

# **B.Tech. - Electrical and Electronics Engineering**

## **Curriculum**



University Core (70 Credits)							
CHY1001	Engineering Chemistry	3	0	2	0	4	NONE
CHY1002	Environmental Sciences	2	0	0	4	3	NONE
CSE1001	Problem Solving and Programming	0	0	6	0	3	NONE
CSE1002	Problem Solving and Object Oriented Programming	0	0	6	0	3	NONE
EEE3999	Technical Answers for Real World Problems (TARP)	1	0	0	8	3	PHY1999
EEE4098	Comprehensive Examination	0	0	0	0	2	
EEE4099	Capstone Project	0	0	0	0	20	
ENG1011	English for Engineers	0	0	2	4	2	NONE
HUM1021	Ethics and Values	1	0	0	4	2	NONE
MAT1011	Calculus for Engineers	3	0	2	0	4	NONE
MAT2001	Statistics for Engineers	2	1	2	0	4	MAT1011
MGT1022	Lean Start-up Management	1	0	0	4	2	
PHY1001	Engineering Physics	3	0	2	0	4	NONE
PHY1999	Introduction to Innovative Projects	1	0	0	4	2	
EXC4097	Co-Extra Curricular Basket	0	0	0	0	2	
EE3099	Industrial Internship	0	0	0	0	2	
STS4097	Soft Skills	0	0	0	0	6	

Programme Core (59 Credits)							
EEE1002	Electric Circuits	3	0	0	0	3	NONE
EEE1003	Electrical Workshop	0	0	2	0	1	NONE
EEE1004	Engineering Electromagnetics	3	0	2	0	4	MAT1011
EEE1005	Signals and Systems	3	0	0	0	3	MAT2002
EEE2001	Network Theory	3	0	0	0	3	EEE1002, MAT1011
EEE2002	Semiconductor Devices and Circuits	2	0	2	4	4	EEE1002
EEE2003	Electromechanical Energy Conversion	3	0	2	0	4	EEE1002/ EEE1001
EEE2004	Measurement and Instrumentation	2	0	0	4	3	EEE1002
EEE2005	Digital Signal Processing	2	0	2	0	3	EEE1005
EEE3001	Control Systems	3	0	2	0	4	EEE2001, MAT2002/ EEE1001
EEE3002	Analog and Digital Circuits	3	0	2	0	4	EEE2002
EEE3003	Power System Engineering	3	0	2	0	4	EEE2001
EEE3004	Power Electronics and Drives	3	0	2	0	4	EEE2001, EEE2002
EEE3099	Industrial Internship	0	0	0	0	2	
EEE4001	Microprocessor and Microcontroller	2	0	2	0	3	EEE3002
MAT2002	Applications of Differential and Difference Equations	3	0	2	0	4	MAT1011
MAT3003	Complex Variables and Partial Differential Equations	3	1	0	0	4	MAT2002
MAT3005	Applied Numerical Methods	3	1	0	0	4	MAT2002

Programme Elective (Credits to be Earned: 39)							
EEE1007	Neural Network and Fuzzy Control	2	0	0	4	3	MAT1011
EEE1008	Bio-Medical Instrumentation	3	0	0	4	4	NONE
EEE1011	Automated Test Engineering	2	0	2	0	3	EEE3002
EEE1018	Nanotechnology Fundamentals and its Applications	3	0	0	0	3	PHY1001/ PHY1701
EEE1020	Engineering Optimization	2	1	0	4	4	NONE

EEE2006	Communication Engineering	3	0	2	0	4	EEE1005
EEE3005	Design of Electrical Apparatus	2	0	0	4	3	EEE2003
EEE3006	Special Electrical Machines	3	0	0	0	3	EEE2003
EEE3007	Finite Element analysis for Electrical Machines	2	0	0	4	3	EEE2003
EEE4002	Power System Protection and Switchgear	3	0	2	0	4	EEE3003
EEE4003	Generation and Utilization of Electrical Energy	2	0	0	4	3	EEE3003
EEE4004	Distributed Generation and Microgrids	3	0	0	4	4	EEE3003, EEE3004
EEE4005	Power System Operation and Control	2	0	0	4	3	EEE3003
EEE4007	Energy Management and SCADA	3	0	0	0	3	EEE3003
EEE4008	High Voltage Engineering	3	0	0	0	3	EEE3003
EEE4009	FACTS and HVDC	3	0	0	4	4	EEE3003, EEE3004
EEE4010	Power Quality	2	0	0	4	3	EEE3004
EEE4011	Energy Audit and Conservation	2	0	0	4	3	EEE3003
EEE4012	Renewable Energy Sources	3	0	0	0	3	EEE3003
EEE4013	Smart Grid	3	0	0	4	4	EEE3003, EEE3004
EEE4014	Switched Mode Power Conversion	2	0	0	4	3	EEE3004
EEE4015	Power Converter Analysis and Design	2	0	0	4	3	EEE3004
EEE4016	Electric Vehicles	2	0	0	4	3	EEE3004
EEE4017	Industrial Drives and Automation	3	0	0	4	4	EEE3001, EEE3004
EEE4018	Advanced Control Theory	3	0	0	4	4	EEE3001
EEE4019	Advanced Digital System Design With FPGAs	2	0	0	4	3	EEE3002
EEE4020	Embedded System Design	2	0	0	4	3	EEE4001
EEE4027	Robotics and Control	2	0	0	4	3	EEE3001
EEE4028	VLSI Design	3	0	2	0	4	EEE3002
MEE1006	Applied Mechanics and Thermal Engineering	2	0	2	0	3	NONE
PHY1002	Materials Science	3	0	2	0	4	NONE