

बैठक अनुभाग  
**MEETING SECTION**  
भारतीय प्रौद्योगिकी संस्थान रुड़की  
**INDIAN INSTITUTE OF TECHNOLOGY ROORKEE**



संस्थान के सीनेट हॉल में दिनांक 18 फरवरी 2013 को आहुत सीनेट की 47वीं बैठक का कार्यवृत्त  
**Minutes of the 47<sup>th</sup> Meeting of the Senate held on 18<sup>th</sup> February 2013 in the Senate Hall of the Institute.**

**उपस्थित / Present:**

- |     |                           |                           |
|-----|---------------------------|---------------------------|
| 1.  | Prof. Pradipta Banerji    | -Director & Chairman      |
| 2.  | Prof. S.P.Gupta           | Dy. Director              |
| 3.  | Prof. (Mrs) Pushplata     | (Architecture & Planning) |
| 4.  | Prof. R.P. Singh          | (Biotechnology)           |
| 5.  | Prof. Ramasare Prasad     | (Biotechnology)           |
| 6.  | Prof. I.M. Mishra         | (Chemical Engineering)    |
| 7.  | Prof. Surendra Kumar      | (Chemical Engineering)    |
| 8.  | Prof. Shri Chand          | (Chemical Engineering)    |
| 9.  | Prof. I.D. Mall           | (Chemical Engineering)    |
| 10. | Prof. Vijay Kumar Agarwal | (Chemical Engineering)    |
| 11. | Prof. R.N. Goyal          | (Chemistry)               |
| 12. | Prof. Anil Kumar          | (Chemistry)               |
| 13. | Prof. U.P. Singh          | (Chemistry)               |
| 14. | Prof. S.S. Jain           | (Civil Engineering)       |
| 15. | Prof. M.N. Viladkar       | (Civil Engineering)       |
| 16. | Prof. Deepak Kashyap      | (Civil Engineering)       |
| 17. | Prof. (Mrs) Renu Bhargava | (Civil Engineering)       |
| 18. | Prof. Pradeep Kumar       | (Civil Engineering)       |
| 19. | Prof. P.K. Garg           | (Civil Engineering)       |
| 20. | Prof. Pradeep Bhargava    | (Civil Engineering)       |
| 21. | Prof. Mahendra Singh      | (Civil Engineering)       |
| 22. | Prof. Manoj K. Arora      | (Civil Engineering)       |
| 23. | Prof. M. Parida           | (Civil Engineering)       |
| 24. | Prof. N.K.Samadhiya       | (Civil Engineering)       |
| 25. | Prof. K.S. Hari Prasad    | (Civil Engineering)       |
| 26. | Prof. Akhil Upadhyay      | (Civil Engineering)       |
| 27. | Prof. Z. Ahmad            | (Civil Engineering)       |
| 28. | Prof. Ashwani Kumar       | (Earthquake Engineering)  |
| 29. | Prof. M.L. Sharma         | (Earthquake Engineering)  |
| 30. | Prof. Ashok Kumar         | (Earthquake Engineering)  |

