B. Tech. Curricula w.e.f 2013 - 14

- ➢ **Civil Engineering**
- ➢ **Computer Science & Engineering**
- ➢ **Electrical Engineering**
- ➢ **Mechanical Engineering**
- ➢ **Metallurgical and Materials Engineering**

Common Curriculum for B. Tech. Programmes – First Year

Subject Name	Code	L-T-P	Credit	Contact Hour
SEMESTER - I				
Mathematics – I	**MA1L001**	3-1-0	4	4
Physics / Chemistry	**PH1L001 / CY1L001**	3-1-0	4	4
Mechanics / English for Communications or Learning English	**ME1L001 / HS1L001 or HS1L002**	3-1-0/3-0-2 or 3-1-0	4	4/5 or 4
Electrical Technology / Introduction to Programing and Data Structures	**EE1L001 / CS1L001**	3-1-0	4	4
Introduction to Manufacturing Processes / Engineering Drawing and Graphics	**ME1P001 / CE1P001**	0-0-3/1-0-3	2/3	3/4
Physics Laboratory / Chemistry Laboratory	**PH1P001 / CY1P001**	0-0-3	2	3
Electrical Technology Laboratory / Introduction to Programing and Data Structures Laboratory	**EE1P001 / CS1P001**	0-0-3	2	3
EAA – 1	**ID1T001**	0-0-3	1	3
		Total	**22/ 23 +1**	**25/ 27 or 26+3**
SEMESTER - II				
Mathematics – II	**MA1L002**	3-1-0	4	4
Chemistry / Physics	**CY1L001 / PH1L001**	3-1-0	4	4
English for Communication or Learning English / Mechanics	**HS1L001 or HS1L002 / ME1L001**	3-0-2 or 3-1-0/3-1-0	4	5 or 4/4
Introduction to Programing and Data Structures / Electrical Technology	**CS1L001 / EE1L001**	3-1-0	4	4
Chemistry Laboratory / Physics Laboratory	**CY1P001 / PH1P001**	0-0-3	2	3
Introduction to Programing and Data Structures Laboratory / Electrical Technology Laboratory	**CS1P001 / EE1P001**	0-0-3	2	3
Engineering Drawing and Graphics / Introduction to Manufacturing Processes	**CE1P001 / ME1P001**	1-0-3/0-0-3	3/2	4/3
EAA – 2	**ID1T002**	0-0-3	1	3
		Total	**23/22+1**	**27or 26/ 25 +3**

Curriculum for B. Tech. (Civil Engineering)

Subject Name	Code	L-T-P	Credit	Contact Hour
SEMESTER - III				
Introduction to Material Science and Engineering	**ID2L001**	2-0-0	2	2
Introduction to Bioscience and Technology	**BS2L001**	2-0-0	2	2
Basic Electronics		3-1-0	4	4
Mathematics – 3 (Probability, Statistics & Stochastic Processes)	**MA2L003**	3-1-0	4	4
Solid Mechanics	**CE2L001**	3-1-0	4	4
Surveying	**CE2L002**	3-0-0	3	3
Basic Electronics Laboratory		0-0-3	2	3
Surveying Practice	**CE2P001**	0-0-3	2	3
Project Seminar	**CE2S001**	0-0-0	2	0
		Total	**25**	**25**
SEMESTER – IV				
Lateral 1			3/4	3/4
Breadth-1			3/4	3/4
Environmental Science, Technology and Management	**ID3L003**	2-0-0	2	2
Introduction to Civil Engineering and Construction Materials	**CE2L003**	3-0-0	3	3
Structural Analysis	**CE2L004**	3-1-0	4	4
Hydraulics	**CE2L005**	3-1-0	4	4
Transportation Engineering	**CE2L006**	3-0-0	3	3
Transportation Engineering Laboratory	**CE2P001**	0-0-3	2	3
		Total	**24/26**	**25/27**
SEMESTER - V				
Lateral 2			3/4	3/4
Breadth-2			3	3
Design of Reinforced Concrete Structures	**CE3L001**	3-1-0	4	4
Soil Mechanics	**CE3L002**	3-1-0	4	4
Water Resources Engineering	**CE3L003**	3-0-0	3	3
Structural Engineering Laboratory	**CE3P001**	0-0-3	2	3
Soil Mechanics Laboratory	**CE3P002**	0-0-3	2	3
Water Resources Engineering Laboratory	**CE3P003**	0-0-3	2	3
		Total	**23/24**	**26/27**
SEMESTER - VI				
Lateral 3			3	3
Breadth - 3			3	3
Design of Steel Structures	**CE3L004**	3-0-0	3	3
Foundation Engineering	**CE3L005**	3-0-0	3	3
Water and Wastewater Engineering	**CE3L006**	3-1-0	4	4
Civil Engineering Drawing and Estimation	**CE3P004**	0-0-3	2	3
Structural Design and Detailing	**CE3P005**	0-0-6	4	6
Water and Wastewater Engineering Laboratory	**CE3P006**	0-0-3	2	3
		Total	**24**	**28**
INDUSTRIAL SUMMER TRAINING AFTER 6th SEMESTER				

