B.Tech Degree Programme
Curriculum

Regulations – 2012

Bachelor of Technology in Electrical and Electronics Engineering

Overall Course Structure

Category	Total No. of Courses	Credits	Percentage
Science and Humanities	13	37	21
Basic Engineering	7	21	12
Departmental Core	36	98	54
Departmental Elective	8	24	13
Total	**64**	**180**	**100**

Course Credits - Semester Wise

Branch	I	II	III	IV	V	VI	VII	VIII	TOTAL
EEE	**24**	**24**	**25**	**24**	**24**	**24**	**18**	**17**	**180**

Semester I

Course Code	Course Title	L	T	P	C
SH101	English – I	3	0	0	3
MA101	Engineering Mathematics – I	3	1	0	4
PH101	Engineering Physics – I	3	0	0	3
CY101	Engineering Chemistry	3	0	0	3
GE101	Engineering Graphics	3	1	0	4
GE102	Introduction to Computing	3	0	0	3
PH102	Physics Laboratory – I	0	0	2	1
CY102	Chemistry Laboratory	0	0	2	1
GE103	Computer Programming Laboratory	0	0	3	2
TOTAL		**18**	**2**	**7**	**24**

Semester II

Course Code	Course Title	L	T	P	C
SH151	English – II	3	0	0	3
MA151	Engineering Mathematics – II	3	1	0	4
PH151	Engineering Physics – II	3	0	0	3
SH152	Environmental Science and Engineering	3	0	0	3
GE151	Engineering Mechanics	3	1	0	4
EE151	Electrical and Magnetic Circuits	3	0	0	3
PH152	Physics Laboratory – II	0	0	2	1
GE152	Workshop	0	0	2	1
EE152	Electrical and Magnetic Circuits Laboratory	0	0	3	2
TOTAL		**18**	**2**	**7**	**24**

Semester III

Course Code	Course Title	L	T	P	C
MA201	Engineering Mathematics - III	3	1	0	4
CS208	Data Structures and Algorithms	3	1	0	4
EE201	Electromagnetic Theory	3	0	0	3
EE202	DC Machines	3	0	0	3
EE203	Electronic Devices and Circuits	3	0	0	3
EE204	Digital Principles and System Design	3	0	0	3
EE205	Electronic Devices and Circuits Laboratory	0	0	3	2
EE206	DC Machines Laboratory	0	0	3	2
EE207	Digital Principles and System Design Laboratory	0	0	2	1
TOTAL		**18**	**2**	**8**	**25**

Semester IV

Course Code	Course Title	L	T	P	C
MA251	Numerical Methods	3	1	0	4
EE251	AC Machines	3	0	0	3
EE252	Signals and Systems	3	0	0	3
EE253	Power Systems Engineering	3	0	0	3
EE254	Linear Integrated Circuits	3	0	0	3
EE255	Measurements and Instrumentation	3	0	0	3
EE256	Measurements and Instrumentation Laboratory	0	0	2	1
EE257	AC Machines Laboratory	0	0	3	2
EE258	Linear Integrated Circuits Laboratory	0	0	3	2
TOTAL		**18**	**1**	**8**	**24**

Semester V

Course Code	Course Title	L	T	P	C
EE301	Control Systems	3	0	0	3
EE302	Power Electronics	3	0	0	3
EE303	Microprocessors and Microcontrollers	3	0	0	3
EE304	Power System Analysis	3	0	0	3
EE9XX	Elective - I	3	0	0	3
EE9XX	Elective - II	3	0	0	3
EE305	Control Systems Laboratory	0	0	3	2
EE306	Power Electronics Laboratory	0	0	3	2
EE307	Microprocessors and Microcontrollers Laboratory	0	0	3	2
TOTAL		**18**	**0**	**9**	**24**

Semester VI

Course Code	Course Title	L	T	P	C
EE351	Power System Operation and Control	3	0	0	3
EE352	Solid State Drives	3	0	0	3
EE353	Electrical Machine Design	3	0	0	3
EE354	Digital Signal Processing	3	0	0	3
EE9XX	Elective - III	3	0	0	3
EE9XX	Elective – IV	3	0	0	3
EE355	Power System Practices Laboratory	0	0	3	2
EE356	Electrical Drives Laboratory	0	0	3	2
EE357	Digital Signal Processing Laboratory	0	0	3	2
TOTAL		**18**	**0**	**9**	**24**

Semester VII

Course Code	Course Title	L	T	P	C
EE401	High Voltage Engineering	3	0	0	3
EE402	Embedded Systems and Design	3	0	0	3
EE9XX	Elective - V	3	0	0	3
EE9XX	Elective - VI	3	0	0	3
EE403	Embedded Systems and Design Laboratory	0	0	3	2
EE404	Project Phase - I	0	0	8	4
TOTAL		**12**	**0**	**11**	**18**

Semester VIII

Course Code	Course Title	L	T	P	C
GE451	Professional Ethics	3	0	0	3
EE9XX	Elective - VII	3	0	0	3
EE9XX	Elective - VIII	3	0	0	3
EE451	Project Phase - II	0	0	16	8
TOTAL		**9**	**0**	**16**	**17**

LIST OF ELECTIVES

Course Code	Course Title	L	T	P	C
EE901	Power System Protection and Switchgear	3	0	0	3
EE902	Generation and Storing Technologies	3	0	0	3
EE903	Control Techniques and Renewable Energy Integration Systems	3	0	0	3
EE904	Sustainable Energy Systems	3	0	0	3
EE905	Introduction to Restructured Power Systems	3	0	0	3
EE906	Modern Control Theory	3	0	0	3
EE907	Computer based Process Control	3	0	0	3
EE908	RFID Technology	3	0	0	3
EE909	Biomedical Instrumentation	3	0	0	3
EE910	Mobile Communication	3	0	0	3
EE911	Data Communication and Computer Networks	3	0	0	3
EE912	Operating Systems	3	0	0	3
EE913	Fuzzy Logic and Applications in Electrical Engineering	3	0	0	3
EE914	Electrical Machine Modeling and Analysis	3	0	0	3

Course Code	Course Title	L	T	P	C
EE951	Power Grid Analysis and Studies	3	0	0	3
EE952	Smart Grids	3	0	0	3
EE953	HVDC transmission and Flexible AC Transmission Systems	3	0	0	3
EE954	Digital Control Systems	3	0	0	3
EE955	Control System Design & Simulation	3	0	0	3
EE956	Wireless and Sensor Networks	3	0	0	3
EE957	Nanotechnology	3	0	0	3
EE958	Computer Architecture	3	0	0	3
EE959	Micro Electromechanical Systems	3	0	0	3
EE960	Advanced Electrical Machines	3	0	0	3
EE961	Power Converter Analysis and Design	3	0	0	3
EE962	Embedded Networking	3	0	0	3
EE963	Real Time Operating Systems	3	0	0	3
EE964	VLSI Design	3	0	0	3