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- |     |  |                                   |
|-----|--|-----------------------------------|
| 31. | Prof. Yogendra Singh                                       | (Earthquake Engineering)          |
| 32. | Prof. A.K. Saraf   | (Earth Sciences)                  |
| 33. | Prof. Sandeep Singh  | (Earth Sciences)                  |
| 34. | Prof. Vinod Kumar  | (Electrical Engineering)          |
| 35. | Prof. Pramod Agarwal                                       | (Electrical Engineering)          |
| 36. | Prof. S. Mukherjee   | (Electrical Engineering)          |
| 37. | Prof. S.P. Singh   | (Electrical Engineering)          |
| 38. | Prof. R.P. Maheshwari                                      | (Electrical Engineering)          |
| 39. | Prof. N.P. Padhy   | (Electrical Engineering)          |
| 40. | Prof. R.S. Anand   | (Electrical Engineering)          |
| 41. | Prof. S.N. Sinha   | (Electronics & Computer Engg.)    |
| 42. | Prof. Padam Kumar  | (Electronics & Computer Engg.)    |
| 43. | Prof. M. Perumal   | (Hydrology)                       |
| 44. | Prof. Pashupat Jha   | (Humanities & Social Sciences)    |
| 45. | Prof. D.K. Nauriyal  | (Humanities & Social Sciences)    |
| 46. | Prof. Sukh Pal Singh                                       | (Humanities & Social Sciences)    |
| 47. | Prof. (Mrs.) Rashmi Gaur                                   | (Humanities & Social Sciences)    |
| 48. | Prof. Satish Kumar   | (Paper Technology)                |
| 49. | Prof. Y.S. Negi  | (Paper Technology)                |
| 50. | Prof. Dharm Dutt   | (Paper Technology)                |
| 51. | Prof. S.P. Sharma  | (Mathematics)                     |
| 52. | Prof. R.C. Mittal  | (Mathematics)                     |
| 53. | Prof. V.K. Katiyar   | (Mathematics)                     |
| 54. | Prof. (Mrs.) Sunita Gakkhar                                | (Mathematics)                     |
| 55. | Prof. (Mrs.) Kusum Deep                                    | (Mathematics)                     |
| 56. | Prof. (Mrs.) Tanuja Srivastava                             | (Mathematics)                     |
| 57. | Prof. S.P. Yadav   | (Mathematics)                     |
| 58. | Prof. Satish C. Sharma                                     | (Mechanical & Industrial Engg.)   |
| 59. | Prof. P.K. Jain  | (Mechanical & Industrial Engg.)   |
| 60. | Prof. B.K. Gandhi  | (Mechanical & Industrial Engg.)   |
| 61. | Prof. Ravi Kumar   | (Mechanical & Industrial Engg.)   |
| 62. | Prof. P.K. Sahoo   | (Mechanical & Industrial Engg.)   |
| 63. | Prof. P.K. Ghosh   | (Metallurgical & Materials Engg.) |
| 64. | Prof. (Mrs) Vijaya Agarwala                                | (Metallurgical & Materials Engg.) |
| 65. | Prof. S.K. Nath  | (Metallurgical & Materials Engg.) |
| 66. | Prof. Anjan Sil  | (Metallurgical & Materials Engg.) |
| 67. | Prof. A.K. Jain  | (Physics)                         |
| 68. | Prof. Rajesh Srivastava                                    | (Physics)                         |
| 69. | Prof. Vir Singh  | (Physics)                         |
| 70. | Prof. (Ms) Tashi Nautiyal                                  | (Physics)                         |
| 71. | Prof. Deepak Khare   | (WRD&M)                           |
| 72. | Prof. Bodh Raj Mehta, IIT Delhi                            |                                   |
| 73. | Prof. Girishwar Misra, University of Delhi                 |                                   |
| 74. | Dr. R.P. Saini, Head, Alternate Hydro Energy Centre (AHEC) |                                   |
| 75. | Dr. C.B. Majumdar, Associate Dean, SRIC                    |                                   |
| 76. | Mr. Yogendra Singh, Librarian, Central Library             |                                   |
| 77. | Sri Prashant Garg, Offtg. Registrar & Secretary, Senate    |                                   |



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The following persons attended the meeting on invitation:

1. Dr. Apurba Kumar Sharma, Associate Professor, Department of Mechanical & Industrial Engineering.
2. Dr. B.S.S. Daniel, Associate Professor, Department of Metallurgical & Materials Engineering.
3. Dr. (Ms) Smita Jha, Associate Professor, Department of Humanities & Social Sciences.
4. Dr. Sanjeev Manhas, Assistant Professor, Department of Electronics & Computer Engineering.
5. Dr. K.L.Yadav, Associate Professor, Department of Civil Engineering.

The Chairman (Director) welcomed the members to the 47<sup>th</sup> Meeting of the Senate.

