



PSN COLLEGE OF ENGINEERING AND TECHNOLOGY

Melathediyoor, Tirunelveli

(Approved by AICTE and Recognized by UGC Section 2 (f) and 12(B))

An ISO 9001:2015 Certified Institution

(An Autonomous Institution, Affiliated to Anna University, Chennai)



DEPARTMENT OF ELECTRONICS AND INSTRUMENTATION ENGINEERING

I – VIII SEMESTERS CURRICULUM

Regulation – 2018(UG)

SEMESTER – I

(Applicable to the students admitted from the Academic year 2018– 2019 onwards)

SL. NO.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1		Technical English	3	0	0	3
2		Elementary Mathematics for Engineers	3	0	0	3
3		Applied Physics I	3	0	0	3
4		Applied Chemistry I	3	0	0	3
5		Engineering Graphics	2	0	2	3
6		Fundamentals of Computers and Python Programming	3	0	0	3
PRACTICAL						
1		Applied Physics & Chemistry Lab – I	0	0	3	2
2		Computer Lab	0	0	3	2
3		Workshop Practice	0	0	3	2
TOTAL			17	0	11	24

*Lab component related to the theory paper – No End Semester Practical Examination

SEMESTER – II

(Applicable to the students admitted from the Academic year 2018– 2019 onwards)

SL. NO.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1		Business Communication and Presentation Skills	3	0	0	3
2		Engineering Mathematics – I	3	0	0	3
3		Applied Physics II	3	0	0	3
4		Applied Chemistry II	3	0	0	3
5		Engineering Mechanics	3	0	0	3
6		Programming in C	2	0	0	2
7		Basic Engineering	2	0	0	2
PRACTICAL						
1		Applied Physics & Chemistry Lab II	0	0	3	2
2		C Programming Lab	0	0	2	1
3		Basic Electrical and Electronics Lab	0	0	3	2
TOTAL			19	0	8	24

*Lab component related to the theory paper – No End Semester Practical Examination

SEMESTER – III

(Applicable to the students admitted from the Academic year 2018– 2019 onwards)

SL. NO.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1		Engineering Mathematics II	3	1	0	4
2		Digital Logic Circuits	2	1	0	3
3		Electrical Machines	3	0	0	3
4		Electric Circuits and Networks*	2	0	2	4
5		Electronic Devices and Circuits	3	0	0	3
6		Electrical Measurements	3	0	0	3

PRACTICAL						
1		Electronic Devices and Circuits Laboratory	0	0	3	2
2		Electrical Machines Laboratory	0	0	3	2
3		English Language Lab for Engineers	0	0	2	1
4		Career Skill Development Training- I	0	0	2	1
TOTAL			17	2	12	26
MANDATORY COURSE						
1		Environmental Studies	2	0	0	2

*Lab component related to the theory paper – No End Semester Practical Examination

SEMESTER IV

(Applicable to the students admitted from the Academic year 2018– 2019 onwards)

SL. NO.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1		Engineering Mathematics III	3	1	0	4
2		Industrial Instrumentation – I	3	0	0	3
3		Transducer Engineering	3	0	0	3
4		Thermodynamics and Fluid Mechanics	3	0	0	3
5		Analog Integrated Circuits	3	0	0	3
6		Object Oriented Programming*	2	0	2	3
PRACTICAL						
1		Analog and Digital Integrated Circuits Laboratory	0	0	3	2
2		Thermodynamics and Fluid Mechanics Laboratory	0	0	3	2
3		Transducers and Measurements Laboratory	0	0	3	2
4		Career Skill Development Training- II	0	0	2	1
TOTAL			17	1	13	26

*Lab component related to the theory paper – No End Semester Practical Examination

SEMESTER V

(Applicable to the students admitted from the Academic year 2018 – 2019 onwards)

SL. NO.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1		Numerical Methods	3	0	0	3
2		Modern Electronic Instrumentation	3	0	0	3
3		Control System Engineering	3	1	0	4
4		Analytical Instrumentation	3	0	0	3
5		Industrial Instrumentation – II	3	0	0	3
6	E1	Elective-I	3	0	0	3
7		Open Elective-I	3	0	0	3
PRACTICAL						
1		Industrial Instrumentation Laboratory	0	0	3	2
2		Control system Laboratory	0	0	2	2
3		Career Skill Development Training- III	0	0	2	1
TOTAL			21	1	7	27
MANDATORY COURSE						
1		Human Rights and Value Education	2	0	0	2

SEMESTER VI

(Applicable to the students admitted from the Academic year 2018– 2019 onwards)

