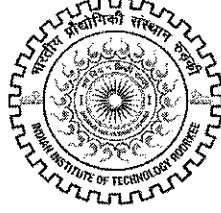# सीनेट की बहत्तरवीं बैठक का कार्यवृत्त
MINUTES OF THE 72nd MEETING OF THE SENATE

22 मार्च 2018
22nd MARCH 2018

भारतीय प्रौद्योगिकी संस्थान रूड़की
रूड़की – 247 667 (भारत)
INDIAN INSTITUTE OF TECHNOLOGY ROORKEE
ROORKEE – 247 667 (INDIA)

भारतीय प्रौद्योगिकी संस्थान रूड़की
INDIAN INSTITUTE OF TECHNOLOGY ROORKEE
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ROORKEE – 247 667

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	To adopt the admission criteria and selection guidelines for Prime Minister's Research Fellowship (PMRF) as proposed by the National Steering Committee of PMRF.	
72.6	शैक्षणिक वर्ष 2018—19 कें लिए पीएचडी प्रवेश में संस्थान असिस्टेंटशिप और प्रधानमंत्री अनुसंधान फैलोशिप (पीएमआरएफ) की सीट मैट्रिक्स पर विचार करना। To consider seat matrix for Ph.D. admissions with Institute Assistantship and under Prime Minister's Research Fellowship (PMRF) for the academic year 2018-2019.	4
72.7	पार्ट टाईम पीएचडी में सीधे प्रवेश के लिए मानदंड में संशोधन पर विचार करना। To consider the revision in the criteria for direct admission in Part-time Ph.D. programme.	5
72.8	शैक्षणिक वर्ष 2018—19 कें लिए पीजी प्रोग्रामस की सीट मैट्रिक्स पर विचार और अनुमोदन करना। To consider and approve the seat matrix of PG programs for the academic year 2018-2019.	5
72.9	2018—19 से मेरिट कम मीन्स (एमसीएम) छात्रवृत्ति को बहाल करने पर विचार करना। To consider to reinstate the Merit Cum Means (MCM) Scholarship from 2018-19.	5
72.10	पीएचडी रिसर्च स्कोलर्स का, यदि आवश्यकता हो, प्रमाण पत्र जारी करने पर विचार करना। To consider the issuance of a certificate to the Ph.D. research scholars, if required.	5
72.11	एम.टेक/एम.आर्क/एमयूआरपी प्रोग्राम में आनलाईन आवेदन की प्रकिया और सीट आबंटन पर विचार करना। To consider the online procedure for application and seat allocation (to candidates) related to M.Tech./M.Arch./MURP.	5
72.12	सीजीपीए की आवश्यकता को पूरा करने के लिए स्प्रिंग सेमेस्टर में एक अतिरिक्त विषय लेने की अनुमति देने के लिए श्री महेशभाई जे0 वनजारा, नामांकन सं0 1790027,यांत्रिकी एवं अभियांत्रिकी विभाग में क्यूआईपी पीएचडी स्कोलर, की दया याचिका पर विचार करना। To consider the mercy request of Mr. Maheshbhai J. Vanajara, Enrolment No. 17920027, QIP Ph.D. Scholar in Mech. & Indl. Engg. Department to allow taking one additional subject in Spring Semester so as to fulfill course work CGPA requirement.	5

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72.13	आईआईटी रूड़की या किसी अन्य आईआईटी या आईआईएससी से पीजी डिग्री (एमटेक/एमआर्क/एमयूआरपी) प्राप्त उम्मीदवारों के लिए कोर्स वर्क की आवश्यकता में छूट करने पर विचार करना। To consider waiving off of course work requirement for the candidates who have completed P.G. degree requirements (M.Tech./M.Arch/MURP) from IITR or any other IIT or IISc.	5
72.14	बीटेक/बीआर्क/इंटिग्रेटिड एमएससी/आईडीडी/एमएससी को यूजी नियमों और विनियमों के अन्तर्गत तथा एमटेक और पीएचडी को पीजी विनियमों के अन्तर्गत शामिल करने के प्रस्ताव पर विचार करना। To consider the proposal of including B.Tech./B.Arch./ Int. M.Sc./ IDD/ M.Sc. under UG Rules and Regulations and M.Tech. & Ph.D. program under PG Regulation.	6
72.15	क्रेडिट आवश्यकता की आंशिक पूर्ति के लिए ऑनलाइन मूक्स कोर्स को पाठ्यक्रम में शामिल करने के लिए समिति की रिपोर्ट पर विचार करना। To consider the report of the committee to recommend inclusion of online MOOCs courses for partial fulfillment of credit requirement.	6
72.16	अनुमन्य क्रेडिट सीमा से अधिक विषय पंजीकरण के संबंध में छात्रों के अनुरोधों पर विचार करना। To consider the requests of students regarding subject registration beyond permissible credit limit.	6
72.17	आईआईटी रूड़की में डिजरटेशन के एक भाग को करने के लिए एनआईटी कुरूक्षेत्र के एमटेक के छात्र के लिए एक संकाय सदस्य के अनुरोध पर विचार करना। To consider the request of a faculty member to allow an M. Tech. Student of NIT Kurukshetra to carry out a part of the dissertation thesis at IIT Roorkee.	6
72.18	श्री अवध किशोर शर्मा, नामांकन सं0 15117016 के प्रथम वर्ष कोर्स को तृतीय वर्ष में पंजीकरण करने की पेनल्टी छूट पर विचार करना। To consider the penalty waiver for Mr. Avadh Kishor Sharma (Enrl. No. 15117016) to register for 1st year course in 3rd year.	6
72.19	पाठ्यक्रम के मूल्यांकन घटकों के संबंध में लचीलेपन और उपस्थिति के लिए अंक देने पर विचार करना। To consider the flexibility regarding evaluation components of a course and awarding marks for attendance.	6
72.20	वर्ष 2018 से पीजी में प्रवेश के लिए निम्नलिखित विभागों/केन्द्रों की शैक्षणिक योग्यताओं में परिवर्तन की पुष्टि एवं विचार करना:	7

	1. सिविल इंजिनियरिंग विभाग 2. धातुकर्म एवं पदार्थ इंजिनियरिंग विभाग 3. आपदा निवारण एवं प्रबंधन केन्द्र 4. परिवहन प्रणाली केन्द्र 5. सूक्ष्म (नैनों) प्रौद्योगिकी केन्द्र To consider and ratify the changes in Educational Qualifications of the following Departments/Centres for PG admission 2018 onwards: 1. Civil Engineering Department 2. Metallurgical & Materials Engineering Department 3. Centre for Disaster Mitigation and Management 4. Centre for Transportation Systems 5. Centre for Nanotechnology	
72.21	राष्ट्रीय अकादमिक डिपोजटरी (एनएडी), भारत सरकार के उपक्रम में शामिल होने की प्रक्रिया को रिपोर्ट करना । To report starting of process for joining National Academic Depository (NAD), a GOI initiative.	7
72.22	संस्थान में पुरस्कारों के प्रतिष्ठापन पर विचार करना । To consider institution of the awards in the Institute.	7-8
72.23	दीक्षांत समारोह पर दिए जाने वाले मेड़लों और पुरस्कारों के लिए संषोधित मानदंड के प्रस्ताव पर विचार करना । To consider the proposal of modifying the criteria for Convocation Medals and Awards.	9-12
72.24	निम्नलिखित पुरस्कारों की पुष्टि करनाः (1) ग्रामीण भारत प्रौद्योगिकी आधारित उत्थान (आरआईटीयू) पुरस्कार। (2) सेवा उन्मुखी प्राकृतिक विज्ञान अभिनव और अनुप्रयोग (एसओएनआईए) पुरस्कार। (3) अनूप सिहं खुराना स्क्वैश चैम्पियनशिप पुरस्कार। (4) एनकोर (रूड़की एडोमेंट के एटी नाइन क्लास) पुरस्कार। (5) संचार में उत्कृष्टता के लिए नय्यर पुरस्कार। To ratify the following awards: (i) Rural India Technology based Upliftment (RITU) Award (ii) Service Oriented Natural-Science Innovation & Application (SONIA) Award (iii) Anoop Singh Khurana Squash Championship Prize (iv) ENCORE (Eighty Nine Class of Roorkee Endowment) Awards (v) Nayyar Award for Excellence in Communication	12
72.25	निम्नलिखित की पुष्टि करनाः (1) वर्ष 2017–18 के लिए एनकोर पुरस्कारों के विजेता । (2) वर्ष 2018 के लिए मानवीय मूल्यों के लिए मनोज जैन पुरस्कारों के विजेता ।	12

