Master of Technology in Instrumentation and Electronics Engineering

FIRST SEMESTER

Theoretical Courses	Subjects		Periods/Weeks		Marks		Credit Points
Departmental / Specialization Basket	Subject Code	Subject Name	Lecture	Sessional	Examination	Sessional	
Paper-I	PG / IEE / T / 111A	Measurement System Design	3		100		3
	PG / IEE / T / 111B	Process Control System Design/ Synthesis					
	PG / IEE / T / 111C	Embedded Systems					
Paper-II	PG / IEE / T/ 112A	Signals and Systems	3		100		3
	PG / IEE / T/ 112B	Computer Simulation in Modeling and Analysis					
	PG / IEE / T/ 112C	Digital Communication System					
Paper-III	PG / IEE / T/ 113A	Advanced Electronic Instrumentation	3		100		3
	PG / IEE / T/ 113B	Digital Systems Design with FPGAs					
	PG / IEE / T/ 113C	Medical Instrumentation					

Note: The students have to select 3 subjects from the departmental/ specialization basket, i.e. one subject each from the list given in the baskets of Paper-I, Paper-II and Paper-III

Inter-Disciplinary Basket	Subject Code	Subject Name	Lecture	Sessional	Examination	Sessional	
Paper-IV	PG / IEE / T/ 114A	Soft Computing- Theory and Application	3		100		3
	PG / IEE / T/ 114B	Non-Destructive Testing					
		From the inter-disciplinary basket of ETCE Dept					
Paper-V	PG / IEE / T/ 115A	Calibration and Standardization Practices	3		100		3
	PG / IEE / T/ 115B	Instrumentation and Measurement Techniques					
	PG / IEE / T/ 115C	Aerospace Instrumentation					
Paper-VI	PG / IEE / T / 116A	Mathematical Methods in Instrumentation	3		100		3
	PG / IEE / T / 116B	Optimization Techniques					
	PG / IEE / T / 116C	Electro-Optics and Optoelectronics					

Note: The students have to select 3 subjects from the inter-departmental basket, i.e. one subject each from the list given in the baskets of Paper-IV, Paper-V and Paper-VI

Sessional Courses							
Sessional 1	PG / IEE / S / 111	Laboratory		4		100	3
Sessional 2	PG / IEE / S / 112	Assignment		4		100	3
			18	8	600	200	24

Total Periods/Week = 26   Total Marks = 800

SECOND SEMESTER

Theoretical Courses		Subjects	Periods/Weeks		Marks		Credit Points
Departmental / Specialization Basket	Subject Code	Subject Name	Lecture	Sessional	Examination	Sessional	
Paper-VII	PG / IEE / T/ 127A	Instrumental Analysis	3		100		3
	PG / IEE / T/ 127B	Sensors- Science and Technology					
	PG / IEE / T/ 127C	Control of Industrial Process					
Paper-VIII	PG / IEE / T/ 128A	Speech Processing	3		100		3
	PG / IEE / T/ 128B	Digital filtering and Control					
	PG / IEE / T/ 128C	Pattern Recognition					
	PG / IEE / T/ 128D	Advanced Microprocessors and Microcontrollers					
Paper-IX	PG / IEE / T/ 129A	MEMS Sensors and Actuators	3		100		3
	PG / IEE / T/ 129B	Electronic System Design					
	PG / IEE / T/ 129C	Electronic Olfaction					

Note: The students have to select 3 subjects from the departmental/ specialization basket, i.e. one subject each from the list given in the baskets of Paper-VII, Paper-VIII and Paper-IX

Inter-Disciplinary Basket	Subject Code	Subject Name	Lecture	Sessional	Examination	Sessional	
Paper-X	PG / IEE / T/ 1210A	Dynamic System Control and Optimization	3		100		3
	PG / IEE / T/ 1210B	Control System Synthesis					
	PG / IEE / T/ 1210C	Environmental Instrumentation					
	PG / IEE / T/ 1210D	Applied Fractional Order Systems					

Note: The students have the freedom to choose one subject from the list under Paper-X.

Sessional Courses							
Sessional 1	PG / IEE / S / 121	Term Paper Leading to Thesis		4		100	3
Sessional 2	PG / IEE / S / 122	Seminar		4		100	3
			12	8	400	200	18

Total Periods/Week = 20   Total Marks = 600

THIRD and FOURTH SEMESTER

Courses							
1	PG / IEE / TH / 21	Thesis Work		16		300	12
2	PG / IEE / VV/ 22	Viva-Voce on Thesis				100	
				16		400	12

Total Periods/Week =22   Total Marks = 400