SL. NO.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1		Microprocessor and Microcontroller	3	0	0	3
2		Process Control	3	1	0	4
3		Digital Signal Processing	3	1	0	4
4		Power Plant Instrumentation	3	0	0	3
5	E2	Elective – II	3	0	0	3
6		Open Elective-II	3	0	0	3

PRACTICAL						
1		Process Control Laboratory	0	0	3	2
2		Microprocessor and Microcontroller Laboratory	0	0	3	2
3		Career Skill Development Training- IV	0	0	2	1
TOTAL			18	2	8	25

SEMESTER VII

(Applicable to the students admitted from the Academic year 2018– 2019 onwards)

SL. NO.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1		Computer Control of Processes	3	0	0	3
2		Virtual Instrumentation	3	0	2	3
3		Instrumentation System Design	3	0	0	3
4		Embedded Systems	3	0	0	3
5	E3	Elective – III	3	0	0	3
6	E4	Elective-IV	3	0	0	3
7		Logic and Distributed Control Systems	3	0	0	3
PRACTICAL						
2		Instrumentation System Design Laboratory	0	0	3	2
3		Mini Project	0	0	3	2
TOTAL			21	0	8	25
MANDATORY COURSE						
1		Internship Training	2	0	0	2

SEMESTER VIII

(Applicable to the students admitted from the Academic year 2018 – 2019 onwards)

SL. NO.	COURSE CODE	COURSE TITLE	L	T	P	C
PRACTICAL						
1		Project Work	0	0	20	6
TOTAL			0	0	20	6

B.E ELECTRONICS AND INSTRUMENTATION ENGINEERING

LIST OF ELECTIVES – R 2018

ELECTIVE I

SL. NO.	COURSE CODE	COURSE TITLE	L	T	P	C
1		Professional Ethics in Engineering	3	0	0	3
2		Industrial Electronics	3	0	0	3
3		Industrial Data Networks	3	0	0	3
4		Cyber Security in Industrial Automation	3	0	0	3
5		Building Automation System	3	0	0	3
6		Communication Engineering	3	0	0	3
7		Piping and Instrumentation Diagrams	1	0	0	1
8		Design of Powder filling Machine	1	0	0	1
9		Calibration techniques	1	0	0	1

ELECTIVE II

SL. NO.	COURSE CODE	COURSE TITLE	L	T	P	C
1		Biomedical Instrumentation	3	0	0	3
2		Robotics and Automation	3	0	0	3
3		Instrumentation and Control in Paper Industry	3	0	0	3
4		Reliability and Safety Engineering	3	0	0	3
5		Automotive Electronics	3	0	0	3
6		IoT based Instrumentation	3	0	0	3
7		Principles of Management	2	0	0	2
8		Design of Linear Weighing Machine	1	0	0	1
9		VFD based Industrial Applications	1	0	0	1

ELECTIVE III

SL. NO.	COURSE CODE	COURSE TITLE	L	T	P	C
1		Fibre Optics and Laser Instruments	3	0	0	3
2		Instrumentation in Petrochemical Industries	3	0	0	3
3		MEMS and Nano Technology	3	0	0	3
4		Advanced Instrumentation Systems	3	0	0	3
5		Intellectual Property	3	0	0	3
6		Instrumentation and Control in Iron and Steel Industries	3	0	0	3
		Marine Instrumentation and Systems	1	0	0	1
		Opto Electronic Devices	1	0	0	1
		Motion Control Systems	1	0	0	1

ELECTIVE IV

SL. NO.	COURSE CODE	COURSE TITLE	L	T	P	C
1		Process Modeling analysis and	3	0	0	3

		simulation				
2		Modern Control System	3	0	0	3
3		Instrumentation in Aerospace and Navigation	3	0	0	3
4		Applied Soft Computing	3	0	0	3
5		SCADA and HMI	3	0	0	3
6		Personal Computer Systems and Interfacing	3	0	0	3
7		Electrical Metrology	1	0	0	1
8		Analytical Instruments for Material Characterization	1	0	0	1
9		Standard Practices for Power Plant Instrumentation	1	0	0	1

LIST OF OPEN ELECTIVES – R 2018

SL. NO.	COURSE CODE	COURSE TITLE	L	T	P	C
1		Sensors and Actuators	3	0	0	3
2		Electric Vehicles	3	0	0	3
3		Industrial Instrumentation	3	0	0	3
4		Process Control and Automation	3	0	0	3

CARRIER SKILL DEVELOPMENT III

S.NO.	SUB CODE	SUBJECT NAME	L	T	P	C
THEORY						
1		Fundamentals of MATLAB	0	0	2	1

CARRIER SKILL DEVELOPMENT IV

S.NO.	SUB CODE	SUBJECT NAME	L	T	P	C
THEORY						
1		Embedded Programming using ARDUINO board / PIC Microcontrollers	0	0	2	1