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	To ratify the following: (1) Winners of ENCORE awards for year 2017-18. (2) Winners of Manoj Jain Award for Human Values for year 2018.	
72.26	विभागों/केंद्रों द्वारा सुझाए गए एमटेक/एमआर्क/एमयूआरपी में संशोधित शैक्षणिक योग्यता की पुष्टि करना: To ratify the changes in M.Tech./ M.Arch./ MURP Educational Qualification suggested by the Departments/ Centre.	12
72.27	आईआईटी रूड़की में जेईई (एडवान्सड)–2018 के द्वारा बीटेक/बीआर्क/आईडीडी और इंटिग्रेटेड एमएससी में सत्र 2018 से प्रवेश के लिए सीट मैट्रिक्स को अपनाना। To adopt the Seat Matrix for the admission in B.Tech./ B.Arch./ IDD and Integrated M.Sc. for the session 2018-19 in IIT Roorkee through JEE (Advanced)-2018.	13
72.28	तीसरे सेमेस्टर से छात्रों को अतिरिक्त क्रेडिट/ऑडिट कोर्स के लिए पंजीकरण की अनुमति देने पर विचार करना। To consider allowing students to register for extra Credit/ Audit courses from 3rd Semester onwards.	13
72.29	2018–19 से यूजी/पीजी/पीएचडी प्रोग्रामों की फीस में संशोधन पर विचार करना। To consider revision in the fee structure of UG/PG/Ph.D. programs from 2018-19.	13-14
72.30	कैमिकल इंजीनियरिंग में एमटेक के लिए वर्तमान में दो स्पेसीलाइजेशन – कम्प्यूटर एडेड प्रोसेस प्लांट डिजाईन (सीएपीपीडी) और औद्योगिकी प्रदूषण निवारण (आईपीए) के स्थान पर कैमिकल इंजीनियरिंग प्रोग्राम पर विचार करना। To consider the proposal of Chemical Engineering Department for M.Tech. programme in Chemical Engineering in place of two existing specializations in Computer Aided Process Plant Design (CAPPD) and Industrial Pollution Abatement (IPA).	14
72.31	शैक्षिक कलैंडर 2017–18 में संशोधनों की पुष्टि करना। To ratify modifications in the Academic Calendar 2017-18.	14
App. 'A'	शैक्षणिक वर्ष 2018–19 के लिए पीएचडी प्रवेश में संस्थान असिस्टेंटशिप और प्रधानमंत्री अनुसंधान फैलोशिप (पीएमआरएफ) की सीट मैट्रिक्स। Seat matrix for Ph.D. admissions with Institute Assistantship and under Prime Minister's Research Fellowship (PMRF) for the academic year 2018-2019.	15-16

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INDIAN INSTITUTE OF TECHNOLOGY ROORKEE
MEETING SECTION

Minutes of the 72ⁿᵈ Meeting of the Senate held on 22.03.2018 at 3.30 P.M. in the Senate Hall of the Institute.

Following were present:

1.	Prof. Ajit K. Chaturvedi	Director & Chairman
2.	Prof. (Mrs.) Pushplata	(Architecture & Planning)
3.	Prof. V. Devdas	(Architecture & Planning)
4.	Prof. Ila Gupta	(Architecture & Planning)
5.	Prof. R.P. Singh	(Biotechnology)
6.	Prof. Ramasare Prasad	(Biotechnology)
7.	Prof. Vikas Pruthi	(Biotechnology)
8.	Prof. Partha Roy	(Biotechnology)
9.	Prof. Bikash Mohanty	(Chemical Engineering)
10.	Prof. B. Prasad	(Chemical Engineering)
11.	Prof. Shishir Sinha	(Chemical Engineering)
12.	Prof. C.B. Majumdar	(Chemical Engineering)
13.	Prof. P.P. Kundu	(Chemical Engineering)
14.	Prof. Ravi Bhushan	(Chemistry)
15.	Prof. Anil Kumar	(Chemistry)
16.	Prof. (Mrs.) Mala Nath	(Chemistry)
17.	Prof. U.P. Singh	(Chemistry)
18.	Prof. M.R. Maurya	(Chemistry)
19.	Prof. S.S. Jain	(Civil Engineering)
20.	Prof. C.S.P. Ojha	(Civil Engineering)
21.	Prof. S.K. Ghosh	(Civil Engineering)
22.	Prof. M. Parida	(Civil Engineering)
23.	Prof. Praveen Kumar	(Civil Engineering)
24.	Prof. N.K. Samadhiya	(Civil Engineering)
25.	Prof. K.S. Hari Prasad	(Civil Engineering)
26.	Prof. Z. Ahmad	(Civil Engineering)
27.	Prof. Kamal Jain	(Civil Engineering)
28.	Prof. B.R. Gurjar	(Civil Engineering)
29.	Prof. M.L. Sharma	(Earthquake Engineering)
30.	Prof. B.K. Maheshwari	(Earthquake Engineering)
31.	Prof. Manish Shrikhande	(Earthquake Engineering)
32.	Prof. G.J. Chakrapani	(Earth Sciences)
33.	Prof. Anand Joshi	(Earth Sciences)
34.	Prof. N.P. Padhy	(Electrical Engineering)

35.	Prof. Rajendra Prasad	(Electrical Engineering)
36.	Prof. Biswarup Das	(Electrical Engineering)
37.	Prof. M.V. Kartikeyan	(Electronics & Communication Engg.)
38.	Prof. Dharmendra Singh	(Electronics & Communication Engg.)
39.	Prof. Debashish Ghosh	(Electronics & Communicating Engg.)
40.	Prof. M. Perumal	(Hydrology)
41.	Prof. Nagendra Kumar	(Humanities & Social Sciences)
42.	Prof. Y.S. Negi	(Paper Technology)
43.	Prof. Dharam Dutt	(Paper Technology)
44.	Prof. S.C. Sharma	(Paper Technology)
45.	Prof. (Mrs.) Rama Bhargava	(Mathematics)
46.	Prof. Tanuja Srivastava	(Mathematics)
47.	Prof. N. Sukavanam	(Mathematics)
48.	Prof. Pradeep Kumar	(Mechanical & Industrial Engg.)
49.	Prof. S.C. Sharma	(Mechanical & Industrial Engg.)
50.	Prof. Dinesh Kumar	(Mechanical & Industrial Engg.)
51.	Prof. Akhilesh Gupta	(Mechanical & Industrial Engg.)
52.	Prof. B.K. Gandhi	(Mechanical & Industrial Engg.)
53.	Prof. B.K. Mishra	(Mechanical & Industrial Engg.)
54.	Prof. Navneet Arora	(Mechanical & Industrial Engg.)
55.	Prof. S.K. Nath	(Metallurgical & Materials Engg.)
56.	Prof. Anjan Sil	(Metallurgical & Materials Engg.)
57.	Prof. Rajesh Srivastava	(Physics)
58.	Prof. K.L. Yadav	(Physics)
59.	Prof. Davinder Kaur Walia	(Physics)
60.	Prof. G.D. Varma	(Physics)
61.	Prof. M.L. Kansal	(WRD&M)
62.	Prof. Deepak Khare	(WRD&M)
63.	Prof. S.K. Mishra	(WRD&M)
64.	Prof. Ramesh Chandra	(Institute Instrumentation Centre)
65.	Prof. R.P. Saini	(Alternate Hydro Energy Centre)
66.	Prof. M.P. Sharma	(Alternate Hydro Energy Centre)
67.	Prof. Arun Kumar	(Alternate Hydro Energy Centre)
68.	Dr. Sharad K. Jain	Director, NIH, Roorkee
69.	Prof. R. Balasubramanian, Head, Institute Computer Centre	
70.	Prof. S.K. Singal, Head, Alternate Hydro Energy Centre	
71.	Prof. A.K. Sharma, Head, Department of Biotechnology	
72.	Prof. M.K. Jain, Head, Department of Hydrology	
73.	Prof. R.K. Dutta, Head, Centre of Nanotechnology	
74.	Prof Mahua Mukherjee, Head, Centre of Excellence in Disaster Mitigation & Management.	
75.	Prof. P. Gopinath, ADOAA (Admission)	
76.	Prof. Vipul Rastogi, ADOAA (Curriculum)	
77.	Prof. Rajat Rastogi, ADOAA (Evaluation)	
78.	Prof. S.H. Upadhyay, Associate Dean of Students' Welfare (Students' Wellness)	
79.	Prof. Pravindra Kumar, Associate Dean, Corporate Interaction (ADCI)	
80.	Prof. M.K. Barua, Associate Dean Students' Welfare (Students Activities)	
81.	Prof. P. Arumugam, Associate Dean (International Relations)	
82.	Dr. C. Jayakumar, Librarian, MG. Central Library	

