

भारतीय प्रौद्योगिकी संस्थान रुड़की  
रुड़की – 247 667 (भारत)  
**INDIAN INSTITUTE OF TECHNOLOGY ROORKEE**  
**ROORKEE - 247 667 (INDIA)**



सीनेट की इक्यासीवीं बैठक हेतु कार्य सूची  
**AGENDA FOR THE**  
**81<sup>st</sup> MEETING OF THE SENATE**

बैठक सं० <b>MEETING NO.</b>	: इक्यासीवीं : <b>81<sup>st</sup></b>
स्थान <b>VENUE</b>	: सीनेट हॉल, भा० प्रौ० सं० रुड़की : <b>Senate Hall, IIT Roorkee</b>
दिनांक <b>DATE</b>	: 08 जनवरी 2020 : <b>8<sup>th</sup> January 2020</b>
समय <b>TIME</b>	: 3.30 बजे अपरान्ह : <b>3.30 P.M.</b>

भारतीय प्रौद्योगिकी संस्थान रुड़की  
**INDIAN INSTITUTE OF TECHNOLOGY ROORKEE**  
रुड़की 247 667  
**ROORKEE – 247 667**



**कार्यसूची / A G E N D A**

मुद्दा सं०/ Item No.	विवरण / Particulars	पृष्ठ / Page(s)
81.1	सीनेट की दिनांक 26.09.2019 को आयोजित हुई 80वी बैठक के कार्यवृत्त की पुष्टि करना। To confirm the minutes of the 80 <sup>th</sup> meeting of the Senate held on 26.09.2019	1-2
81.2	सीनेट की दिनांक 26.09.2019 को आयोजित हुई 80वी बैठक में लिए गए निर्णयों के क्रियान्वयन हेतु की गई कार्रवाई को रिपोर्ट करना। To report on the actions taken to implement the decisions of the Senate taken in its 80 <sup>th</sup> meeting held on 26.09.2019.	3-6
81.3	बी०टेक०/आईडीडी/आईएमएस/आईएमटी में एक क्रेडिट पाठ्यक्रम को दोहराने के प्रावधान का सूत्रपात करने के प्रस्ताव पर विचार करना। To consider the proposal to introduce a provision for repeating a credit course in B.Tech./IDD/IMS/IMT.	7
81.4	एमटेक विषय के निम्नलिखित कोर्स संरचना को संशोधित करने के लिए विद्युत विभाग के प्रस्ताव पर विचार करना:  <ol style="list-style-type: none"> <li>1. सिस्टम और कंट्रोल</li> <li>2. इंस्ट्रुमेंटेशन और सिगनल प्रोसेसिंग</li> <li>3. पावर सिस्टम इंजीनियरिंग</li> <li>4. इलेक्ट्रिक ड्राइव और पावर इलेक्ट्रॉनिक्स</li> </ol> To consider the proposal of Department of Electrical Engineering to modify the course structure of following specializations of M.Tech.: <ol style="list-style-type: none"> <li>1. System and Control</li> <li>2. Instrumentation and Signal Processing</li> <li>3. Power System Engineering</li> <li>4. Electric Drives and Power Electronics</li> </ol>	8-23

81.5	दस्तावेजों को प्रस्तुत नहीं करने के कारण नाम बहाली के लिए छात्रों के अनुरोधों पर विचार करना। To consider the requests of the students for name restoration due to non-submission of documents.	24
81.6	स्व-अध्ययन पाठ्यक्रमों पर यूजी विनियमन को संशोधित करने के प्रस्ताव पर विचार करना। To consider the proposal to revise the UG regulation on self-study courses.	25
81.7	सीजीपीए मानदंड के संदर्भ में अल्प विशेषज्ञता पाठ्यक्रमों पर नियमन में प्रस्तावित संशोधन पर विचार करना। To consider the proposed revision in the regulation on minor specialization courses in terms of CGPA criteria.	26
81.8	प्रबंधन में अल्प विशेषज्ञता पाठ्यक्रम के प्रारम्भ करने के लिए प्रबंधन विभाग के प्रस्ताव पर विचार करना। To consider the proposal of Department of Management Studies to offer minor specialization courses in Management.	27-28
81.9	विस्तृत व्यवसायिक अनुभव योजना के अन्तर्गत पीएचडी प्रोग्राम में भर्ती अभ्यर्थियों को दिए गए प्रवेश को रिपोर्ट करना To report the admission given to the candidates admitted in Ph.D. Programmes under the Extensive Professional Experience Scheme.	29-30
81.10	छात्र को दीक्षांत समारोह 2019 में प्रदान की गई दोहरी डिग्री (एमटेक प्लस पीएचडी) के प्रारूप को रिपोर्ट करना और उत्तरवर्ती दीक्षांत समारोहों के लिए पूर्वकथित प्रारूप पर विचार करना। To report the format of Degrees awarded to a Dual Degree (M.Tech. + Ph.D.) student in Convocation 2019 and to consider the same for subsequent Convocations.	31-33
81.11	विभिन्न पाठ्यक्रमों में 25 सितम्बर 2019 से अब तक पी0एच0डी0 उपाधि प्राप्त करने की अर्हता वाले छात्रों को अनंतिम पी0एच0डी0 उपाधि प्रदान करने की पुष्टि करना। To ratify the award of provisional Ph.D. Degree certificates to the students who have completed the requirements for the award of Ph.D. Degree in various disciplines from 25 <sup>th</sup> September 2019 to date.	34-37
अन्य मद अध्यक्ष की अनुमति से/Under any item with the permission of the Chair.		

**Item No. 81.1: To confirm the minutes of the 80<sup>th</sup> meeting of the Senate held on 26.09.2019.**

The minutes of the 80<sup>th</sup> meeting of the Senate held on 26.09.2019 were circulated to the members vide e-mail dated 24.10.2019 with subsequent corrigendum No. IITR/MS/80<sup>th</sup> Senate/128 dated 11<sup>th</sup> November 2019, given in **Appendix-A**.

No comments have been received.

The Senate may consider confirming the said minutes.




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

सं० भा० प्रौ० सं० रू० / एमएस / 80 सीनेट /  
No. IITR/MS/80<sup>th</sup> Senate/ 128

दिनांक 11 नवम्बर 2019  
Dated 11<sup>th</sup> November 2019

In continuation to this Office e-mail dated 24.10.2019 enclosing therewith the Minutes of the 80<sup>th</sup> Senate meeting held on 26.09.2019, the minutes of Item No. 80.4 for Category A,B and D of the said meeting be read as under:

<b><u>CORRIGENDUM</u></b>	
<b>NOTIFIED AS</b>	<b>READ AS</b>
Category-A: Approved the requests with effect from the Spring Semester of 2019-20. Warning be issued to the students with a copy to their parents.	Category-A: Approved the requests. Warning be issued to the students with intimation to their parents.
Category-B: Not approved.	Category-B: Not approved.
Category-D: Not approved.	Category-D: Requests for continuation of programme in Autumn Semester 2019-20 are not approved. Name restoration with effect from Spring Semester 2019-20 is approved.

  
प्रशान्त गर्ग  
Prashant Garg  
कुलसचिव एवं सचिव सीनेट  
Registrar & Secretary, Senate  
को०/५० ०८५/११२ ११/११/१९

**Item No.81.2: To report on the actions taken to implement the decisions of the Senate taken in its 80<sup>th</sup> Senate meeting held on 26.09.2019.**

The minutes of the 80<sup>th</sup> Senate meeting held on 26.09.2019 were circulated to the members vide e-mail dated 24.10.2019 . The status of actions taken is as under:

<b>Item No.</b>	<b>Reference to the Senate minutes</b>	<b>Abstract of the Minutes</b>	<b>Status of action taken</b>
80.3	Revised criteria and process for termination of Enrolment- On Academic Grounds.	The Senate approved the criteria and process for termination of Enrolment - On Academic Grounds.	Notified.
80.4	Requests of some students regarding continuation of programme in spite of not fulfilling minimum earned credits/ extension beyond permissible limit/ attendance waiver/ name restoration.	Category-A: Approved the requests with effect from the Spring Semester of 2019-20. Warning be issued to the students with a copy to their parents.  Category-B: Not approved.  Category-D: Requests for continuation of programme in Autumn Semester 2019-20 are not approved. Name restoration with effect from Spring Semester 2019-20 is approved.	Notified.
80.5	Request of Mr. Girendra Singh, IDD (MT), (Enr. No.12118026) for award of degree on the basis of completion of credits.	The Senate approved the request.	Awarded.

80.6	Award of Degrees/Diploma to the students who have qualified for the award of degrees/diploma in various disciplines/courses for the session 2018-19.	The Senate considered and recommended to the Board of Governors the award of Degrees/Diploma to 2029 students who have duly qualified for the same.	Awarded.
80.7	Awards/Medals for 2019.	The Senate approved the same.	Awarded
80.8	Cut-off of 8.0 CGPA for the Department Gold Medal in B. Arch.	The Senate approved a threshold of 8.5 CGPA for the Department Gold Medal in any branch.	Awarded as per the approved cut off criterion.
80.9	Excellence in Doctoral Research Awards.	<p>The Senate approved the following Excellence in Doctoral Research Awards 2019:</p> <p><b>Science Stream:</b></p> <p>1. Dr. Pallavi Gupta, Enrolment No. 13925003, Centre of Nanotechnology Category: Applied Research</p> <p><b>Engineering Stream:</b></p> <p>1. Dr. Dhiraj Raj, Enrolment No. 12917002, Department of Earthquake Engineering Category: Applied Research</p> <p>2. Dr. Yogeshkumar Manibhai Makwara, Enrolment No. 15914013, Department of Electrical Engineering Category: Applied Research</p> <p>Further decided that in future the title of the thesis and the name of the supervisor be also mentioned in the recommendations.</p>	Awarded.



80.10	Request of Ph.D. students regarding extension in time beyond the maximum stipulated period for submission of Ph.D. thesis.	Mr. Seraj Ahmad's programme be reinstated. The Senate approved the requests for extensions upto 31.12.2019.	Notified.
80.11	Mercy appeals of Ph.D. students regarding reinstatement of name being struck off from Institute Roll.	The Senate accepted the mercy appeals and allowed reinstatement. All such students will register in the Spring Semester of 2019-2020. The current semester will be considered as withdrawn.	Notified.
80.12	Hiring of faculty at Centre of Excellence in Transportation system (CTRANS), Center of Excellence in Disaster Mitigation & Management (CoEDMM) and Centre for Nanotechnology.	The Senate considered and recommended the proposal to the Board of Governors for approval.	Recommendations approved by the Board in its 58 <sup>th</sup> meeting.
80.13	Constitution of Institute Academic Ethics Committee.	The Senate considered and recommended the proposal to the Board of Governors for approval.	Recommendations approved by the Board in its 58 <sup>th</sup> meeting and notified.
80.16	Seat matrix w.r.t. Admission to Ph.D. Programmes (Spring Semester 2019-20).	The Senate approved the seat matrix for admission to Ph.D. Programmes in the Spring Semester of 2019-20.	All Departments/ Centres were informed by Admission Office.



80.17	Proposal to carry out an amendment in Academic Calendar of Autumn Semester 2019-20 i.e., Nov 02, 2019 (Saturday) as a teaching day instead of Oct 04, 2019 (Friday).	The Senate approved the proposal.	Notified.
80.18	Candidacy report of Mr. Sarvesh Kumar (En. No. 17919010), Ph.D. student of Department of Mathematics, for approval.	The Senate approved the recommendation of IRC.	Notified.
Items Nos. 80.14, 80.15 & 80.19 were only for reporting to the Senate.			

**Item No. 81.3: To consider the proposal to introduce a provision for repeating a credit course in B.Tech./IDD/IMS/IMT.**

Sometimes due to unforeseen circumstances, the grades of some students in one or two courses are not commensurate with the grades obtained in other courses. These students often wish to repeat the course(s) to improve the grades.

It is proposed to allow such students to repeat only one such course during the whole programme subject to following conditions:

1. Only the students with CGPA  $\geq$  8.0 would be allowed to repeat a course.
2. The repeated courses would be marked 'RP' (Repeated) in the earlier semester and the transcript for the semester in which the course is retaken would show the new grade even if it is lower than the previous one.
3. The course cannot be taken as a self-study course.
4. The attendance requirement for lectures would be waived off.

The IAPC in its 74<sup>th</sup> meeting held on 09.09.2019 recommended the proposal.

The above is submitted for the consideration of the Senate.

**Item No. 81.4: To consider the proposal of Department of Electrical Engineering to modify the course structure of following specializations of M.Tech.:**

- 1. System and Control**
- 2. Instrumentation and Signal Processing**
- 3. Power System Engineering**
- 4. Electric Drives and Power Electronics**

In the revised structure, all Programme Electives are shifted to the second semester and core courses are shifted from the second semester to first semester **(Appendix- A)**.

The IAPC in its 76<sup>th</sup> meeting held on 07.11.2019 recommended the proposal.

The above is submitted for the consideration of the Senate.

**DEPARTMENT OF ELECTRICAL ENGINEERING  
INDIAN INSTITUTE OF TECHNOLOGY ROORKEE**

Program Code: 28 M.Tech. (Systems & Control)  
Department: EE Department of Electrical Engineering  
Year: III

Teaching Scheme					Contact Hours/Week			Exam Duration		Relative Weight (%)				
S. No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
<b>Semester-I (Autumn)</b>														
1.	MAN-561	Mathematics	PCC	4	3	1	0	3	-	25	-	25	50	-
2.	EEN-580	Advanced Linear Control Systems	PCC	4	3	1	2/2	3	-	15-30	20	15-25	30-40	-
3.	EEN-581	Intelligent Control Techniques	PCC	4	3	0	2	3	-	10-25	25	15-25	30-40	-
4.	EEN-582	Advanced System Engineering	PCC	4	3	0	2	3	-	10-25	25	15-25	30-40	-
5.	EEN-583	Non Linear and Robust Control	PCC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
		Total		20				-	-	-	-	-	-	-
<b>Semester-II (Spring)</b>														
1.	EEN-xxx	Program Elective Course-I	PEC	4	-	-	-	-	-	-	-	-	-	-
2.	EEN-xxx	Program Elective Course-II	PEC	4										
3.	EEN-xxx	Program Elective Course-III	PEC	4	-	-	-	-	-	-	-	-	-	-
4.	EEN-xxx	Program Elective Course-IV	PEC	4	-	-	-	-	-	-	-	-	-	-
5.	EEN-700	Seminar	SEM	2	-	-	-	-	-	-	-	-	100	-
		Total		18				-	-	-	-	-	-	-



**DEPARTMENT OF ELECTRICAL ENGINEERING  
INDIAN INSTITUTE OF TECHNOLOGY ROORKEE**

Program Code: 28 M.Tech. (Systems & Control)  
Department: EE Department of Electrical Engineering  
Year: II II

Teaching Scheme					Contact Hours/Week			Exam Duration		Relative Weight (%)				
S. No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
<b>Semester-I (Autumn)</b>														
1.	EEN-701A	Dissertation Stage-I (to be continued next semester)	DIS	12	-	-	-	-	-	-	-	-	100	-
		Total		12										
Note: Students can take 1 or 2 audit courses as advised by the supervisor, if required.														
<b>Semester-II (Spring)</b>														
1.	EEN-701B	Dissertation -II (contd. From III semester)	DIS	18	-	-	-	-	-	-	-	-	100	-
		Total		18										