Subject Name	Code	L-T-P	Credit	Contact Hour
SEMESTER - VII				
Breadth - 4			3/4	3/4
Elective – 1	**CE4LXXX**		3	3
Elective – 2	**CE4LXXX**		3	3
Elective – 3	**CE4LXXX**		3	3
CAD Laboratory	**CE4P001**	0-0-3	2	3
Industrial Training Defense	**CE4T001**	0-0-0	2	0
Project – Part 1	**CE4D001**	0-0-0	4	0
		Total	**20/21**	**15/16**
SEMESTER - VIII				
Elective – 4	**CE4LXXX**		3	3
Elective – 5	**CE4LXXX**		3	3
Elective – 6	**CE4LXXX**		3	3
Elective – 7	**CE4LXXX**		3/4	3/4
Project – Part 2	**CE4D002**	0-0-0	6	0
		Total	**18/19**	**12/13**
	Grand Total		**179/ 184**	
		*Excluding EAA-1 & 2		

Curriculum for B. Tech. (Electrical Engineering)

Subject Name	Subject Code	L-T-P	Credit	Contact Hour
SEMESTER - III				
Introduction to Electronics	EC2L001	3-1-0	4	4
Introduction to Material Science and Engineering	ID2L001	2-0-0	2	2
Introduction to Bioscience and Technology	BS2L001	2-0-0	2	2
Probability Statistics and Stochastic Processes	MA2L003	3-1-0	4	4
Signals and Systems	EC2L002	3-1-0	4	4
Breadth – 1		3-0-0	3	3
Introduction to Electronics Laboratory	EC2P001	0-0-3	2	3
Signals and Systems Laboratory	EC2P002	0-0-3	2	3
Project Seminar	EE2S001	0-0-0	2	0
		Total	**25**	**28**
SEMESTER – IV				
Lateral -1			3/4	3/4
Breadth – 2			3/4	3/4
Environmental Science Technology and Management	ID2L003	2-0-0	2	2
Analog Electronics Circuits	EC2L003	3-1-0	4	4
Digital Electronics Circuits	EC2L004	3-1-0	4	4
Network Theory	EE2L001	3-1-0	4	4
Analog Electronics Circuits Laboratory	EC2P003	0-0-3	2	3
Digital Electronics Circuits Laboratory	EC2P004	0-0-3	2	3
		Total	**24/26**	**26/28**
SEMESTER – V				
Lateral - 2			3/4	3/4
Electric Machines	EE3L001	3-1-0	4	4
Communication Engineering	EC3L001	3-1-0	4	4
Measurement and Electronic Instruments	EE3L002	3-0-0	3	3
Electromagnetic Engineering	EC3L002	3-0-0	3	3
Electric Machines Laboratory	EE3P001	0-0-3	2	3
Communication Engineering Laboratory	EC3P001	0-0-3	2	3
Measurement and Electronic Instruments Laboratory	EE3P001	0-0-3	2	3
		Total	**23/24**	**26/27**
SEMESTER - VI				
Lateral -3			3/4	3/4
Breadth – 3			3	3
Control Systems	EE3L003	3-1-0	4	4
Digital Signal Processing	EC3L003	3-1-0	4	4
Power Electronics	EE3L004	3-1-0	4	4
Control Systems Laboratory	EE3P002	0-0-3	2	3
Digital Signal Processing Laboratory	EC3P002	0-0-3	2	3
Power Electronics Laboratory	EE3P003	0-0-3	2	3
		Total	**24/25**	**27/28**