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

1. Dr. Vijay K. Jain, Indian Institute of Technology Kanpur
2. Prof. Karmeshu, Jawaharlal Nehru University, New Delhi – 110 067
3. Prof. (Mrs.) Anu Singh Lather, GGSIP University, Delhi-110 403
4. Prof. A.K.Ray, DPT Saharanpur
5. Prof. H.Sinvhal, Department of Earth Sciences
6. Prof. G.I.Prajapati, Department of Earthquake Engineering
7. Prof. H.O.Gupta, Department of Electrical Engineering
8. Prof. V.K.Gupta, Department of Civil Engineering
9. Prof. Jagdish Rai, Department of Physics

The Chairman also welcomed the under-mentioned new members to the Senate and hoped for their valuable contributions and active participation in its functioning:

1. Professor Bhim Singh  
Department of Electrical Engineering  
Indian Institute of Technology Delhi
2. Professor Bodh Raj Mehta  
Department of Physics  
Indian Institute of Technology Delhi
3. Prof. Girishwar Misra  
Department of Psychology and Dean, Research  
University of Delhi, Delhi – 110 007

The Senate noted the communication received from the following members for not attending the current meeting.



1. Dr. Ajay Gairola, Head, Centre of Excellence in Disaster Mitigation & Management
2. Prof. (Mrs) Rama Bhargava, Department of Mathematics
3. Prof. Ravi Bhushan, Department of Chemistry.

The Agenda was then taken up:

**Item No. 47.1: To confirm the minutes of the 45<sup>th</sup> and urgent meeting (46<sup>th</sup> meeting) of the Senate held on 01/19.11.2012 and 9.01.2013, respectively.**

The minutes of the 45<sup>th</sup> meeting as well as 46<sup>th</sup> meeting (urgent meeting) of the Senate held on 01/19.11.2012 and 09.01.2013, respectively were confirmed.

**Item No. 47.2: To consider the Comments received from Prof. S.N.Sinha, Prof. Pramod Agarwal and Prof. Ashok Kumar on the minutes of 45<sup>th</sup> meeting of the Senate held on 1<sup>st</sup> /19<sup>th</sup> November 2012.**

The comments received from Prof. S. N. Sinha, Prof. Pramod Agarwal and Prof. Ashok Kumar on recording of the minutes of the following items pertaining to 45<sup>th</sup> meeting of the Senate held on 1<sup>st</sup> /19<sup>th</sup> November 2012, were re-considered by the Senate.

**Item No.45.5: Proposal regarding removal of the Master of Technology Project from the Post Graduate Teaching Scheme.**

The Senate decided that from the session 2013-14 onwards, for the final year students of M. Tech. and IDD programmes, the 4 credits M. Tech. Project has been dropped. In view of this, the revised scheme of teaching of the last two semesters of final year will be as given in Table below:

**Table**

**M. Tech. and IDD programmes**

**Autumn Semester**

	<b>Credits</b>	<b>Relative weightage</b>
Seminar	02	100
Dissertation	00	00

**Spring Semester**

	<b>Credits</b>	<b>Relative weightage</b>
Dissertation	24	100

The evaluation of the seminar has to be completed by 31<sup>st</sup> October every year.

Further, the above resolution shall be applicable to all the Integrated Master of Technology (IMT) and Integrated Master of Science (IMS) Programmes and the credits of the project and seminar be re-adjusted suitably in credits of Dissertation in Autumn and Spring Semester of the final year.

**Item No.45.7: Scheme of syllabi for the full time Master of Technology programme "Transport Infrastructure System" received from Head, Centre for Transportation Systems (CTRANS).**

The Senate decided that the word "**Traffic**" be removed from the name of scheme of Master of Technology "(M. Tech.) "Traffic Infrastructure Systems", as notified earlier vide letter No. Acd/1847/UG-15 (Senate Notification) dated 03.01.2013, and be renamed as "**M. Tech. (Infrastructure Systems)**".

The teaching scheme and syllabi for this programme duly recommended by the IAPC be placed in the next meeting of the Senate. Further, the programme to be effective from July 2013-2014 be provisionally listed in the PG Admission 2013 Brochure.