Summary				
Semester	1	2	3	4
<b>Semester-wise Total Credits</b>	<b>20</b>	<b>18</b>	<b>12</b>	<b>18</b>
<b>Total Credits</b>	<b>68</b>			

Program Elective Courses (S&C)

Teaching Scheme					Contact Hours/Week			Exam Duration		Relative Weight (%)				
S. No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
1.	EEN-680	Machine Learning	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
2.	EEN-681	Wide Area System Monitoring Control	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
3.	EEN-682	Advanced Digital System Design	PEC	4	3	0	2	3	-	10-25	25	15-25	30-40	-
4.	EEN-683	Introduction to Robotics	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
5.	EEN-684	System Reliability	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
6.	EEN-685	Stochastic Systems	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
7.	EEN-686	Optimal Control	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
8.	EEN-687	Operations Research	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
9.	EEN-688	Interval Control Systems	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
10.	EEN-689	Modeling and Simulation	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
11.	EEN-690	Advanced Computer Controlled Systems	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
12.	EEN-691	Data Structures	PEC	4	3	0	2	3	-	10-25	25	15-25	30-40	-
13.	EEN-692	Graph Theory and Applications	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
14.	EEN-693	Advanced Microprocessor and Applications	PEC	4	3	0	2	3	-	10-25	25	15-25	30-40	-
15.	EEN-694	Advances in Model Order Reduction Techniques	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
16.	EEN-561	Power System Operation and Control	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
17.	EEN-667	Power System Reliability	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
18.	EEN-669	Power System Dynamics	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-

19.	EEN-521	Digital Signal and Image Processing	PEC	4	3	0	2	3	-	10-25	25	15-25	30-40	-
20.	EEN-620	Process Instrumentation and Control	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
21.	EEN-624	Telemetry and SCADA	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
22.	EEN-626	Advances in Signal and Image Processing	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
23.	EEN-611	FPGA Implementation of Signal Processing Systems	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
24.	EEN-612	Electrical Transients in Power Systems	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
25.	EEN-613	Sliding Mode Control and Observation	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-



**DEPARTMENT OF ELECTRICAL ENGINEERING  
INDIAN INSTITUTE OF TECHNOLOGY ROORKEE**

Program Code: 26 M.Tech. (Instrumentation & Signal Processing)  
Department: EE Department of Electrical Engineering  
Year: I

Teaching Scheme					Contact Hours/Week			Exam Duration		Relative Weight (%)				
S. No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
<b>Semester-I (Autumn)</b>														
1.	EEN-520	Advanced Industrial and Electronic Instrumentation	PCC	4	3	0	2	3	-	10-25	25	15-25	30-40	-
2.	EEN-521	Digital Signal and Image Processing	PCC	4	3	0	2	3	-	10-25	25	15-25	30-40	-
3.	EEN-522	Biomedical Instrumentation	PCC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
4.	EEN-523	Instrumentation laboratory	PCC	2	0	0	4	-	-	-	50	-	-	50
5.	EEN-524	Intelligent Sensors and Instrumentation	PCC	4	3	0	2	3	-	10-15	25	15-25	30-40	-
		Total		18	-	-	-	-	-	-	-	-	-	-
<b>Semester-II (Spring)</b>														
1.	EEN-700	Seminar	SEM	2	-	-	-	-	-	-	-	-	100	-
2.	EEN-xxx	Program Elective Course-I	PEC	4	-	-	-	-	-	-	-	-	-	-
3.	EEN-xxx	Program Elective Course-II	PEC	4	-	-	-	-	-	-	-	-	-	-
4.	EEN-xxx	Program Elective Course-III	PEC	4	-	-	-	-	-	-	-	-	-	-
5.	EEN-xxx	Program Elective Course-IV	PEC	4	-	-	-	-	-	-	-	-	-	-
		Total		18	-	-	-	-	-	-	-	-	-	-



**DEPARTMENT OF ELECTRICAL ENGINEERING  
INDIAN INSTITUTE OF TECHNOLOGY ROORKEE**

Program Code: 26 M.Tech. (Instrumentation & Signal Processing)  
Department: EE Department of Electrical Engineering  
Year: II

Teaching Scheme					Contact Hours/Week			Exam Duration		Relative Weight (%)				
S. No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
<b>Semester- I (Autumn)</b>														
1.	EEN-701A	Dissertation Stage-I (to be continued next semester)	DIS	12	-	-	-	-	-	-	-	-	100	-
		Total		12										
Note: Students can take 1 or 2 audit courses as advised by the supervisor, if required.														
<b>Semester-II (Spring)</b>														
1.	EEN-701B	Dissertation Stage-II (contd. From III semester)	DIS	18	-	-	-	-	-	-	-	-	100	-
		Total		18										

Summary				
Semester	1	2	3	4
<b>Semester-wise Total Credits</b>	<b>18</b>	<b>18</b>	<b>12</b>	<b>18</b>
<b>Total Credits</b>	<b>66</b>			

**Program Elective Courses (I&SP)**

Teaching Scheme					Contact Hours/Week			Exam Duration		Relative Weight (%)				
S. No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
1.	EEN-620	Process Instrumentation and Control	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
2.	EEN-621	Noise and Interference in Instrumentation	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
3.	EEN-622	Power System Instrumentation	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
4.	EEN-623	Measurement Errors and Statistical Analysis	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
5.	EEN-624	Telemetry and SCADA	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
6.	EEN-625	Virtual Instrumentation	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
7.	EEN-626	Advances in Signal and Image Processing	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
8.	EEN-627	Ultrasonic and Laser Instrumentation	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
9.	EEN-628	Medical Imaging	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
10.	EEN-629	Bioelectric Signals and Processing	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
11.	EEN-630	Computer Applications in Medical Engineering	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
12.	EEN-631	Microprocessor Based Medical Instruments	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
13.	EEN-632	Hospital Informatics and safety Measures	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
14.	EEN-633	Clinical Engineering	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-

15.	EEN-668	Digital Protection of Power Systems	PEC	4	3	0	2	3	-	10-25	25	15-25	30-40	-
16.	EEN-682	Advanced Digital System Design	PEC	4	3	0	2	3	-	10-25	25	15-25	30-40	-
17.	EEN-690	Advanced Computer Controlled Systems	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
18.	EEN-611	FPGA Implementation of Signal Processing Systems	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
19.	EEN-614	Bio-Medical Robotics	PEC	4	3	1	2	3	1	10-25	25	15-25	30-40	-
20.	EEN-612	Electrical Transients in Power System	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
21.	EEN-613	Sliding Mode Control and Observation	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-



**DEPARTMENT OF ELECTRICAL ENGINEERING  
INDIAN INSTITUTE OF TECHNOLOGY ROORKEE**

Program Code: 27    **M.Tech. (Power System Engineering)**  
Department: EE    **Department of Electrical Engineering**  
Year: I

Teaching Scheme					Contact Hours/Week			Exam Duration		Relative Weight (%)				
S. No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
<b>Semester- I (Autumn)</b>														
1.	EEN-560	Computer Aided Power System Analysis	PCC	4	3	0	2	3	-	10-25	25	15-25	30-40	-
2.	EEN-561	Power System Operation and Control	PCC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
3.	EEN-562	Distribution System Analysis and Operation	PCC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
4.	EEN-563	EHV AC Transmission Systems	PCC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
5.	EEN-564	HVDC Transmission Systems	PCC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
		Total		20	-	-	-	-	-	-	-	-	-	-
<b>Semester-II (Spring)</b>														
1.	<del>EEN-564</del>	Program Elective Course-I	PEC	4	-	-	-	-	-	-	-	-	-	-
2.	EEN-700	Seminar	SEM	2	-	-	-	-	-	-	-	-	100	-
3.	EEN-xxx	Program Elective Course-II	PEC	4	-	-	-	-	-	-	-	-	-	-
4.	EEN-xxx	Program Elective Course-III	PEC	4	-	-	-	-	-	-	-	-	-	-
5.	EEN-xxx	Program Elective Course-IV	PEC	4	-	-	-	-	-	-	-	-	-	-
		Total		18	-	-	-	-	-	-	-	-	-	-



**DEPARTMENT OF ELECTRICAL ENGINEERING  
INDIAN INSTITUTE OF TECHNOLOGY ROORKEE**

Program Code: 27 M.Tech. (Power System Engineering)  
Department: EE Department of Electrical Engineering  
Year: II

Teaching Scheme					Contact Hours/Week			Exam Duration		Relative Weight (%)				
S. No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
<b>Semester- I (Autumn)</b>														
1.	EEN-701A	Dissertation Stage-I (to be continued next semester)	DIS	12	-	-	-	-	-	-	-	-	100	-
		Total		12										
Note: Students can take 1 or 2 audit courses as advised by the supervisor, if required.														
<b>Semester-II (Spring)</b>														
1.	EEN-701B	Dissertation Stage-II (contd. From III semester)	DIS	18	-	-	-	-	-	-	-	-	100	-
		Total		18										

Summary				
Semester	1	2	3	4
Semester-wise Total Credits	20	18	12	18
Total Credits	68			

Program Elective Courses (PSE)

Teaching Scheme					Contact Hours/Week			Exam Duration		Relative Weight (%)				
S. No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
1.	EEN-660	High Voltage Technique	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
2.	EEN-661	Power System Planning	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
3.	EEN-662	Power System Harmonics	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
4.	EEN-663	Flexible AC Transmission Systems	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
5.	EEN-664	Wind Energy	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
6.	EEN-665	Relaying and Switchgear	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
7.	EEN-666	Distribution System Automation	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
8.	EEN-667	Power System Reliability	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
9.	EEN-668	Digital Protection of Power Systems	PEC	4	3	0	2	3	-	10-25	25	15-25	30-40	-
10.	EEN-669	Power System Dynamics	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
11.	EEN-670	Substation Automation	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
12.	EEN-671	Power System Deregulation	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
13.	EEN-521	Digital Signal and Image Processing	PEC	4	3	0	2	3	-	10-25	25	15-25	30-40	-
14.	EEN-540	Advanced Power Electronics	PCC	4	3	1	2/2	3	-	15-30	20	15-25	30-40	-
15.	EEN-543	FACTS Devices	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
16.	EEN-651	Power Quality Improvement Techniques	PEC	4	3	0	2	3	-	10-25	25	15-25	30-40	-

17.	EEN-580	Advanced Linear Control Systems	PEC	4	3	1	2/2	3	-	15-30	20	15-25	30-40	-
18.	EEN-583	Non Linear and Robust Control	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
19.	EEN-681	Wide Area System Monitoring Control	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
20.	EEN-611	FPGA implementation of Signal Processing Systems	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
21.	EEN-612	Electrical Transients in Power Systems	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
22.	EEN-613	Sliding Mode Control and Observations	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-



## DEPARTMENT OF ELECTRICAL ENGINEERING

## M.Tech. (Electric Drives &amp; Power Electronics)

71.13 dated 28.12.2017

Teaching Scheme					Contact Hours/Week			Exam Duration		Relative Weight (%)				
S. No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
<b>1<sup>st</sup> YEAR</b>					<b>Semester- I (Autumn)</b>									
1.	EEN-580	Advanced Linear Control Systems	PCC	4	3	1	2/2	3	-	15-30	20	15-25	30-40	-
2.	EEN-540	Advanced Power Electronics	PCC	4	3	1	2/2	3	-	15-30	20	15-25	30-40	-
3.	EEN-541	Analysis of Electrical Machines	PCC	4	3	0	2	3	-	10-25	25	15-25	30-40	-
4.	EEN-542	Power Electronic Controlled Electric Drives	PCC	4	3	1	2/2	3	-	15-30	20	15-25	30-40	-
5.	EEN-543	FACTS Devices	PCC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
		Total		20										
					<b>Semester-II (Spring)</b>									
1.	EEN-xxx	Program Elective Course-I	PEC	4	-	-	-	-	-	-	-	-	-	-
2.	EEN-700	Seminar	SEM	2	-	-	-	-	-	-	-	-	100	-
3.	EEN-xxx	Program Elective Course-II	PEC	4	-	-	-	-	-	-	-	-	-	-
4.	EEN-xxx	Program Elective Course-III	PEC	4	-	-	-	-	-	-	-	-	-	-
5.	EEN-xxx	Program Elective Course-IV	PEC	4										
		Total		18										
<b>2<sup>nd</sup> YEAR</b>					<b>Semester- I (Autumn)</b>									
1.	EEN-701A	Dissertation Stage-I (to be continued next semester)	DIS	12	-	-	-	-	-	-	-	-	100	-
		Total		12										
					<b>Semester-II (Spring)</b>									
1.	EEN-701B	Dissertation Stage-II (contd. From III semester)	DIS	18	-	-	-	-	-	-	-	-	100	-
		Total		18										
		Total Credits		68										

Note: Students can take 1 or 2 audit courses as advised by the supervisor, if required.



**Program Elective Courses (EDPE)**

Teaching Scheme					Contact Hours/Week			Exam Duration		Relative Weight (%)				
S. No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
1.	EEN-640	Advanced Electric Drives	PEC	4	3	0	2	3	-	10-25	25	15-25	30-40	-
2.	EEN-641	Microcontroller and its Applications to Power Converters	PEC	4	3	0	2	3	-	10-25	25	15-25	30-40	-
3.	EEN-642	DSP Controlled Electric Drives	PEC	4	3	0	2	3	-	10-25	25	15-25	30-40	-
4.	EEN-643	Electric Drives for Hybrid Vehicles	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
5.	EEN-644	Design of Electric Drives	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
6.	EEN-645	Instrumentation in Electric Drives	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
7.	EEN-646	Drive System in Electric Traction	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
8.	EEN-647	Control Techniques in Power Electronics for AC Drives	PEC	4	3	0	2	3	-	10-25	25	15-25	30-40	-
9.	EEN-648	Pulse Width Modulation for Power Converters	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
10	EEN-649	Enhanced Power Quality AC-DC Converters	PEC	4	3	0	2	3	-	10-25	25	15-25	30-40	-
11	EEN-650	Switch Mode Power Supply	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
12	EEN-651	Power Quality Improvement Techniques	PEC	4	3	0	2	3	-	10-25	25	15-25	30-40	-
13	EEN-652	CAD of Power Apparatus	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
14	EEN-653	Selected Topics in Machines and Transformers	PEC	4	3	0	2	3	-	10-25	25	15-25	30-40	-
15	EEN-654	Synchronous Machines and System Stability	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
16	EEN-655	Special Machines	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
17	EEN-656	Testing and Commissioning of Electrical Equipment	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
18	EEN-654	HVDC Transmission Systems	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
19	EEN-690	Advanced Computer Controlled Systems	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
20	EEN-657	Digital Control of Power Converters	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
21	EEN-658	Communication Techniques in Smart Grid	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
22	EEN-659	Control and Management of Smart Grid	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
23	EEN-660	Power Converter Topologies in Smart Grid	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-

24	EEN-611	FPGA Implementation of Signal Processing Systems	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
25	EEN-612	Electrical Transients in Power Systems	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
26	EEN-613	Sliding Mode Control and Observation	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-

**Item No. 81.5: To consider the requests of the students for name restoration due to non-submission of documents.**

<b>Sl. No.</b>	<b>Name</b>	<b>Details</b>	<b>Recommendations</b>	<b>Pending Documents</b>
1.	Anargha Rakesh MBA (BM), I Yr (Enr. No. 19810003)  <b>(Request for name restoration)</b>	-Name struck off vide O.M No./PG/NSO-Reg-02/2019-20/812 dated Oct. 23, 2019	<u>Department:</u> Forwarded <u>IAPC:</u> Not Recommended	-PDC -Grade sheet
2.	Ajay Handa M.Sc. (MA), I Yr (Enr. No. 19616004)  <b>(Request for name restoration and semester withdrawal on medical ground)</b>	-Health issue: Panic attack, anxiety disorder, breathing and high blood pressure -Name struck off vide O.M No./PG/NSO-Reg-02/2019-20/812 dated Oct. 23, 2019	<u>Department:</u> Forwarded <u>IAPC:</u> Recommended	-Degree -PDC (submitted after last date)

The IAPC in its 76<sup>th</sup> meeting held on 07.11.2019 considered the requests of above students.

