

CURRICULUM REGULATION 2021

**B.E (Part Time) –
ELECTRICAL AND ELECTRONICS ENGINEERING**

**SEMESTER
I TO VII**

g-l-d-z

B.E.(Part Time) – ELECTRICAL AND ELECTRONICS ENGINEERING – SEMESTER I TO VII**A. Foundation Courses****Humanities and Social Sciences including Management Courses – Credits (9-12)**

SL. NO	COURSE CODDE	COURSE	OFFERING DEPT.	CATEGORY	L	T	P	C	PREREQUISITE
1		TOTAL QUALITY MANAGEMENT	MANAG	FC-HS	3	0	0	3	NIL
2		ENGINEERING MANAGEMENT AND ETHICS	MANAG	FC-HS	3	0	0	3	NIL
3		OPERATIONS MANAGEMENT	MANAG	FC-HS	3	0	0	3	NIL
4		UNIVERSAL HUMAN VALUES - UNDERSTANDING HARMONY	ENG	FC-HS	3	0	0	3	NIL

Basic Science Courses – Credits (9-12)

1.		ENGINEERING MATHEMATICS	MATH	FC-BS	2	1	0	3	NIL
2.		DIFFERENTIAL EQUATIONS AND TRANSFORMS	MATH	FC-BS	2	1	0	3	ENGINEERING MATHEMATICS
3.		SMART MATERIALS AND NANO TECHNOLOGY	PHY	FC-BS	3	0	0	3	NIL
4.		PARTIAL DIFFERENTIAL EQUATIONS AND LINEAR ALGEBRA	MATH	FC-BS	2	1	0	3	DIFFERENTIAL EQUATIONS AND TRANSFORMS
5		ENVIRONMENTAL SCIENCES	CHEM	FC-BS	3	0	0	3	NIL

9-12-27

B.E (Part Time) – ELECTRICAL AND ELECTRONICS ENGINEERING – SEMESTER I TO VIII

B. Professional Courses

Core Courses – Credits (61)

SL. NO	COURSE CODE	COURSE	OFFERING DEPT.	CATEGORY	L	T	P	C	PREREQUISITE
1.		ELECTRIC CIRCUIT ANALYSIS (THEORY AND PRACTICALS)	EEE	CC	3	0	2	4	NIL
2.		SEMICONDUCTOR DEVICES AND CIRCUITS	ECE	CC	3	0	0	3	NIL
3.		ELECTRICAL MACHINES – I	EEE	CC	3	0	0	3	NIL
4.		ELECTRICAL MACHINES – II	EEE	CC	3	0	0	3	ELECTRICAL MACHINES – I
5.		ELECTROMAGNETIC THEORY	EEE	CC	3	0	0	3	ENGINEERING MATHEMATICS
6.		MEASUREMENT AND INSTRUMENTATION (THEORY AND PRACTICALS)	EEE	CC	3	0	2	4	NIL
7.		ANALOG AND DIGITAL CIRCUITS (THEORY AND PRACTICALS)	ECE	CC	3	0	2	4	SEMICONDUCTOR DEVICES AND CIRCUITS
8.		POWER ELECTRONICS AND DRIVES (THEORY AND PRACTICALS)	EEE	CC	3	0	2	4	SEMICONDUCTOR DEVICES AND CIRCUITS
9.		TRANSMISSION AND DISTRIBUTION	EEE	CC	3	0	0	3	ELECTROMAGNETIC THEORY
10.		CONTROL SYSTEMS	EEE	CC	3	0	0	3	DIFFERENTIAL EQUATIONS AND TRANSFORMS
11.		POWER SYSTEM ANALYSIS	EEE	CC	3	0	0	3	TRANSMISSION & DISTRIBUTION
12.		MICROCONTROLLER BASED SYSTEM DESIGN AND EMBEDDED SYSTEM DESIGN (THEORY AND PRACTICALS)	ECE	CC	3	0	2	4	ANALOG AND DIGITAL CIRCUITS
13.		POWER SYSTEM PROTECTION AND SWITCHGEAR	EEE	CC	3	0	0	3	ELECTRICAL MACHINES – I & ELECTRICAL MACHINES – II
14.		EHVAC AND DC POWER TRANSMISSION	EEE	CC	3	1	0	4	NIL
15.		PHOTOVOLTAIC ENERGY CONVERSION	EEE	CC	3	0	0	3	NIL
16.		SEMICONDUCTOR DEVICES AND CIRCUITS LAB	ECE	CC	0	0	4	2	NIL
17.		ELECTRICAL MACHINES – I LAB	EEE	CC	0	0	4	2	NIL
18.		ELECTRICAL MACHINES – II LAB	EEE	CC	0	0	4	2	NIL
19.		CONTROL SYSTEMS LAB	EEE	CC	0	0	4	2	NIL
20.		POWER SYSTEM SIMULATION LAB	EEE	CC	0	0	4	2	NIL

P-10-2-27

B.E.(Part Time) – ELECTRICAL AND ELECTRONICS ENGINEERING – SEMESTER I TO VII**C. Elective Courses****Professional Elective - Credits(12-15)**

