (dissertation) as per policy guidelines issued by MHRD, Government of India, with effect from the session 2002-03.

The Maximum duration for award of Full-Time and Part-Time M.Tech./M.Arch./M.U.R.P. degree shall be 6 and 10 semesters, respectively.

The minimum duration of Part time programme is 3 years.

HS-501 : Technical Communication course for all post graduate programmes in Engineering, Architecture & Planning and Sciences shall be optional with 2 credit weightage. This shall be run entirely by the Department of Humanities and Social Sciences. The course shall be scheduled in the Time Table so as not to disturb the normal working of the other Departments. The credits shall be included in the requirement of total credits in the concerned programme. This course shall be run in both Autumn and Spring Semesters of each academic session. The Faculty Advisor of the students shall advise the students weak in communication to opt for this course.

(A) M.Tech. Programmes :

The structure of 4 Semesters M.Tech. programmes shall be as follows :

Semester I	:	Total Credit 20-25
Semester II	:	Total credits 20-25

Institute core courses except HS 501 Technical Communication shall be the same as in the existing system. (Please see Table-2)

Minor specialisation courses	:	4-8 credits.
Major specialization courses	:	20-28 credits.

Project of 4-8 credits may be offered either in II or III semester of the M.Tech. Programme.

The sum total credits for I and II semester together shall be between 44 and 48 credits.

Semester III	:	Total credits 20-24
Semester IV	:	Total Credits 20-24

Total credits for Semester III and IV put together shall be between 44 to 48.

Seminar (write up, presentation for evaluation) : 4 credits

Project : 4-8 credits, if not included in II Semester.

Course Unit to be decided by the Department for each programme: 0-4 credits (optional for the Department) .

Dissertation : The credits for dissertation in Semester III & IV taken together shall be between 32 and 40.

The topic of dissertation shall be decided in the 2nd semester.

The portion of dissertation work of 8-16 credits, carried out in III semester, shall be examined at the end of III Semester and the evaluation shall be recorded as Satisfactory or Unsatisfactory with Grades 'S' or 'U', respectively.

If the dissertation of a student is graded unsatisfactory (U), he/she shall cease to get scholarship/assistantship in the IV Semester.

For the calculation of SGPA and CGPA of III Semester, only the credits of Seminar, Project (if not offered in II Semester), one course unit (if approved by the Deptt./Centre) and Technical Communication (if not opted in I or II Semester) shall be taken into account.

Dissertation work done in the III and IV Semester shall be submitted in the form of a Write up, which shall be presented for evaluation as a whole at the time of final Viva-Voce Examination at the end of IV Semester.

If a student gets unsatisfactory (U) grade in the Dissertation in the III Semester, he/she shall not be awarded the final Grade higher than B Plus (B⁺) in the Dissertation as a whole at the end of IV Semester.

The Dissertation Viva-Voce Board shall consist of the following :

- | | | |
|-------|-----------------------------------|----------|
| (i) | Head of the Deptt. or his nominee | Chairman |
| (ii) | One nominee of DRC | Member |
| (iii) | Supervisor(s) | Member |
| (iv) | External Examiner | Member |

The distribution of weightage of marks for the Dissertation amongst the Examiners shall be as follows :

- | | | | |
|-------|--------------------------|---|-----|
| (i) | Supervisor(s) | : | 25% |
| (ii) | External Examiner | : | 25% |
| (iii) | Viva-Voce Board together | : | 50% |

The above weightage shall be summed up and converted out of 100 marks. The grades will be awarded on the basis of absolute marks as given in Appendix-B1:

Normal vacations should be utilised for completion of requirements of the PG programmes.

A minimum of total course credits to be earned by a student for the award of the M.Tech. degree shall be 88 with the minimum CGPA requirement of 5.5 as passed by the Senate vide its Resolution No. 2.3.36 on 13th March 2002.

In the PG degree programme, a student who discontinues at the end of 3rd semester with acceptable performance (CGPA \geq 5.5) may resume the work (dissertation) later as per regulation in force subject to his satisfying the duration-limit.