The above is submitted for the consideration of the Senate.



**Item No. 81.6: To consider the proposal to revise the UG regulation on self-study courses.**

As per the existing regulation on self-study courses as mentioned below:

“The course can only be offered to a student in his/her final semester when he/she is likely to fall short by a maximum of 6 earned credits to become eligible for the award of degree.”

The students do not get benefitted much with the existing regulation due to restriction of final semester and maximum number of 6 earned credits. The self-study course could provide opportunity to students to clear their course(s) well within time to avail better placement opportunities.

In order to enhance the effectiveness of the provision of self-study courses, the revision in the existing regulation was proposed as under:

- (i) Students to be allowed to take up the self-study courses in any semester.
- (ii) The maximum number of self-study courses to be increased to 2 (or 8 credits) instead of 6 credits.
- (iii) Any self-study course taken upto the pre-final semester can only be a repeat course.

The IAPC in its 77<sup>th</sup> meeting held on 29.11.2019 recommended the proposal.

The above is submitted for the consideration of the Senate.



**Item No. 81.7: To consider the proposed revision in the regulation on minor specialization courses in terms of CGPA criteria.**

The existing regulation on minor specialization courses in terms of CGPA criteria is as under:

“The student with good academic standing (having  $CGPA \geq 7.5$ ) desirous of excelling in some specialization in other than his/her own department may be allowed to take 4-5 additional courses equivalent to 18-20 credits from that specialization. These courses have been defined as Minor Specialization Courses (MSC). The courses from minor specialization may be taken from anyone engineering, science, humanities and management disciplines. These courses will have to be selected from a list of such courses (basket) offered by the departments, however, there will be a maximum limit to the seats. These students will be given degree in main engineering area with minor specialization in other area. For example, the degree certificate will indicate B.Tech. in Civil Engineering with Minor Specialization in Physics”.

The cut off of CGPA as  $\geq 7.5$  restricts the interested students to opt for minor specialization in the courses of their interest. It is observed that CGPA in a particular program does not necessarily predict the student's acumen and potential to perform in the subject of their interest.

In view of above, the revision was proposed.

The IAPC in its 77<sup>th</sup> meeting held on 29.11.2019 recommended the proposal and suggested to waive off the CGPA criteria for Minor Specialization Courses. In addition, the IAPC also suggested to impose a limit on the number of students in each course.

The above is submitted for the consideration of the Senate.

**Item No. 81.8: To consider the proposal of Department of Management Studies to offer minor specialization courses in Management.**

The IAPC in its 77<sup>th</sup> meeting held on 29.11.2019 recommended the proposal **(Appendix-A)** with following modifications:

1. The range of courses for Minor Specialization Courses (MSCs) be amended as 4-6 courses while retaining the credit requirement 18-20.
2. Students interested in having Minor Specialization in Management will have to take 3 MSCs in the Autumn Semester of 4<sup>th</sup> year while for all other minor specializations the maximum number of MSCs in this semester will remain 2.

The above is submitted for the consideration of the Senate.

**List of courses for Minor Specialization in Management**

<b>Semester</b>	<b>Course Code and Title (Credits)</b>	<b>Credit</b>
Autumn	BM-503 Management Process and Organization Behavior (3)	3
Autumn	BM-505 Managerial Economics (3)	3
Autumn	BM-511 Marketing Management (3)	3
Spring	BM-504 Financial Management (3)	3
Spring	BM-506 Business Environment (3)	3
Spring	BM-512 Production and Operations Management (3)	3
Autumn	BM-601 Management Information System (2)	2



**Item No. 81.9: To report the admission given to the candidates admitted in Ph.D. Programmes under the Extensive Professional Experience Scheme.**

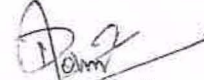
Senate in its 74<sup>th</sup> meeting vide item no.74.11 approved for Ph.D. admission towards senior professionals and decided that the candidates selected under this programme during the first one year be reported to the Senate.

Considering the profile of the candidates with respect to educational qualification, professional experience, present service status, research potential and scope towards carrying out research works, four professionals have been admitted during first one year (from 27 Sept. 2018 to 16 July 2019) under the Extensive Professional Experience Scheme. Details are given at **Appendix-A.**

The above is reported to the Senate.

## List of Ph.D. students under Extensive Professional category with course list

Enroll No.	Name	Present Rank	Preset Designation	Organization	Years of Exp.	Date of Presentation	Date of Interaction	Deptt / Ctr Name	DoR	Name of Supervisor	Area of Research
19915015	HARPREET SINGH JATTANA	Scientist 'SG'	Group Head - Design and Process	Semi-Conductor Laboratory, Department of Space, ISRO, Chandigarh, Govt. of India	35 Years	26-Feb-19	16-Apr-19	ECE	1-Jul-19	Prof. Anand Bulusu (ECE), Prof. Sudeb Dasgupta (ECE)	Microelectronics
19920009	JAI PRAKASH KAMAL	Scientist 'G'	Group Director- CELICA, R&QA, SEED and Main Workshop	Terminal Ballistics Research Lab., DRDO, Chandigarh, Govt. of India	23 years	22-Mar-19	21-May-19	MIED	16-Jul-19	Prof. Abinash Kumar Swain (MIED)	Modelling and analysis of warheads and its subassemblies against hardened target
19922001	SUBHASH VERMA		Managing Director and VP Engineering	Agnity Communications Pvt. Ltd., New Delhi	30 years	22-Nov-18	18-Apr-19	DPT	23-Jun-19	Prof. S.C. Sharma (DPT)	Machine learning in IoT based cloud applications
19907001	PRAVENDRA KUMAR	Scientist 'H'	Additional Director	Terminal Ballistics Research Lab., DRDO, Chandigarh.	32 Years	15-Feb-19	20-Mar-19	CTRANS	5-Jul-19	Prof. Abinash Kumar Swain (Associated faculty, CTRANS), Prof. V.A. Sawant (CED)	Study of shock mitigation techniques for safety against blast loadings.

  
 27/12/19

**Item No. 80.10: To report the format of Degrees awarded to a Dual Degree (M.Tech. + Ph.D.) student in Convocation 2019 and to consider the same for subsequent Convocations.**

A committee was constituted to formalize the degree format of the Dual Degree (M.Tech. + Ph.D.) programme. This was necessitated due to one student who was completing degree requirements in academic session 2018-2019. The committee had proposed the format of degrees **(Appendix-A)** and the Chairman Senate had approved the formats dated 30<sup>th</sup> September 2019 so that the degree can be awarded in Convocation 2019.

The above is reported to the Senate. Further, the same is placed before the Senate for consideration for subsequent Convocations.



## भारतीय प्रौद्योगिकी संस्थान रुड़की

अभिषद् की अनुशंसा पर

सिविल अभियांत्रिकी में प्रौद्योगिकी निष्णात

की उपाधि प्रौद्योगिकी निष्णात-विद्या वाचस्पति द्वि उपाधि कार्यक्रम के अन्तर्गत

**शशांक भातरा**

को, जिन्होंने सम्मान सहित प्रथम श्रेणी में इस उपाधि की अवाप्ति हेतु विनियम विहित अपेक्षाओं को सन् 2019 में सफलतापूर्वक पूरा कर लिया है, एतद्वारा प्रदान करता है। 10 अंकीय मापक्रम में इनका संचित कोटि अंक माध्य 9.053 है।

भारतीय गणराज्य के अन्तर्गत रुड़की में आज, दिनांक अक्टूबर 4, 2019, संस्थान की मुद्रा अंकित यह उपाधि दी गई।

## INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

on the recommendation of the Senate hereby confers the degree of

**Master of Technology in Civil Engineering**

under the Master of Technology-Doctor of Philosophy Dual Degree Programme upon

**SHASHANK BHATRA**

who has successfully completed in the year 2019 the requirements prescribed under the regulations for the award of this degree in First Division with Distinction with a Cumulative Grade Point Average of 9.053 on a 10 point scale.

Given this day, October 4, 2019, under the seal of the Institute at Roorkee in the Republic of India.

कुलसचिव  
Registrar

अध्यक्ष, अभिषद् एवं निदेशक  
Chairman, Senate & Director

## भारतीय प्रौद्योगिकी संस्थान रुड़की

अभिषद् की अनुशंसा पर

विद्या वाचस्पति

की उपाधि प्रौद्योगिकी निष्णात-विद्या वाचस्पति द्वि उपाधि कार्यक्रम के अन्तर्गत

शशांक भातरा

को

शोध प्रबन्ध शीर्षक: आयन इम्प्लानटेशन एण्ड केमिकल मोडिफिकेशन ऑफ  $\text{CuO}$  नैनोपार्टिकल्स एण्ड देयर इलेक्ट्रोकेमिकल एप्लीकेशन्स

भारतीय गणराज्य के अन्तर्गत रुड़की में आज, दिनांक अक्टूबर 4, 2019, संस्थान की मुद्रा अंकित यह उपाधि दी गई।

## INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

on the recommendation of the Senate hereby confers the degree of

Doctor of Philosophy

under the Master of Technology-Doctor of Philosophy Dual Degree Programme upon

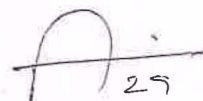
**SHASHANK BHATRA**

Thesis Title: ION IMPLANTATION AND CHEMICAL MODIFICATION OF  $\text{CuO}$  NANOPARTICLES AND THEIR ELECTROCHEMICAL APPLICATIONS

Given this day, October 4, 2019, under the seal of the Institute at Roorkee in the Republic of India.

कुलसचिव  
Registrar

अध्यक्ष, अभिषद् एवं निदेशक  
Chairman, Senate & Director

  
25 9 '19

**Item No. 81.11: To ratify the award of provisional Ph.D. Degree certificates to the students who have completed the requirements for the award of Ph.D. Degree in various disciplines from 25<sup>th</sup> September 2019 to date.**

The list is presented in **Appendix-A.**



### Senate approved PDC List

Appendix 'A'

Sl.No.	Name	Deptt.	Topic	Supervisor	Examiner (For./Ind.)	PDC Date
1	Ms. Ananya Neogy	BT	AUXIN-CYTOKININ RESPONSES AND FUNCTIONAL SIGNIFICANCE OF AUXIN DURING RICE CROWN ROOT DEVELOPMENT	Prof. Shri Ram Yadav	Prof. P. Prakash Kumar, National Univ., Singapore Prof. Utpal Nath, IISc Bangalore	19.11.19
2	Ms. Apurva Chatrath	BT	ANTIBIOFILM ACTIVITIES AND PROTEOMIC ANALYSIS OF CANDIDA TROPICALIS IN RESPONSE TO TERPENES	Prof. R. Prasad	Prof. Prashant Mishra, IIT Delhi Prof. Rayala Suresh Kumar, IIT Madras	06.12.19
3	Ms. Sofia Pilli	BT	STUDIES ON HUMAN LINE-1 RETROTRANSPOSON ENCODED ORF2 PROTEIN	Prof. P. K. Mandal Prof. Vikas Pruthi	Prof. G. Narayan, IIT Varanasi Dr. Mitali Mukerji, CSIR Delhi	28.11.19
4	Mr. Kasiviswanathan M	CE	BUCKLING BEHAVIOUR OF FRP BOX-BEAMS: GOVERNING PARAMETERS AND THEIR EFFECT	Prof. Akhil Upadhyay	Prof. C. Mittelstedt, Tech. Univ. Darmstadt, Germany Prof. S. Arul Jayachandran, IIT Madras Prof. Yogesh M. Desai, IIT Bombay	25.10.19
5	Mr. John MohdWani	CE	INFERRING PERMAFROST AND ITS CHARACTERISTICS IN THE COLD-ARID HIMALAYA	Prof. C. S. P. Ojha Dr. Renoj J. Thayyen	Prof. Venkataraman Lakshmi, Virginia Univ., USA Prof. Raaj Ramsankaran, IIT Bombay	28.11.19
6	Mr. Shujaat Hussain	CE	FIRE RESISTANCE OF REINFORCED CONCRETE COLUMNS	Prof. Umesh K. Sharma	Prof. Mitsuo Ozawa, Gunma University, Japan Prof. Sudip Talukdar, IIT Guwahati	16.12.19
7	Mr. Manoj Kuri	DMM	STUDIES ON LANDSLIDE MOVEMENTS IN PARTS OF HIMALAYA IN UTTARAKHAND USING DINSAR TECHNIQUES	Prof. M. L. Sharma Prof. M. K. Arora	Prof. Manfred F. Buchroithner, Tech. Univ. Dresden Prof. Y. S. Rao, IIT Bombay Prof. Onkar Dikshit, IIT Kanpur	29.11.19
8	Ms. Sujata Swain	CSE	CONTEXT-AWARE SERVICE COMPOSITION WITH FUNCTIONALLY EQUIVALENT SERVICES	Prof. Rajdeep Niyogi	Prof. Mirosław Malek, SDG Switzerland Prof. Saroj Kaushik, IIT Delhi	28.11.19
9	Mr. Dogga Raveendhra	EE	IMPROVED POWER QUALITY TRANSFORMERLESS POWER CONVERTERS FOR SOLAR PV SYSTEM	Prof. M. K. Pathak	Prof. Bimal K. Bose, University of Tennessee, USA Prof. Ranjit Mahanty, IIT Varanasi	31.10.19
10	Ms. Sneha Singh	EE	FUSION OF MULTIMODAL NEUROLOGICAL IMAGES	Prof. R. S. Anand	Prof. Olaf Hellwich, Tech. University Berlin, Germany Prof. Sumantra Dutta Roy, IIT Delhi	26.11.19
11	Ms. Kiran Singh	EE	INVESTIGATION ON SIX-PHASE SELF-EXCITED INDUCTION GENERATOR	Prof. G. K. Singh	Prof. Gerard-Andre Capolino, Univ. of Picardie, France Prof. K. Gopakumar, IISc Bangalore	17.12.19
12	Ms. Neha Singh	ECE	DEVELOPMENT OF SIGNAL PROCESSING TECHNIQUES FOR ENHANCEMENT OF ENERGY CONCENTRATION IN TIME-FREQUENCY REPRESENTATION OF S-TRANSFORM	Prof. P. M. Pradhan	Prof. Hee-Cheol Kim, Inje University, South Korea Prof. Ram Bilas Pachori, IIT Indore	20.12.19