83.   Prof. Rajat Agarwal, Department of Management Studies   (on invitation)

Students' representatives:

84.   Mr. Manik Verma, General Secretary, Students' Affairs Council
85.   Mr. Saksham Agarwal, General Secretary Academic Affairs (UG)
86.   Mr. Rajesh Kumar Vishwakarma   -   Students' representative
      General Secretary Academic Affairs (PG)
87.   Mr. Sambhav Anand Jain, General Secretary, Hostel Affairs (attended on
      invitation by DOSW)

88.   Mr. Prashant Garg
      Registrar & Secretary, Senate

The Chairman welcomed the members to the 72nd   meeting of the
Senate, thanked and placed on record the valuable contributions of the
under-mentioned outgoing Senate members in the meetings of the Senate:

1. Prof. G.S. Randhawa, Department of Biotechnology
2. Prof. A.K. Singh, Department of Paper Technology, Saharanpur Campus
3. Prof. Barjeev Tyagi, Department of Electrical Engineering
4. Prof. Manish Mishra, Department of Mechanical & Industrial Engineering
5. Prof. U. Sharma, Department of Civil Engineering
6. Prof. K.R. Justin Thomas, Department of Chemistry
7. Prof. Rajat Agarwal, Department of Management Studies

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

1. Dr. Sharad K. Jain, Director, National Institute of Hydrology, Roorkee
2. Prof. P. Arumugam, Associate Dean (International Relations)
3. Prof. Mahua Mukherjee, Head, Centre of Excellence in Disaster
   Mitigation & Management
4. Prof. S.K. Singal, Head, A.H.E.C.
5. Prof. A.K. Sharma, Head, Department of Biotechnology
6. Prof. M.K. Jain, Head, Department of Hydrology
7. Prof. R.K. Dutta, Head, Centre of Nanotechnology

The Senate noted the communications received from the following
members for their inability to attend the current meeting:

1. Prof. A.K. Sen, Department of Earth Sciences
2. Prof. Mahendra Singh, Department of Civil Engineering
3. Prof. Ramasare Prasad, Department of Biotechnology
4. Prof. Yogendra Singh, Department of Earthquake Engineering
5. Prof. N.K. Goel, Department of Hydrology

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The Agenda was then taken up:

Item No. 72.1: **To confirm the minutes of the 71st meeting of the Senate held on 28.12.2017.**

Minutes of the 71st meeting of the Senate held on 28.12.2017 and circulated vide e-mail dated 31.01.2018 were confirmed.

Item No. 72.2: **To report on the actions taken to implement the decisions of the Senate taken in its 71st meeting held on 28.12.2017.**

The Senate noted the actions taken on the said minutes with a correction in item No. 71.17 as - 'revised proposal is awaited'.

Item No. 72.3: **To consider the following:**
1.Registration of a Project Fellow in Ph.D. programme
2.Institute assistantship to Project Fellow after completion of project duration

The Senate approved the recommendations with a minor change in item No. 2(a) that for a Project Fellow registered under Ph.D. programme, the total duration of Project Fellowship and Institute Assistantship shall not be more than 05 years from the date of registration in the Ph.D. programme.

Item No. 72.4: **To consider the limit on number of research scholars to be supervised by a faculty.**

The Senate approved the proposal.

Item No. 72.5 : **To adopt the admission criteria and selection guidelines for Prime Minister's Research Fellows (PMRF) as proposed by the National Steering Committee of PMRF.**

The Senate approved the proposal.

Item No. 72.6: **To consider seat matrix for Ph.D. admissions with Institute Assistantship and under Prime Minister's Research Fellowship (PMRF) for the academic year 2018-2019.**

The Senate approved the proposal as given in **Appendix 'A'**.

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Item No. 72.7: To consider the revision in the criteria for direct admission in Part-time Ph.D. programme.

The Senate approved the proposal.

Item No. 72.8: To consider and approve the seat matrix of PG programs for the academic year 2018-2019.

The Senate approved the proposal as given in **Appendix 'B'**.

Item No. 72.9: To consider to reinstate the Merit Cum Means (MCM) Scholarship from 2018-19.

The Senate approved the proposal.

Item No. 72.10: To consider the issuance of a certificate to the Ph.D. research scholars, if requested.

The Senate approved the proposal as given in **Appendix 'C'**.

Item No. 72.11: To consider the Online procedure for application and seat allocation (to candidates) related to M.Tech/M.Arch./MURP.

The Senate approved the proposal as given in **Appendix 'D'**.

Item No. 72.12: To consider the mercy request of Mr. Maheshbhai J. Vanajara, Enrolment No. 17920027, QIP Ph.D. Scholar in Mech. & Indl. Engg. Department to allow taking one additional subject in Spring Semester so as to fulfil course work CGPA requirement.

The Senate approved the proposal.

Item No. 72.13: To consider waiving off of course work requirement for the candidates who have completed PG degree requirements (M.Tech./M.Arch./MURP) from IITR or any other IIT or IISc.

The Senate approved the proposal. Further, decided that IISERs and IIMs be also considered for M.Sc. & MBA, respectively.

Item No. 72.14: To consider the proposal of including B.Tech./B.Arch./ Int. M.Sc./ IDD/ M.Sc. under UG Rules and Regulations and M.Tech. & Ph.D. program under PG Regulation.

The Senate approved the proposal with the addition of Integrated M.Tech. in the proposed UG rules & regulations.

Item No. 72.15: To consider the report of the committee to recommend inclusion of online MOOCs courses for partial fulfillment of credit requirement.

The Senate approved the proposal as given in **Appendix 'E'**.

Item No. 72.16: To consider the requests of students regarding subject registration beyond permissible credit limit.

The Senate approved the proposal. Further decided that the performance of such students be placed before the Senate in the next Semester.

Item No. 72.17: To consider the request of a faculty member to allow an M. Tech. Student of NIT Kurukshetra to carry out a part of the dissertation thesis at IIT Roorkee.

The Senate approved the proposal and decided that semester fees be not charged. Further, decided that a separate proposal regarding guidelines for casual students be brought before the Senate.

Item No. 72.18: To consider the penalty waiver for Mr. Avadh Kishor Sharma (Enrl. No. 15117016) to register for 1st year course in 3rd year.

The Senate approved the proposal. Further decided that the clause of one semester additional fee as a penalty be removed for all cases.

Item No. 72.19: To consider the flexibility regarding evaluation components of a course and awarding marks for attendance.

The Senate approved the proposal of flexibility in the weightages of various course components. However, the requirement of minimum attendance of 75% to appear in End Term Examination was retained.

Item No. 72.20: **To consider and ratify the changes in Educational Qualifications of the following Departments/ Centres for PG admission 2018 onwards:**

1. Civil Engineering Department
2. Metallurgical & Materials Engineering Department
3. Centre for Disaster Mitigation and Management
4. Centre for Transportation Systems
5. Centre for Nanotechnology

This item is included in Item No. 26.