(B) M. Arch. & MURP Programmes :

The P.G. degree Programmes of the Department of Architecture and Planning should conform to the above broad framework for M.Tech. programmes with credits of 20-25 for I & II Semesters each, 20-24 for III Semester and 20-24 Credits for IV Semester, respectively. A minimum total of 88 credits for all the four semesters taken together with minimum CGPA requirement of 5.5 be earned by a student for the award of M.Arch/M.U.R.P. degree. In the III Semester a course unit of 4 credits may be offered. This is, however, optional for the Department. The dissertation of 8-16 credits shall be evaluated at the end of III Semester and shall be graded as satisfactory (S grade)/ Unsatisfactory (U grade) similar to M.Tech. programmes.

(C) P.G. Diploma :

P.G. Diploma of two Semesters (one year duration) presently run in the WRDTC, and Hydrology Departments may be continued as at present with the following broad framework.

Credit requirements for each of the two semesters be 20-25.

Project of 4-8 Credits shall be completed by the end of II Semester.

The total Credit requirement for the award of Diploma shall be 44-48.

GUIDELINES FOR M. TECH DISSERTATION

1. Chairman DRC to invite and receive the topics for dissertation by April 30, from the faculty and notify to students.
2. Allotment of topics of dissertations to students by middle of May.
3. Supervisors and students chalk out plan of work
4. Students will maintain a diary for keeping record of monthly progress which shall be countersigned by the supervisor(s).
5. Evaluation of the component of dissertation will be done by third week of December in IIIrd semester by a committee consisting of Head or his nominee, Chairman DRC or his nominee, Supervisor and one or more experts from the concerned group (subject area).

The committee shall record the evaluation of this component of dissertation as satisfactory/unsatisfactory in the **Annexure-I (M. Tech-I)**.

Candidates abroad shall be assessed by their member there and certificate to this effect by him and Indian Guide be sent to Academic Section.

6. Student's progress of work shall be continually monitored by supervisor(s) and recorded in the diary of student in the each semesters by the student.
7. The dissertation and if possible a research paper manuscript be submitted in the existing format and norms between May and June of IV Semester.
8. The final evaluation of dissertation as a whole shall be done in IV Semester by the Viva-Voce Board consisting of the following by July.
 - i) HOD or his nominee
 - ii) One nominee of DRC
 - iii) Supervisor(s)
 - iv) External examiner

It is advisable to have common external examiner for similar areas of dissertation. For local examiners, HOD may approve the appointment of external examiners from IIT Campus as recommended by DRC.

9. The dissertation evaluated shall be based on the quality, quantity of work, write up, presentation and ability to answer questions, and possible manuscript research paper.
10. For evaluation of presentation Absolute System of Grading shall be followed.
 - (a) For the purpose of evaluation proforma as in Appendix B (M. Tech) be used. It may be noted that if a student gets unsatisfactory (U) grade in the component of dissertation in III semester, he / she shall not be awarded grade higher than B+. However, on evaluation if a student gets C+ or grade higher the dissertation be accepted as partial fulfillment for award of degree.

In case the dissertation is graded C or D, the candidate shall be given a chance to revise the dissertation as per the suggestions of the Viva-Voce Board and allowed to resubmit it normally after three months but within three years from the date of initial registration. In such a case, he / she shall not awarded grade higher than B+ or B if he / she has S or U grade respectively for dissertation component of III Semester.

In case of the dissertation graded is E or F, the candidate may be allowed to resubmit the dissertation after nine months but with in three years from the date of initial registration. In such as case, he / she shall not awarded grade higher than B or C+ if he / she has S or U grade respectively for dissertation component in III Semester.

- (b) The final grading of Dissertation be presented in the dissertation grade sheet **Annexure-II (M. Tech-2)** and sent to the Academic Section PGS & R).
- (c) In case of use of unfair means, the student be declared fail and shall not be allowed to continue and his / her name he struck off rolls. This fact may be mentioned in the character certificate of student.
- (d) Reported charge of plagiarism or unfair act on the part of student shall be examined and looked into by the Viva-Voce Board. The report of this board shall be considered by standing committee consisting of the concurred Head of the Department / Centre and two more Heads of Departments to be nominated by Chairman Senate on the advice of Dean PGS & R. The decision of the Chairman, Senate on the report of the standing committee shall be final.

DEPARTMENT OF
INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

M TECH DISSERTATION GRADE-SHEET (III Semester, Session.....)