Appendix-A  
Item No. Senate/81.11



13	Mr. Atul Kumar Rastogi	ES	GENESIS OF HIGH GRADE IRON ORE FROM BIF IN DALLI-RAJHARA, CHATTISRAH, INDIA	Prof. A. K. Sen Prof. D. K. Mukhopadhyay	Prof. Jens Gutzmer, TUBF Germany Prof. G. N. Jadhav, IIT Bombay Prof. Joydip Mukhopadhyay, PU Kolkata	07.11.19
14	Ms. Anita Devi	ES	3D MAGNETOTELLURIC AND DCR INVESTIGATIONS AT SELECTED SITES IN UTTARAKHAND	Prof. M. Israil	Prof. Shalivahan, IIT Dhanbad Prof. N. P. Singh, IIT Varanasi	27.11.19
15	Ms. Bharathi M.	EQ	DYNAMIC BEHAVIOUR OF BATTER PILES GROUPS	Prof. R. N. Dubey	Prof. Hesham El Naggat, Western University, Canada Prof. T. G. Sitharam, IIT Guwahati	20.11.19
16	Mr. P. Pravin Kumar Venkat Rao	EQ	OUT-OF-PLANE SEISMIC BEHAVIOUR AND STRENGTHENING OF UNREINFORCED MASONRY WALLS	Prof. Yogendra Singh Prof. Sreekanta Das	Prof. Carlos A. Cruz-Noguez, Alberta Univ., Canada Prof. Sajal K. Deb, IIT Guwahati	10.12.19
17	Mr. Vineet Kumar Singh	HRE	OPTIMAL OPERATION OF RUN OF RIVER SMALL HYDRO POWER PLANT	Prof. S. K. Singal Prof. Chandra Shekher	Prof. H. Gwyn Rees, WRCEH, UK Prof. Suryanarayana Doola, IIT Bombay Prof. Dhiman Chatterjee, IIT Madras	16.12.19
18	Mr. Satyendra Kumar Mourya	IIC	FABRICATION OF SILICON CARBIDE THIN FILMS FOR ELECTRON DEVICES BY SPUTTERING	Prof. Ramesh Chandra Prof. Brijesh Kumar	Prof. Yogendra K. Mishra, Kiel Univ., Germany Prof. Sujeet Chaudhary, IIT Delhi	16.12.19
19	Mr. Jitender Kumar	MS	ACHIEVING CUSTOMER BRAND ENGAGEMENT THROUGH BRAND COMMUNITIES	Prof. J. K. Nayak	Prof. Linda Hollebeek, Tallinn Univ. of Tech., France Prof. Usha Kiran Rai, IIT Varanasi	31.10.19
20	Ms. Snehal Bawre	MS	AN ANALYSIS OF FINANCIAL LITERACY FROM THE PERSPECTIVES OF INDIVIDUALS AND FINANCIAL INSTITUTIONS USING SOCIAL MEDIA	Prof. Sujata Kar	Prof. P. Vigneswarallavarasan, IIT Delhi Prof. Ruchi Sharma, IIT Indore	19.11.19
21	Mr. Pramod Sharma	MS	EXAMINING TOURISTS' EMOTIONS AND ITS IMPACT ON TOURISTS' BEHAVIOUR	Prof. J. K. Nayak	Prof. Charles Arcodia, Griffith University, Germany Prof. M. P. Gupta, IIT Delhi Prof. Devashish, IIM Lucknow	09.12.19
22	Mr. Clement Cabral	MS	GREEN COMPETENCIES: CONCEPTUALISATION, CONSTRUCT DEVELOPMENT AND MEASUREMENT VALIDATION	Prof. R. L. Dhar	Prof. Werner Menski, London University, UK Prof. Saumya Singh, IIT Dhanbad	10.12.19
23	Ms. Mamta Saxena	MA	A STUDY ON PROPAGATION OF FLOOD WAVE IN A STREAM CONSIDERING STREAM-AQUIFER INTERACTION USING VARIABLE PARAMETER MUSKINGUM METHODS	Prof. T. R. Gulati Prof. M. Perumal	Prof. Rao S. Govindaraju, Lyles School of Civil Engg., USA Prof. Bhabagrahi Sahoo, IIT Kharagpur	27.11.19
24	Mr. Hemant Kumar	MA	FUZZY MULTI-OBJECTIVE RELIABILITY ANALYSIS USING NSGA-II	Prof. S. P. Yadav	Prof. Abdullah Konak, Information Sci. & Tech., USA Prof. T. Som, IIT Varanasi	05.12.19
25	Mr. Ankit Saxena	MIE	FABRICATION AND ANALYSIS OF AN ARTIFICIAL HUMAN HIP JOINT FOR SQUAT POSTURE	Prof. Rahul S. Mulik	Prof. Stefanos Zaoutsos, Univ. of Thessaly, Greece Prof. Manas M. Mahapatra, IIT Bhubaneswar	25.10.19

26	Mr. Sachin Balsara	MIE	AN ASSESSMENT OF CLIMATE CHANGE MITIGATION STRATEGIES OF THE INDIAN CEMENT INDUSTRY	Prof. P. K. Jain Prof. A. Ramesh	Prof. Uday Shanker Dixit, IIT Guwahati Prof. Ravi Shankar, IIT Delhi	19.11.19
27	Mr. Gaikwad Sharad Vasantao	MIE	PERFORMANCE STUDY OF TREPANNING TOOL FOR DEEP ANNULAR GROOVING	Prof. Rahul S. Mulik	Prof. Pulak M. Pandey, IIT Delhi Prof. Pankaj Baswas, IIT Guwahati	20.12.19
28	Mr. Veeranjanyulu Rayapudi	MME	BENEFICIATION STUDIES OF BANDED IRON ORES	Prof. Nikhil Dhawan	Prof. Philipp Hartlieb, Montabun Univ. Leoben, Austria Prof. Gour Gopal Roy, IIT Kharagpur	16.12.19
29	Mr. Rohit Kumar	PH	INVESTIGATIONS ON SYNTHESIS, STRUCTURAL AND SUPERCONDUCTING PROPERTIES OF Fe(Te, Se) SUPERCONDUCTORS	Prof. G. D. Verma	Prof. Neeraj Khare, IIT Delhi Prof. S. Ravi, IIT Guwahati	05.12.19
30	Ms. Ankita Singh	PH	STRUCTURAL, MAGNETIC AND THERMAL PROPERTIES OF DOPED ORTHOFERRITE MATERIALS	Prof. Vivek K. Malik	Prof. Lambert Alff, Tech. Univ. Darmstadt, Germany Prof. Sujeet Chaudhary, IIT Delhi	16.12.19
31	Mr. Rajesh Chandra	PPE	REMEDIATION OF WASTEWATER AND BIOFUEL PRODUCTION USING MICROALGAE	Prof. U. K. Ghosh	Prof. Anshumali, IIT Dhanbad Prof. S. K. Singh, DTU Delhi	25.11.19
32	Mr. Swapnil Divekar	PT	SEPARATION FROM GASEOUS STREAMS BY PRESSURE SWING ADSORPTION	Prof. S. P. Singh Prof. I. M. Mishra Dr. Anshu Nanoti	Prof. T. J. Bandosz, The City College New York Prof. Sirshendu De, IIT Kharagpur Prof. Sasidhar Gumma, IIT Guwahati	20.12.19
33	Mr. Ayush Chandrakar	WRDM	HYDROLOGICAL MODELLING OF A TROPICAL WATERSHED UNDER LAND USE AND CLIMATE CHANGE SCENARIOS	Prof. Deepak Khare	Prof. Qin Xiaosheng, Nanyang Tech. Univ., Singapore Prof. B. R. Chahar, IIT Delhi	20.12.19



भारतीय प्रौद्योगिकी संस्थान रुड़की  
रुड़की – 247 667 (भारत)  
**INDIAN INSTITUTE OF TECHNOLOGY ROORKEE**  
**ROORKEE - 247 667 (INDIA)**



सीनेट की इक्यासीवीं बैठक हेतु अनुपूरक कार्यसूची  
**SUPPLEMENTARY AGENDA FOR THE**  
**81<sup>st</sup> MEETING OF THE SENATE**

बैठक सं०	: इक्यासीवीं
<b>MEETING NO.</b>	: <b>81<sup>st</sup></b>
स्थान	: सीनेट हॉल, भा० प्रौ० सं० रुड़की
<b>VENUE</b>	: <b>Senate Hall, IIT Roorkee</b>
दिनांक	: 08 जनवरी 2020
<b>DATE</b>	: <b>8<sup>th</sup> January 2020</b>
समय	: 3.30 बजे अपरान्ह
<b>TIME</b>	: <b>3.30 P.M.</b>

भारतीय प्रौद्योगिकी संस्थान रुड़की  
**INDIAN INSTITUTE OF TECHNOLOGY ROORKEE**  
रुड़की 247 667  
**ROORKEE – 247 667**



**अनुपूरक कार्यसूची / SUPPLEMENTARY AGENDA**

मुद्दा सं०/ Item No.	विवरण / Particulars	पृष्ठ / Page(s)
81.12	अनुमेय सीमा से परे छात्रों के पाठ्यक्रम जारी रखने एवं विस्तार के अनुरोधों पर विचार करना। To consider the requests of students regarding continuation of programme and extension beyond permissible time limit.	38-41
81.13	पीएचडी प्रोग्राम में शामिल प्रोफेशनल (वरिष्ठ पदों पर कार्यरत) के मामलों में कोर्स वर्क पूरा करने की आवश्यकता के संबंध में नीति के निर्माण पर विचार करना। To consider the formulation of policy regarding course work completion requirement in the case of professionals (working at senior positions) joining Ph.D. programme.	42
81.14	न्यूनतम निर्धारित अवधि से पहले पीएचडी थीसिस (पूर्णकालिक छात्रों के लिए उम्मीदवारी की तारीख से 02 वर्ष) जमा करने के अनुरोध पर विचार करना। To consider the request for permission to submit Ph.D. thesis before minimum stipulated period (02 years from the date of candidacy for full time students).	43
81.15	समय से परे विस्तार के अनुरोधों पर विचार करना – To consider the requests for extension in time beyond-	44-45
81.16	समय सीमा के अन्दर समय विस्तार के लिए अनुरोध नहीं करने के कारण पीएचडी में कटे नामों के पंजीकरण में बहाल करने के लिए दया की अपीलों पर विचार करना। To consider Mercy appeals for reinstating Ph.D. registration as name was struck off due to not making request for extension within time frame.	46-53

81.17	<p>नाम कटने के पश्चात पीएचडी पंजीकरण बहाली की दया अपील पर विचार करना।</p> <p>To consider Mercy appeals for reinstating Ph.D. registration as name was struck off due to.</p>	54-56
81.18	<p>पीएचडी प्रोग्राम में दोबारा शामिल होने के लिए छात्रों के अनुरोधों पर विचार करना।</p> <p>To consider requests from students to re-join Ph.D. programme.</p>	57
81.19	<p>पीएचडी, एमटेक/एमआर्क/एमयूआरपी पाठ्यक्रमों में न्यूनतम शैक्षिक योग्यता के बदलाव पर विचार करना।</p> <p>To consider the change(s) in minimum academic qualification for Ph.D., M.Tech./M.Arch./MURP programmes.</p>	58-63
81.20	<p>वर्ष 2020-21 से एमबीए में प्रवेश हेतु चयन के मानदंड में बदलाव पर विचार करना।</p> <p>To consider the changes in the selection criteria for MBA Admission from 2020-21 onwards.</p>	64
81.21	<p>परास्नातक पाठ्यक्रमों में अन्तराष्ट्रीय और प्रायोजित भारतीय छात्रों तथा पीएचडी पाठ्यक्रम में अन्तराष्ट्रीय छात्रों के आस्थगित प्रवेश पर विचार करना।</p> <p>To consider allowing deferred admission to:</p> <p>(A) International Students and Sponsored Indian Students in Master Programmes (M.Tech/M.Arch./MURP /MSc./MBA)</p> <p>(B) International Students in Ph.D. Programme</p>	65
81.22	<p>स्नातक, परास्नातक और पीएचडी थीसिस जमा करने के समय समानता जांच रिपोर्ट अलर्ट पर विचार करना।</p> <p>To consider addressing similarity-check report alerts at the time of submission of Bachelors, Masters and Ph.D. thesis.</p>	66
81.23	<p>आईआईटी रुड़की और मिशिगन स्टेट यूनिवर्सिटी, यूएसए के मध्य दोहरे डॉक्टरेल डिग्री कार्यक्रम के लिए समझौता ज्ञापन को रिपोर्ट करना।</p> <p>To report the MoU for Dual-Doctoral Degree Program between IIT Roorkee and Michigan State University, USA.</p>	67



81.24	अध्यक्ष, सीनेट द्वारा अनुमोदित स्प्रिंग सेमेस्टर 2019-20 के लिए शैक्षणिक कैलेंडर में शुद्धिपत्र को रिपोर्ट करना। To report the corrigendum in the Academic Calendar for Spring Semester 2019-20 approved by the Chairman, Senate.	68
81.25	अल्प विशेषज्ञता सहित भू-विज्ञान विभाग की संशोधित संरचना के अनुमोदन को रिपोर्ट करना। To report the approval of the revised structure of Department of Earth Sciences including minor specialization.	69
81.26	छात्रवृत्तियों इत्यादि पर अध्यक्ष, सीनेट के अनुमोदनो को रिपोर्ट करना। To report approvals accorded by the Chairman Senate on scholarships etc.	70
UNDER ANY OTHER ITEM:		
81.27	शैक्षिक वर्ष 2020-21 से एमबीए में प्रवेश के लिए सीट मैट्रिक्स पर विचार करना। To consider the Seat Matrix for MBA admission from the academic year 2020-21 onwards.	71-72

**Item No. 81.12: To consider the requests of students regarding continuation of program and extension beyond permissible time limit.**

The IAPC considered the requests of students under various categories A, B (**Appendix-A**):

**Category-A: Continuation of program inspite of not fulfilling minimum SGPA**

1. Mr. Vinay Singhwal (Enr. No. 19560006), M.Tech. (PH) I Yr
2. Mr. Prem Singh (Enr. No. 19553005), M.Tech. (EQ) I Yr
3. Mr. Ye Yint Naung (Enr. No. 19538012), M.Tech. (ME) I Yr
4. Mr. Yan Naing Win (Enr. No. 19539013), M.Tech. (ME) I Yr
5. Mr. Kyaw Nyan Myint Soe (Enr. No. 19541012), M.Tech. (ME) I Yr
6. Mr. Praveen Kumar (Enr. No. 19527008), M.Tech. (EE) I Yr
7. Mr. Raj Kumar Meena (Enr. No. 19530012), M.Tech. (EE) I Yr
8. Mr. Shivendra Singh (Enr. No. 19519011), M.Tech. (CE) I Yr
9. Mr. Pankaj Panchal (Enr. No. 19526015), M.Tech. (EQ) I Yr
10. Mr. Shailesh Kumar (Enr. No. 19539009), M.Tech. (ME) I Yr
11. Mr. Pankaj Panchal (Enr. No. 19526015), M.Tech. (EQ) I Yr
12. Mr. Shailesh Kumar (Enr. No. 19539009), M.Tech. (ME) I Yr
13. Mr. Tushar Rangari (Enr. No. 18535028), M.Tech. (CS), II Yr
14. Mr. Gadekar Akshay Tanaji (Enr. No. 18542003), M.Tech. (ME) II Yr
15. Mr. Godase Santosh Ashok (Enr. No. 18544001), M.Tech. (MT) II Yr

In category-A, the names of the students have been struck off vide O.M. No.Acd./Result-30/1521 dated December 20, 2019. The IAPC in its 78<sup>th</sup> meeting held on 31.12.2019 considered the above requests and recommended the requests of students at Ser Nos. 1-3 with the condition of earning SGPA  $\geq 4$  after second/re-exam. The requests of students at Ser Nos. 4-9 have been recommended. The IAPC recommended continuation of the program of the student at Ser No. 10 and his Autumn Semester 2019-20 be treated withdrawn.