Subject Name	Subject Code	L-T-P	Credit	Contact Hour
SEMESTER - VII				
Power Systems	**EE4L001**	3-1-0	4	4
Elective – 1		3-0-0	3	3
Elective – 2		3-0-0	3	3
Breadth – 4			3/4	3/4
Power Systems Laboratory	**EE4P001**	0-0-3	2	3
Industrial Training Defence	**EE4T001**	0-0-0	2	0
Project- Part 1	**EE4D001**	0-0-0	4	0
		Total	**21/22**	**16/17**
SEMESTER - VIII				
Elective – 3		3-0-0	3	3
Elective – 4		3-0-0	3	3
Elective – 5		3-0-0	3	3
Elective – 6		3-0-0	3	3
Project- Part 2	**EE4D002**	0-0-0	6	0
		Total	**18**	**12**
		G. Total	**180/185**	
			Excluding EAA-1 & 2	

Curriculum for B. Tech. (Computer Science and Engineering)

Subject Name	Subject Code	L-T-P	Credit	Contact Hour
SEMESTER - III				
Introduction to Electronics	EC2L001	3-1-0	4	4
Introduction to Material Science and Engineering	ID2L001	2-0-0	2	2
Introduction to Bioscience and Technology	BS2L001	2-0-0	2	2
Probability Statistics and Stochastic Processes	MA2L003	3-1-0	4	4
Signals and Systems	EC2L002	3-1-0	4	4
Breadth – 1		3-0-0	3	3
Introduction to Electronics Laboratory	EC2P001	0-0-3	2	3
Signals and Systems Laboratory	EC2P002	0-0-3	2	3
Project Seminar	EE2S001	0-0-3	2	0
		Total	25	28
SEMESTER – IV				
Lateral -1			3/4	3/4
Breadth – 2			3/4	3/4
Environmental Science Technology and Management	ID2L003	2-0-0	2	2
Combinatory, Probability and Statistics	MA2L006	3-1-0	4	4
Design and Analysis of Algorithms	CS2L002	3-1-0	4	4
Digital Electronics Circuits	EC2L004	3-1-0	4	4
Design and Analysis of Algorithms Laboratory	CS2P001	0-0-3	2	3
Digital Electronics Circuits Laboratory	EC2P004	0-0-3	2	3
		Total	24/26	26/28
SEMESTER – V				
Lateral -2			3/4	3/4
Breadth-3			3	3
Formal Languages and Automata Theory	CS3L001	3-1-0	4	4
Computer Organization and Architecture	CS3L002	4-0-0	4	4
Database Systems	CS3L003	3-1-0	4	4
Computer Organization and Architecture Laboratory	CS3P001	0-0-3	2	3
Database Systems Laboratory	CS3P002	0-0-3	2	3
		Total	22/23	24/25
SEMESTER - VI				
Lateral -3			3/4	3/4
Operating Systems	CS3L005	4-0-0	4	4
Computer Networks	CS3L006	3-1-0	4	4
Elective-1		3-0-3	5	6
Operating Systems Laboratory	CS3P003	0-0-3	2	3
Computer Networks Laboratory	CS3P004	0-0-3	2	3
		Total	20/21	23/24

Subject Name	Subject Code	L-T-P	Credit	Contact Hour
SEMESTER - VII				
Compiler Design	**CS4L001**	3-1-0	4	4
Elective-2		3-0-3	5	6
Elective-3		3-0-0	3	3
Elective-4		3-0-0	3	3
Compiler Design Laboratory	**CS4P001**	0-0-3	2	3
Industrial Training Defense	**CS4T001**	0-0-0	2	0
Project- Part 1	**CS4D001**	0-0-0	4	0
		Total	**23**	**19**
SEMESTER - VIII				
Breadth-4			3/4	3/4
Elective-5		3-0-0	3	3
Elective-6		3-0-0	3	3
Project-Part 2	**CS4D002**	0-0-0	6	0
		Total	**15/16**	**9/10**
		G. Total	**174/179**	
			Excluding EAA-1 & 2	

Curriculum for B. Tech. (Mechanical Engineering)