Candidate's NameEnrolment No.....

Branch.....

Year of Initial Registration

Title of Dissertation.....
.....

Date of Evaluation.....

The dissertation work, is satisfactory/unsatisfactory.

Roorkee

Date :

Supervisor(s)

Chairman DRC

HOD

**Annexure-II to Appendix-II
(M.Tech-2)**

**DEPARTMENT OF
INDIAN INSTITUTE OF TECHNOLOGY ROORKEE**

M.TECH DISSERTATION GRADE-SHEET (IV Semester, Session)

Candidate's Name.....Enrolment No.....

Branch:.....Year of Initial Registration

Title of Dissertation.....

Submission of Dissertation for First after Minor Revision / Resubmission

Examiners	Full Weightage	Marks in Figure	Marks in words
Supervisor/guide on the thesis/evaluation Paper	25%		
External on the basis of thesis /paper evaluation	25%		
Board of Examiners based on merits of Dissertation and Viva-voce Performance and Research Paper.	50%		
Grand Total	100%		

	Letter	Grade points in Figure
Absolute Grade Awarded		

The viva-voce examination was held on.....at Roorkee

Supervisor(s)

External Examiner

DRC Nominee

HOD or His Nominee

Note: Ten percent weightage may be given for the manuscript of paper based on Dissertation work.

GUIDE LINES FOR COMPREHENSIVE EXAMINATION FOR Ph.D STUDENTS

The comprehensive examination will be conducted by the SRC (student Research Committee) according to the following guidelines:

- (a) Student should first earn the requisite pre- Ph.D. course credits. Student through his/ her supervisor will make a request on a Proforma (Ph.D.-III) to the Chairman, SRC who will arrange the written and oral examination normally within 30 days of receiving such request through a notification in Proforma (Ph.D.-IV). SRC will record the result of Pre Ph.D. courses on Proforma (Ph.D.-V):
- (b) Written examination paper will be set by the supervisor & examination be got conducted It will be open to SRC whether the written examination is conducted 'open book' or otherwise. The result shall be presented in Proforma Ph.D. -V.
- (c) The oral examination shall be conducted after the candidate clears the written examinations (Proforma Ph.D.-V be used).
- (d) For the Research Proposal , the student will deliver a oral Presentation on proposed topic of research for which he/she shall submit a brief write up of about 5-6 pages highlighting the Objectives, brief account of previous work done, scope of work and possible approach to address the proposed research work for Ph.D. degree. The SRC shall evaluate the proposal and may approve or disapprove and record it in the Proforma Ph.D.-V.

Note: The student will be required to obtain at least 50% marks to pass the comprehensive examination.

Enrolment No.

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INDIAN INSTITUTE OF TECHNOLOGY ROORKEE**APPLICATION FORM FOR COURSES TO BE COMPLETED (COURSE REGISTRATION)**
(USE CAPITAL LETTERS)

- A. 1. Name of Student (in English) _____
2. Department / Centre _____ 3. Date of Joining _____
4. Status (Please Tick) Full Time ☐ Part Time ☐ Sponsored ☐
5. Date of Registration _____ 6. Contact Address & Phone No. _____
- B. 1. Topic of research (in capital letters) _____
2. Particular of Proposed Supervisor(s)

Name	Designation	Deptt. / Centre	Signature of Supervisor(s)

- C. 1. Total No. of Credits to be Completed (i) Credits are earned if he / she obtains B or higher grades (ii) Registration is cancelled if he / she gets E or F in any one of the course (In Figure) _____ (In Words) _____

2. Courses to be completed

Semester	Session	Courses No. and Title	Credits	Remarks

Certified that the courses as mentioned above have not been taken by me for my earlier degree / diploma.

DATED : _____

(SIGNATURE OF STUDENT)

D. Recommendation of the Student Research Committee (SRC) Through Head of Department

The SRC recommends that the candidate should complete the courses as per details mentioned above.

Member Internal	Member External	Supervisor(s)	Chairman SRC / DRC	Head of Deptt. / Centre
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FOR USE OF ACADEMIC SECTION ONLY

Particulars of the student have been verified submitted for approval of the Dean, PGS & R.