Item No. 72.21: **To report starting of process for joining National Academic Depository (NAD), a GOI initiative.**

The Senate noted the item.

Item No. 72.22: **To consider institution of the awards in the Institute.**

The Senate approved the institution of following Scholarships and Awards alongwith their criteria:

(i)   Ar. Rohit Agarwal Scholarship

Rs. 10,000/- will be given each year to a deserving student of Department of Architecture and Planning in the form of a Merit-Cum-Means Scholarship. This will be awarded to the student who is at the top in the list of first year MCM awardees from the Department of Architecture & Planning.

(ii)   Shri Tirath Ram Agarwal Scholarship

Rs. 10,000/- will be given each year to a deserving student of Department of Mechanical & Industrial Engineering in the form of a Merit-Cum-Means Scholarship. This will be awarded to the student who is at the top in the list of second year MCM awardees from the Department of Mechanical & Industrial Engineering.

(iii)   Prof. C. L. Toshniwal Award in Environmental Engineering

Rs. 10,000/- will be given each year to the graduating student who obtains the overall highest CGPA in Environmental Engineering specialization in M.Tech. Civil Engineering.

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(iv) Prof C.L. Toshniwal Award in Civil Engineering

Rs. 10,000/- will be given each year to the graduating student of B.Tech. Civil Engineering who obtains the highest marks in the compulsory courses of Environmental Engineering. In case there is a tie, the student obtaining overall higher CGPA in B.Tech. (Civil) Programme will be chosen for the Award.

(v) Smt. Kailash Kambo IITR NASA IIT-R Fund

The maximum amount of support to be provided in a year would not exceed Rs. 1,00,000/- (Rs. One Lac Only). A committee headed by the Head of Architecture and Planning Department would decide the activities/events of NASA for which support would be available from this fund. Further, a trophy will be given to the best student.

(vi) Shri Ravindra Nath Chaturvedi Scholarship

Rs. 10,000/- (Rs. Ten Thousand Only) will be given each year to a student of Civil Engineering discipline. This will be awarded to the student who is at the top in the list of first year MCM awardees from the Department of Civil Engineering.

(vii) Modification in the James Thomason Scholarship (JTS) from 2018

For the students having AIR up to 300 in JEE Adv-2017 and to the best ranked student joining in each department provided his/her AIR is within 500. The scholarship is paid @ Rs. 25000/- (Rs. Twenty Five Thousand only) per month for 10 months in each academic year for the entire course of study subject to securing a minimum of 8.00 CGPA in each academic year. To retain the attractiveness of JTS no further conditions were proposed. The initial proposal had a review clause after one year.

Five students with ranks upto 300 joined IITR in 2017 in contrast to only one student in the five years preceding it. Hence, it is proposed to continue with JTS with the following simplified criteria: For the students having All India Rank up to 300 in JEE Adv 2018.

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Item No. 72.23: To consider the proposal of modifying the criteria for Convocation Medals and Awards.

The Senate approved the proposal as under:

S. No.	Medal	Approved Criteria
1	Institute Gold Medal	TO BE DISCONTINUED
2	President's Gold Medal	To be awarded to the student having the highest CGPA amongst the B. Tech./ B.Arch./ IDD/ Int. M.Sc./ Int M Tech. graduating students admitted though JEE.
3	Institute Silver Medal	To be awarded to the student having the second highest CGPA amongst the B. Tech./ B. Arch./ IDD/ Int. MSc./ Int. M. Tech. graduating students admitted though JEE.
4	Institute Bronze Medal	To be awarded to the student having the third highest CGPA amongst the B. Tech./ B. Arch./ IDD/ Int. M.Sc./ Int. M. Tech. graduating students admitted though JEE.
5	Director's Gold Medal	To be awarded to the best all rounder amongst the B. Tech./ B. Arch./ IDD/ Int. M.Sc./ Int. M. Tech. graduating students admitted through JEE. CGPA upto 7th or 9th semester will be considered and nominations will be invited from those students who are maintaining CGPA 9 or above. In the application student should highlight his/ her all-round achievements. A committee proposed by the SCSP and approved by the Director will recommend the name of the awardee. The Committee will invite shortlisted applicants for a short presentation/ interview.
6	Institute Silver Medal (One for Each UG/ dual degree programme)	Approved renaming it to **Department Gold Medal**. One Department Gold medal for each UG programme and One Department Gold medal for the PG programmes offered by each Department/ Centre. The eligibility to get DGM is CGPA 9.0 or above.
7	Institute Medal	Approved renaming it as **"Best Project Award"** Each department will recommend a project for the "Best Project Award". A cash prize of Rs. 20,000/- subject to a minimum of Rs. 5000/- to each member of the team. In case donors are willing to support this award, specific department's award can be named as per

		the donor's wish.
8	The President of India Dr. Shankar Dayal Sharma Gold Medal	Applications will be invited from all the graduating UG/PG students who are maintaining CGPA of 8.0 and above. In the application, student should highlight his/her contribution in the area of social service. A committee proposed by the SCSP and approved by the Director will recommend the name of the awardee. The committee will invite shortlisted applicants for a short presentation/ interview.
9	Dr. Jai Krishna Gold Medal	For the best student in B. Tech./ B. Arch./ IDD/ Int. M. Tech. courses for outstanding performance in academics and youth leadership. Applications will be invited from eligible graduating students who are maintaining CGPA 8.0 or above. In the application the student should highlight his/her contributions in the area of youth leadership. A committee proposed by the SCSP and approved by the Director will recommend the name of the awardee. The committee will invite shortlisted applicants for a short presentation/ interview.
10	Smt. Kaushalaya Arya Cash prize of Rs. 4000/-	It will be given to the best student (girl). Applications will be invited from all graduating UG (B. Tech. and B. Arch.) girls who are maintaining CGPA 8.0 or above. A committee proposed by the SCSP and approved by the Director will recommend the name of the awardee. The committee will invite shortlisted applicants for a short presentation/ interview.
11	Dr. A.S. Arya Cash prize of Rs. 4000/-	It will be given to one student (boy) on the basis of overall performance. Applications will be invited from all graduating UG (B. Tech. and B. Arch.) boys who are maintaining a CGPA 8.0 or above. A committee proposed by the SCSP and approved by Director will recommend the name of awardee. The committee will invite shortlisted applicants for a short presentation/ interview.
12	Sri M.A. Rao cash prize of Rs. 1000/-	It will be given to the second best all-rounder student. Applications will be invited from graduating students of B.Tech./ B.Arch./ IDD/Int. M Tech./Int. M.Sc. who were admitted through JEE. The committee constituted for the Director's Gold Medal will recommend the name of the second best student for this award.

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13	Laxmi Devi and Shri Banadri Das Cash Prize of Rs. 5000/-	It will be given to the best student (girl). Applications will be invited from all graduating UG (B.Tech. and B.Arch.) girls who are maintaining CGPA of 8.0 and above upto pre-final semester. The committee constituted for Smt. Kaushalya Arya Cash Prize will recommend the name for this prize.
14	Durga Award of Rs. 5000/-	It will be given to the best student (girl). Applications will be invited from all graduating UG (B.Tech. and B.Arch.) girls who are maintaining CGPA of 8.0 and above upto pre-final semester. The committee constituted for Smt. Kaushalya Arya Cash Prize will recommend the name for this prize.
15	Om Bala Thapar Cash Prize of Rs.12,000/-	It will be given to one all rounder student (girl). Applications will be invited from all graduating UG (B.Tech. and B.Arch.) girls who are maintaining CGPA of 8.0 and above upto prefinal semester. The committee constituted for Smt. Kaushalya Arya Cash Prize will recommend the name for this prize.
16	Kedar Nath Agarwala I.S.E Memorail trophy and cash Award of Rs. 5000/-	It will be given on the basis of academic excellence and outstanding community service. Applications will be invited from all graduating UG/PG students who are maintaining CGPA of 8.00 and above upto pre-final semester. The committee constituted for The President of India Dr. Shankar Dayal Sharma Award will recommend the name for this award.
17	Sarojini Naidu Cup	It will be given for excellence in academics and sports. Applications will be invited from graduating students of B.Tech./ B.Arch./ IDD/Int. M.Tech./Int. M.Sc. who were admitted through JEE. Students of these classes maintaining CGPA of 8.00 and above upto pre-final semester are eligible to apply for this cup. The committee constituted for Dr. Jai Krishna Gold Medal will recommend the name for this award.
18	Tara Chand Kanti Devi Cash Prize of Rs. 3000/-	For the student obtaining the highest CGPA in M.Tech. among various specializations of Department of Civil Engineering.
19	Tara Chand Kanti Devi Cash Prize of Rs. 2000/-	For the student obtaining the highest CGPA in M.Tech. (Geotechnical)

