

**ACADEMIC AFFAIRS OFFICE
INDIAN INSTITUTE OF TECHNOLOGY ROORKEE**

No. Acd./ 8094 /UG-15

Dated: July 26 , 2019

NOTIFICATION

Subject: Restructuring in the programme structure of M.Tech. (RF and Microwave Engineering) (Item No. 79.9)

The Senate in its 79th meeting held on 19.07.2019 considered and approved the proposal of Department of Electronics & Communication Engg. to restructure the programme structure of M.Tech. (RF and Microwave Engineering).

The approved structure is enclosed herewith as **Appendix- A**.


Asstt. Registrar (Curriculum)

Encl: as above

Copy to(through e-mail):-

1. Chairman Senate & Director
2. Head, Department of Electronics & Communication Engg.
3. All faculty
4. All Head of Departments/Centres
5. Dean of Academic Affairs
6. Associate Deans of Academic Affairs (Admission/Curriculum/Evaluation)
7. Asstt. Registrar (Meetings)
8. Joint Registrar (Academics)
9. Channel I/ Academic webpage of iitr.ac.in

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**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING
INDIAN INSTITUTE OF TECHNOLOGY ROORKEE**

Program Code: **30** **M.Tech. (RF and Microwave Engineering)**
 Department: **EC** **Electronics & Communication 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
Semester- I (Autumn)														
1.	ECN-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.														
Semester-II (Spring)														
1.	ECN-701B	Dissertation Stage–II (contd. From III semester)	DIS	18	-	-	-	-	-	-	-	-	100	-
		Total		18										

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

Program Elective Courses (RF and Microwave Engineering)

PECs FOR SEMESTER-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
1.	ECN-542	Microwave Integrated Circuits	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
2.	ECN-543	High Power mm/THz Wave Engineering	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
3.	ECN-544	Advanced Radar Engineering	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
4.	ECN-539	Fiber Optic Systems	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
5.	ECN-554	Microwave and millimeter-wave Circuits	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
6.	ECN-555	Microwave Imaging	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
7.	ECN-511	Linear Algebra and Random Processes	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-

Program Elective Courses (RF and Microwave Engineering)

PECs FOR SEMESTER-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
1.	ECN-541	Computational Techniques for Microwaves	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
2.	ECN-557	RF Power Amplifier and Transmitter Design	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
3.	ECN-548	RF & Microwave MEMS	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
4.	ECN-549	RF CMOS Transceiver Design	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
5.	ECN-550	Radar Signal Processing	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
6.	ECN-551	Adaptive Beam Forming and Smart Antennas	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
7.	ECN-552	Soft Computing Techniques for RF Engineering	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
8.	ECN-516	Advanced Digital Communication Techniques	PEC	3	3	0	0	3	0	15	-	35	50	-