

KDK College of Engineering, Nagpur
Faculty of Science and Technology
B. Tech. IIIrd Semester Electrical Engineering

Semester III	Subject Code: 3BEE01T	Name of Subject: Network Analysis
Course Outcomes		
After completion of course, the students will be able to		
CO1	Apply the concepts of Electric network to solve circuit problems using mesh analysis.	
CO2	Solve circuit problems using node analysis.	
CO3	Apply network theorems to obtain circuit parameters of electric networks.	
CO4	Synthesize waveforms and Apply Laplace Transforms for steady state and transient analysis.	
CO5	Evaluate different Network Functions and understand two port network behaviour.	
Semester III	Subject Code: 3BEE01P	Name of Subject: Network Analysis Lab
Course Outcomes		
After completing the practical course, students will be able to:-		
1	Verify different network theorems as applicable to electric circuits.	
2	Compute various network parameters.	
3	Carry out simulation experiments.	
Semester III	Subject Code: 3BEE02T	Name of Subject: Digital Electronics
Course Outcomes		
After completion of syllabus, the student will be able to		
1	Apply the concepts of number systems used in digital system.	
2	Design and implement combinational digital circuits.	
3	Design and implement sequential logic circuits.	
4	Design register counters, data converters, and basics of digital-to-analog conversion.	
5	Apply the concepts of Logic Family & various IC's Application	
Semester III	Subject Code: 3BEE02P	Name of Subject: Digital Electronics Lab
Course Outcomes		
After completing the practical course, students will be able to:-		
1	Demonstrate the different Boolean Laws & basics of K-map to realize combinational & Sequential circuits.	
2	Identify the various digital ICs & understand their operation.	
3	Describe the operation & timing constraints for latches, registers, different sequential circuits.	
Semester III	Subject Code: 3BEEMD01T	Name of Subject: Principles & Practices in Electrical Engineering.
Course Outcomes		
After successful completion of this course the student will be able to:		

1	Acquire the knowledge of electric parameters and laws for electrical circuits.	
2	Analyze and interpret the sinusoidal electrical quantities and parameters for 1- phase/3-phase AC circuits.	
3	Explain earthing system & their role in electrical safety.	
4	Develop the ability to select and apply protective devices in electrical system	
5	Discuss electrical power system.	
Semester IV	Subject Code: 4BEE01T	Name of Subject: Electromagnetic Field
Course Outcomes		
After completion of course, the students will be able to		
1	Recognize and apply the knowledge of different co-ordinate systems.	
2	Evaluate the physical quantities of electromagnetic fields in different media and apply Gauss law.	
3	Describe and evaluate potential field.	
4	Explain steady magnetic fields, their behavior in different media, associated laws and inductance.	
5	Discuss Maxwell's equations in different forms and various media.	
Semester IV	Subject Code: 4BEE02T	Name of Subject: Electrical Machine-I
Course Outcomes		
After completion of course, the students will be able to		
1	Determine Equivalent Circuit parameter, Efficiency and Regulation of Single Phase Transformer and to Explain the Phasor groups of Three Phase Transformer.	
2	Analyze different characteristics of D. C. Motor and Speed Control of D.C. Motor.	
3	Explain different types of Three Phase Induction Motor and Analyze the characteristics at different Value of Slip.	
4	Analyze Voltage Regulation of Three Phase Synchronous Generator and Behavior of Synchronous Motor with Different Excitations	
5	Recognize special machines and single-phase machines.	
Semester IV	Subject Code: 4BEE02P	Name of Subject: Electrical Machine-I Lab.
Course Outcomes		
After completion of course, the students will be able to		
1	Evaluate the electrical parameters, efficiency and regulation of transformer	
2	Experiment with the operation and characteristics of DC machine	
3	Analyze various parameters, characteristics and assess the performance of synchronous and asynchronous machines.	
Semester IV	Subject Code: 4BEE03P	Name of Subject: Python Programming & Applications
Course Outcomes		
After completing the practical course, students will be able to:-		
1	Student should be able develop the application specific codes using python.	
2	Ability to create practical and contemporary applications using Functions, Modules and Regular	

	Expressions.	
3	Ability to explore python data structures like Lists, Tuples, Sets and dictionaries	
Semester IV	Subject Code: 4BEEMD02T	Name of Subject: Electrical Measurement
Course Outcomes		
After completing the course, students will be able to:-		
1	Develop the knowledge of theoretical and mathematical principles of electrical measuring instruments.	
2	Summarize appropriate methods for measurement of various electrical parameters.	
3	Measure and calculate electrical quantities like power, energy etc.	
4	Analyze the performance characteristics of instrument transformers, including error analysis and factors affecting accuracy.	
Semester III	Subject Code: 3BEE03P	Name of Subject: Community Engagement Project
Course Outcomes		
After completing the practical course, students will be able to:-		
1	Define problem statement for identified community.	
2	Select method for data collection.	
3	Analyze the collected data.	
4	Conclude / summarize overall learning from the project and communicate it to the stakeholders	