**Category-B: Extension beyond permissible limit**

1. Mr. Mr. Nikhil Bansal (Enr. No. 17520007), M.Tech. (CE), II Yr
2. Mr. Anand Suryavanshi (Enr. No. 15523007), M.Tech. (CE) II Yr

In category-B, the IAPC in its 78<sup>th</sup> meeting and 76<sup>th</sup> meeting held on 31.12.2019 and 07.11.2019, respectively, did not recommend the requests.

The above is submitted for the consideration of the Senate.

**Appendix-A**  
**Item No. Senate/81.12**

**DETAILS OF STUDENTS' REQUESTS/ APPEALS**

S. No.	Name	Details	Recommendations	Supporting Documents
<b>Category-A: Continuation of program inspite of not fulfilling minimum SGPA</b>				
1.	<b>Vinay Singhwal</b> M.Tech. (PH), I Yr (Enr. No. 19560006)	-SGPA: 3.176 -CGPA: - -Grades: I, B+, A+, I, I -Applied for second exam	<u>Department</u> : Recommended (HoD) <u>IAPC</u> : Recommended if SGPA $\geq$ 4 after second exam	-
2.	<b>Prem Singh</b> M.Tech. (EQ), I Yr (Enr. No. 19553005)	-No reason mentioned -SGPA: 3.947 -CGPA: 3.947 -Grades: F, C, C, C, C -Applied for re-exam	<u>Department</u> : Forwarded (HoD& Chairman, DAPC) <u>IAPC</u> : Recommended if SGPA $\geq$ 4 after re-exam	-
3.	<b>Ye YintNaung</b> M.Tech. (ME), I Yr (Enr. No. 19538012)	-Delayed joining (3 weeks) -SGPA: 2.6 -CGPA: 2.6 -Grades: C, D, D, F, F -Applied for re-exam	<u>Department</u> : Forwarded (HoD& Chairman, DAPC) <u>IAPC</u> : Recommended if SGPA $\geq$ 4 after re-exam	-
4.	<b>Yan Naing Win</b> M.Tech. (ME), I Yr (Enr. No. 19539013)	-Delayed joining (3 weeks) -SGPA: 4 -CGPA: 4 -Grades: C, C, D, F, C+ -Applied for re-exam	<u>Department</u> : Forwarded (HoD& Chairman, DAPC) <u>IAPC</u> : Recommended	-
5.	<b>KyawNyanMyintSoe</b> M.Tech. (ME), I Yr (Enr. No. 19541012)	-Delayed joining (3 weeks) -SGPA: 4.6 -CGPA: 4.6 -Grades: D, C, C+, D, D	<u>Department</u> : Forwarded (HoD& Chairman, DAPC) <u>IAPC</u> : Recommended	-
6.	<b>Praveen Kumar</b> M.Tech. (EE), I Yr (Enr. No. 19527008)	-Health issue: Dengue -SGPA: 4 -CGPA: 4 -Grades: C+, C, D, C, F -Applied for re-exam	<u>Department</u> : Forwarded (HoD& Chairman, DAPC) <u>IAPC</u> : Recommended	-Medical documents



7.	<b>Raj Kumar Meena</b> M.Tech. (EE), I Yr (Enr. No. 19530012)	-Family problems -SGPA: 4.4 -CGPA: 4.4 -Grades: C, D, C, D, D	<u>Department</u> : Forwarded (HoD & Chairman, DAPC) <u>Wellness Centre</u> : Not consulted by the student <u>IAPC</u> : Recommended	-
8.	<b>Shivendra Singh</b> M.Tech. (CE), I Yr (Enr. No. 19519011)	-No reason mentioned -SGPA: 4.238 -CGPA: 4.238 -Grades: D, FS, C+, C, C+	<u>Department</u> : Forwarded (HoD) & Recommended (Chairman, DAPC) <u>IAPC</u> : Recommended	-
9.	<b>Pankaj Panchal</b> M.Tech. (EQ), I Yr (Enr. No. 19526015)	-Health issue: Dyspepsia, liver problem -SGPA: 4.737 -CGPA: 4.737 -Grades: D, D, C+, D, C+	<u>Department</u> : Forwarded (HoD & Chairman, DAPC) <u>IAPC</u> : Recommended	-Medical documents
10.	<b>Shailesh Kumar</b> M.Tech. (ME), I Yr (Enr. No. 19539009)  (Requested for registration of Spring Semester 2019-20)	-Health issue: Stress -Family issues -Not appeared in any exam of Autumn Semester	<u>IAPC</u> : Approved continuation of program and Autumn Semester 2019-20 be treated withdrawn	-Medical documents
<b>Category-B: Extension beyond permissible limit</b>				
1.	<b>Nikhil Bansal</b> M.Tech. (CE), II Yr (Enr. No. 17520007)	-Health issue: Dengue fever -SGPA: 6.455, 6, 0, 0 -CGPA: 6.455, 6.25, 4.808, 6.25 -Dissertation Stage-I & II are still to be completed -Extension of one semester to complete dissertation work granted vide O.M. No.Acd./PG/Misc-16/852 dated Jan. 23, 2019	<u>Department</u> : Forwarded (HoD & Chairman, DAPC) <u>Wellness Centre</u> : Recommended <u>IAPC</u> : Not Recommended	-Medical documents countersigned by CMO
2.	<b>AnandSuryavanshi</b> M.Tech. (CE) II Yr (Enr. No. 15523007)	-SGPA: 6.2, 5.667, 0, 0, 0, 0 -CGPA: 6.2, 5.947, 5.947, 5.947, 5.947, 5.947 -Dissertation Stage- I & II	<u>Department</u> : Forwarded (HoD) & Recommended (Chairman, DAPC) <u>IAPC</u> : Not Recommended	-

		<p>are still to be completed</p> <p>-converted to part-time in Feb, 2017</p> <p>-NOC issued after more than 2 months of joining the job</p> <p>-Deactivated in Aug, 2019 after expiry of 2 years from NOC</p> <p>-Request received in Sep, 2019</p>		
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**DETAILS OF STUDENTS' REQUESTS/ APPEALS**

S. No.	Name	Details	Recommendations	Supporting Documents
<b>In continuation of Category-A: Continuation of program inspite of not fulfilling minimum SGPA/ credits requirement</b>				
11.	<b>Uday Pratap Singh</b> M.Tech. (CH), I Yr (Enr. No. 19611036)	-Rural background and language problem -SGPA: 3.857 -CGPA: 3.857 -TEC/TRC: 15/21 -Grades: D, D, F, C, F, B -Applied for re-exam	<u>Department:</u> HoD forwarded with recommendation of DAPC	-
12.	<b>Manoj Tirkey</b> M.Tech. (CH), I Yr (Enr. No. 19611016)	-Rural background and language problem -Didn't appear in MTE -SGPA: 2.857 -CGPA: 2.857 -TEC/TRC: 12/21 -Grades: D, D, F, F, F, C+ -Applied for re-exam	<u>Department:</u> HoD forwarded with recommendation of DAPC	-
13.	<b>Tushar Rangari</b> M.Tech. (CS), II Yr (Enr. No. 18535028)	-SGPA: 7.3, 6.889, 0 -CGPA: 7.3, 7.105, 5.4 -Dissertation Stage-I work didn't get accepted -TEC/TRC: 38/50	<u>Department:</u> Forwarded (HoD & Chairman, DAPC)	-
14.	<b>Godase Santosh Ashok</b> M.Tech. (MT), II Yr (Enr. No. 18544001)	-Health issue -SGPA: 6.6, 7.444, 0 -CGPA: 6.6, 7, 5.320 -Dissertation Stage-I not submitted due to health issue -TEC/TRC: 38/50	<u>Department:</u> HoD forwarded with recommendation of DAPC	-Medical documents
15.	<b>Gadekar Akshay Tanaji</b> M.Tech. (ME), II Yr (Enr. No. 18542003)	-SGPA: 5.8, 5.111, 0 -CGPA: 5.8, 5.474, 4.160 -Dissertation Stage-I not completed -TEC/TRC: 38/50	<u>Department:</u> Forwarded (HoD)	-



**Item No.81.13: To consider the formulation of policy regarding course work completion requirement in the case of professionals (working at senior positions) joining Ph.D. programme.**

The IRC in its 33<sup>rd</sup> meeting held on Sept 11, 2019 discussed the course work requirements for professionals working at senior positions in respective organisations leading to candidacy. The Ph.D. Regulation R.3.2.3 states that credit requirements can be completed in the form of Project/Dissertation/Seminar, and NPTEL courses which is difficult under prevailing regulations. Considering the above, the IRC recommended the following:

- (a) New project course with 8 credits and Thesis (Dissertation) course with 16 credits be introduced.
- (b) To fulfil the requirements laid in Table-1 of clause R.3.3 of Ph.D. Rules and Regulations, the following can be adopted:

S.No.	Eligibility	Credit Requirements	Proposed Course Work
1.	M. Tech., M. Arch., MURP or equivalent degree	Minimum 9 credits of P.G. level theory courses or 03 P.G. level courses.	1 project and 1 PG level course along with a 02 credits seminar.
2.	M.Sc., M.A., M.B.A. or equivalent admitted in Science, HSS or Management department	Minimum 12 credits of P.G. level theory courses or 04 P.G. level courses.	1 project and 2 PG level courses along with a 02 credits seminar.
3.	Student with B. Tech. or equivalent degree	Minimum 24 credits of P.G. level theory courses or 08 P.G. level courses.	1 thesis and 2-3 PG level courses along with a 02 credits seminar.

The above is submitted for the consideration of the Senate.

**Item No.81.14:To consider the request for permission to submit Ph.D. thesis before minimum stipulated period (02 years from the date of candidacy for full time students).**

<b>S. No.</b>	<b>Name, Enroll. No., Status, Fellowship</b>	<b>Deptt./Centre, Date of Registration, Candidacy, Completed period</b>	<b>Performance Report, Pre synopsis Status, Last extension</b>	<b>Background of student</b>	<b>Request and Reason(s) of Student, IRC Recommendation</b>
1.	K.N. Sasidhar,  17921005,  Full-Time,  PMRF	Met. & Mat. Engg.,  July 08, 2017,  <b>Candidacy:</b> Feb. 26, 2019 <b>Course work CGPA:</b> 10.0  Completed 10 months 09 days on Jan. 07, 2020 after candidacy.	Satisfactory (Autumn 2019-2020),  <b>Pre-synopsis:</b> Not given.  <b>Last extension:</b> NA	<b>GATE:</b> 2017  <b>B.Tech:</b> 2017 from IIT Roorkee with 9.636 CGPA.	* To submit Pre-synopsis and thesis before stipulated period.  <b>* Reason:</b> Completed requirements of thesis submission.  * 35 <sup>th</sup> IRC recommended the case.

The above is submitted for the consideration of the Senate.

**Item No.81.15: To consider the requests for extension in time beyond –**

**A. Maximum stipulated period of 06 years (Full-Time) for submission of Ph.D. thesis.**

S. No.	Name, Enroll. No., Status, Fellowship	Deptt./Centre, Date of Registration, Candidacy, Completed period	Performance Report, Pre synopsis Status, Last extension	Background of student	Request and Reason(s) of Student, IRC Recommendation
1.	Neha Kumari,  13917015,  Full-Time,  NR	Earthquake Engg.  Jan. 01, 2014,  <b>Candidacy:</b> Aug. 20, 2015 <b>Course work:</b> <b>Grades:</b> A/A+/A <b>CGPA:</b> 9.4  Completed 6 years on Dec. 31, 2019.	Satisfactory (Autumn 2019-2020),  <b>Pre-synopsis:</b> Not given.  <b>Last extension:</b> Till Dec. 30, 2019 by 31 <sup>st</sup> IRC.	<b>GATE:</b> 2013  <b>B.Sc.:</b> 2010 from Kurukshetra University with 79.40%.  <b>M.Tech. (03 Yrs.):</b> 2013 from Kurukshetra University with 9.05 CGPA.	* Requested for time extension through SRC till March 31, 2020.  * <b>Reason:</b> Thesis writing.  * 36 <sup>th</sup> IRC recommended the case.

**B. Maximum stipulated period of candidacy and possible extension afterwards.**

S. No.	Name, Enroll. No., Status, Fellowship	Deptt./Centre, Date of Registration, Candidacy, Completed period	Performance Report, Pre synopsis Status, Last extension	Background of student	Request and Reason(s) of Student, IRC Recommendation
1.	Rajesh Pandey,  17912008,  Part-Time,  NA	Earth Sciences,  July 07, 2017,  <b>Candidacy:</b> May 15, 2019 ( <b>Not approved</b> ) due to receipt after 18 months without taking/requesting for extension.  <b>Course work:</b> <b>CGPA:</b> 9.286  <b>Reason of NSO:</b> NA  Completed 2.5 years on Jan. 06, 2020.	Satisfactory (Autumn 2019-2020),  <b>Pre-synopsis:</b> NR.  <b>Last extension:</b> Not requested	<b>CSIR-JRF:</b> 2012  <b>B.Sc. (Hon.):</b> 2009 from Banaras Hindu University, Varanasi with 76 %.  <b>M.Tech.:</b> 2012 from IIT Roorkee with 8.95 CGPA.	* Requested to accept the candidacy report after stipulated period.  * <b>Justification required by 30<sup>th</sup> IRC for delay in candidacy:</b> Due to non availability of supervisors and other SRC members on appropriate date.  * If student has applied timely then could have availed extension permission from DoAA 03 months/ IRC-next 03 months.  * 36 <sup>th</sup> IRC recommended for reinstatement of registration.