**Item No.45.15: Evaluation procedure of the Master of Technology Dissertations.**

The Senate decided that the existing three-stage evaluation of the Master of Technology Dissertations be replaced with two-stage evaluation (i.e. 75% by 15<sup>th</sup> March and 25% by 15<sup>th</sup> May). The same will be applicable from the Session 2013-2014 onwards.

The Senate **further** decided that the two-stage evaluation for the current session (i.e. 2012-13) will remain the same (i.e. 25% upto 15<sup>th</sup> March and 75% upto 30<sup>th</sup> June) as notified earlier vide notification No. Acd/1774/UG-15 dated 6.12.2012.

  
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**Item No.47.3: To receive a report on the action taken to implement the decisions taken by the Senate in its 45<sup>th</sup> and urgent meeting (46<sup>th</sup> meeting) of the Senate held on 01/19.11.2012 and 9.01.2013, respectively.**

The Senate noted the action taken on the resolutions of the 45<sup>th</sup> meeting as well 46<sup>th</sup> meeting (urgent meeting) of the Senate held on 01/19.11.2012 and 9.01.2013, respectively.

**Item No. 47.4: To consider the new UG Curriculum.**

The new UG curricula, as recommended by the IAPC, was presented to the Senate. After detailed discussions, the following was resolved:

1. The new UG curricula recommended by IAPC be approved with some changes. The final curriculum after incorporating the changes is given in **Appendix 'A'**.
2. Every department will constitute review committee by including members from the Sciences and the Humanities & Social Science Departments.
3. The concept of B. Tech. (Honours) and B. Tech. with Minor Specialisation has been introduced.
4. The range of credit requirements for different programmes will be as follows:
  - (i) B.Tech. programme = 152-160 credits
  - (ii) B.Tech. (Hons) programme = 172-180 credits
  - (iii) B.Tech. with minor specialisation = 172-180 credits
  - (iv) IDD programme = 192 - 200 credits
5. The outstanding students having CGPA > 7.5 will have the option of switching over to IDD programme in any existing M. Tech. specialisation in the department after the completion of 3<sup>rd</sup> year.
6. The teaching scheme of existing IMT and IMS programmes may also be modified in light of the new UG curricula. The credit range for IMT and IMS programmes be kept as the same as IDD programme.



7. A new elective course named as General Science Elective Course (GSEC) of 3 credits has been introduced. The GSEC basket will include courses from Humanities & Social Sciences, Management, Basic Sciences and Engineering Sciences. The students will be asked to choose one course from this basket.
8. The Engineering departments may consider including some courses from the Sciences departments as in Basket A (Category I) of Departmental Elective Courses.
9. The number courses for a Minor Specialisation be kept as 5 totalling 20 credits.
10. The branch change option be implemented after the results of 1<sup>st</sup> semester.
11. The classes of the students will start one week after the date of registration.

**Item No.47.5: To consider the revision in qualifications/eligibility, changes in corresponding GATE disciplines and changes in admission criterion for few M. Tech Programmes.**

The Senate approved the recommendation of IAPC with regard to minor revisions in the qualifications/eligibility, changes in corresponding GATE disciplines and changes in admission criterion for a few M. Tech Programmes, as given in **Appendix 'B'**.

**Item No.47.6: To report the Institute Fees for the Master's in Business Administration Course for Indian & Overseas students.**

The Senate noted that the Executive Committee of the Senate (ECS) in its meeting held on 23<sup>rd</sup> January 2013 has revised the Institute Fees for the Master's in Business Administration course for Indian Students as well as Overseas Citizens of India (OCIs) from the session 2013-14 as under:

