

Instrumentation & Control

Semester III

Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Practical Marks		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
	Advanced Engineering Mathematics	3	2	0	5	70	30	30	20	150	17
	Digital Logic Design	4	0	2	6	70	30	30	20	150	17
	Advance Electronics	4	0	2	6	70	30	30	20	150	17
	Circuits and Networks	3	0	2	5	70	30	30	20	150	17
	Measurement & Instruments	4	0	2	6	70	30	30	20	150	17
	Simulation and Design Tools	0	0	2	2	0	0	100	50	150	17
	Total	18	2	10	30						

Semester IV

Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Practical Marks		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
	Maths - 4 or Branch specific Maths	3	2	0	5	70	30	30	20	150	17
	Engineering Economics and Management	3	0	0	3	70	30	0	0	100	17
	Electrical Machines	3	0	2	5	70	30	30	20	150	17
	Control Theory	4	0	2	6	70	30	30	20	150	17
	Industrial Measurement I	4	0	2	6	70	30	30	20	150	17
	Power Electronics	3	0	2	5	70	30	30	20	150	17
	Total	20	2	8	30						

Semester V

Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Practical Marks		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
	Open elective/Interdisciplinary	3	0	2	5	70	30	30	20	150	17
	Microcontroller & Interfacing	4	0	2	6	70	30	30	20	150	17
	Transducer & Signal Processing	3	0	2	5	70	30	30	20	150	17
	Process Control Systems	4	0	2	6	70	30	30	20	150	17
	Control System Components & IS	4	0	2	6	70	30	30	20	150	17
	Practices of Instrumentation Systems	0	0	2	2	0	0	100	50	150	17
	Total	18	0	12	30						

Semester VI

Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Practical Marks		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
	Departmental Elective - I	4	0	2	6	70	30	30	20	150	17
	Control Systems Design	4	0	2	6	70	30	30	20	150	17
	Industrial Measurement II/Analytical Instrumentation	4	0	2	6	70	30	30	20	150	17
	Analog and Digital communication	3	0	2	5	70	30	30	20	150	17
	Programmable Logic Controller	3	0	2	5	70	30	30	20	150	17
	Practices of Instrumentation Standards	0	0	2	2	0	0	100	50	150	17
	Total	18	0	12	30						

Semester VII

Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Practical Marks		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
	Departmental Elective - II	4	0	2	6	70	30	30	20	150	17
	Industrial Drives and Control	3	0	2	5	70	30	30	20	150	17
	Digital Signals and Systems	3	0	2	5	70	30	30	20	150	17
	Distributed Control Systems and SCADA	3	0	2	5	70	30	30	20	150	17
	Advance Control Theory	3	0	2	5	70	30	30	20	150	17
	Project I	0	0	4	4	0	0	100	50	150	17
	Total	16	0	14	30						

Semester VIII

Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Practical Marks		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
	Departmental Elective - III	4	0	2	6	70	30	30	20	150	17
	Project Engineering and Management	2	0	4	6	70	30	30	20	150	17
	Project II	0	0	18	18	0	0	100	50	150	17
	Total	6	0	24	30						

Department Elective I

Biomedical Instrumentation /Embedded System Design

Departmental Elective – II

Power Plant Automation/ Clinical Engineering

Departmental Elective – III

Robotics/Building Automation

Note: ALA Component, OEP Component and Design Module I, II and III (to be offered in 2nd Year , 3rd year and 4th year respectively) shall be displayed in the final teaching scheme