**C. Extension given by the Senate for Ph.D. Thesis submission.**

S. No.	Name, Enroll. No., Status, Fellowship	Deptt./ Centre, Date of Registration, Candidacy, Completed period	Performance Report, Pre synopsis Status, Last extension	Background of student	Request and Reason(s) of Student, IRC Recommendation
1.	Veerendra Yadav,  13914026,  Full-Time,  NR	Civil Engg.  July 23, 2013,  <b>Candidacy:</b> March 12, 2015 <b>Course work:</b> <b>Grades:</b> B/B+/B <b>CGPA:</b> 7.25  Completing 6½ years on Jan. 22, 2020.	Satisfactory (Spring 2018-2019),  <b>Pre-synopsis:</b> June 26, 2019.  <b>Last extension:</b> Till Dec. 31, 2019 by 79 <sup>th</sup> Senate.	<b>GATE:</b> 2008  <b>B.Tech.:</b> 2008 from UPTU Lucknow with 60.04%.  <b>M.Tech.:</b> 2011 from IIT Roorkee with 6.46 CGPA.	* Requested for extension of 01 day i.e. Jan. 01, 2020 through department.  * <b>Reason:</b> Unavoidable circumstances.  * IRC recommendation not obtained as thesis uploaded on Jan. 01, 2020.
2.	Jahnavi K.  13914012,  Full-Time,  NR	Civil Engg.  July 12, 2013,  <b>Candidacy:</b> Feb. 26, 2015 <b>Course work:</b> <b>Grades:</b> B/B/B <b>CGPA:</b> 7.00  Completing 6½ years on Jan. 11, 2020.	Satisfactory (Spring 2018-2019),  <b>Pre-synopsis:</b> Dec 21, 2019  <b>Last extension:</b> Till Dec. 31, 2019 by 79 <sup>th</sup> Senate.	<b>GATE:</b> 2011  <b>B.Tech.:</b> 2010 from Dr. MGR University, Chennai with 8.32 CGPA.  <b>M.Tech.:</b> 2013 from IIT Roorkee with 6.707 CGPA.	* Requested for extension of 01 day i.e. Jan. 01, 2020 through supervisor.  * <b>Reason:</b> Plagiarism report received very late on 31.12.2019. Also had some issues with formatting some figures in the thesis.  * IRC recommendation not obtained as thesis uploaded on Jan. 01, 2020.
3.	Amrish Kumar,  12926015,  Full-Time,  NR	Paper Technology,  Jan. 01, 2013,  <b>Candidacy:</b> Aug. 30, 2014 <b>Course work:</b> <b>Grades:</b> B/B+/B/B/B <b>CGPA:</b> 7.23  Completed 07 years on Dec. 31, 2019.	Satisfactory (Spring 2018-2019),  <b>Pre-synopsis:</b> June 20, 2019  <b>Last extension:</b> Till Dec. 31, 2019 by 79 <sup>th</sup> Senate.	<b>UGC-JRF:</b> 2012  <b>B.Sc.:</b> 2009 from CCS University, Meerut with 55.09 %.  <b>M.Tech.:</b> 2011 from CCS University, Meerut with 71.23 %.	* Requested for extension of 03 days i.e. Jan. 03, 2020.  * <b>Reason:</b> Could not get signed papers till deadline of submission.  * IRC recommendation not obtained as thesis uploaded on Dec. 30, 2019.

4.	Lipi Mishra,  13914014,  Full-Time,  NR	Civil Engg.  July 12, 2013  <b>Candidacy:</b> Apr. 07, 2015 <b>Course work:</b> <b>Grades:</b> B/B/B+/B/B+ <b>CGPA:</b> 7.33  Completing 6.5 years on Jan. 11, 2020.	Unsatisfactory (Autumn 2019-2020),  <b>Pre-synopsis:</b> Not given.  <b>Last extension:</b> Till Dec. 31, 2019 by 79 <sup>th</sup> Senate.	<b>GATE:</b> 2012  <b>B.Tech.:</b> 2012 from NIT Rourkela with 7.48 CGPA.	* Requested for time extension through SRC till June 30, 2020.  * <b>Reason:</b> Medical issues.  <b>Note:</b> No journal paper has been published by the student till date.  * 36 <sup>th</sup> IRC recommended the case.
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The above is submitted for the consideration of the Senate.

**Item No.81.16: To consider Mercy appeals for reinstating Ph.D. registration as name was struck off due to not making request for extension within time frame.**

**A. Thesis submission cases.**

S. No.	Name, Enroll. No., Status, Fellowship	Deptt./Centre, Date of Registration, Candidacy, Reason of NSO, Completed period	Performance Report, Pre synopsis Status, Last extension,	Background of student	Appeal and Reason(s) of Student, IRC Recommendation
1.	Sunil Yadav,  14917006,  Full Time,  NR	Hydrology, Aug. 12, 2014,  <b>Candidacy:</b> May 03, 2016 <b>Course work:</b> <b>Grades:</b> A/B/B+/A <b>CGPA:</b> 8.00  <b>Reason of NSO:</b> Through O.M. dt 20.09.2019 due to non submission of thesis within stipulated period.  Completing 5.5 years on Feb. 11, 2020.	Satisfactory (Spring 2018-2019),  <b>Pre-synopsis:</b> Not given.  <b>Last extension:</b> Aug. 11, 2019  Autumn Semester 2019-2020 null semester.	<b>GATE:</b> 2011  <b>B.Tech.:</b> 2011 from DCRUST, Sonapat with 65.84 %.  <b>M. Tech.:</b> 2013 from NIT, Karnataka with 8.67 CGPA.	*Appealed to reinstate registration and time extension till Feb. 11, 2020.  * <b>Reason:</b> Delayed availability of effluent samples from Industry. * Accident and Dental surgery. * Delayed availability of Membrane. * Non-operational ICP-MS at the IIC, IITR. * Justification has been submitted by the supervisor.  * 36 <sup>th</sup> IRC recommended for reinstatement of registration.
2.	Shachi,  14917005,  Full Time,  NR	Hydrology, July 09, 2014,  <b>Candidacy:</b> Dec. 16, 2015 <b>Course work:</b> <b>Grades:</b> B+/B+/B+/A <b>CGPA:</b> 8.14  <b>Reason of NSO:</b> Through O.M. dt 20.09.2019 due to non submission of thesis within stipulated period.  Completing 5.5 years on Jan. 08, 2020.	Satisfactory (Spring 2018-2019),  <b>Pre-synopsis:</b> Not given.  <b>Last extension:</b> July 08, 2019  Autumn Semester 2019-2020 null semester.	<b>GATE:</b> 2012  <b>B.Tech.:</b> 2010 from UPTU, LKO with 69.22 %.  <b>M. Tech.:</b> 2014 from IIT, Roorkee with 8.727 CGPA.	*Appealed to reinstate registration and time extension till Autumn Sem. 2019-2020.  * <b>Reason:</b> She could not apply for extension due to serious medical issues. * She met with an accident for which she had to undergo treatment for around one and a half month at IITR hospital and her home town hospitals. * She was not medically fit and her recovery was slow



					<p>and delayed due to chronic Otosclerosis (hearing impairment in both ears).</p> <p>*Justification has been submitted by the supervisor.</p> <p>* <b>Status:</b> Thesis writing in progress. Can be submitted within this semester.</p> <p>*36<sup>th</sup> IRC recommended for reinstatement of registration.</p>
3.	<p>Shiv Dutt Purohit,</p> <p>14924005,</p> <p>Full Time,</p> <p>NR</p>	<p>Polymer &amp; Process Engg.,</p> <p>July 09, 2014,</p> <p><b>Candidacy:</b> Feb. 29, 2016</p> <p><b>Course work:</b></p> <p><b>Grades:</b> B/A/A</p> <p><b>CGPA:</b>8.09</p> <p><b>Reason of NSO:</b> Through O.M. dt 20.09.2019 due to non submission of thesis within stipulated period.</p> <p>Completing 5.5 years on Jan. 08, 2020</p>	<p>Satisfactory (Spring 2018-2019),</p> <p><b>Pre-synopsis:</b> Not given.</p> <p><b>Last extension:</b> July 08, 2019</p> <p>Autumn Semester 2019-2020 null semester.</p>	<p><b>GATE:</b> 2013</p> <p><b>Dual-Degree B.Tech.:</b> 2013from Univ. of Rajasthan, Jaipur with 62.59 %.</p> <p><b>M.Tech.:</b> 2013from Univ. of Rajasthan, Jaipur with 65.6 %.</p>	<p>*Appealed to reinstate registration and recommended by supervisor for time extension till June 30, 2020.</p> <p>* <b>Reason:</b> Student's work on tissue Engineering is dependent on other Institutes i.e. AIIMS, New Delhi as all the facilities are not available in his lab.</p> <p>* Some experimental results from other institutes are awaited.</p> <p>* Writing work for two more research articles is remaining.</p> <p>*Requested to grant him time extension upto June 30, 2020 for thesis submission.</p> <p>*Justification has been submitted by the supervisor.</p> <p>*36<sup>th</sup> IRC recommended for reinstatement of registration.</p>

4.	Aparna Dutta,  14910005,  Full-Time,  NR	Civil Engg.,  July 09, 2014,  <b>Candidacy:</b> Feb. 23, 2016 <b>Course work:</b> <b>Grades:</b> A/B/A <b>CGPA:</b> 8.27  <b>Reason of NSO:</b> Through O.M. dt 20.09.2019 due to non submission of thesis within stipulated period.  Completing 5.5 years on Jan. 08, 2020	Satisfactory (Spring 2018-2019),  <b>Pre-synopsis:</b> Not given.  <b>Last extension:</b> July 08, 2019  Autumn Semester 2019-2020 null semester.	<b>GATE:</b> 2011  <b>B.Tech.:</b> 2011 from SRM Univ., Kancheepuram with 92.25 %.  <b>M.Tech.:</b> 2014 from IIT Roorkee, with 8.884 CGPA.	*Appealed to reinstate registration and recommended by supervisor for time extension till July 15, 2020.  * <b>Reason:</b> A significant part of the thesis work requires metal analysis in large number of aqueous samples. The availability of the instruments for such purpose in IITR was very scarce. * Some minor experiments, writing of research articles and thesis writing need to be taken up. * Requested to grant her time extension upto July 15, 2020 for thesis submission. * Justification has been submitted by the supervisor. * 36 <sup>th</sup> IRC recommended for reinstatement of registration.
5.	Sandeep Singh Chauhan  14915019,  Full-Time,  NR	Electronics & Comm. Engg.,  July 31, 2014,  <b>Candidacy:</b> March 21, 2016 <b>Course work:</b> <b>Grades:</b> B+/A/B+/B+ <b>CGPA:</b> 8.28  <b>Reason of NSO:</b> Through O.M. dt 20.09.2019 due to non submission of thesis within stipulated period.  Completing 5.5 years on Jan. 30, 2020.	Satisfactory (Spring 2018-2019),  <b>Pre-synopsis:</b> Sep. 09, 2019 (Not approved by DoAA).  <b>Last extension:</b> July 30, 2019.  Autumn Semester 2019-2020 null semester.	<b>GATE:</b> 2012  <b>B.Tech.:</b> 2011 from UPTU Lucknow with 74.88 %.  <b>M.Tech.:</b> 2014 from NIT Karnataka with 8.75 CGPA.	*Appealed to reinstate registration and extension upto Dec. 31, 2019.  * <b>Reason:</b> That he had submitted his request in the department timely. It is not his mistake that form was sent to AA Office late. * Requested to grant him time extension upto Dec. 31, 2019 for thesis submission.  * Justification has been submitted by the student through supervisor(s).  <b>NOTE:</b> Form received in AA Office on

					<p>03.10.2019. His name was struck off on 20.09.2019.</p> <p>* <b>Status:</b> Thesis submission can be done within 10 days.</p> <p>* 36<sup>th</sup> IRC recommended for reinstatement of registration.</p>
6.	<p>Narendra Kumar,</p> <p>14915009,</p> <p>Full-Time,</p> <p>NR</p>	<p>Electronics &amp; Comm. Engg.,</p> <p>July 22, 2014</p> <p><b>Candidacy:</b> March 17, 2016</p> <p><b>Course work:</b></p> <p><b>Grades:</b> B/B/B/B</p> <p><b>CGPA:</b>7.00</p> <p><b>Reason of NSO:</b> Through O.M. dt 20.09.2019 due to non submission of thesis within stipulated period.</p> <p>Completing 5.5 years on Jan. 21, 2020.</p>	<p>Satisfactory (Spring 2018-2019),</p> <p><b>Pre-synopsis:</b> Not given.</p> <p><b>Last extension:</b> July 21, 2019.</p> <p>Autumn Semester 2019-2020 null semester.</p>	<p><b>GATE:</b> 2012</p> <p><b>B.Tech.:</b>2010 from UPTU Lucknow with 64.90 %.</p> <p><b>M.Tech.:</b> 2014 from IIT Roorkee with 7.800 CGPA.</p>	<p>*Appealed to reinstate registration and recommended by supervisor for time extension till July 2020.</p> <p>* <b>Reason:</b> Student's work is based on the fabrication. Experimental work which took time due to breakdown of the instruments, optimization of the desired result etc.</p> <p>* Student is compiling the results.</p> <p>* Need time for collection of results and thesis writing.</p> <p>*Requested to grant him time extension upto July 31, 2020 for thesis submission.</p> <p>*Justification has been submitted by the student through supervisor(s).</p> <p>* 36<sup>th</sup> IRC recommended for reinstatement of registration.</p>



7.	Manish Kumar Gupta  13923027,  Full-Time,  NR	Mech. & Indl. Engg.,  March 24, 2014,  <b>Candidacy:</b> Dec. 07, 2015 <b>Course work:</b> <b>Grades:</b> B+/B/A <b>CGPA:</b> 7.8  <b>Reason of NSO:</b> Through O.M. dt 21.11.2019 due to non submission of thesis within stipulated period.  Completing 6 years on March 23, 2020.	Satisfactory (Spring 2018-2019),  <b>Pre-synopsis:</b> July 11, 2019.  <b>Last extension:</b> Sept. 23, 2019  Autumn Semester 2019-2020 null semester.	<b>GATE:</b> 2012  <b>Dual Degree (B.Tech.+M. Tech.):</b> 2008 from IIT Madras with 6.56 CGPA.	* Appealed to reinstate registration and recommended by supervisor for time extension till March 23, 2020.  * 36 <sup>th</sup> IRC recommended for reinstatement of registration.
8.	Deepak Dangwal  13922004,  Part-Time, (w.e.f. June 15, 2016)  NR	Mathematics,  July 12, 2013  <b>Candidacy:</b> March 04, 2015 <b>Course work:</b> <b>Grades:</b> B/B/B+ <b>CGPA:</b> 7.2  <b>Reason of NSO:</b> Through O.M. dt 20.09.2019 due to non submission of thesis within stipulated period.  Completing 6.5 years on Jan. 11, 2020.	Satisfactory (Spring 2018-2019),  <b>Pre-synopsis:</b> Not given.  <b>Last extension:</b> July 11, 2019  Autumn Semester 2019-2020 null semester.	<b>B.Sc.:</b> 1993 from HNB Garhwal University with 54.00 %  <b>M.Sc.:</b> 1995 from HNB Garhwal University with 61.30 %  <b>M.C.A.:</b> 2003 from Kumaun University, Nainital with 70.53 %	* Appealed to reinstate registration and recommended by supervisor for time extension till July 2020.  * <b>Reason:</b> Due to some personal unavoidable circumstances (surgery and post-surgical care of his wife and other responsibilities and reasons), he was unable to submit his thesis. * Requested to grant him time extension upto July 31, 2020 for thesis submission. * Justification has been submitted by the student.  * 36 <sup>th</sup> IRC recommended for reinstatement of registration.