20	The Indian Service of Engineers Cash Prize of Rs. 2000/-	For the student obtaining the highest CGPA in M.Tech. (Structural Dynamics)
21	The Indian Service of Engineers Cash Prize of Rs. 2000/-	For the student obtaining the highest CGPA in M.Tech. (Soil Dynamics)
22	Laxmi Devi and Shri Bandari Das Cash Prize of Rs. 5000/-	For the student obtaining the highest CGPA among all graduating M.Tech./ M.Arch./ MURP students
23	Meenakshi Power Award of Rs. 20000/- p.a.	For the girl student obtaining the highest CGPA in M.Tech. (AHES)
24	Meenakshi Power Award of Rs. 20000/- p.a.	For the girl student obtaining the highest CGPA in M.Tech. (EMRL)

Item No. 72.24: **To ratify the following awards:**

(i) **Rural India Technology based Upliftment (RITU) Award**

(ii) **Service Oriented Natural-Science Innovation & Application (SONIA) Award**

(iii) **Anoop Singh Khurana Squash Championship Prize**

(iv) **ENCORE (Eighty Nine Class of Roorkee Endowment) Awards**

(v) **Nayyar Award for Excellence in Communication**

The Senate ratified the item.

Item No. 72.25: **To ratify the following:**
(1) Winners of ENCORE awards for year 2017-18.
(2) Winners of Manoj Jain Award for Human Values for year 2018.

The Senate ratified the item.

Item No. 72.26: **To ratify the changes in M.Tech./ M.Arch./ MURP Educational Qualification suggested by the Departments/ Centre.**

The Senate ratified the item as given in **Appendix 'F'.**

Item No. 72.27: **To adopt the Seat Matrix for the admission in B.Tech./ B.Arch./ IDD and Integrated M.Sc. for the session 2018-19 in IIT Roorkee through JEE (Advanced)-2018.**

The Senate approved the proposal.

Item No. 72.28: **To consider allowing students to register for extra Credit/ Audit courses from 3rd Semester onwards.**

The Senate approved the proposal.

Item No. 72.29: **To consider revision in the fee structure of UG/PG/Ph.D. programs from 2018-19.**

The Senate recommended the proposal for approval of the Board of Governors as under:

Proposed changes (only the proposed changes are being shown)

One time payments at the time of admission			
Item	Existing	Proposed	Justification
Mess Admission Fee (Non-refundable)	Rs. 2000/-	Rs. 4000/-	To meet the deficit towards establishment charges of CCB employees
Career Development Fund	Rs. 2000/-	0	Over the years, this Fund has grown because the expenses are less. The expenses will be continued with support from other sources, if required.
Examination Fees (Ph.D.)	Rs. 300/- per semester	Rs. 300/- per semester (for first year only)	Usually the course work is over in the first year
Proposed changes in the Headings			
Hostel Rent (UG)		Hostel Seat Rent	Changed for uniformity across programs
Bhawan Fund (UG)		BRP Fund (Bhawan Receipts & Payments)	Changed for uniformity across programs

Proposed Structure of Mess Advance:
Mess advance is separated into two heads as Food Charges and Establishment Charges. Food Charges for UG, M.Sc. & MBA Students to be Rs. 9000/- per semester while Food Charges for M.Tech. & Ph.D. students to be Rs. 10800/- per semester while Establishment charges to be Rs. 9000/- per semester for all dining students. This will total to Rs 18000/- for UG, IDD M.Tech, Integrated M.Sc., M.B.A. & M.Sc. while it will total to Rs. 19800/- for M.Tech. & Ph.D. students.

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Existing Mess Advance				Proposed		
	Mess Advance (Food charges +Establishment charges)	Subsidy	**Total**	Mess Advance towards Food charges	Mess Establishment Charges	**Total Mess Charges**
For UG, IDD M.Tech, Integrated M.Sc., MBA & M.Sc. Students	Rs. 12000/- per semester	Rs. 2000/- per semester	**Rs. 14000/- per semester**	9000/- per semester	9000/- per semester	**Rs. 18000/- per semester**
For M.Tech& Ph.D. students	Rs. 14400/- per semester	Rs. 2000/- per semester	**Rs. 16400/- per semester**	10800/- per semester	9000/- per semester	**Rs. 19800/- per semester**

The Mess Advance towards Food charges is subject to adjustment as per actuals.

Item No. 72.30: **To consider the proposal of Chemical Engineering Department for M.Tech. programme in Chemical Engineering in place of two existing specializations in Computer Aided Process Plant Design (CAPPD) and Industrial Pollution Abatement (IPA).**

The Senate approved the proposal.

Item No. 72.31: **To ratify modifications in the Academic Calendar 2017-18.**
The Senate ratified the item as under:

Sl. No.	Existing	Approved
1	March 20,2018 (Saturday)- Friday Time Table	April 8, 2018 (Sunday)- Friday Time Table
	April 10, 2018 (Saturday)- Wednesday Time Table	April 07, 2018 (Saturday)- Wednesday Time Table
2.	April 3&4 2018, Ph.D. Interview	April 23-24 Ph.D. Interview

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

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TABLE-1

Category wise vacancy i.e. 27% for OBC, 15% for SC, 7.5% for ST for admission to Ph.D program for Autumn Semester of the session 2018-19 under Institute Assistantship

Deptt/ centre	Faculty Position (01.02.18)	Total seats @4.0 x faculty	Total seats				Seats Filled					Vacancy				
			Gen	OBC	SC	ST	Gen	OBC	SC	ST	Total filled	Total vacancy	Gen	OBC	SC	ST
(Roorkee Campus)																
AHEC	7	28	14	8	4	2	7	5	3	1	16	12	7	3	1	1
Arch & Plng	18	72	37	19	11	5	22	11	8	0	41	31	15	8	3	5
Biotechnology	26	104	52	28	16	8	42	15	8	1	66	38	10	13	8	7
C-Trans	4	16	9	4	2	1	6	2	2	1	11	5	3	2	0	0
Dis. Mit. &Magnt	4	16	9	4	2	1	6	4	2	0	12	4	3	0	0	1
Nanotechnology	4	16	9	4	2	1	5	3	2	0	10	6	4	1	0	1
Chemical Engg	21	84	42	23	13	6	24	24	9	1	58	26	18	0	4	5
Chemistry	23	92	46	25	14	7	29	13	6	0	48	44	17	12	8	7
Civil Engg	44	176	89	48	26	13	54	35	18	4	111	65	35	13	8	9
Computer Sc. & Engg	12	48	24	13	7	4	16	5	3	0	24	24	8	8	4	4
Earth Sciences	22	88	44	24	13	7	18	8	6	2	34	54	26	16	7	5
Earthquake Engg	11	44	22	12	7	3	19	4	2	1	26	18	3	8	5	2
Electrical Engg	31	124	63	33	19	9	39	19	8	2	68	56	24	14	11	7
E&CE	20	80	40	22	12	6	25	14	3	0	42	38	15	8	9	6
Hum &Soc. Sciences	15	60	30	16	9	5	23	14	4	0	41	19	7	2	5	5
Hydrology	7	28	14	8	4	2	8	4	1	0	13	15	6	4	3	2
Inst. Instr. Centre	1	4	2	1	1	0	1	2	0	0	3	1	1	0	1	0
Management Studies	14	56	32	13	7	4	20	8	4	0	32	24	12	5	3	4
Mathematics	25	100	50	27	15	8	21	19	9	1	50	50	29	8	6	7
Mech&Indl Engg	41	164	83	44	25	12	55	34	16	5	110	54	28	10	9	7
Met & Mat Engg	21	84	42	23	13	6	28	17	12	1	58	26	14	6	1	5
Physics	32	128	64	35	19	10	44	21	7	0	72	56	20	14	12	10
WRD & M	5	20	10	5	3	2	6	5	3	1	15	5	4	0	0	1
	408	1632	827	439	244	122	518	286	136	21	961	671	309	155	108	101
(Saharanpur Campus)	Total Seat @ 8 x no. of faculty															
Applied Sc. & Engg	5	40	20	11	6	3	15	6	1	0	22	18	5	5	5	3
Paper Technology	6	48	24	13	7	4	15	7	5	0	27	21	9	6	2	4
Polymer & Process Engg	12	96	49	26	14	7	27	12	13	0	52	44	22	14	1	7
	23	184	93	50	27	14	57	25	19	0	101	83	36	25	8	14

