

**13. Courses of Study and Scheme of Assessment
BE ELECTRICAL AND ELECTRONICS ENGINEERING**

(2019 Regulations)

Course Code	Course Title	Periods / week			Maximum Marks				
		Lecture	Tutorial	Practical	Credits	CA	FE	Total	CAT
SEMESTER VII									
19E701	Power System Protection and Switchgear	3	0	0	3	50	50	100	PC
19E702	Power System Analysis	2	2	0	4	50	50	100	PC
19E____	Professional Elective III	3	0	0	3	50	50	100	PE
19E____	Professional Elective IV	3	0	0	3	50	50	100	PE
19____	Open Elective II	3	0	0	3	50	50	100	OE
19E710	Power System Laboratory	0	0	2	1	50	50	100	PC
19E720	Project Work I	0	0	4	2	100	0	100	EEC
Total 22 periods		14	2	6	19	400	300	700	
SEMESTER VIII									
19E____	Professional Elective V	3	0	0	3	50	50	100	PE
19E____	Professional Elective VI	3	0	0	3	50	50	100	PE
19E820	Project Work II	0	0	8	4	50	50	100	EEC
Total 14 periods		6	0	8	10	150	150	300	

CA Continuous Assessment
FE Final Examination

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PROFESSIONAL ELECTIVES

Group A: Electrical/Power

- 19E001 Flexible AC Transmission Systems
- 19E002 Special Machines and Controllers
- 19E003 Utilization and Conservation of Electrical Energy
- 19E004 Advanced Control Systems
- 19E005 Smart Grid
- 19E006 Industrial Automation
- 19E007 HVDC Transmission
- 19E008 Power Quality Management
- 19E009 Power System Operations and Control
- 19E010 Hybrid Electric Vehicles
- 19E011 High Voltage Engineering

Group B: Electronics / Embedded

- 19E012 Embedded Systems and Internet of Things
- 19E013 System Design using FPGA
- 19E014 VLSI Design
- 19E015 Mixed Signal VLSI Design
- 19E016 Virtual Instrumentation
- 19E017 Communication Systems
- 19E018 Automotive Electrical and Electronics Systems
- 19E019 Wearable Electronics
- 19E020 Electronic Product Design
- 19E021 Digital Image Processing

Group C : Computer

- 19E022 Advanced Data Structures
- 19E023 Computer Networks
- 19E024 Software Project Management and Quality Assurance
- 19E025 Advanced Computer Architecture
- 19E026 Internetworking and Applications
- 19E027 Java Programming
- 19E028 Relational Database Management Systems
- 19E029 Operating systems
- 19E030 Neural Networks and Fuzzy Systems
- 19E031 Linux Architecture
- 19E032 Total Quality Management

ONE-CREDIT COURSES

- 19EF01 LV Switchgears
- 19EF02 Energy Auditing and Conservation Techniques
- 19EF03 Electrical Safety Standards and Practices
- 19EF04 Automotive Electrical Systems
- 19EF05 CAD Tools for VLSI DesignAutomation
- 19EF06 Digital Design with Verilog HDL
- 19EF07 Graphical Programming
- 19EF08 Advanced Graphical Programming
- 19EF09 Low Power Microcontrollers and Applications
- 19EF10 Controller Design and Simulation Using Dspace
- 19EF11 Solar PV Systems Design Simulation Monitoring and Control
- 19EF12 Power Electronics in More-Electric Aircraft
- 19EF13 Field Programmable Analog Array for Analog System Design
- 19EF14 Systems Engineering for Automotive Applications
- 19EF15 Electrical Vehicles
- 19EF16 Phasor Measurement Units and Applications
- 19EF17 Industrial Drives for Automation
- 19EF18 Data Science and Analytics for Electrical Engineers
- 19EF19 Electrical Power on-board War Vessels and Aircraft
- 19EF20 Aerospace Avionics
- 19EF21 1-D Model Based System Design for Control System Applications
- 19EF22 Printed Circuit Board Design and its Fabrication
- 19EF23 Digital System Design and Verification Using System Verilog
- 19EF24 Metrology for Electrical Engineers
- 19EF25 Embedded Linux
- 19EF26 Internet of Things using CC3200

LANGUAGE ELECTIVES

- 19G001 Communication Skills for Engineers
- 19G002 German- Level A1.1
- 19G003 French Language Level 1
- 19G004 Basic Japanese

ENGLISH

- 19GF01 Interpersonal and Organizational Communication
- 19GF02 Human Values Through Literature

HUMANITIES

- 19OFA1 Export – Import Practices
- 19OFA2 Insurance - Concepts and Practices
- 19OFA3 Public Finance
- 19OFA4 Security Analysis and Portfolio Management

Summary of Credit Distribution

BE ELECTRICAL AND ELECTRONICS ENGINEERING										
S. No	Course Category	Credits Per Semester								Total Credits
		1	2	3	4	5	6	7	8	
1	HS	3	2	3	0	0	0	0	0	8
2	BS	12	10	4	3	0	0	0	0	29
3	ES	5	10	11	0	0	0	0	0	26
4	PC	0	0	4	18	20	16	8	0	66
5	PE	0	0	0	0	3	3	6	6	18
6	OE	0	0	0	0	0	3	3	0	6
7	EEC	0	0+2	0	1	1	2	2	4	12
8	MC	-	-	-	-	-	-	-	-	-
	TOTAL	20	22+2	22	22	24	24	19	10	165

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