



ISO 9001:2015 Certified Institution

Balaji Institute of Technology & Science Estd.:2001

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(AUTONOMOUS)

Accredited by NBA (UG - CE, ME, ECE & CSE) & NAAC A+ Grade

(Affiliated to JNT University, Hyderabad and Approved by AICTE, New Delhi)

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

MAPPING OF COURSE OUTCOMES-PROGRAM OUTCOMES

The following points are adhered to by the Program Curriculum Committee to improve the student attainment target during learning process to meet the Course Outcomes.

- Defining Course Outcomes.
- Mapping COs with Program Outcomes and Program Specific Outcomes.
- Attainment of Program Outcomes.
- Identification of curricular gaps.

Course Name: C201 Engineering Mechanics (EE301ES)	
CO1	Explain the resolution of a System of Forces, Compute their resultant and Solve problems using equations of equilibrium
CO2	Perform analysis of bodies lying on rough surfaces
CO3	Locate the centroid of a body and compute the area moment of inertia and mass moment of inertia of standard and composite sections
CO4	Explain kinetics and kinematics of particles, projectiles, curvilinear motion, centroidal motion and plane motion of rigid bodies
CO5	Explain the concepts of work-energy method and its applications to translation, rotation and plane motion and the concept of vibrations

Course Outcome	Program Outcome											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	2	2	2	-	-	2	-	2	-	-	2
CO2	2	1	2	2	-	-	1	-	1	-	-	2
CO3	2	2	2	2	-	-	-	-	-	-	-	2
CO4	2	2	2	2	-	-	-	-	2	-	-	2
CO5	2	2	1	2	-	-	1	-	1	-	-	2
Average	2	1.8	1.5	2	-	-	0.8	-	1.2	-	-	2

Course Name: C201 Engineering Mechanics		
CO	PSO1	PSO2
C212.1	2	-
C212.2	1	-
C212.3	2	-
C212.4	2	-
C212.5	1	-
Average	1.6	-

CO-PSO Mapping of Course -Engineering Mechanics

MAPPING OF COURSE OUTCOMES-PROGRAM OUTCOMES

Course Name: C202 Electrical Circuit Analysis (EE302PS)	
CO1	Analyse the Kirchhoff's laws, circuit theorems and node voltage and mesh current methodology to solve simple DC circuits.
CO2	Analyse the electric circuit behaviour due to sudden changes in input/circuit parameters during switching operations.
CO3	Able to calculate and analyse 3-phase balanced and unbalanced Y/ Δ circuits. Able to demonstrate and analyse single phase RLC circuits.
CO4	Apply Laplace transform for circuit analysis. Able to understand series and parallel resonance AC circuits.
CO5	Solve two-port network parameters and draw equivalent circuit of given two –port network.

Course Outcomes	Program Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	3	3	2	-	-	-	-	-	-	-	2
CO2	-	3		3	-	-	-	-	-	-	-	3
CO3	2	3	3	3	-	-	-	-	-	-	-	-
CO4	3	3	-	3	-	-	-	-	-	-	-	-
CO5	-	2	3	3	-	-	-	-	-	-	-	2
Average	2.33	2.8	3	2.8	-	-	-	-	-	-	-	2.33

Course Name: C202 Electrical Circuit Analysis		
CO	PSO1	PSO2
C212.1	2	-
C212.2	-	3
C212.3	-	3
C212.4	-	-
C212.5	3	-
Average	2.5	3

CO-PSO Mapping of Course - **Electrical Circuit Analysis**

MAPPING OF COURSE OUTCOMES-PROGRAM OUTCOMES

Course Name: C208 ELECTRICAL CIRCUITS LAB(EE308PC)	
CO1	Apply Network theorems to Simple and complex circuits.
CO2	Plot the locus diagram of series RL and RC circuits.
CO3	Determine the self-inductance and Mutual inductance of the coil and Calculate Two port network parameters.
CO4	Measurement of three phase active power and reactive power
CO5	Analyze of Non sinusoidal wave form signals using Harmonic Analyzer.

Course Outcomes	Program Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	-	-	-	-	2	-	-	-	2	-	-	-
CO2	-	-	-	-	2	-	-	-	-	3	-	3
CO3	-	3	-	-	1	-	-	-	2	-	-	-
CO4	-	-	2	-	3	-	-	-	-	2	-	2
CO5	-	3	-	-	1	-	-	-	-	2	-	2
Average	-	3	2	-	1.8	-	-	-	2	2.33	-	2.33

Course Name: : C208 ELECTRICAL CIRCUITS LAB		
CO	PSO1	PSO2
C212.1	-	2
C212.2	3	2
C212.3	2	-
C212.4	2	2
C212.5	-	2
Average	2.33	2

CO-PSO Mapping of Course : **ELECTRICAL CIRCUITS LAB**

MAPPING OF COURSE OUTCOMES-PROGRAM OUTCOMES

Course Name: C304 HIGH VOLTAGE ENGINEERING (EE512PE)	
CO1	Demonstrate the physics related to various breakdown processes in solid, liquid and gaseous insulating materials.
CO2	Analyze the generation of D. C., A.C., & Impulse voltages.
CO3	Analyze the measurement of D. C., A.C., & Impulse voltages.
CO4	Understand over-voltages arise in a power system, and Assess protection against these over voltages
CO5	Testing on H. V. equipment and on insulating materials, as per the standards.

Course Outcomes	Program Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	-	-	-	-	-	-	-	-	-	3
CO2	-	3	2	-	2	-	-	-	-	-	•	-
CO3	-	3	2	-	2	-	-	-	-	-	-	-
CO4	2	3	3	3	-	-	-	-	-	-	-	3
CO5	-	3	3	3	3	-	-	-	-	-	-	-
Average	2.5	2.8	2.5	3	2.33	-	-	-	-	-	-	3

Course Name: C304 HIGH VOLTAGE ENGINEERING		
CO	PSO1	PSO2
C212.1	-	2
C212.2	-	-
C212.3	2	-
C212.4	3	-
C212.5	-	2
Average	2.5	2

CO-PSO Mapping of Course **HIGH VOLTAGE ENGINEERING**

MAPPING OF COURSE OUTCOMES-PROGRAM OUTCOMES

Course Name: C403 HVDC TRANSMISSION(EE721PE)	
CO1	Compare EHV AC and HVDC system and to describe various types of DC links
CO2	Analyze Graetz circuit for rectifier and inverter mode of operation
CO3	Categorize various methods for the control of HVDC systems and to perform power flow analysis in AC/DC systems
CO4	Summarize various protection methods for HVDC systems
CO5	Classify Harmonics and Design different types of filters

Course Outcomes	Program Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	-	3	-	3	-	-	-	-	-	-	3
CO2	3	3	2	-	-	-	-	-	-	-	-	3
CO3	-	2	3	2	-	-	-	-	-	-	-	2
CO4	-	3	3	-	-	-	-	-	-	-	-	3
CO5	-	3	3	-	-	-	-	-	-	-	-	2
Average	3	2.75	2.8	2	3	-	-	-	-	-	-	2.6

Course Name: C403 HVDC TRANSMISSION		
CO	PSO1	PSO2
C212.1	3	1
C212.2	3	1
C212.3	2	2
C212.4	2	2
C212.5	3	2
Average	2.6	1.6

CO-PSO Mapping of Course **HVDC TRANSMISSION**