Tuition Fee	Rs. 90,000/- per semester
Study Material	Rs. 10,000/- per semester

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



### NEW UG CURRICULUM CREDITS FOR B.TECH. PROGRAMME

Curricular Components	Credits
<b>(a) Institute Core Courses (ICC)</b>	
a) Humanities, Social Sciences and Management (HSSMC)	08
b) Basic Sciences (BSC)	08+08*
c) Engineering Sciences (ESC)	04+12*
d) General Science (GSC)	03
	* Department specific
<b>Total</b>	<b>43</b>
<b>(b) Department Core Courses (DCC)</b>	
a) Class Contact Core courses	58-62
b) Introduction to (Discipline) Engineering	02
c) Engineering Analysis and Design	04
d) Industry Oriented Problem/ Lab based project/ Practical Problem/ Case study	04
e) Technical Communication	02
f) B.Tech. Project	12
g) Educational Industrial Tour	S/U
h) Practical/Field Training	02
<b>Total</b>	<b>84-88</b>
<b>(c) General Science Elective Courses (GSEC)</b>	<b>03</b>
<b>(d) Departmental Elective Courses (DEC)</b>	<b>22-26</b>
<b>(e) Minor Specialization Courses (MSC)/ Departmental Honour Courses(DHC)</b>	<b>18-20</b>
<b>(f) Extra-Curricular Activities (ECA)</b>	
a) Discipline	S/U
b) NCC/NSS (First Year)	S/U
c) NSO/Proficiency (Second year to Fourth year)	S/U
<b>Total</b>	<b>-</b>
<b>Grand Total</b> (For those who <b>do not opt</b> for minor specialization)	<b>152-160</b>
<b>Grand Total</b> (For those who <b>opt</b> for degree with minor specialization)	<b>172-180</b>
<b>Grand Total</b> (For those who <b>opt</b> for degree with honours)	<b>172-180</b>



## INSTITUTE CORE COURSES B.TECH. PROGRAMME

		Credits	Contact Hours / Week			
			L	T	P	Total
<b>(i) Humanities, Social Sciences and Management (HSSMC)</b>						
1. Communication Skills (Basic/ Advanced)	02	0	0	4	04	
2. Humanities Course	03	3	0	0	03	
3. Management Course	03	3	0	0	03	
<b>Total</b>	<b>08</b>	<b>06</b>	<b>0</b>	<b>4</b>	<b>10</b>	
<b>(ii) Basic Sciences (BSC)</b>						
1. Mathematics-I	04	3	1	0	4	
2. Mathematics-II (Modules form)	04	3	1	0	4	
3. Department specific course-I*	04	3	1	0(2/2)	4	
4. Department specific course-II* (* Either from Physics or Chemistry)	04	3	1	0(2/2)	4	
<b>Total</b>	<b>16</b>	<b>12</b>	<b>3</b>	<b>0(2)</b>	<b>16</b>	
<b>(iii) General Science (GSC)</b>						
1. Introduction to Environmental Science	03	3	0	0	3	
<b>Total</b>	<b>03</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>	
<b>(iv) Engineering Sciences (ESC)</b>						
1. Programming & Data Structure	04	3	0	2	5	
2. Department specific course-I	04	3	1	0	4	
3. Department specific course-II	04	3	1	0	4	
4. Department specific course-III	04	3	1	0	4	
<b>Total</b>	<b>16</b>	<b>12</b>	<b>3</b>	<b>2</b>	<b>17</b>	

## INSTITUTE ELECTIVE COURSES

	Credits	Contact Hours / Week			
		L	T	P	Total
(i) General Science Elective Course (GSEC)					
1. Any course on Basic Science, Engineering Science or Social Science (Departments may suggest the name of courses to be included in this category. The student can select any one course from this basket.)	03	3	0	0	3
Total	03	3	0	0	3



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## LIST OF COURSES UNDER DIFFERENT CATEGORIES

	Credits	Contact Hours / Week			
		L	T	P	Total
(i) Humanities, Social Sciences and Management (HSSMC)					
<b>Humanities Course</b> <b>(Any ONE from the list*)</b> 1. Economics 2. English Literature 3. Gender and Cultural Studies 4. Linguistics 5. Philosophy 6. Psychology 7. Sociology	03	3	0	0	03
<b>Management Course</b> <b>(Any ONE from the list*)</b>  1. Innovation & Business Models and Entrepreneurship 2. Managing Innovation and Change 3. Cross Cultural Management 4. Strategic Human Resource Management 5. Management of Self and Interpersonal Dynamics 6. Marketing Research 7. Quality Management	03	3	0	0	03
* The list may be expanded based on feedback from HSS & Management departments					



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## LIST OF COURSES UNDER DIFFERENT CATEGORIES (Contd.)