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Proposed PMRF seat distribution for IIT Roorkee

Department/Centre	Seats
AHEC	1
ARCHITECTURE & PLANNING	2
BIOTECHNOLOGY	6
CIVIL ENGINEERING	7
CHEMICAL ENGINEERING	2
COMPUTER SCIENCE & ENGINEERING	2
CHEMISTRY	5
DISASTER MITIGATION & MANAGEMENT	1
ELECTRONICS & COMMUNICATION ENGINEERING	4
ELECTRICAL ENGINEERING	4
EARTHQUAKE ENGINEERING	1
EARTHSCIENCES	3
HYDROLOGY	1
MATHEMATICS	3
MECHANICAL & INDUSTRIAL ENGINEERING	5
METTALURGICAL & MATERIALS ENGINEERING	2
NANOTECHNOLOGY	1
PHYSICS	3
APPLIED SCIENCES	1
POLYMER & PROCESS ENGINEERING	1
PAPER TECHNOLOGY	1
TRANSPORTATION SYSTEMS	1
WATER RESOURCE DEVELOPMENT & MANAGEMENT	1
Total	58

Breakup for PG Admission 2018-19

S.No	Academic Department/ Centre & (Code)	Academic Programmes		Main Gate Discipline(s)					Other GATE Disciplines				
		Name	Code	GATE Discipline Code	GEN	OBC	SC	ST	GATE Discipline Code	GEN	OBC	SC	ST
1	Architecture and Planning (ARD)	M.Arch.	10	AR(12)	6	3	2	1	-	-	-	-	-
		M.U.R.P.	11	AR(9)	5	2	1	1	CE(2)	1	1	0	0
2	Alternate Hydro Energy Centre (AHC)	M.Tech. Alternate Hydro Energy Systems	12	CE(2)	1	1	0	0	AG/CH/EE/EC/ME/PI/XE (13)	6	4	2	1
		M.Tech. Environmental Management of Rivers and Lakes	13	CE(3)	1	1	1	0	AG/CH/EE/ME/PI/XE/AR/CY/BT/PH/MA/XL/EY(17)	3	2	1	1
3	Chemical Engineering (CHD)	M.Tech. Chemical Engineering	14	CH(20)	10	5	3	2	-	-	-	-	-
4	Civil Engineering (CED)	M.Tech. Environmental Engg.	16	CE(9)	5	2	1	1	CH(2)	1	1	0	0
		M.Tech. Geomatics Engg.	17	CE(7)	3	2	1	1	AR/CS/EC/EE /AG/MN(7)	4	2	1	0
		M.Tech. Geotechnical Engg.	18	CE(13)	7	3	2	1	MN (2)	1	1	-	-
		M.Tech. Hydraulic Engg.	19	CE(11)	5	3	2	1		-	-	-	-
		M.Tech. Structural Engg	20	CE(21)	10	6	3	2	-	-	-	-	-
		M.Tech. Transportation Engg.	21	CE(14)	7	4	2	1	-	-	-	-	-
5	Earthquake Engineering (EQD)	M.Tech. Soil Dynamics	22	CE(11)	5	3	2	1	-	-	-	-	-
		M.Tech. Structural Dynamics	23	CE(18)	9	5	3	1	-	-	-	-	-
		M.Tech. Seismic Vulnerability and Risk Assessment	24	CE(10)	5	3	1	1	-	-	-	-	-
6	Electrical Engineering (EED)	M.Tech. Electric Drives & Power Electronics	25	EE(15)	8	4	2	1	-	-	-	-	-
		M.Tech. Instrumentation and Signal Processing	26	EE(9)	5	2	1	1	EC/IN(5)	3	1	1	0
		M.Tech. Power System Engg.	27	EE(15)	8	4	2	1	-	-	-	-	-
		M.Tech. Systems and Control	28	EE(11)	5	3	2	1	EC/IN(3)	1	1	1	-
7	Electronics and Communication Engineering (ECD)	M.Tech. Communication Systems	29	EC(12)	6	3	2	1	-	-	-	-	-
		M.Tech. R.F. & Microwave Engg	30	EC(9)	5	2	1	1	-	-	-	-	-
		M.Tech. Microelectronics and VLSI	31	EC(10)	5	3	1	1	-	-	-	-	-
8	Computer Science and Engineering (CSD)	M.Tech. Computer Science & Engg	32	CS(30)	16	8	4	2	-	-	-	-	-
9	Hydrology (HYD	M.Tech. Hydrology	33	CE/AG(11)	6	3	1	1	GG/XE/PH/ EY(1)	0	1	0	0
10	Mechanical and Industrial Engineering (MED)	M.Tech. CAD, CAM & Robotics	34	ME/PI(10)	5	3	1	1	-	-	-	-	-
		M.Tech. Machine Design Engg.	35	ME/PI(12)	6	3	2	1	-	-	-	-	-
		M.Tech. Production & Industrial Systems Engg.	36	ME/PI(12)	6	3	2	1	-	-	-	-	-
		M.Tech. Thermal Engg.	37	ME/PI(11)	5	3	2	1	-	-	-	-	-
		M.Tech. Welding Engg.	38	ME/PI(11)	5	3	2	1	-	-	-	-	-
11	Metallurgical and Materials Engineering (MTD)	M.Tech. Industrial Metallurgy	39	MT(4)	2	1	1	0	ME/PI/XE (7)	3	2	1	1
		M.Tech. Materials Engg.	40	MT(4)	2	1	1	0	PH/ME/PI/CY/XE (7)	3	2	1	1
12	Paper Technology Saharanpur Campus (PPD)	M.Tech. Pulp & Paper	41	CH(8)	4	2	1	1	ME/BT/TF/EY (4)	2	1	1	0
		M.Tech Packaging Technology	42	CH(7)	3	2	1	1	BT/CY/ME/TF (5)	3	1	1	0
13	Water Resources Development and Management (WRD)	M.Tech. Irrigation Water Management	43	CE/AG(5)	3	1	1	0	-	-	-	-	-
		M.Tech. Water Resources Development	44	CE/EE/ME (9)	5	2	1	1	-	-	-	-	-

S.No	Academic Department/ Centre & (Code)	Academic Programmes Name	Code	Main Gate Discipline(s) GATE Discipline Code	GEN	OBC	SC	ST	Other GATE Disciplines GATE Discipline Code	GEN	OBC	SC	ST
14	Chemistry (CYD)	M.Tech. Advanced Methods of Chemical Analysis	45	CY(8)	4	3	1	0	CH(2)	1	0	0	1
15	Physics (PHD)	M.Tech. Solid State Electronic Materials	46	PH(7)	3	2	1	1	EE/EC/MT (3)	1	1	1	0
		M.Tech. Photonics	47	PH(7)	3	2	1	1	EE/EC/MT/IN (3)	1	1	1	0
16	Nanotechnology (NTC)	M.Tech. Nanotechnology	48	MT/ME/EC/CH/BT/CE (5)	3	1	1	0	CY/PH/XL (5)	2	1	1	1
17	Disaster Mitigation and Management (DMC)	M.Tech. Disaster Mitigation and Management	49	CE(5)	2	1	1	1	ME/PI/CS/CH/AR/GG/PH/MA/XL/XE/EY/BT (5)	3	1	1	0
18	Transportation Systems (TSC)	M.Tech. Infrastructure Systems	50	CE(2)	1	1	0	0	ME/PI/CH/EE/EC/CS/AR (8)	4	2	1	1
19	Biotechnology (BTD)	M.Tech. Bioprocess Engineering	51	CH (5)	3	1	1	0	BT/AG/XE/TF (5)	2	1	1	1