Subject Name	Subject Code	L-T-P	Credit	Contact Hour
SEMESTER - III				
Theory of Machines - I	**ME2L001**	3-1-0	4	4
Basic Electronics	**EC2L005**	3-1-0	4	4
Transform Calculus (*Mathematics – V*)	**MA2L005**	3-0-0	3	3
Introduction to Material Science and Engineering	**ID2L001**	2-0-0	2	2
Introduction to Bioscience and Technology	**BS2L001**	2-0-0	2	2
Fluid Mechanics	**ME2L002**	3-1-0	4	4
Workshop Processes	**ME2P001**	0-0-3	2	3
Basic Electronics Laboratory	**EC2P005**	0-0-3	2	3
Fluid Mechanics Laboratory	**ME2P002**	0-0-3	2	3
Project Seminar	**ME2S001**	0-0-0	2	0
		Total	**27**	**28**
SEMESTER – IV				
Thermodynamics	**ME2L003**	3-0-0	3	3
Partial Differential Equations (*Mathematics – IV*)	**MA2L004**	3-1-0	4	4
Environmental Science, Technology and Management	**ID3L003**	2-0-0	2	2
Breadth-1			3/4	3/4
Mechanics of Solids	**ME2L004**	3-1-0	4	4
Theory of Machines - II	**ME2L005**	3-1-0	4	4
Lateral - 1			3/4	3/4
Machines & Mechanisms Laboratory	**ME2P003**	0-0-3	2	3
Materials Testing Laboratory	**ME2P004**	0-0-3	2	3
		Total	**27/29**	**29/31**
SEMESTER – V				
Lateral Theory-2			3/4	3/4
Heat Transfer	**ME3L001**	3-1-0	4	4
Design of Machine Elements	**ME3L002**	3-0-0	3	3
Casting, Welding and Forming	**ME3L003**	3-0-0	3	3
Systems & Control	**ME3L004**	3-0-0	3	3
Thermo-Fluid Lab - 1	**ME3P001**	0-0-3	2	3
Casting, Welding and Forming Laboratory	**ME3P002**	0-0-3	2	3
Machine Design Practice	**ME3P003**	0-0-3	2	3
		Total	**22/23**	**25/26**
SEMESTER - VI				
Lateral Theory-3	**ME3LXXX**		3/4	3/4
IC Engines	**ME3L005**	3-0-0	3	3
Refrigeration & Air-Conditioning	**ME3L006**	3-0-0	3	3
Elective-1	**ME3LXXX**	3-0-0	3	3
Machine Tool & Machining (MTM)	**ME3L007**	3-0-0	3	3
Power Plant Engineering	**ME3L008**	3-0-0	3	3
Thermo-Fluid Lab - 2	**ME3P004**	0-0-3	2	3
MTM Laboratory	**ME3P005**	0-0-3	2	3
		Total	**22/23**	**24/25**
INDUSTRIAL SUMMER TRAINING				

Subject Name	Subject Code	L-T-P	Credit	Contact Hour
SEMESTER - VII				
Elective - 2	**ME4LXXX/ME6LXXX**	3-0-3	5	6
Elective – 3	**ME4LXXX/ME6LXXX**	3-0/1-0	3/4	3/4
Breadth - 2		3-0/1-0	3/4	3/4
Industrial Training Defense	**ME4T001**	0-0-0	2	0
Project – Part 1	**ME4D001**	0-0-0	4	0
		Total	**17/19**	**12/14**
SEMESTER - VIII				
Breadth - 3		3-0-0	3	3
Breadth - 4		3-0-0	3	3
Elective – 4	**ME4LXXX/ ME6LXXX**	3-0/1-0	3/4	3/4
Elective – 5	**ME4LXXX/ ME6LXXX**	3-0-0	3	3
Project – Part 2	**ME4D002**	0-0-0	6	0
		Total	**18/20**	**12/13**
		G. Total	**178/188**	
			*Excluding EAA-1 & 2	

Elective Courses B.Tech. (Civil Engineering)

