

Department of Electrical Engineering, IIT Delhi

Orientation for New PG students : Sem II, 2021-22

Agenda

Joint Session for EE PG Students (PhD, MS(R))

- Welcome Address by HoD, Prof. Jayadeva
- Address by DRC Chair, Prof. I N Kar
- A Few important points – DRC Convener, Prof. S Janardhanan

About the Department

About the Department: Administrative Structure

- Head of Department: [Prof. Jayadeva](#)
- Chairperson of the Department Research Committee (DRC, deals with all matters related to research and PG programmes): [Prof. I. N. Kar](#)
- Convenor of the DRC (and ex-officio Coordinator of the PhD and M.S.(R) programmes): [Prof. S. Janardhanan](#)
- Coordinators of the M.Tech. programmes, and members of the DRC:
 - Overall M.Tech. Coordinator – [Prof. Manav Bhatnagar](#)
 - Computer Technology – [Prof. Tapan K. Gandhi](#)
 - Communication Engineering – [Prof. Abhishek Dixit](#)
 - Control and Automation – [Prof. Subashish Dutta](#)
 - Integrated Electronics and Circuits – [Prof. Manan Suri](#)
 - Power Electronics, Electrical Machines and Drives – [Prof. Sumit Pramanick](#)
 - Power Systems – [Prof. Nilanjan Senroy](#)

About the Department : Academic Programmes

- Undergraduate (2) – B.Tech. in Electrical Engineering;
B.Tech. in Electrical Engineering (Power and Automation)
- M.Tech. Programmes (6) – Computer Technology; Communication Engineering; Control and Automation; Integrated Electronics and Circuits; Power Electronics, Electrical Machines and Drives ; and Power Systems
- Interdisciplinary M.Tech. Programmes (2) – Optoelectronics and Optical Communication; VLSI Design Tools and Technology
- Research programmes (2) – M.S. (Research); Ph D

About the Department: Faculty

- 50+ Faculty members, with 5 thematic groups (many also members of multiple groups): **Computer Technology, Communication Engineering, Control and Automation, Integrated Electronics and Circuits, Power Engineering**
- Please see the Department webpages at <http://ee.iitd.ac.in/> for all research interests, contact details, etc.
- Generally the Institute, Department, and individual Faculty members will use your official IITD e - mail ID for all communication.
 - **So please remember to check this regularly**

Interdisciplinary Activities and Research

- A lot of interdisciplinary activity and collaboration, both across thematic groups in the Department, and with other departments/schools/centres at IIT Delhi
- Some major recent or ongoing initiatives (please see webpages for further details, research projects, contact info etc.):
 - School of Artificial Intelligence
 - Technology Innovation Hub on Cobotics (Collaborative Robotics)
 - Bharti School of Telecommunication Technology and Management
 - Cognitive Science programme
 - Quantum devices, circuits and computation

Ethics and Support

Academic ethics

- **High standards of academic honesty and integrity** are expected in all your coursework and research work
- Please be thoughtful and careful about **avoiding any form of plagiarism**, and never giving the impression that someone else's work or ideas are your own
- Specific policies on these aspects may be conveyed by respective course coordinators for assignments and other evaluation components, especially during the online teaching period
- Whenever in doubt about what counts as plagiarism or what might not be acceptable, please *ask* your course coordinator (for coursework) or supervisor (for research /project work)

Honour Code

You have already signed
this document.

Take it seriously.



ANNEXURE

Form E
(PG)

INDIAN INSTITUTE OF TECHNOLOGY DELHI

THE HONOUR CODE

I _____, Entry No. _____, do hereby undertake that as a student at IIT DELHI:

- (1) I will not give or receive aid in examinations; that I will not give or receive unpermitted aid in class work, in preparation of reports, or in any other work that is to be used by the instructor as the basis of grading; and
- (2) I will do my share and take an active part in seeing to it that others as well as myself uphold the spirit and letter of the *Honour Code*.

I realize that some examples of misconduct which are regarded as being in violation of the *Honour Code* include:

- copying from another's examination paper or allowing another to copy from one's own paper;
- unpermitted collaboration;
- plagiarism;
- revising and resubmitting a marked quiz or examination paper for re-grading without the instructor's knowledge and consent;
- giving or receiving unpermitted aid on take-home examinations;
- representing as one's own work the work of another, including information available on the Internet; and
- giving or receiving aid on an academic assignment under circumstances in which a reasonable person should have known that such aid was not permitted.
- committing a cyber offence, such as, breaking passwords and accounts, sharing passwords, electronic copying, planting viruses, etc.

I accept that any act of mine that can be considered to be an *Honour Code* violation will invite disciplinary action.

Date: _____ Student's signature _____

Name _____

Entry No. _____

NOTE TO THE STUDENT

Upload signed and scanned copy during Online Registration.
Keep the original signed copy with you.