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Certificate for Ph.D. students after completion of degree, if requested

To whom it may concern

This is to certify that:

a. Mr/Ms XXXXXXXXXXXX, Enrolment No. YYYYYYYYY has worked on topic '_____' as a Ph.D. student in the Department of _____ at Indian Institute of Technology Roorkee under the supervision of Dr. _____ from _____ to _____ as Regular/Part-Time student.

b. The thesis was submitted on _____ and open viva-voce examination was held on _____ through circulation of the notice.

c. The student has published ____ research papers in referred journals and has made ____ presentations in conferences till final viva-voce examination.

d. The PhD students are admitted to the Ph.D. programme on the basis of academic record, test/interview or both and guidelines as in force in the institute from time to time.

e. The academic performance during Ph.D. programme is evaluated by a Student Research Committee (SRC). The studentneeds to complete the requirements of pre-Ph.D. courses and research proposal (through presentation)to the SRC.

f. The student makes a Pre-synopsis presentation to SRC and the thesis is examined by external examiners.

g. The institute preserves a soft copy of the thesis.

h. The institute is an autonomous institution created by an Act of Parliament. Institute follows Government of India guidelines on reservation as applicable from time to time.

This certificate is issued on the request of the student.

AR-Evaluation

(_____)

List of 11 criteria as per UGC (minimum standard and procedure for award of Ph.D. degree) Regulation, 2009

Sr. No.	Particular
1.	Admission by entrance test or interview or both.
2.	Maximum number, M.Phils : 5, Ph.D.: 8 /Supervisor.
3.	National/ Reservation Policy.
4.	Course work/Research Methodology Theory.
5.	Research Advisory Committee- Review of the progress
6.	Part-I methodology exam.
7.	Pre-Ph.D. presentation before synopsis submission.
8.	Publication of at least I paper before theis submission.
9.	Presentation of 2 papers in conferences or seminar.
10.	Evaluation of thesis by two experts other than Supervisor, one out of the State.
11.	Soft copy of the Thesis in the University

Procedure for admission to M.Tech/M.Arch/M.U.R.P. program 2018 onwards

- Notification for admission to M.Tech/M.Arch/MURP programme will be made online only.

- The process for admission to PG programme 2018 will be online including counseling and upgradation .

- All the application will be invited online and scrutiny will also be done by online mode.

- Resubmission of online application by the scrutiny fail candidates

- Final scrutiny to be done by admission office

- Online counseling will done by common portal of all IITs in several rounds

- In case of Tie break Normalized GATE rank will be considered for allotment of seat. The Normalized GATE Rank will be calculated as follows:

$$\text{Normalized GATE Rank In the Paper} = \frac{\text{GATE Rank}}{\text{Total number of candidates appeared in that Paper in that year}} \times 100$$

- 2nd criterion for tie-breaker, as preference to a person with higher age, should be introduced in the admission guidelines

- Offer letter to be issued to the eligible candidates

- Those candidates who have frozen the seat allotted will be required to deposit Rs. 5000/- seat booking fee (nonrefundable). It will be adjusted in total fee at the time of registration.

- After the final round of counseling, the candidates who have booked their seats will be registered in the Institute as per schedule.

- No further upgradation will be done for the registered candidates.

- Final counseling-cum-registration (spot counseling) will be done as per merit for remaining vacant seats after registration, if any. Remaining eligible candidates will be considered in the spot counseling-cum-registration. No admission will be given after spot counseling-cum-registration for PG Admission.

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Report of the Committee to Recommend Inclusion of Online Courses for Partial Fulfillment of Credit Requirement in Academic Programs

The committee of Dean Academic Affairs, Coordinator Education Technology Cell and Associate Dean Academic Affairs (Curriculum) recommended the following:

1. The online courses for various programs can be taken in lieu of the courses without laboratory work as per the following norms.

Program	No. of courses/Credits allowed	Remarks
UG	Up to 8 credits (max. 2 courses)	Courses should be approvedby DAPC of the concenred department
PG	Up to 4credits(max. 1 course)	Courses should be approved by DAPC of the concenred department
PhD	Up to 4 credits (max. 1 course)	Courses should be approvedby SRC

A course will need approval by DAPC once only.

2. The credit equivalence would be as follows:

Duration of course (hrs)	Credits
10	2
20	3
30	4

3. For grading, the marks obtained by the registered students of IITR as per the procedure of NPTEL guidelines would be requested from NPTEL central team. The grading procedure of IIT Roorkee will be followed. For no. of IITR students less than 30 in a course, the marks obtained by the student(s) would be normalized by maximum marks (obtained by student of any Institute) and then the grading would be done as per absolute grading system of IIT Roorkee on normalized marks.

4. The above procedure will be reviewed after 2 years.

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Table – 1

Details of Academic Programmes leading to M.Tech./M.Arch./M.U.R.P.

SI. N0	Academic Department/ Centre & (Code)	Academic Programmes		Eligible GATE Disciplines	Minimum Educational Qualifications
		Code	Name		
1	Architecture and Planning (ARD)	10	M.Arch.	AR	B.Arch. or its equivalent
		11	M.U.R.P.	AR/CE	B.Arch. or its equivalent or Bachelor's degree in Civil Engg./ B.Planning
2	Alternate Hydro Energy Centre (AHC)	12	M.Tech. Alternate Hydro Energy Systems	CE/AG/CH/EE /EC/ME/PI/XE	Bachelor's degree in Civil/Electrical/Mechanical/ Industrial/Chemical/Electronics/Computer/Agricultural/ Environmental Engg. or equivalent.
		13	M.Tech. Environmental Management of Rivers and Lakes	CE/AG/CH/EE /ME/PI/XE/AR /CY/BT/PH/M A/XL/EY	Bachelor's degree in Civil/Electrical/Mechanical/ Industrial/ Chemical/Agriculture/Environmental Engg./Biotechnology/Arch. /Town Planning or its equivalent or Master in Science in any subject with Mathematics at graduation level.
3	Chemical Engineering (CHD)	14	M.Tech. Chemical Engineering.	CH	B.Tech./B.E. in Chemical Engineering/ Chemical Technology
4	Civil Engineering (CED)	16	M.Tech. Environmental Engg.	CE/CH	Bachelor's degree in Civil Engg./Chemical Engg./Environmental Engg. or equivalent
		17	M.Tech. Geomatics Engg.	CE/AR/CS/EC /EE /AG/MN	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
		18	M.Tech. Geotechnical Engg.	CE/MN	Bachelor's degree in Civil Engg. or equivalent.
		19	M.Tech. Hydraulic Engg.	CE	Bachelor's degree in Civil Engg. or equivalent.
		20	M.Tech. Structural Engg	CE	Bachelor's degree in Civil Engg. or its equivalent.
		21	M.Tech. Transportation Engg.	CE	Bachelor's degree in Civil Engg. or its equivalent.
5	Earthquake Engineering (EQD)	22	M.Tech. Soil Dynamics	CE	Bachelor's degree in Civil/Structural Engg. or equivalent.
		23	M.Tech. Structural Dynamics	CE	Bachelor's degree in Civil/Structural Engg. or equivalent.
		24	M.Tech. Seismic Vulnerability and Risk Assessment	CE	Bachelor's degree in Civil/Structural Engg. or equivalent.
6.	Electrical Engineering (EED)	25	M.Tech. Electric Drives & Power Electronics	EE	Bachelor's degree in Electrical Engg. or its equivalent.
		26	M.Tech. Instrumentation and Signal Processing	EE/EC/IN	Bachelor's degree in Electrical/Electronics & Communication/Instrumentation Engg. or its equivalent.
		27	M.Tech. Power System Engg.	EE	Bachelor's degree in Electrical Engg. or its equivalent.
		28	M.Tech. Systems and Control	EE/EC/IN	Bachelor's degree in Electrical Engg. or Electronics & Communication/Instrumentation Engg. or its equivalent.