Subject Name	Code	L-T-P	Credit	Contact Hour
Elective – I and VII				
Construction Management	**CE4L001**	3-0-0	3	3
Air Pollution and Solid Waste Management	**CE4L002**	3-0-0	3	3
Advanced Transportation Engineering	**CE4L003**	3-0-0	3	3
Rock Mechanics and Tunnelling	**CE4L004**	3-0-0	3	3
Maintenance and Rehabilitation of Concrete Structures	**CE4L005**	3-0-0	3	3
Computational Hydraulics	**CE4L006**	3-0-0	3	3
Water Resources Management	**CE4L007**	3-0-0	3	3
Hydraulic and Hydrologic Analysis and Design	**CE4L008**	3-0-0	3	3
Hydropower Engineering	**CE4L009**	3-0-0	3	3
Elective – II				
Structural Dynamics	**CE4L021**	3-0-0	3	3
Bridge Engineering	**CE4L022**	3-0-0	3	3
Prestressed Concrete	**CE4L023**	3-0-0	3	3
Earthquake Engineering	**CE4L024**	3-0-0	3	3
Elective – III				
Environmental Engineering	**CE4L031**	3-0-0	3	3
Environmental Impact Assessment	**CE4L032**	3-0-0	3	3
Sustainable Water and Sanitation System	**CE4L033**	3-0-0	3	3
Environmental System Management	**CE4L034**	3-0-0	3	3
Industrial Pollution Prevention	**CE4L035**	3-0-0	3	3
Elective – IV				
Soil Dynamics	**CE4L041**	3-0-0	3	3
Advanced Foundation Engineering	**CE4L042**	3-0-0	3	3
Numerical Methods in Geotechnical Engineering	**CE4L043**	3-0-0	3	3
Soil Engineering	**CE4L044**	3-0-0	3	3
Earth Retaining Structures	**CE4L045**	3-0-0	3	3
Elective – V				
Remote Sensing and GIS	**CE4L051**	3-0-0	3	3
River Engineering	**CE4L052**	3-0-0	3	3
Open Channel Hydraulics	**CE4L053**	3-0-0	3	3
Water Resources Systems	**CE4L054**	3-0-0	3	3
Design of Hydraulic Structures	**CE4L055**	3-0-0	3	3
Elective – VI				
Transportation Planning	**CE4L061**	3-0-0	3	3
Pavement Design	**CE4L062**	3-0-0	3	3
Traffic Engineering	**CE4L063**	3-0-0	3	3

Elective Courses B.Tech. (Electrical Engineering)

Subject Name	New Code	L-T-P	Credit	Contact Hour
Elective – 1				
Semiconductor Devices	EC4L001	3-0-0	3	3
Statistical Signal Processing	EC6L005	3-0-0	3	3
Computational Intelligence	CS6L001	3-0-0	3	3
Advanced Communication Engineering	EC6L001	3-1-0	3	3
Speech Signal Processing	EC6L028	3-0-0	3	3
Communication Network	EC6L010	3-0-0	3	3
Power System Analysis and Operation	EE6L001	3-0-0	3	3
High Voltage Engineering	EE6L009	3-0-0	3	3
Energy Storage Systems	EE6L011	3-0-0	3	3
Computer Organization and Architecture	CS3L002	3-0-0	3	3
Compiler Design	CS4L001	3-0-0	3	3
Elective – 2				
Opto-Electronics	EC4L002	3-0-0	3	3
Image and Video Processing	EC6L002	3-0-0	3	3
Remote Sensing Systems	EC6L011	3-0-0	3	3
Optical Communication	EC6L012	3-0-0	3	3
Electric Power Quality	EE6L002	3-0-0	3	3
Renewable and Distributed Energy Sources	EE6L006	3-0-0	3	3
Advanced Power Electronics	EE6L010	3-0-0	3	3
Industrial Instrumentation	EE6L007	3-0-0	3	3
Antenna Theory	EC6L013	3-0-0	3	3
Artificial Intelligence	CS4L003	3-0-0	3	3
Elective – 3				
VLSI Design	EC4L003	3-0-0	3	3
Photonic Network	EC6L014	3-0-0	3	3
Biomedical Signal Processing	EC6L015	3-0-0	3	3
Fiber Optic Sensors	EC6L019	3-0-0	3	3
Power System Dynamics and Control	EE6L003	3-0-0	3	3
Advanced Power Systems	EE4L002	3-0-0	3	3
Networks and Systems Security	CS6L002	3-0-0	3	3
Natural Language Processing	EC4L004	3-0-0	3	3
Elective – 4				
Embedded Systems	EC4L008	3-0-0	3	3
Modern Radar Systems	EC6L022	3-0-0	3	3
Pattern Recognition	EC6L027	3-0-0	3	3
Microwave Design and Measurement	EC6L021	3-0-0	3	3
Array Signal Processing	EC6L024	3-0-0	3	3
Power System Protection	EE6L004	3-0-0	3	3
Electric Drives	EE4L003	3-0-0	3	3
Distribution System Engineering	EE6L017	3-0-0	3	3
Computer Networks	EC6L026	3-0-0	3	3
Elective – 5				
Satellite Communication	EC6L018	3-0-0	3	3
Information Theory and Coding	EC6L003	3-0-0	3	3
Computational Electromagnetics	EC6L016	3-0-0	3	3
Adaptive Signal Processing	EC6L023	3-0-0	3	3
HVDC and Flexible AC Transmission Systems	EE6L005	3-0-0	3	3
Smart Grid Technology	EE6L014	3-0-0	3	3