	Credits	Contact Hours / Week			
		L	T	P	Total
<b>(ii) Engineering Sciences (ESC)</b>					
<b>Any THREE from the list</b>					
<b>Department Specific Courses-I, II, III</b>					
1. Computer Aided Engineering Drawing	04	2	0	4	6
2. Fluid Mechanics	04	3	1	0	4
3. Thermodynamics	04	3	1	0	4
4. Solid mechanics	04	3	1	0	4
5. Electrical Science	04	3	1	2/2	5
6. Introduction to Electronics	04	3	1	2/2	5
7. Electrical and Electronic Materials	04	3	1	0	4
8. Material Science	04	3	1	0	4
9. Systems Engineering	04	3	1	0	4
10. Engineering Hydrology	04	3	1	0	4
11. Basic Manufacturing Processes	04	3	1	2/2	5
12. Mechanical Engineering Drawing	04	2	0	4	6

### General Science Elective Courses

	Credits	Contact Hours / Week			
		L	T	P	Total
General Science Elective Courses (GSEC)					
Any one from the list.					
To be listed by the departments	3	3	0	0	3



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**Course Structure for B.Tech.  
First year**

**SEMESTER-I**

S. No.	Subject	Credit	Category
1.	Mathematics-I	4	BSC
2.	Introduction to (Discipline) Engineering	2	DCC
3.	Programming & Data Structure	4	ESC
4.	Departmental Specific Course -I	4	BSC
5.	Departmental Specific Course -I	4	ESC
6.	Communication Skills (Basic/Advanced)	2	HSSMC
<b>Total</b>		<b>20</b>	

**SEMESTER-II**

S. No.	Subject	Credit	Category
1.	Mathematics-II (Module to be selected by dept)	4	BSC
2.	Departmental Core Course-I	4	DCC
3.	Departmental Core Course-II	4	DCC
4.	Departmental Core Course-III	4	DCC
5.	Departmental Specific Course –II	4	BSC
6.	Introduction to Environmental Science	3	GSC
<b>Total</b>		<b>23</b>	

**Second Year**

**SEMESTER-I**

S. No.	Subject	Credit	Category
1.	Departmental Specific Course –II	4	ESC
2.	Departmental Core Course-IV	4	DCC
3.	Departmental Core Course-V	4	DCC
4.	Departmental Core Course-VI	4	DCC
5.	Engineering Analysis and Design	4	DCC
6.	Course from Humanities and Social Sciences	3	HSSMC
<b>Total</b>		<b>23</b>	

**SEMESTER-II**

S. No.	Subject	Credit	Category
1.	Departmental Specific Course –III	4	ESC
2.	Departmental Core Course-VII	4	DCC
3.	Departmental Core Course-VIII	4	DCC
4.	Departmental Core Course-IX	4	DCC
5.	Departmental Core Course-X	4	DCC
6.	Course from Management Studies	3	HSSMC
<b>Total</b>		<b>23</b>	

### Third Year

#### SEMESTER-I

S. No.	Subject	Credit	Category
1.	Departmental Core Course-XI	4	DCC
2.	Departmental Core Course-XII	4	DCC
3.	Departmental Core Course-XIII	4	DCC
4.	Departmental Elective Course-I	4	DEC
5.	Technical Communication	2	DCC
6.	General Science Elective Course	3	GSEC
<b>Total</b>		<b>21</b>	