Support and Welfare

- For any difficulties or issues you might face with either academic or non - academic aspects of life at IIT Delhi, please feel free to get in touch with us.
 - First point of contact is normally **course coordinator** for course-specific matters,
 - and **programme coordinator** (M.Tech./M.S.(R)/Ph D) or **research /project supervisor(s)** for more general matters.
 - But all faculty members are open to being approached for assistance and advice as needed.
- Also many support mechanisms at the Institute level: key contacts are **Associate Dean, Student Welfare** (Prof. Reetika Khera); **Dean, Student Affairs** (Prof. Arvind Nema, <https://dos.iitd.ac.in/index.php>); **Student Counselling Service**, and **Dean (Academics)** (Prof. Shantanu Roy).
- Further details, contacts, etc. given as part of Institute orientation programme.

Gender Awareness and Sensitization

- In addition to general welfare measures, the Institute has multiple initiatives to support gender equity and combat gender-based discrimination or harassment
- The Initiative for Gender Equity and Sensitisation (IGES) is the nodal body for addressing such issues. Gender awareness workshops are conducted regularly for students, as well as faculty and staff. To know more or for any particular gender-related issues or concerns, please contact at either igesiid@gmail.com, or the EE faculty on the IGES core committee
- The Internal Complaints Committee (ICC) is the redressal body for specific complaints of sexual harassment or misconduct. The Institute' s policy against sexual harassment, as well as details of the ICC and how to contact them, can be found at <https://home.iitd.ac.in/compliance.php#antis>.

Courses and Grading

Academic calendar and timetabling

- Normal semesters are Jul—Nov and Jan—May.
 - Current modifications due to COVID-19.
 - Please see <https://home.iitd.ac.in/academic-calendar.php> for latest calendars and schedules
- Slotting system: Lettered slots (A, B, C, etc.).
 - Each slot denotes either three 1 - hour or two 1.5 - hour lecture slots per week. Every lecture course is offered in one of these slots (exception: ' X' slot allows for flexible scheduling).
 - All info about course slots and slotting pattern at <http://timetable.iitd.ac.in/>.

Slotting Pattern

Slot timings (General – 4 cycles)

Day	8-8.50	9-9.50	10-10.50	11-11.50	12-12.50	CYCLE NO.	1-1.50	2-2.50	3-3.50	4-4.50	5-5.50	6-6.50	
Monday	A	B	H	J	1		AA	AB	M				
						TE1	PE1						
						2	TF2	PF2					
						3	PB3	PC3					
Tuesday	C	D	E	F	J	1		AC	AD	K	L		
							TA1	TD1	PD1				
							2	TE2	PE2				
							3	TF3	PF3				
Wednesday	C	D	E	H	K	1	L/TG1	L/TG2	INSTITUTE LEVEL SEMINARS/MEETINGS (NO REGULAR CLASSES)				
													2
													3
													4
Thursday	A	B	F	H	1		AA	AB	M				
						PB1	PC1						
						2	TA2	TD2				PD2	
						3	TE3	PE3					
Friday	C	D	E	F	J	1		AC	AD	K	L		
							TF1	PF1					
							2	PB2	PC2				
							3	TA3	TD3			PD3	
						4	TE4	PE4					

See :

<https://timetable.iitd.ac.in/schedule/slotting%20pattern%20jan%202018.pdf>

Course Policies

- Every course has a Course Coordinator, responsible for overseeing all aspects of course policy, evaluation, logistics etc.
- Evaluation schema: Normally one Major exam, two Minor exams; but currently only one Minor due to COVID- 19.
- All courses will have other components like assignments, quizzes, term papers /projects etc. Exact evaluation policy to be announced by faculty members in first class of a course
- Minimum of 75% attendance required normally; no attendance weightage during online COVID semesters, but regular attendance expected.
- Please contact course coordinator or TAs for any issues with participating in classes, doubts on course material, or concerns /queries about any other aspect of a course.
- **Note : Sem II, 2021-22 may be partially conducted in Offline mode depending upon level of improvement of the COVID-19 situation**

Grading policies

- Letter grading system: **A, A-, B, B-**, etc. Each grade associated with *grade points* out of 10: **A** is 10/10, **A-** is 9/10, etc.
- In general, grading is relative: based on distribution of marks in a course, no pre- decided grade boundaries
- Cumulative Grade Point Average (CGPA) computed by averaging grade points weighted by no. of credits earned for a course. Normally minimum CGPA requirements for continuation of scholarship /assistantship, as well as registration.
- **Please see Courses of Study** (<https://home.iitd.ac.in/curriculum.php>) for all details and rules pertaining to the above and all other curricular and evaluation matters. Also includes many special exceptions and relaxations during online COVID semesters.