SL. NO	COURSE CODE	COURSE	OFFERING DEPT.	CATEGORY	L	T	P	C	PREREQUISITE
1.		HIGH VOLTAGE ENGINEERING	EEE	EC-PS	3	0	0	3	NIL
2.		POWER SYSTEM OPERATION AND CONTROL	EEE	EC-PS	3	0	0	3	NIL
3.		POWER QUALITY AND FACTS	EEE	EC-PS	3	0	0	3	NIL
4.		SPECIAL ELECTRICAL MACHINES	EEE	EC-PS	3	0	0	3	NIL
5.		WIND ENERGY CONVERSION SYSTEMS	EEE	EC-PS	3	0	0	3	NIL
6.		ELECTRIC VEHICLES	EEE	EC-PS	3	0	0	3	NIL
7.		DISTRIBUTED GENERATION AND MICROGRIDS	EEE	EC-PS	3	0	0	3	NIL
8.		POWER CONVERTERS ANALYSIS AND DESIGN	EEE	EC-PS	3	0	0	3	NIL
9.		RENEWABLE ENERGY SOURCES	EEE	EC-PS	3	0	0	3	NIL
10.		ENERGY CONVERSION AND STORAGE TECHNOLOGIES	EEE	EC-PS	3	0	0	3	NIL
11.		POWER SYSTEM AND SMART GRID	EEE	EC-PS	3	0	0	3	NIL
12.		DIGITAL SIGNAL PROTECTION FOR POWER SYSTEMS	EEE	EC-PS	3	0	0	3	NIL
13.		DESIGN OF ELECTRICAL APPARATUS	EEE	EC-PS	3	0	0	3	NIL
14.		HVDC TRANSMISSION SYSTEMS	EEE	EC-PS	3	0	0	3	NIL
15.		ENERGY AUDIT AND CONSERVATION	EEE	EC-PS	3	0	0	3	NIL

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Open Elective Courses – Innovation, Entrepreneurship, Skill Development etc. - Credits (3-6)

SL. NO	COURSE CODE	COURSE	OFFERING DEPT.	CATEGORY	L	T	P	C	PREREQUISITE
1.		INNOVATION, PRODUCT DEVELOPMENT AND COMMERCIALIZATION	MANAG	OE-IE	3	0	0	3	NIL
2.		NEW VENTURE PLANNING AND MANAGEMENT	MANAG	OE-IE	3	0	0	3	NIL
3.		SOCIAL ENTREPRENEURSHIP	MANAG	OE-IE	3	0	0	3	NIL
4.		ENGINEERING STARTUPS AND ENTREPRENEURIAL MANAGEMENT	MANAG	OE-IE	3	0	0	3	NIL
5.		INTELLECTUAL PROPERTY RIGHTS	MANAG	OE - IE	3	0	0	3	NIL
6.		LIFE SKILLS	MANAG	OE-IE	3	0	0	3	NIL

Open Elective Courses – Electives from other Technical and /or Emerging Courses Credits (3-6)

SL. NO	COURSE CODE	COURSE	OFFERING DEPT.	CATEGORY	L	T	P	C	PREREQUISITE
1.		PRINCIPLES OF BIOMEDICAL INSTRUMENTATION	BME	OE-EA	3	0	0	3	NIL
2.		BIOSENSORS AND TRANSDUCERS	BME	OE-EA	3	0	0	3	NIL
3.		INTRODUCTION TO BIOFUELS	BTE	OE-EA	3	0	0	3	NIL
4.		FOOD AND NUTRITION TECHNOLOGY	BTE	OE-EA	3	0	0	3	NIL
5.		DISASTER RISK MANAGEMENT	CIVIL	OE-EA	3	0	0	3	NIL
6.		MUNICIPAL SOLID WASTE MANAGEMENT	CIVIL	OE-EA	3	0	0	3	NIL
7.		FUNDAMENTALS OF ARTIFICIAL INTELLIGENCE	CSE	OE-EA	3	0	0	3	NIL
8.		INTRODUCTION TO INTERNET OF THINGS	CSE	OE-EA	3	0	0	3	NIL
9.		CYBER SECURITY	CSE	OE-EA	3	0	0	3	NIL
10.		DESIGN OF ELECTRONIC EQUIPMENT	ECE	OE-EA	3	0	0	3	NIL
11.		INTRODUCTION TO INDUSTRY 4.0 AND INDUSTRIAL INTERNET OF THINGS	ECE	OE-EA	3	0	0	3	NIL
12.		3D PRINTING AND ITS APPLICATIONS	MECH	OE-EA	3	0	0	3	NIL
13.		INDUSTRIAL ROBOTICS	MECH	OE-EA	3	0	0	3	NIL
14.		BIOMOLECULES – STRUCTURE AND FUNCTION	PE	OE-EA	3	0	0	3	NIL
15.		PHARMACOGENOMICS	PE	OE-EA	3	0	0	3	NIL

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B.E.(Part Time) – ELECTRICAL AND ELECTRONICS ENGINEERING – SEMESTER I TO VII**Project work, Credits - (8)**

SL. NO	COURSE CODE	COURSE	OFFERING DEPT.	CATEGORY	L	T	P	C	PREREQUISITE
1.		PROJECT WORK	EEE	PI-P	0	0	16	8	NIL

**MANDATORY COURSES (NO CREDITS)
(NOT INCLUDED FOR CGPA CALCULATIONS)**

SL. NO	COURSE CODE	COURSE	OFFERING DEPT.	CATEGORY	L	T	P	C	PREREQUISITE
1.		YOGA AND MEDITATION	PHED	AC	0	0	2	0	NIL

ANY TWO OF THE FOLLOWING COURSES

2.		GENDER EQUITY AND LAW	LAW	AC	0	0	2	0	NIL
3.		ESSENCE OF INDIAN TRADITIONAL KNOWLEDGE	GEN	AC	0	0	2	0	NIL
4.		INDIAN CONSTITUTION	LAW	AC	0	0	2	0	NIL
5.		NCC/NSS/RRC/YRC/STUDENT CLUBS/UNNAT BHARAT ABHIYAN/ SWACTH BHARAT	GEN	AC	0	0	2	0	NIL
6.		SPORTS AND GAMES	PHED	AC	0	0	2	0	NIL

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