9.	<p>Bhanu Pratap Chamoli,</p> <p>13929003,</p> <p>Part Time, (w.e.f. Jan. 01, 2018)</p> <p>NR</p>	<p>CoEDMM,</p> <p>July 12, 2013,</p> <p><b>Candidacy:</b> Jan. 14, 2015</p> <p><b>Course work:</b></p> <p><b>Grades:</b> B/A/A</p> <p><b>CGPA:</b> 8.00</p> <p><b>Reason of NSO:</b> Through O.M. dt 20.09.2019 due to non submission of thesis within stipulated period.</p> <p>Completing 6.5 years on Jan. 11, 2020.</p>	<p>Satisfactory (Spring 2018-2019),</p> <p><b>Pre-synopsis:</b> Not given.</p> <p><b>Last extension:</b> June 30, 2019</p> <p>Autumn Semester 2019-2020 null semester.</p>	<p><b>GATE:</b> 2011</p> <p><b>B.Tech.:</b> 2006 from NIT Silchar with 7.71 CGPA.</p> <p><b>M.Tech.:</b> 2013 from IIT, Roorkee with 7.667 CGPA.</p>	<p>*Appealed to reinstate registration and recommended by supervisor for time extension till Dec. 31, 2019.</p> <p>* <b>Reason:</b> Due to his family circumstances, he had to join job. Thus, he had joined a job and converted his status from Full-Time to Part-Time in January, 2018.</p> <p>*Requested to allow him to submit his Ph.D. thesis by December 31, 2019.</p> <p>*Justification has been submitted by the supervisor.</p> <p>* <b>Status:</b> Not confirmed.</p> <p>* 36<sup>th</sup> IRC recommended for reinstatement of registration.</p>
10.	<p>Soujit Das</p> <p>13919010,</p> <p>Part-Time, (w.e.f. July 11, 2016)</p> <p>NR</p>	<p>Hum. &amp; Social Sciences,</p> <p>July 12, 2013</p> <p><b>N.S.O.-</b> Feb 20, 2017</p> <p><b>Rejoin-</b> May 27, 2019 (allowed by 27<sup>th</sup> IRC)</p> <p><b>Candidacy:</b> April 25, 2014</p> <p><b>Course work:</b></p> <p><b>Grades:</b> A+/A+/A/A+</p> <p><b>CGPA:</b> 9.75</p> <p><b>Reason of NSO:</b> Through O.M. dt 20.09.2019 due to non submission of thesis within stipulated period.</p> <p>Completing 6.5 years on Jan. 11, 2020.</p>	<p>Satisfactory (Spring 2014-2015),</p> <p><b>Pre-synopsis:</b> Not given.</p> <p><b>Last extension:</b> July 11, 2019</p> <p>Autumn Semester 2019-2020 null semester.</p>	<p><b>UGC-JRF:</b> 2012</p> <p><b>B.F.A.:</b> 2010 from Visva Bharati University with 68.6%.</p> <p><b>M.F.A.:</b> 2012 from Visva Bharati University with 76.9%.</p>	<p>*Appealed to reinstate registration and recommended by supervisor for time extension till April 30, 2020.</p> <p>* <b>Reason:</b> Student assumed that his tenure of withdrawal have been considered as 'withdrawal semesters' in Ph.D. programme and he still have few semesters to complete his work.</p> <p>* He is working relentlessly and preparing for pre-submission by the end of December, 2019 and subsequently for final submission.</p> <p>*Justification has been submitted by the student through</p>

					<p>SRC.</p> <p>* <b>Status:</b> Supervisor said thesis is ready for submission immediately.</p> <p>* If student has applied timely then could have availed extension permission from DoAA-06 months/ IRC-next 06 months.</p> <p>* 36<sup>th</sup> IRC recommended for reinstatement of registration.</p>
11.	<p>Himanshu Kala,</p> <p>14921011,</p> <p>Full-time,</p> <p>NR</p>	<p>Met. &amp; Mat. Engg., Aug. 02, 2014,</p> <p><b>Candidacy:</b> March 18, 2016</p> <p><b>Course work:</b></p> <p><b>Grades:</b> A/A/B/A</p> <p><b>CGPA:</b> 8.42</p> <p><b>Reason of NSO:</b> Through O.M. dt 20.09.2019 due to non submission of thesis within stipulated period.</p> <p>Completing 5.5 years on Feb. 01, 2020.</p>	<p>Satisfactory (Spring 2018-2019),</p> <p><b>Pre-synopsis:</b> Not given.</p> <p><b>Last extension:</b> Aug. 01, 2019</p> <p>Autumn Semester 2019-2020 null semester.</p>	<p><b>GATE:</b> 2012</p> <p><b>B.Tech.:</b> 2012 from UTU Dehradun with 76.54 %.</p> <p><b>M.Tech.:</b> 2014 from G.B. Pant Engg. College, Pauri Garhwal with 82.25 %.</p>	<p>* Appealed to reinstate registration and recommended by SRC for time extension till Autumn Sem. 2019-2020.</p> <p>* <b>Justification:</b> Not Received.</p> <p>* <b>Status:</b> No work done by the student. No journal paper published.</p> <p>* <b>36<sup>th</sup> IRC did not recommend.</b></p>

### B. Candidacy cases.

S. No.	Name, Enroll. No., Status, Fellowship	Deptt./Centre, Date of Registration, Candidacy, Reason of NSO, Completed period	Performance Report, Pre synopsis Status, Last extension,	Background of student	Appeal and Reason(s) of Student, IRC Recommendation
1.	Mohd. Shoaib  17909027,  Full-Time,  CSIR-JRF	Chemistry, Feb. 22, 2018  <b>Candidacy:</b> Not completed <b>Course work:</b> In Autumn & Spring Sem. 2018-2019, 04 courses, Ph.D. seminar pending. <b>CGPA:</b> 6.50  <b>Probation period:</b> Autumn sem. 2019-20 (registered for one additional subject and seminar)  <b>Reason of NSO:</b> Through O.M. dt 17.09.2019 due to non completion of candidacy within stipulated period.  <b>Rule R.3.1:</b> A candidate with less than 7.00 CGPA shall be allowed to take up more courses in the following semester while keeping the maximum duration for completing candidacy unchanged.  Completing 22 months on Dec. 21, 2019.	Satisfactory (Spring 2018-2019),  <b>Pre-synopsis:</b> NR  <b>Last extension:</b> NA	<b>NET:</b> 2015 <b>GATE:</b> 2015 <b>CSIR-JRF:</b> 2017  <b>B.Sc.:</b> 2011 from HNB Garhwal University with 54.00 %.  <b>M.Sc.:</b> 2013 from HNB Garhwal University with 72.96 %.	*Appealed to reinstate registration and recommended by supervisor for time extension till Spring Sem. 2019-2020.  * <b>Reason:</b> As he enrolled in Ph.D. through rolling Advertisement on Feb. 22, 2018, he could not registered courses in Spring Sem. 2017-2018.  * Due to his health and mental illness, he could not obtain required CGPA and registered for one additional subject in current semester.  * Requested for extension to complete one additional course and credit seminar and candidacy upto Spring Sem. 2019-2020.  *Justification has been submitted by the student through supervisor.  * 36 <sup>th</sup> IRC recommended for reinstatement of registration.

The above is submitted for the consideration of the Senate.



**Item No. 81.17: To consider Mercy appeals for reinstating Ph.D. registration as name was struck off due to.**

**A. Completion of maximum stipulated period for candidacy.**

S. No.	Name, Enroll. No., Status, Fellowship	Deptt./Centre, Date of Registration, Candidacy, Reason of NSO, Completed period	Performance Report, Pre synopsis Status, Last extension,	Background of student	Appeal and Reason(s) of Student, IRC Recommendation
1.	Sandeep Kumar Singh,  17906005,  Full-Time,  Institute Assistantship	Nanotechnology  Dec. 28, 2017  <b>Candidacy:</b> Not completed <b>Comprehensive Exam:</b> Not completed. <b>Course work CGPA:</b> 7.714  <b>Reason of NSO:</b> Through O.M. dt 17.09.2019 due to non completion of candidacy within stipulated period.  Completed 24 months on Dec. 27, 2019.	Satisfactory (Spring 2018-2019),  <b>Pre-synopsis:</b> NR  <b>Last extension:</b> Not requested	<b>Gate:</b> 2015  <b>B.Tech.:</b> 2014 from UPTU, Lucknow with 78.76 %.  <b>M.Tech.:</b> 2016 from M.M. Malaviya Univ. of Tech., Gorakhpur with 8.57 CGPA.	*Appealed to reinstate registration, recommended by CRC.  * 36 <sup>th</sup> IRC recommended for reinstatement of registration.
2.	Piyush  17912017,  Part-Time,  NA	Earth Sciences,  Dec. 28, 2017,  <b>Candidacy:</b> Not completed <b>Comprehensive Exam:</b> Not completed. <b>Course work CGPA:</b> 7.00  <b>Reason of NSO:</b> Through O.M. dt 17.09.2016 due to non completion of candidacy within stipulated period.  Completed 24 months on Dec. 27, 2019.	Satisfactory (Spring 2018-2019),  <b>Pre-synopsis:</b> NR  <b>Last extension:</b> Not requested	<b>NET/Gate/JRF:</b> Not mentioned  <b>B.Sc. (Hon.):</b> 2005 from Vinoba Bhave University, Hazaribagh with 76.60 %.  <b>M.Tech.:</b> 2008 from IIT Roorkee with 7.50 CGPA.	* Appealed to reinstate registration and extension to complete candidacy requirement. Extension period not mentioned.  * 36 <sup>th</sup> IRC recommended for reinstatement of registration.

3.	<p>Saurabh Singhal</p> <p>17915016,</p> <p>Part-Time, (Spon.)</p> <p>NR</p>	<p>Elec. &amp; Comm. Engg.,</p> <p>Dec. 28, 2017,</p> <p><b>Candidacy:</b> Not Completed</p> <p><b>Comprehensive Exam.:</b> Not Completed</p> <p><b>Course work:</b> <b>CGPA: 7.727 (excluding credit seminar)</b></p> <p><b>Reason of NSO:</b> Through O.M. dt 17.09.2016 due to non completion of candidacy within stipulated period.</p> <p>Completed 02 years on December 27, 2019.</p>	<p>Satisfactory (Spring 2018-2019),</p> <p><b>Pre-synopsis:</b> NR</p> <p><b>Last extension:</b> Not requested</p>	<p><b>GATE:</b> 2015</p> <p><b>B.Tech.:</b> 2010 from UPTU Dehradun with 71.22%.</p> <p><b>M.Tech.:</b> 2013 from NIT Jalandhar with 8.31 CGPA.</p>	<p>* Appealed on Dec. 24, 2019 for name restoration and time extension till February 2020 for completion of Compre. Exam and Research Proposal.</p> <p>* <b>Reason:</b> Due to long illness and demise of his mother.</p> <p><b>Note:</b> Student registered his credit seminar in Autumn Sem. 2018-2019 and gave his seminar in Autumn Sem. 2019-2020 (on 13.08.2019) without taking permission/extension.</p> <p>* Matter was circulated after 36<sup>th</sup> IRC to IRC members.</p> <p><b>Recommendations:</b> Not recommended.</p>
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**B. Non submission of mandatory documents related to Ph.D. admission within time frame.**

S. No.	Name, Enroll. No., Status, Fellowship	Deptt./Centre, Date of Registration, Candidacy, Reason of NSO, Completed period	Performance Report, Pre synopsis Status, Last extension,	Background of student	Appeal and Reason(s) of Student, IRC Recommendation
1.	Deepak  19920007,  Full-Time,  Institute Assistantship	Mech. & Indl. Engg.,  July 12, 2019,  <b>Candidacy:</b> Not completed <b>Course work:</b> Not completed.  <b>Reason of NSO:</b> Through O.M. dt 25.11.2019 due to non submission of relieving letter within time.  Completing 06 months on Jan. 11, 2020.	Progress Report for Autumn 2019-2020 not received.  <b>Pre-synopsis:</b> NR  <b>Last extension:</b> NR	<b>GATE:</b> 2012  <b>B.Tech.:</b> 2011 from Maharshi Dayanand University, Rohtak with 71.77 %.  <b>M.Tech.:</b> 2015 from IIT Delhi with 8.242 CGPA.	* Appealed to reinstate registration and extension to submit relieving letter within 45 days upto Jan. 15, 2020.  * 36 <sup>th</sup> IRC recommended for reinstatement of registration as student has submitted his resignation letter to UPES.
2.	Yogesh Kumar,  19909015,  Full-Time,  CSIR-JRF	Chemistry,  July 12, 2019  <b>Candidacy:</b> Not completed <b>Course work:</b> Not completed  <b>Reason of NSO:</b> Through O.M. dt 03.12.2019 due to non submission of relieving letter within time.  Completing 06 months on Jan. 11, 2020.	Satisfactory (Autumn 2019-2020),  <b>Pre-synopsis:</b> NR  <b>Last extension:</b> NR	<b>CSIR-JRF:</b> 2018  <b>B.Sc.:</b> 2015 from Maharshi Dayanand University, Rohtak with 63 %.  <b>M.Sc.:</b> 2018 from Jamia Millia Islamia with 7.66 CGPA.	* Appealed to reinstate registration.  * 36 <sup>th</sup> IRC recommended for reinstatement of registration as student has given required letter.

**C. Two consecutive Unsatisfactory Progress reports.**

S. No.	Name, Enroll. No., Status, Fellowship	Deptt./Centre, Date of Registration, Candidacy, Reason of NSO, Completed period	Performance Report, Pre synopsis Status, Last extension,	Background of student	Appeal and Reason(s) of Student, IRC Recommendation
1.	Nivedita Pandey,  18921025,  Full-Time,  Project-JRF	Met. & Mat. Engg., Jan. 07, 2019  <b>Candidacy:</b> Not completed <b>Course work CGPA:</b> 6.14  <b>Reason of NSO:</b> Through O.M. dt 09.12.2019 due to 02 consecutive unsatisfactory progress reports.  Completing 01 year on Jan. 06, 2020.	Unsatisfactory (Spring 2018-2019 & Autumn 2019-2020),  <b>Pre-synopsis:</b> NA  <b>Last extension:</b> NR.	<b>JRF/GATE:</b> Not mentioned.  <b>B.Tech.:</b> 2007 from UPTU Lucknow, with 68.5 %.  <b>M.Tech.:</b> 2012 from Subharti University, Meerut with 84.4%.	* Appealed to reinstate registration.  * <b>36<sup>th</sup> IRC did not recommend.</b>

**D. Non registration in Spring semester 2018-2019.**

S. No.	Name, Enroll. No., Status, Fellowship	Deptt./Centre, Date of Registration, Candidacy, Reason of NSO, Completed period	Performance Report, Pre synopsis Status, Last extension,	Background of student	Appeal and Reason(s) of Student, IRC Recommendation
1.	Ranveer Singh Shekhawat  14910023,  Part-Time (QIP),  NR	Civil Engg. July 09, 2014,  <b>Candidacy:</b> May 21, 2015. <b>Course work:</b> <b>Grades:</b> A/B/B/B+ <b>CGPA:</b> 7.714  <b>Reason of NSO:</b> Through O.M. dt 25.03.2019 due to non registration in Spring Sem. 2018-2019.  Completing 5.5 years on Jan. 08, 2020.	Unsatisfactory (Spring 2017-2018), Progress report Autumn Sem. 2018-2019 not received.  <b>Pre-synopsis:</b> NA  <b>Last extension:</b> NA	<b>NET/GATE:</b> NA  <b>B.E:</b> 1999 from JNV University, Jodhpur with 71.40%.  <b>M.Tech.:</b> 2004 from IIT Delhi with 7.6 CGPA.	* Appealed to reinstate registration.  * <b>Reason:</b> Medical issues i.e. adjustment disorder and depressive features.  * DRC did not recommend his request.  * <b>35<sup>th</sup> IRC did not recommend.</b>

The above is submitted for the consideration of the Senate.