Sl. NO	Academic Department/ Centre & (Code)	Code	Academic Programmes Name	Eligible GATE Disciplines	Minimum Educational Qualifications
7	Electronics and Communication Engineering (ECD)	29	M.Tech. Communication Systems	EC	Bachelor's degree in Electronics & Communication Engg. or its equivalent
		30	M.Tech. R.F. & Microwave Engg	EC	Bachelor's degree in Electronics & Communication Engg. or its equivalent
		31	M.Tech. Microelectronics and VLSI	EC	Bachelor's degree in Electronics & Communication Engg. or its equivalent M.Sc. (Physics); M.Sc. (Electronics)
8	Computer Science and Engg (CSD)	32	M.Tech. Computer Science & Engg.	CS	B.E./B.Tech. degree in Computer Science & Engineering/ Information Technology
9	Hydrology (HYD	33	M.Tech. Hydrology	CE/AG/GG/XE/ PH/ EY	Bachelor's degree in Civil/ Agricultural Engg./ Hydrology or equivalent. M.Sc./M.Tech. in Chemistry/Geology/ Geophysics/ Applied Geology/Applied Geophysics/Physics/ Meteorology/ Geography Atmospheric Physics/Environmental Science with Mathematics in B.Sc. as one of the subjects or M.Sc. (Master's) degree in Statistics with Physics or Mathematics at B.Sc. or M.Sc. degree in Mathematics with Physics in B.Sc. or its equivalent.
10	Mechanical and Industrial Engineering (MED)	34	M.Tech. CAD, CAM & Robotics	ME/PI	Bachelor's degree in Mechanical/Industrial/Production Engg. or its equivalent
		35	M.Tech. Machine Design Engg.	ME/PI	Bachelor's degree in Mechanical/Industrial/Production Engg. or its equivalent
		36	M.Tech. Production & Industrial Systems Engg.	ME/PI	Bachelor's degree in Mechanical/ Industrial/Production Engg. or its equivalent
		37	M.Tech. Thermal Engg.	ME/PI	Bachelor's degree in Mechanical/Industrial/Production Engg or its equivalent
		38	M.Tech. Welding Engg.	ME/PI	Bachelor's degree in Mechanical/Industrial/Production Engg. or its equivalent
11	Metallurgical and Materials Engineering (MTD)	39	M.Tech. Industrial Metallurgy	MT/ME/PI/XE	B.Tech./B.E. in Metallurgy/Materials Engineering/ Mechanical Engineering/Production Engg/ Production and Industrial Engg /Ceramic Engineering
		40	M.Tech. Materials Engg.	MT/PH/ME/PI/ CY/XE	B.Tech./B.E. in Metallurgy/Materials Engineering, Mechanical Engineering/Production Engineering/ Production and Industrial Engg /Ceramic Engineering/Polymer Engg./Nanotechnology; or M.Sc. in Physics/Chemistry /Material Science/Polymer / Nanotechnology with Mathematics course at B.Sc. level
12	Paper Technology Saharanpur Campus(PPD)	41	M.Tech. Pulp & Paper	CH/ME/BT/TF/ EY	Bachelor's degree in Pulp & Paper Engg./ Chemical Engg./ Mechanical Engg./ Polymer Engg./ Cellulose Technology/ Biotechnology or equivalent. **Note:** The two years post B.Sc. diploma awarded by the IPT/DPT plus a minimum of two years relevant experience in Industry/ Research Organization will be considered equivalent to a B.Tech/B.E. degree
		42	M.Tech Packaging Technology	CH/BT/CY/ME/ TF	M.Sc. in Chemistry(PCM at B.Sc. level)/ Polymer Science (PCM at B.Sc. level)/ or B.Tech. in Pulp and Paper Technology/ Biotechnology/ Chemical Engg Chemical Technology/ Polymer Engg/ Process Engg/ Mechanical Engg/ Production Engg/ Packaging Technology/Printing Technology/ Textile Technology/ PG Diploma in Packaging/ Biochemical Engg. Industry sponsored candidate with aforesaid academic qualifications along with two years experience in Paper/Polymer /Packaging Technology. **Additional Requirement:** GATE qualified except for industry sponsored candidate.

Sl. NO	Academic Department/ Centre & (Code)	\begin{tabular}{c} Academic Programmes \\ \hline Code \end{tabular}	Name	Eligible GATE Discipline	Minimum Educational Qualifications
13	Water Resources Development & Management (WRD)	43	M.Tech. Irrigation Water Management	CE/AG	Bachelor's degree in Civil Engg. or its equivalent / Agricultural Engg. or M.Sc. Agriculture in Agronomy, Soil Science, Agrometeorology, with Mathematics as one of the papers at the level of B.Sc./B.Sc. Agriculture.
		44	M.Tech. Water Resources Development	CE/EE/ME	Bachelor's degree in Civil/Electrical/Mechanical/ Electronics & Telecommunication Engg. or equivalent.
14	Chemistry (CYD)	45	M.Tech. Advanced Methods of Chemical Analysis	CY/CH	B.Tech. (Chemical Engg.)/M.Sc.(Chemistry)/ M.Sc. (Environment Science) with Mathematics at least at 10+2 level.
15	Physics (PHD)	46	M.Tech. Solid State Electronic Materials	PH/EE/EC/MT	B.Tech. (Engg. Physics)/M.Sc. (Physics)/Bachelor's degree in Electrical/Electronics/Metallurgical Engg. or its equivalent.
		47	M.Tech. Photonics	PH/EE/EC/MT/ IN	M.Sc. (Physics/ Electronics/ Applied Physics/ Photonics/ Engineering Physics), B.Tech. (Engineering Physics/ Electronics/ Communication/ Electrical/ Instrumentation/ materials/ Metallurgy/ Nanotechnology)
16	Nanotechnology (NTC)	48	M.Tech. Nanotechnology	MT/ME/EC/CH/ BT/CE/CY/PH/ XL	B.Tech. (Met. & Mat. Engg./Mech. Engg./ E&C/Electronics/ Chemical Engg./ Biotechnology/ Civil/ Biochemical Engineering/ Biomedical Engineering/ Bioengineering/ Polymer Engg/ Polymer Technology/ Pharmaceutical Technology/Industrial Biotechnology/ Nanotechnology) or equivalent; M.Sc. (Physics/ Chemistry/ Biotechnology/ Life Science/ nanotechnology), with Maths at 10+2 or higher level.
17	Disaster Mitigation and Management (DMC)	49	M.Tech. Disaster Mitigation and Management	CE/ME/PI/CS/ CH/AR/GG/PH/ MA/XL/XE/EY/ BT	B,Tech. (Civil, Structural, Mechanical, Industrial, Chemical Engineering and **Biotechnology** /Computer Science & Engineering or equivalent,; B.Arch. & B. Planning, M.Tech. in Geological Technology and Geophysical Technology or equivalent, M.B.A.; M.C.A.; M.Sc. in Physics/ Geophysics/ Geology/ Mathematics, Computer Science, Environmental Sciences, or equivalent (with Maths in B.Sc.).
18	Transportation Systems (TSC)	50	M.Tech. Infrastructure Systems	CE/ME/PI/CH/ EE/EC/CS/AR	B.E./B.Tech. (Civil/ Mechanical & Industrial/ Electrical/ Chemical Engineering/Electronics & Communication Engg/ Computer Science and Information Technology/ B.Arch./ B.Planning/B.Design or equivalent.
19	Biotechnology (BTD)	51	M.Tech. Bioprocess Engineering	CH/BT/AG/XE/ TF	B.E./B.Tech. or equivalent degree in Chemical Engineering/ Biochemical Engg/ Bioprocess Engg/ Chemical Technology/ Food Technology/ Agricultural Engg./ Biomedical Engg/ Bioengineering/ Polymer Engg./ Polymer Technology/ Plastic Technology/ Paper Technology/Ceramic Technology/ Petrochemical Engineering/ Textile Engineering/ Biotechnology or in allied field with maths in 10+2 level.

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