Research Organization & Academic Requirements

PHD AND MS(R)

Organizational Roles

- Supervisor: your first point of contact, most important
 - You could start with the list of prospective supervisors : [Link to file sent in the email with the invite to this orientation session.](#)
- Student Research Committee (SRC):
 - Advised to be formed within 3 months of joining.
 - comprises of supervisor, one expert from the department and one from outside the department, and a chairperson
 - gives advice in addition to the supervisor, meets you at least once every semester
 - Continuously evaluates your progress in the programme
- Departmental Research Committee (DRC)
 - Responsible for all the research scholars in the department (>400)
 - All your requests (academic or non-academic) require DRC's approval before they are considered by various higher-level functionaries in the department and institute

Steps for a Quick Start

- Area of research (thematic groups, supervisor)
 - Talk to prospective supervisors
 - If you wish, you may talk to a couple of other faculty members in your research area of interest
 - Finalize on a supervisor and a research area (thesis topic comes much later)
 - If you are joining a project sponsored position, PI of the project **will** be your supervisor

Note : MS(R) students need not register for ELD895 in their first semester.

Minimum Requirements of EE

Programme	MHRD Stipend Max. Duration for Full-time Students only (semesters)	Validity of Registration (semesters)	Mandatory Requirements	
			Course Credits	Others
MS(R)	4	(i) Full-time: 6 (ii) Part-time: 10 if joined initially as part-time, else 6	1. Full-time: must complete 15 credits by end of sem. III, sem. I min. 9 and max. 15 credits 2. Part-time: must complete 15 credits by end of sem. IV, sem. I and II min. 3 and max. 12 credits 3. If SGPA < 7 (i) if on probation, termination (ii) Put on probation	1. 36 credits from Project 2. Must get a X grade in ELD895 every sem. 3. "U" grade in any two sems. in ELD895 result in termination 4. Thesis defense 5. One publication as first author (peer reviewed preferred)
PhD	10	14	1. SGPA < 7.5, probation/termination 2. Credits before end of sem.III (i) BE/BTech/MSc Qualifying Degree: 24 (ii) ME/MTech/MSR Qualifying Degree: 12	1. Must get a X grade in DTD899 every sem. 2. Two "U" grads in any two sems. in DTD899 result in termination 3. SRC must be form within 90 days of registration 4. Written and Oral Comprehensive exams should be cleared (max. 2 chances will be given) before end of sem.III for full-time and before end of sem.IV for part-time students 5. Two publications as first author (peer-reviewed preferred) 6. Pre-PhD synopsis defense 7. PhD thesis defense

Advice on Course Credits

- Default advice
 - Course level must be 700 and above
 - Must be a lecture course, e.g. ELL7XX or ELL8XX
 - Ideally target core courses for MTech program in your thematic group or research area
 - Try to spread your course work over the allowed span
- Choice of Courses
 - Browse through the list of courses offered in the current semester (<https://eacademics.iitd.ac.in/sportal>) for courses in your area of interest.
 - You may make use of the Courses of Study document available at <https://home.iitd.ac.in/curriculum.php> to get idea of course contents.
 - Recommended : Seek advice of prospective supervisors.

Opportunities for PMRF

1. Gives very high visibility to your work and other perks
2. Those of you (PhD students) can apply
3. M.Tech/MS(R) students can also be eligible to apply, if they first migrate unconditionally to PhD programme (refer to program upgrade slide in this presentation)

Fellowships and Upgradation

Upgrade from M.Tech/MS(R) to PhD

- Earliest it can happen is after sem. I
- SGPA/CGPA > 8 and Credits > 12
- Need recommendation from Program Coordinator/SRC and then DRC for the upgrade as well as transfer of earned credits to the new programme
- Maximum duration of the PhD program will still be 14 semesters but counted from date of joining the M.Tech/MS(R) programme
- MS(R) to MTech (downgrade) is **not allowed** in EE

Special fellowships for PhD students

- The most lucrative national scheme is the **Prime Minister's Research Fellowship**, which is now also open to current first/second-year students (lateral entry channel). Please see <https://may2021.pmrf.in/> for eligibility criteria and application details.
- Many industrial fellowships, depending on area of work: offered by organisations like Google, TCS, SERB-CII (<http://www.primeministerfellowshipscheme.in/>) etc. Please see respective websites or announcements circulated from time to time.

Exit from PhD

- PhD is a long-term commitment and a lot can change over this period
- If a PhD student has earned required credits and is unable to pursue much longer, he/she can exit with an MS(R) degree by completing remaining credit and other requirements for MS(R) upon recommendation of SRC and DRC

Some Useful Links

- Rules and regulations: <https://home.iitd.ac.in/curriculum.php>
- EE Department Research Areas: <http://ee.iitd.ac.in/research.html>
- IITD Time-Table and Calendar: <http://timetable.iitd.ac.in/>
- PG Section forms for students: <https://internal.iitd.ernet.in/?q=content/forms>
- Moodle: <https://moodle.iitd.ac.in/login/index.php>
- Turnitin: https://www.turnitin.com/login_page.asp?lang=en_us

Thank You

Q & A