#### SEMESTER-II

S. No.	Subject	Credit	Category
1.	Departmental Core Course-XV	4	DCC
2.	Departmental Core Course-XVI	4	DCC
3.	Departmental Elective Course-II	4	DEC
4.	Minor Specialization Course - I Departmental Honour Course - I	4	MSC/DHC
5.	Industry Oriented Problem/Case Study/ Lab based project/ Practical Problem	4	DCC
6.	Educational Tour	Non-credit	DCC
<b>Total</b>		<b>16/20</b>	

### Fourth Year

#### SEMESTER-I

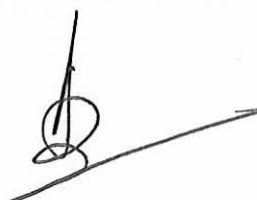
S. No.	Subject	Credit	Category
1.	Departmental Elective Course-III	4	DEC
2.	Departmental Elective Course-IV	4	DEC
3.	Minor Specialization Course –II Departmental Honour Course – II	4	MSC/DHC
4.	Minor Specialization Course –III Departmental Honour Course - III	4	MSC/DHC
5.	Training Seminar	2	DCC
6.	B.Tech. Project	4	DCC
<b>Total</b>		<b>14/22</b>	

#### SEMESTER-II

S. No.	Subject	Credit	Category
1.	Departmental Elective Course-V	4	DEC
2.	Departmental Elective Course-VI	4	DEC
3.	Minor Specialization Course-IV Departmental Honour Course – IV	4	MSC/DHC
4.	Minor Specialization Course-V Departmental Honour Course - V	4	MSC/DHC
5.	B.Tech. Project (Contd. from Autumn Sem.)	8	DCC
<b>Total</b>		<b>16/24</b>	

**CHANGES IN ESSENTIAL QUALIFICATION / ELIGIBILITY IN TABLE -1 OF  
PG ADMISSION BROCHURE**

<b>Programme Name</b>	<b>Code No.</b>	<b>Essential qualification/eligibility</b>
<b>Department of Civil Engineering</b>		
M.Tech. Hydraulic Engg.	<b>22</b>	Bachelor's degree in Civil Engg./ Agricultural Engg. or equivalent.
M.Tech. Geomatics Engg.	<b>20</b>	Bachelor's degree in Civil Engg./ Electronics Engg./Electrical Engg./ Computer Science/ Information Technology/Marine Engg./Mining Engg./ Environmental Engg/ Agricultural Engg./Communication Engg. /Architecture or equivalent.
<b>Department of Mechanical &amp; Industrial Engineering</b>		
M.Tech. CAD, CAM & Robotics	<b>38</b>	Bachelor's degree in Mechanical/Industrial/Production Engg. or equivalent.
M.Tech. Machine Design Engg.	<b>39</b>	Bachelor's degree in Mechanical/Industrial/Production Engg. or equivalent.
M.Tech. Thermal Engg.	<b>41</b>	Bachelor's degree in Mechanical/Industrial/Production Engg. or equivalent.
M.Tech. Welding Engg.	<b>42</b>	Bachelor's degree in Mechanical/Industrial/Production Engg. or equivalent.



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**CHANGES IN GATE DISCIPLINE IN TABLE-2 OF PG ADMISSION BROCHURE**

Department	Programme Name	Code No.	GATE Discipline	
			Min no of seats	Maximum No. of Seats
Civil Engg	M.Tech. Environmental Engg.	19	CE(15)	CH(3)
	M.Tech. Geomatics Engg.	20	CE (12)	AR/CS/EC/EE/MN/AG (12)
	M.Tech. Hydraulic Engg.	22	CE(15)	AG(3)
Hydrology	M.Tech. Hydrology	37	CE/AG(10)	ME/GG/CY/MA/ PH/XE (5)
Mech. & Indl. Engg.	M.Tech. Thermal Engg.	41	ME/PI (18)	-
	M.Tech. Welding Engg.	42	ME/PI (18)	-

**CHANGES IN ADMISSION CRITERIA IN TABLE – 6 OF PG ADMISSION BROCHURE**

Department/ Centre	Admission Criteria
Nanotechnology	Only Normalized GATE marks



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