

# PSN COLLEGE OF ENGINEERING AND TECHNOLOGY



(Autonomous Institution)

Approved by AICTE, Affiliated to ANNA University, Chennai and Recognized by UGC  
u/s 2(f)

Melathediyoor, Palayamkottai (TK), Tirunelveli (Dt),

Pin: 627 152

An ISO 9001: 2008 Certified Institution

**DEPARTMENT OF MECHANICAL & AUTOMATION  
ENGINEERING**

## **B.E – MECHANICAL & AUTOMATION ENGINEERING (Regulation 2014 - Full Time) CURRICULUM**

### SEMESTER- III

S. No	Code No.	Paper	L	T	P	C
<b>THEORY</b>						
1		Applied Mathematics – II (Differential Equation & Fourier series)	4	0	0	4
2		Thermal Science	3	1	0	4
3		Fluid Mechanics and Machinery	4	0	0	4
4		Production Technology	3	0	0	3
5		Electrical Drives and Control	3	0	0	3
6		Solids Mechanics	3	1	0	4
<b>PRACTICAL</b>						
1		Dynamics Lab	0	0	3	2
2		LAN & Networking Lab	0	0	3	2
3		Electronics and Microprocessors Lab	0	0	3	2
		<b>TOTAL</b>	<b>18</b>	<b>3</b>	<b>9</b>	<b>28</b>
<b>Mandatory course</b>						
		Environmental studies	2	0	0	2*
* Mandatory courses are non credit courses, pass is must to qualify for degree						

## IV SEMESTER

S. No	Code No.	Paper	L	T	P	C
<b>THEORY</b>						
1		Applied Mathematics – III (Transformation Techniques & Application of PDEs.)	4	0	0	4
2		Mechanics of Machines	3	0	0	3
3		Manufacturing Machines	3	0	0	3
4		Engineering Materials and Metallurgy	3	0	0	3
5		LAN & Networking	3	0	0	3
6		Electronics & Microprocessors	3	0	0	3
<b>PRACTICAL</b>						
7		Dynamics Lab	0	0	3	2
8		LAN & Networking Lab	0	0	3	2
9		Electronics and Microprocessors Lab	0	0	3	2
<b>TOTAL</b>			<b>18</b>	<b>3</b>	<b>9</b>	<b>25</b>

## V SEMESTER

S. No	Code No.	Paper	L	T	P	C
<b>THEORY</b>						
1		Applied Mathematics – IV (Probability & Statistics)	4	0	0	4
2		Integrated Machine Elements	4	0	0	4
3		Engineering Metrology & Measurements	3	0	0	3
4		Industrial Engineering And Maintenance	3	0	0	3
5		Control System Engineering	3	0	0	3
6		Open Elective-I				
* Mandatory courses are non credit courses, pass is must to qualify for degree						
<b>PRACTICAL</b>						
7		Metrology & Measurements Lab	0	0	3	2
8		Control System Engineering Lab	0	0	3	2
9		Thermal Science Lab.	0	0	3	2
<b>TOTAL</b>			<b>18</b>	<b>3</b>	<b>9</b>	<b>26</b>
<b>Mandatory Course</b>						
		Value Education Human rights and Legislative Procedures.	2	0	0	2*
*Mandatory courses are non credit courses, pass is must to qualify for degree						

## VI SEMESTER

S. No	Code No.	Paper	L	T	P	C
<b>THEORY</b>						
1		Operation Research	4	0	0	4
2		Heat and Mass Transfer and Applications	3	0	2	4
3		Computer Integrated Manufacturing	3	0	0	3
4		Fluid Power Transmission System	3	0	0	3
5		Open Elective - II	3	1	0	4
6		Elective – I	2	0	0	2
<b>PRACTICAL</b>						
7		Computer Aided Design Lab	0	0	3	2
8		Automation Laboratory	0	0	3	2
		English Language Lab for Engineers	0	0	3	2
<b>TOTAL</b>			<b>18</b>	<b>3</b>	<b>9</b>	<b>26</b>

## VII SEMESTER

S. No	Code No.	Paper	L	T	P	C
<b>THEORY</b>						
1		Total Quality Management	3	0	0	3
2		Finite Element Analysis	3	0	0	3
3		Mechatronics	3	0	0	3
4		Industrial Automation and Robotics	3	0	0	3
5		Elective – II	2	0	0	2
6		Elective - III	3	0	0	3
<b>PRACTICAL</b>						
7		Finite Element Analysis Lab	0	0	3	2
8		Mechatronics Lab	0	0	3	2
9		Design and Fabrication Project	0	0	3	2
<b>TOTAL</b>			<b>18</b>	<b>3</b>	<b>9</b>	<b>23</b>
<b>Mandatory Course</b>						
		Energy Studies	2	0	0	2*
*Mandatory course No credit only pass is must to qualify for degree						

**VIII SEMESTER**

S. No	Code No.	Paper	L	T	P	C
<b>THEORY</b>						
2		Elective – IV	3	0	0	3
3		Elective – V	3	0	0	3
<b>PRACTICAL</b>						
4		Project Work	0	0	18	6
		<b>TOTAL</b>	<b>6</b>	<b>0</b>	<b>18</b>	<b>12</b>

**OPEN ELECTIVES**

S. No	Code No.	Paper	L	T	P	C
2		Non Destructive Examination	3	0	0	3
3		Industrial Automation & Robotics	3	0	0	3
4		Industrial Safety	3	0	0	3

**ELECTIVES**

S. No	Code No.	Paper	L	T	P	C	Periods
<b>SIXTH SEMESTER</b> (Elective – I)							
1		Metal Cutting & Tool Design	3	0	0	3	45
2		Vibration and Noise Control	3	0	0	3	45
3		Design of Jigs, Fixtures & Press Tools	3	0	0	3	45
4		Computational Fluid Dynamics	3	0	0	3	45
5		Nuclear Engineering	3	0	0	3	45
6		Product Design and Costing	3	0	0	3	45
<b>SEVENTH SEMESTER</b> (Elective – II & III)							
1		Refrigeration & Air – Conditioning	3	0	0	3	45
2		Renewable Sources of Energy	3	0	0	3	45
3		Failure Mode Effect Analysis	3	0	0	3	45
4		Non Destructive Testing	3	0	0	3	45
5		Concepts of Engineering Design	3	0	0	3	45
6		Maintenance Engineering	3	0	0	3	45
<b>EIGHT SEMESTER</b> (Elective – IV & V)							
1		Non - Traditional Machining Process	3	0	0	3	45
2		Quality control & Reliability Engineering	3	0	0	3	45
3		Process Planning & Cost Estimation	3	0	0	3	45
4		Composite Materials	3	0	0	3	45
5		Micro Electro Mechanical System	3	0	0	3	45
6		Entrepreneurship Development	3	0	0	3	45