Dealing Assistant

Office Suptd. (Academic)

A.R. (Academic)

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE
PROGRESS REPORT OF Ph.D. SCHOLAR FOR AUTUMN / SPRING SEMESTER OF SESSION
 (To be sent a week before the registration in each semester)

PART A: TO BE COMPLETED BY THE SCHOLAR (ALL COLUMNS ARE TO BE FILLED)

1. Enrollment Number _____ 2. Name of student _____
3. Department / Centre _____
4. Status (A) Full Time or Part Time _____ (B) Sponsored or Non sponsored _____
5. Date of Registration _____ 6. Date of Passing the Comprehensive Examination _____
 (wherever applicable)
7. Topic of research (in capital letters)
 (in English) _____
 (in Hindi) _____
8. Brief Report of the work for the period _____ to _____
9. Dates of Candidacy, if applicable _____
10. Any other information regarding work done _____

Date :

(Signature of Student)

PART B : PERFORMANCE & RECOMMENDATION FROM DEPARTMENT / CENTRE FOR THE PERIOD
THROUGH HEAD OF THE DEPARTMENT / CENTRE _____

- (a) Performance (Satisfactory / Unsatisfactory) _____
- (b) Recommendation _____

Signature of Supervisor(s)

(Signature of Chairman, SRC)

(Signature of Head of the Department / Centre)

Date :

- Note : 1. Credits are earned by student, if he / she obtains a minimum of B-Grade (R. 7.5)
 2. Registration of a student is terminated if he/ she gets E or F grade even in any one course of study (R. 7.5)

FOR USE OF ACADEMIC SECTION ONLY

Part A checked and the recommendation of the Department / Centre is submitted for approval of Dean, PGS&R.

Dealing Assistant

Office Suptd. (Academic)

A.R. (Academic)

Approved / Not Approved

Signature of Dean, PGS & R

DEPARTMENT OF

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

(Request by Student for Comprehensive Examination)

Chairman SRC,

Through : Supervisor

Sub : Request for conduct of comprehensive examination.

I have cleared if credits in each pre – Ph.D. course is B or higher grade the Pre-Ph.D. courses as follows :

Course No. and Title	Credit	Grade obtained
1.		
2.		
3.		

The photocopies of the grade sheets are enclosed herewith. It is requested that my comprehensive examination may kindly be organized. I shall submit the research proposal (5 to 6 pages) and the proposed research plan, a week before the date of examination.

The date of initial registration of the undersigned is

(Signature and Name of Student)

Encl : Self attested photocopies of the grade sheets .

DEPARTMENT OF
INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

NOTIFICATION FOR COMPREHENSIVE EXAMINATION

1. The written examination of Mr _____ shall be held on _____
Time _____ Venue _____.
2. Presentation on proposed research plan and oral examination will held on _____
Time _____ Venue _____. He / She will submit a write up of about of 5 to 6
typed pages of A-4 size with reference cited / listed therein, about the research plan.

Note : The student is required to submit to the undersigned.

- (a) The *research plan* to SRC latest by _____
- (b) The write up on presentation of Research plan _____

Chairman, SRC

Photocopy to :

- All members of his / her SRC
- Dean, PGS & R

DEPARTMENT OF
INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

Report on Comprehensive Examination
(Written and Oral)

1. Name of the Student : _____
2. Date of Registration : _____
3. Comprehensive Examination

(i) Date of written examination :

Result of Written Examination : Passed / Failed / To reappear

(ii) Date of Oral Examination

Result of Oral Examination : Passed / Failed / To reappear

(iii) Results of Comprehensive Examination :

- The SRC on the basis of performance of the student in the comprehensive examination (tick / write) recommends as follows:

(i) Passed (ii) Failed (iii) To reappear in the examination after _____ months but within the 18 months from the date of registration)

(The student is required to obtain at least 50% marks in each component (written and oral) of comprehensive examination).

Research Proposal Title _____

(copy attached)

- The SRC considered the research proposal entitled _____
- The research proposal is Approved / Not Approved

The SRC recommends that the student be registered as a candidate for Ph.D. degree of the institute on this day

The details of the research plan are enclosed.

(Member, SRC)

(Member, SRC)

(Supervisor)

(Supervisor)

(Chairman, SRC)

Photocopy to :

- All members
- The candidate ()
- Head of the Department
- Dean, PGS & R