Subject Name	New Code	L-T-P	Credit	Contact Hour
Advanced Control	**EE6L016**	3-0-0	3	3
Multimedia Network	**EC6L025**	3-0-0	3	3
Elective – 6				
Wireless and Mobile Communication	**EC6L020**	3-0-0	3	3
Computer Vision	**EC4L005**	3-0-0	3	3
Advanced Digital Signal Processing	**EC6L004**	3-0-0	3	3
Semiconductor Device Modelling	**EC6L017**	3-0-0	3	3
Grid Integration of Renewable Energy Systems	**EE6L013**	3-0-0	3	3
Advanced High Voltage Engg.	**EE6L015**	3-0-0	3	3
Advanced Electric Machines	**EE4L004**	3-0-0	3	3
Operating Systems	**CS3L005**	3-0-0	3	3

Elective Courses B.Tech. (Computer Science and Engineering)

Subject Name	New Code	L-T-P	Credit	Contact Hour
Elective –1, 3, 5 and 7				
VLSI Design	**EC4L003**	3-0-3	5	6
Object Oriented System Design	**CS4L002**	3-0-3	5	6
Artificial Intelligence	**CS4L003**	3-0-3	5	6
Modeling and Simulation	**CS4L004**	3-0-3	5	6
Digital Communication	**EC4L006**	3-0-0	3	3
Mobile Computing	**EC4L007**	3-0-0	3	3
Applied Graph Theory	**CS4L005**	3-0-0	3	3
Theory of Computation	**CS4L006**	3-0-0	3	3
Principles of Programming Languages	**CS4L007**	3-0-0	3	3
Computational Geometry	**CS4L008**	3-0-0	3	3
Image and Video Processing	**EC6L002**	3-0-0	3	3
Computational Intelligence	**CS6L001**	3-0-0	3	3
Elective –2, 4, 6, 8				
Embedded Systems	**EC4L008**	3-0-3	5	6
Software Engineering	**CS4L009**	3-0-0	3	3
Computer Graphics	**CS4L010**	3-0-3	5	6
Computational Complexity	**CS4L011**	3-0-0	3	3
Datamining	**CS4L012**	3-0-0	3	3
Advanced Computer Architecture	**CS4L013**	3-0-0	3	3
Dependable Computing	**CS4L014**	3-0-0	3	3
Symbolic Logic and Automated Reasoning	**CS4L015**	3-0-0	3	3
Parallel Algorithms	**CS4L016**	3-0-0	3	3
Robotics	**CS4L017**	3-0-0	3	3
Sensor Networks	**EC4L009**	3-0-0	3	3
Networks and Systems Security	**CS6L002**	3-0-0	3	3
Digital Signal Processing	**EC3L003**	3-0-0	3	3
Cloud Computing	**CS4L018**	3-0-0	3	3
High Performance Computing	**CS4L019**	3-0-0	3	3
Interconnection Networks	**EC4L010**	3-0-0	3	3

Elective Courses B.Tech. (Mechanical Engineering)