**Item No.81.18: To consider requests from students to re-join Ph.D. programme.**

S. No.	Name, Enroll. No., Status, Fellowship	Deptt./Centre, Date of Registration, Candidacy, Reason of NSO, Completed period	Performance Report, Pre synopsis Status, Last extension,	Background of student	Appeal and Reason(s) of Student, IRC Recommendation
1.	Mayank Awasthi  13915019,  Part-Time,  NR	Elec. & Comm. Engg.  Jan. 01, 2014,  <b>Candidacy:</b> Aug. 26, 2015. <b>Course work:</b> <b>Grades:</b> A/B+/A <b>CGPA:</b> 8.55  <b>Reason of NSO:</b> Through O.M. dt 20.02.2016 due to non registration in Spring Sem. 2016-2017.  Completed 6 years on Dec. 31, 2019.	Satisfactory (Spring 2015-2016),  <b>Pre-synopsis:</b> NA  <b>Last extension:</b> NA	<b>GATE:</b> 2010  <b>B.Tech.:</b> 2010 from IIITDM, Jabalpur with 7.7 CGPA.  <b>M.Tech.:</b> 2012 from IIT Roorkee with 7.75 CGPA.	* Appealed to reinstate his registration to continue Ph.D. programme <b>after a period of 03 years 08 months from the date of NSO.</b>  * <b>Reason:</b> Due to training period, could not get leave.  * <b>35<sup>th</sup> IRC did not recommend.</b>
2.	Koti Shiva Reddy  16910007,  Part-Time (Spon.),  NR	Civil Engg.  July 08, 2016,  <b>Candidacy:</b> Not Completed. <b>Comprehensive Written Exam.:</b> 06.10.2017 <b>Comprehensive Oral Exam.:</b> Not Completed  <b>Course work CGPA:</b> 7.462. <b>Reason of NSO:</b> Through letter dt 01.10.2018 due to non completion of Candidacy requirements within stipulated period.  Completed 3.5 years on Jan. 07, 2020.	Satisfactory (Spring 2016-2017), Autumn Sem. 2017-2018 and Spring 2017-2018 did not received.  <b>Pre-synopsis:</b> NA  <b>Last extension:</b> Not requested	<b>NET/GATE:</b> NA  <b>B.E:</b> 2007 from Govt. Engg. College, Bilaspur with 72.40%.  <b>M.Tech.:</b> 2011 from IIT Roorkee with 9.05 CGPA.	* Appealed to reinstate registration <b>after a period of 12 months from the date of NSO.</b>  * <b>Reason:</b> Time spent in attending conferences and summer schools and pregnancy of wife in 2018.  * <b>35<sup>th</sup> IRC did not recommend.</b>

The above is submitted for the consideration of the Senate.

**Item No.81.19:To consider the change(s) in minimum academic qualification for:**

**(A) Ph.D. Programme in following departments/centres:**

- 1.Hydro and Renewable Energy**
- 2.Physics**
- 3.Centre for Nanotechnology**
- 4.Centre for Transportation Systems**

**(B) M.Tech./M.Arch./MURP programme**

- (a) The IRC in its 36<sup>th</sup> meeting held on 24.12.2019 recommended the proposed change(s) in minimum academic qualification of Ph.D. Programme. Details are given in **Appendix-A.**
- (b) IAPC in its 78<sup>th</sup> meeting recommended the proposed change(s) in minimum academic qualification for admission to M.Tech/M.Arch./MURP Programme from the year 2020-21 onwards. Details are given in **Appendix-B.**

The above is submitted for the consideration of the Senate.

**Proposed Academic Qualification for Ph.D. Admission for Autumn Semester  
2020-21 onwards**

S.No.	Department/Centre	Existing	Proposed
1.	Hydro & Renewable Energy	<p>i. B.Tech. / M.Tech. or equivalent in Civil / Electrical / Mechanical/ Industrial / Chemical / Environmental / Agricultural / Computer / Electronics Engineering</p> <p>ii. M.Sc. in disciplines consistent with research areas of the centre.</p>	<p>i. B.Tech. / M.Tech. or equivalent in Civil / Electrical / Mechanical/ Industrial / Chemical / Electronics/ Computer/ Agricultural/ Environmental/ <b>Biotechnology/ Instrumentation Engineering</b> or Equivalent and related disciplines.</p> <p>ii. M.Sc. in disciplines consistent with research areas of the department.</p>
2.	Physics	<p>i. M.Sc. in Physics/ Applied Physics</p> <p>ii. M.Sc. in Chemistry/ Mathematics/ Biophysics/ Geophysics/ Computer Science, provided Physics was a subject at B.Sc. level.</p> <p>iii. B.Tech. or equivalent in Electrical / Electronics / Chemical/ Metallurgical / Engineering Physics. Candidates at Category (ii) and (iii) may be considered for research area consistent with the academic background and special interests.</p>	<p>i. M.Sc. in Physics/ Applied Physics</p> <p>ii. M.Sc. in Chemistry/ Mathematics/ Biophysics/ Geophysics/ Computer Science/<b>Electronics</b>, provided Physics was a subject at B.Sc. level.</p> <p>iii. B.Tech. or equivalent in Electrical / Electronics / Chemical/ Metallurgical /<b>Nanotechnology/</b> Engineering Physics.</p> <p>Candidates at Category (ii) and (iii) may be considered for research area consistent with the academic background and special interests.</p>
3.	Centre for Nanotechnology	<p>(i) B.E./B.Tech or M.E./M.Tech. in Metallurgy / Chemical / Polymer / Mechanical / Biotechnology / Physics / Chemistry / Electronics / Electrical /Civil or equivalent</p> <p>(ii) M.Sc. / M.S. (Science / Engineering) B. Pharm /M. Pharm</p>	<p>(i) B.E./B.Tech or M.E./M.Tech. in <b>Nanotechnology/</b> Metallurgy / Chemical / Polymer / Mechanical / Biotechnology /<b>Engineering</b> Physics /<b>Engineering</b> Chemistry / Electronics / Electrical /<b>Computer Science and Engineering/Civil/Energy/ Environmental/ Agriculture</b> or</p>

S.No.	Department/Centre	Existing	Proposed
			<p>equivalent.</p> <p>(ii) M.Sc. / <b>Int. M.Sc.</b>/ M.S. in Science / Engineering, B. Pharm /M. Pharm.</p> <p>(iii) <b>MBBS/MD/BDS/MDS or equivalent.</b></p>
4.	Centre for Transportation Systems	M.Tech./ M.Arch./ M.Planning/ M.Des./ MBA or equivalent degree in Civil Engg./ Mechanical Engg/ Industrial Engg./ Production Engg./ Computer Science &Engg./ Chemical Engg./ Infrastructure Systems/ Biotechnology/ Architecture/ Planning/ Urban Engg./ Business Administration.	<p>M.Tech./ M.Arch./ M.Planning/ M.Des./ MBA or equivalent degree in Civil Engg./ Mechanical Engg/ Industrial Engg./ Production Engg./ Computer Science &amp;Engg./ Chemical Engg./ Infrastructure Systems/ Biotechnology/ Architecture/ Planning/ Urban Engg./ Business Administration/<b>Automobile Engg./Mechatronics Engg</b></p>



**Table – 1**  
**Details of Academic Programmes leading to M.Tech./M.Arch./M.U.R.P.**

Sl. NO	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	Hydro and Renewable Energy (HRD)	12	M.Tech. Alternate Hydro Energy Systems	CE/AG/CH/EE/EC/ME/PI/XE/IN	Bachelor's degree in Civil/Electrical/Mechanical/ Instrumentation/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/MA/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./ Infrastructure/ Construction Engineering 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)	Academic Programmes		Eligible GATE Disciplines	Minimum Educational Qualifications
		Code	Name		
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/PH	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. <b>Note:</b> 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. <b>Additional Requirement:</b> GATE qualified except for industry sponsored candidate.

Sl. No	Academic Department/ Centre & (Code)	Academic Programmes		Eligible GATE Discipline	Minimum Educational Qualifications
		Code	Name		
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	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)
15	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.
16	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.).
17	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/ <b>Automobile Engg./ Mechatronics Engg.</b> or equivalent.
18	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.

**Item No. 81.20: To consider the changes in the selection criteria for MBA Admission from 2020-21 onwards.**

IAPC in its 78<sup>th</sup> meeting recommended to adopt Joint MBA Admission from 2020-21 onwards along with other participating IITs (IIT Madras, IIT Delhi, IIT Kharagpur) for the convenience of candidates.

IAPC also recommended the proposed selection criteria for MBA Admission from 2020-21 onwards:

<b>Existing Selection Criteria</b>	<b>Proposed Selection Criteria</b>	<b>Proposed Selection Criteria for IIT Graduates with CGPA 7 and above</b>
(a) CAT Percentile: 65%; (b) Group Discussions 10%; (c) Interview 20%; (d) Work experience 5%.	(a) CAT percentile: 60% (b) Written Aptitude Test (WAT):10% (c) Personal Interview (PI): 25% (d) Relevant Work Experience: 5%	(a) CAT percentile: Waived off (b) Written Aptitude Test (WAT): 40 % (c) Personal Interview (PI): 60 %

The above is submitted for the consideration of the Senate.



**Item No. 81.21: To consider allowing deferred admission to:**

**(A) International Students and Sponsored Indian Students in Master Programmes (M.Tech/M.Arch./MURP /MSc./MBA)**

**(B) International Students in Ph.D. Programme**

- (a) IAPC in its 76<sup>th</sup> meeting recommended the deferred admission to the International Students in Masters Programmes (M.Tech/M.Arch./MURP/ MSc./MBA) upto the next academic session. This will enable the eligible candidates to take admission in Masters Programmes who are not able to get themselves registered due to delay in passport, visa, etc.

Further, IAPC also recommended allowing the deferred admission to sponsored Indian students.

- (b) The IRC in its 36<sup>th</sup> meeting recommended for deferment of admission in Ph.D. programme for international candidates upto the next academic semester. In the case of Indian nationals it is recommended to consider on case-to case basis.

The above is submitted for the consideration of the Senate.

**Item No. 81.22: To consider addressing similarity-check report alerts at the time of submission of Bachelors, Masters and PhD thesis.**

Chairman IAEC was appointed vide Notification No. IITR/ES(Wing 'A')/4499/E-4759 dated 20.12.2019. As per the mandate, the Chairman will also be instrumental in preparing policy documents for the consideration of Senate/Board, as and when required. He/she may co-opt additional members as and when required. The following faculty members were co-opted for this agenda item: Prof. Sugata Gangopadhyay, Prof. B.K. Kaushik, Prof. Aalok Misra, Prof. Sparsh Mittal, Prof. Partha Roy and Prof. K.R.J. Thomas. The current practice was examined and it was proposed that while similarity with earlier documents does not necessarily mean plagiarism, quantifying an acceptable level of similarity is not in the interest of the Institute. In fact, in several high profile cases, the levels of similarity were very low and still they were classified as instances of plagiarism. An appropriate matching software can at best alert possible instances of plagiarism. The report generated by the software has to be checked by a person familiar with the subject of the thesis to see whether any action needs to be taken to address the instances of similarity pointed out in the report.

In view of the above, the following recommendations are made for the consideration and approval of the Senate.

1. All Bachelors, Masters and PhD theses should be subject to a similarity-check using appropriate software. With the help of the supervisor, the candidate should address the similarities flagged by the software which merit corrective action.
2. Point 10 of Ph.D. Thesis submission form "Copy of plagiarism check enclosed" be revised to "Copy of similarity-check report enclosed".
3. The Bachelors and Masters thesis/report similarity-check reports be submitted to the concerned DAPC/CAPC.

The above is submitted for the consideration and approval of the Senate.

**Item No.81.23: To report the MoU for Dual-Doctoral Degree Program between IIT Roorkee and Michigan State University, USA.**

The IRC in its 36<sup>th</sup> meeting held on December 24, 2019 accepted the proposal of formalising the MoU for Dual-Doctoral Degree Program between IIT Roorkee and Michigan State University, USA.

The above is reported to the Senate.

**Item No. 81.24: To report the corrigendum in the Academic Calendar for Spring Semester 2019-20 approved by the Chairman, Senate.**

The following amendment has been carried out in the Academic Calendar for Spring Semester 2019-20:

Apr 05, 2020 (Saturday) - A teaching day

to be read as

Apr 04, 2020 (Saturday) - A teaching day

The above is reported to the Senate.



**Item No. 81.25: To report the approval of the revised structure of Department of Earth Sciences including minor specialization.**

The Chairman Senate, on the recommendations of 76<sup>th</sup> IAPC held on 07.11.2019, approved the inclusion of minor specialization in the program structures of IMT(GP) and IMT(GT) of the Department of Earth Sciences so that the minor specialization option could be opened to the student of the Department of Earth Sciences in the Spring Semester 2019-20 itself.

The above is reported to the Senate.

**Item No. 81.26: To report approvals accorded by the Chairman Senate on scholarships etc:**

(1) **Sh. Devatv Singh Ji (formerly Sh. Atar Singh) Memorial Scholarship :** Col. K. S. Dahiya has created a corpus for merit-cum means scholarship of Rs.10,000/- per year to two UG students of any year, one from Civil Engineering branch and other one from any engineering branch. The awardees will be selected as per the process adopted by SCSP to award MCM scholarships of the Institute.

(2) **Shri Shankar Kumar Nath Award:** Prof. S. K. Nath, IIT Roorkee has created a corpus to give merit-cum means scholarship of Rs10,000/- per year to a student of Department of Metallurgical and Materials Engineering, with highest CGPA at the end of 2<sup>nd</sup> year. The awardee will be selected as per the process adopted by SCSP to award MCM scholarships of the Institute.

(3) **Jaikamal MCM Scholarship:** Mr Jai P. Agarwal, an alumnus of University of Roorkee (BE 1959 Civil Engg) has created a corpus for 4 MCM scholarships of Rs10,000/- each for Civil Engineering students, one from each year from I to IV year. The awardees will be selected as per the process adopted by SCSP to award MCM scholarships of the Institute.

(4) **Jai Kamal Award for Best Athlete of the Year:** Mr. Jai P. Agarwal, an alumnus of University of Roorkee (BE 1959 Civil Engg) has created a corpus to award a cash prize of Rs10,000/- to the best athlete, one each in male and female category. The award is open to all the students of the institute.

The above is reported to the Senate.

**UNDER ANY OTHER ITEM:**

**Item No. 81.27: To consider the Seat Matrix for MBA admission from the academic year 2020-21 onwards.**

The IAPC in its 76<sup>th</sup> meeting held on 7.11.2019 recommended the proposal. Details are given in **Appendix-A.**

The above is submitted for the consideration of the Senate.

**Proposed Intake for MBA 2020 Admission**  
**(including 10% EWS category seats)**

DEPTT	CODE	PROGRAMME	TOTAL	Increased 25%	Total seats with 25% increase	GEN	GEN-EWS	OBC	SC	ST
Management Studies (BM)	810	MBA	95	24	119	48	12	32	18	9