Department of Electrical Engineering

BTECH

Sr.No	Course Code	Course Name
1	BTEEC701	High Voltage Engineering

Department :	**Electrical Engineering**
Academic Year:	2022-23
Class :	**Btech**
Course Code :	**BTEEC702**
Course Name :	**HVE**
Name of Faculty	**Prof.S.P.Kamble**

Course Outcome	
Upon successful cpmletion of the course students will be able to:	
CO1	Explain the concept of electric field stresses, applications of insulating materials and methods for Non-destructive testing of equipment like transformers, insulators, isolators, bushings, lightning arrestors, cables, circuit breakers and surge diverters
CO2	Demonstrate the breakdown process in solid, liquid, and gaseous materials
CO3	. Illustrate methods for generation and measurement of High Voltages and Currents (both ac and dc). Describe the phenomenon of over-voltage and choose appropriate insulation coordination levels based on IS & IEC Standards.

CO - PO Mapping Table

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	2									2				
CO2	2									2				
CO3	3	2	2							2				

2	BTEEC702	Power System Operation & Control

Department :	**Electrical and Compuer Engg.**
Academic Year:	2022-23
Class :	B.Tech Final Year
Course Code :	BTEEC702
Course Name :	**Power Systems Operation & Control**
Name of Faculty	**Mr. M. V. Dongare**

Course Outcome	
Upon successful cpmletion of the course students will be able to:	
CO1	Statement -1 Understand operation and control of power systems.
CO2	Statement - 2 Analyse various types of Power System Stability.
CO3	Statement - 3 Understand various excitation systems & load frequency control in power system.
CO4	Statement - 4 Understand the concept of computer control of power systems and data acquisition.

CO - PO Mapping Table

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3		3	3			3			3	3		3	
CO2						3	3				2			3
CO3	3		3		2					3			3	
CO4		2												

3 BTEEPE703 Applications of Power Electronics in Power System

Department :	**Electrical and Compuer Engg.**
Academic Year:	2022-23
Class :	B.Tech Final Year
Course Code :	BTEEC702
Course Name :	**Applications of Power Electronics in Power System**
Name of Faculty	Prof. S. Y. Gadgune

Course Outcome	
Upon successful cpmletion of the course students will be able to:	
CO1	1) Recall historical improvements in power transmission and apply power electronics principles to enhance power system operation.
CO2	2) Demonstrate an understanding of the operation of FACTS controllers, analyze their modeling techniques, and evaluate their impact on improving power system stability and control.
CO3	3) Explain the generation and effects of harmonics in power systems and apply power electronics principles to design solutions for harmonic mitigation.
CO4	4) Analyze active and hybrid power filters, evaluate their role in addressing power quality issues, and apply IEEE standards to ensure compliance in power systems.

CO - PO Mapping Table

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3						2	2						
CO2	2	2					2							
CO3	2	2	2			2	2					2		
CO4	3	2				2	2					3		

4 BTEEOE705 **Testing, Maintenance andCommissioning of ElectricalEquipment**

Department :	**Electrical Engineering**
Academic Year:	2023-24
Class :	B.Tech
Course Code :	BTEEOE705
Course Name :	**Testing, Maintenance andCommissioning of ElectricalEquipment**
Name of Faculty	**Mr.S.K.Shaikh**

Course Outcome	
Upon successful cpmletion of the course students will be able to:	
CO1	Preparation of maintenance schedule of different equipment and machines
CO2	Create Troubleshooting chart and testing for various electrical equipment.
CO3	Illustrate procedure of different types of earthing for different types of electrical installations
CO4	Familiar about electrical safety regulations and rules during maintenance.

CO - PO Mapping Table

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3				2									
CO2	2				2					2	3		3	
CO3	2												3	2
CO4	2												3	

5 BTEEPE801 Entrepreneurship Essentials

Department :	**Electrical Engineering**
Academic Year:	2022-23
Class :	**Btech**
Course Code :	**BTEEC702**
Course Name :	**Entrepreneurship Essentials**
Name of Faculty	**Prof.M.C.Butale**

Course Outcome	
Upon successful cpmletion of the course students will be able to:	
CO1	Describe an entrepreneurial venture, current trend of technology, organizational structure.
CO2	Describe an entrepreneurial venture, current trend of technology, organizational structure.
CO3	Summarize Basic knowledge of financial statements and project report,introductory knowledge on marketing management,
CO4	Describe Human resource management, & strategic management, risk analysis, legal aspect of business, how to raise fund during life-cycle of a new ventures.

CO - PO Mapping Table

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	1	1	1											
CO2	1	1	2											
CO3	1	1	2											
CO4	1	1	2											

6 BTEECOE505B Ind 4.0 and IIOT

Department :	**Electrical and computer engg**
Academic Year:	2023-24
Class :	TY Electrical Engg
Course Code :	**BTEECOE505B**
Course Name :	**Ind 4.0 and IIOT**
Name of Faculty	**Prof. S.A.Patil**

Course Outcome	
Upon successful cpmletion of the course students will be able to:	
CO1	Able to understand the application areas of IOT & emerging areas of industrial internet of things.
CO2	Able to realize the revolution of internet in Mobile devices,Cloud and Sensor Network .
CO3	Able to understand the building blocks of internet of things and characteristics

CO - PO Mapping Table

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	2	3												
CO2		2		3	2					2	3		3	
CO3	3	1												2