



# PSN College of Engineering and Technology

Melathediyoor, Tirunelveli

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

An ISO 9001:2008 Certified Institution

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

## DEPARTMENT OF ELECTRONICS AND INSTRUMENTATION ENGINEERING

### III – VIII SEMESTERS CURRICULUM

#### Regulation – 2014(UG)

#### SEMESTER – III

(Applicable to the students admitted from the Academic year 2014– 2015 onwards)

SL. NO	COURSE CODE	COURSE TITLE	L	T	P	C
<b>THEORY</b>						
1	201001	Applied Mathematics II	4	0	0	4
2	206001	Thermodynamics and Fluid Mechanics	3	0	0	3
3	206002	Electrical Machines	3	1	0	4
4	206003	Electric Circuits and Networks*	2	0	2	3
5	204004	Electronic Devices and Circuits	3	0	0	3
6	206004	Electrical Measurements	3	0	0	3
<b>PRACTICAL</b>						
1	206101	Thermodynamics and Fluid Mechanics Laboratory	0	0	3	2
3	206102	Electrical Machines Laboratory	0	0	3	2
<b>TOTAL</b>			18	1	8	24
<b>MANDATORY COURSE</b>						
1	201801	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 2014– 2015 onwards)

SL. NO	COURSE CODE	COURSE TITLE	L	T	P	C
<b>THEORY</b>						
1		Applied Mathematics III	4	0	0	4
2		Industrial Instrumentation – 1	3	0	0	3
3		Sensors and Transducers	3	0	0	3
4		Digital Logic Circuits	3	1	0	4
5		Linear Integrated Circuits and Applications	3	0	0	3
6		Data Structures and Object Oriented Programming in C++	3	0	0	3
<b>PRACTICAL</b>						
1		Electronic Devices and Circuits Laboratory	0	0	3	2
2		Linear and Digital Integrated Circuits Laboratory	0	0	3	2
3		Data Structures and Object Oriented Programming Laboratory	0	0	3	2
<b>TOTAL</b>			19	1	9	26

**SEMESTER V**

(Applicable to the students admitted from the Academic year 2014 – 2015 onwards)

SL. NO	COURSE CODE	COURSE TITLE	L	T	P	C
<b>Theory</b>						
1		Modern Electronic Instrumentation	3	0	0	3
2		Industrial Automation	3	0	0	3
3		Control Systems	3	1	0	4
4		Analytical Instruments	3	0	0	3
5		Industrial Instrumentation – II	3	0	0	3
6		Open Elective	4	0	0	4
<b>PRACTICAL</b>						
1		Transducers and Measurements Laboratory	0	0	3	2
3		Industrial Instrumentation Laboratory	0	0	3	2
<b>TOTAL</b>			<b>19</b>	<b>1</b>	<b>6</b>	<b>24</b>
<b>MANDATORY COURSE</b>						
1		Human Rights and Legislative Procedures	2	0	0	2

**SEMESTER VI**

(Applicable to the students admitted from the Academic year 2014– 2015 onwards)

SL. NO	COURSE CODE	COURSE TITLE	L	T	P	C
<b>THEORY</b>						
1		Microprocessor and Microcontroller	3	0	0	3
2		Process Control	3	1	0	4
3		Digital Signal Processing	3	1	0	4
4		Fibre Optics and Laser Instruments	3	0	0	3
5	E1	Elective – I	3	0	0	3
6		Open Elective	4	0	0	4
<b>PRACTICAL</b>						
1		Process Control Laboratory	0	0	3	2
2		Microprocessor and Microcontroller Laboratory	0	0	3	2
<b>TOTAL</b>			<b>19</b>	<b>2</b>	<b>6</b>	<b>25</b>

**SEMESTER VII**

(Applicable to the students admitted from the Academic year 2014– 2015 onwards)

SL. NO	COURSE CODE	COURSE TITLE	L	T	P	C
<b>THEORY</b>						
1		Computer Control of Processes	3	0	0	3
2		Virtual Instrumentation*	2	0	2	3
3		VLSI Design	3	0	0	3
4		Biomedical Instrumentation	3	0	0	3
5	E2	Elective – II	3	0	0	3
6		Professional Ethics in Engineering	3	0	0	3
<b>PRACTICAL</b>						
1		VLSI Laboratory	0	0	3	2
2		Instrumentation System Design Laboratory	0	0	3	2
3		Comprehension	0	0	3	1
TOTAL			17	0	11	23
<b>MANDATORY COURSE</b>						
1		Technical Communication and Soft Skills	2	0	0	2

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

**SEMESTER VIII**

(Applicable to the students admitted from the Academic year 2014 – 2015 onwards)

SL. NO	COURSE CODE	COURSE TITLE	L	T	P	C
<b>THEORY</b>						
1	E3	Elective – III	3	0	0	3
2	E4	Elective – IV	3	0	0	3
<b>PRACTICAL</b>						
1		Project Work	0	0	20	6
TOTAL			6	0	20	12

**B.E ELECTRONICS AND INSTRUMENTATION ENGINEERING****LIST OF ELECTIVES – R 2014****ELECTIVE I**

SL. NO	COURSE CODE	COURSE TITLE	L	T	P	C
1		Artificial Intelligence	3	0	0	3
2		Applied Soft Computing	3	0	0	3
3		Operating Systems	3	0	0	3
4		Computer Organization and Architecture	3	0	0	3
5		Industrial Electronics	3	0	0	3
6		Industrial Data Networks	3	0	0	3

**ELECTIVE II**

SL. NO	COURSE CODE	COURSE TITLE	L	T	P	C
1		Embedded Systems	3	0	0	3
2		Robotics and Automation	3	0	0	3
3		Ultrasonic Instrumentation	3	0	0	3
4		Instrumentation and Control in Paper Industry	3	0	0	3
5		Instrumentation System Design	3	0	0	3
6		Total Quality Management	3	0	0	3

**ELECTIVE III**

SL. NO	COURSE CODE	COURSE TITLE	L	T	P	C
1		Power Plant Instrumentation	3	0	0	3
2		Instrumentation in Petrochemical Industries	3	0	0	3
3		MEMS and Nano Technology	3	0	0	3
4		Satellite Instrumentation	3	0	0	3
5		Bioinformatics	3	0	0	3
6		Instrumentation and Control in Iron and Steel Industries	3	0	0	3

**ELECTIVE IV**

SL. NO	COURSE CODE	COURSE TITLE	L	T	P	C
1		Principles of Management	3	0	0	3
2		Modern Control System	3	0	0	3
3		Instrumentation in Aerospace and Navigation	3	0	0	3
4		Optimization Techniques	3	0	0	3
5		SCADA and HMI	3	0	0	3
6		Personal Computer Systems and Interfacing	3	0	0	3

**LIST OF OPEN ELECTIVES – R 2014**

SL. NO	COURSE CODE	COURSE TITLE	L	T	P	C
1.		Transducers and Smart Instruments	4	0	0	4
2.		Medical Informatics	4	0	0	4
3.		Fundamentals of MEMS	4	0	0	4