Subject Name	Code	L-T-P	Credit	Contact Hour
Elective – I				
Operations Research	ME3L012	3-0-0	3	3
Computational Fluid Dynamics	ME3L013	3-0-0	3	3
Robotics	ME3L014	3-0-0	3	3
Intermediate Fluid Mechanics	ME3L015	3-0-0	3	3
Elective – II				
Computer Aided Design and Manufacturing	ME4L002	3-0-3	5	6
Advanced Manufacturing Processes	ME4L004	3-0-3	5	6
Elective – III				
Air-Conditioning and Ventilation	ME4L005	3-0-0	3	3
Supply Chain Management	ME4L006	3-0-0	3	3
Vibrations	ME6L001	3-1-0	4	4
Engineering Measurements	ME6L009	3-1-0	4	4
Operations Management	ME6L010	3-0-0	3	3
Finite Element Methods in Engineering	ME6L011	3-1-0	4	4
Advanced Fluid Dynamics	ME6L101	3-1-0	4	4
Conduction & Radiation Heat Transfer	ME6L104	3-0-0	3	3
Two Phase Flow Heat Transfer	ME6L112	3-0-0	3	3
Elective – IV				
Soft Computing Techniques in Mechanical Engineering	ME4L008	3-0-0	3	3
Tribology	ME6L005	3-1-0	4	4
Theory of Composite Materials	ME 6L057	3-1-0	4	4
Artificial Intelligence & Neuro-Fuzzy Theory	ME6L060	3-1-0	4	4
MEMS & Microsystems Technology	ME6L062	3-0-0	3	3
Compressible Flows	ME6L152	3-1-0	4	4
Convective Heat & Mass Transfer	ME6L153	3-0-0	3	3
Turbulence	ME6L155	3-1-0	4	4
Microfluidics	ME6L160	3-0-0	3	3
Experimental Fluid Mechanics	ME6L161	3-1-0	4	4
Elective – V				
Automobile Engineering	ME4L009	3-0-0	3	3
Quality Control	ME4L010	3-0-0	3	3
Work System Design	ME4L011	3-0-0	3	3
Experimental Stress Analysis	ME6L056	3-0-0	3	3
Experimental Modal Analysis	ME6L058	3-0-0	3	3
Heat & Mass Transfer in Biological Systems	ME6L159	3-0-0	3	3
High Performance Computing in Thermo-Fluids Applications	ME6L163	3-0-0	3	3
Geophysical Fluid Dynamics	ME6L166	3-0-0	3	3

List of Lateral Courses offered by Various Schools

Basic Sciences

Subject Name	Code	L-T-P	Credit	Contact Hour
Lateral Subjects				
Electrodynamics for Engineers	PH3L001	3-0-0	3	3
Condensed Matter Physics	PH3L002	3-0-0	3	3
Mathematics				
Numerical Techniques	MA2L007	3-0-2	4	5

School of Infrastructure

Subject Name	Code	L-T-P	Credit	Contact Hour
Lateral – I (Any one will be offered)				
Building materials and Construction/Infrastructure Planning and Management	CE2L011/ CE2L012	3-0-0	3	3
Lateral – II (Any one will be offered)				
Traffic Engineering and Management/Construction Planning and Management	CE3L021/ CE3L022	3-0-0	3	3
Lateral – III (Any one will be offered)				
Environmental Pollution Management/ Geo-environmental Management	CE3L031/ CE3L032	3-0-0	3	3

School of Electrical Sciences (Set – I)

Subject Name	Code	L-T-P	Credit	Contact Hour
Lateral – 1				
Transducers, Sensors and Measurement	EE2L002	3-0-0	3	3
Lateral – 2				
Control System Technology	EE3L005	3-0-0	3	3
Lateral – 3				
Soft Computing and Applications	EE3L008	3-0-0	3	3

School of Electrical Sciences (Set – II)

Subject Name	Code	L-T-P	Credit	Contact Hour
Lateral – I				
Digital Logic and Systems	CS2L003	3-1-0	4	4
Lateral – II				
Microcontrollers and Embedded Systems	CS3L004	3-1-0	4	4
Lateral – III				
Computer Networks and Security	CS3L007	3-1-0	4	4

School of Mechanical Sciences

Subject Name	Code	L-T-P	Credit	Contact Hour
Lateral – I				
Elements of Mechanical Engineering	ME2L501	3-0-0	3	3
Lateral – II (Any one will be offered)				
Applied Thermodynamics	ME3L501	3-0-0	3	3
Introduction to CAD/CAM	ME3L502	3-0-0	3	3
Lateral – III (Any one will be offered)				
Introduction to Robotics	ME3L503	3-0-0	3	3
Industrial Engineering & Management	ME3L504	3-0-0	3	3