

**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
Semester-I (Autumn)														
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.														
Semester-II (Spring)														
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	18	18	12	18
Total Credits	66			

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	-