SREE VAHINI INSTITUTE OF SCIENCE &TECHNOLOGY::TIRUVURU
Department of Electrical & Electronics Engineering
Course outcome mapping with PO's and PSO's

Course Title:	ELECTRICAL CIRCUIT ANALYSIS-II
Programme:	B. Tech
Academic Year	**2019-20**
Year/Semester:	II/I
Regulation:	R16
Subject Code:	R1622021
Name of the Faculty:	G VENKAT

COURSE OUTCOMES (COs):

Upon completion of the course, students will be able to:

S. No.	Course Outcomes	Blooms Taxonomy level
CO1	Analyze the star-delta connection, differ voltages and currents in balanced system and measure three phase power	ANALYSIS
CO 2	Measure three phase power using two wattmeter method in unbalanced system	ANALYSIS
CO 3	Determine the transient response for DC and AC circuits and obtain the solution using mathematical methods	UNDERSTAND
CO 4	Develop the different two port network parameters	APPLY
CO 5	Model the time domain and s-domain equivalents for electrical cir	APPLY
CO 6	Predict the harmonic content in the electrical circuits	ANALYSIS

II. CO-PO/PSO MATRIX:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	2	1	-	2	-	-	-	-	-	-	-	2	2
CO2	3	3	-	-	2	-	-	-	-	-	-	-	3	2
CO3	2	3	1	-	2	-	-	-	-	-	-	-	2	2
CO4	3	2	1	-	2	-	-	-	-	-	-	-	2	3
CO5	3	2	1	-	2	-	-	-	-	-	-	-	2	2
CO6	3	2	1	-	2	-	-	-	-	-	-	-	2	2
Course	**2.8**	**2.3**	**1**	**-**	**2**	-	-	-	-	-	-	-	**2.2**	**2.2**

Faculty Signature

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SREE VAHINI INSTITUTE OF SCIENCE &TECHNOLOGY::TIRUVURU
Department of Electrical & Electronics Engineering
Course outcome mapping with PO's and PSO's

Course Title:	**Electrical Machines - I**
Programme:	B. Tech
Academic Year	**2019-20**
Year/Semester:	II/I
Regulation:	R16
Subject Code:	R1621022
Name of the Faculty:	G. Tejaswi

COURSE OUTCOMES (COs):

Upon completion of the course, students will be able to:

S.No.	Course Outcomes	Blooms Taxonomy level
CO1	Understand the unifying principles of electromagnetic energy conversion.	Understand
CO 2	Understand the construction, principle of operation and performance of DC machines.	Understand
CO 3	Learn the characteristics, performance, methods of speed control and testing methods of DC motors.	Apply
CO 4	To predetermine the performance of Single-Phase transformers with equivalent circuit models.	Understand
CO 5	Understand the methods of testing of single-phase transformer.	Understand
CO 6	Analyze the three phase transformers and achieve three phase to two phase conversion.	Analyze

II. CO-PO/PSO MATRIX:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	2	-	-	-	1	1	-	-	-	-	1	1	2
CO2	2	3	-	-	-	-	-	-	-	-	-	1	-	-
CO3	1	3	1	2	-	-	-	-	-	-	-	2	-	-
CO4	2	3	1	-	-	-	1	-	-	-	-	1	1	-
CO5	-	2	-	3	-	1	-	-	-	-	-	1	-	-
CO6	1	3	-	1	-	-	1	-	-	-	-	1	1	-
Course	**1.8**	**3**	**1**	**2**		**1**	**1**	**-**	**-**	**-**	**-**	**1.17**	**1**	**2**

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SREE VAHINI INSTITUTE OF SCIENCE &TECHNOLOGY::TIRUVURU

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Course outcome mapping with PO's and PSO's

Course Title:	**BASIC ELECTRONICS AND DEVICES**
Programme:	B. Tech
Academic Year	**2019-20**
Year/Semester:	II/I
Regulation:	R16
Subject Code:	**R1621023**
Name of the Faculty:	K. NAGESWAR RAO

COURSE OUTCOMES (COs):

Upon completion of the course, students will be able to:

S.No.	Course Outcomes	Blooms Taxonomy level
CO1	Outline the basic concepts of semiconductor physics.	Apply
CO 2	Analyze the operation and characteristics of diodes.	Analyze
CO 3	Demonstrate the operation and design aspects of rectifiers and regulators.	Apply
CO 4	Differentiate the characteristics of CB, CE, CC transistor configurations and biasing techniques.	Analyze
CO 5	Analyze the operation and characteristics of FET, Thyristors, Power IGBTs and Power MOSFETs	Understand

II. CO-PO/PSO MATRIX:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3	-	-	-	-	-	2	3	2	-	-	2	3
CO2	3	3	-	-	-	-	-	2	3	2	-	-	2	3
CO3	3	3	2	-	-	2	-	2	3	2	-	-	2	3
CO4	3	3	-	1	-	-	-	2	3	2	-	2	2	3
CO5	3	3	-	1	-	-	-	2	3	2	-	2	2	3
Course	**3**	**3**	**2**	**1**	**-**	**1**	**-**	**2**	**3**	**2**	**-**	**2**	**2**	**3**

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SREE VAHINI INSTITUTE OF SCIENCE &TECHNOLOGY::TIRUVURU

Department of Electrical & Electronics Engineering

Course outcome mapping with PO's and PSO's

Course Title:	ELECTRO MAGNETIC FIEDS
Programme:	B. Tech
Academic Year	**2019-20**
Year/Semester:	II/I
Regulation:	R16
Subject Code:	R1621024
Name of the Faculty:	CH. Pavan Kumar

COURSE OUTCOMES (COs):

Upon completion of the course, students will be able to:

S.No.	Course Outcomes	Blooms Taxonomy level
CO1	To predetermine the production of electric field and potentials due to different configurations of static charges.	Apply
CO 2	To introduce the properties of conductors and dielectrics, calculate the capacitance of various configurations and understand the concept of conduction and convection current densities.	Analyze
CO 3	The objective ofthe magnetic fields produced by currents in different configurations, application of ampere's law and the Maxwell's second and third equations.	Apply
CO 4	To study the magnetic force and torque through Lorentz force equation in magnetic field environment like conductors and other current loops.	Understand
CO 5	To develop the concept of self and mutual inductances and the energy stored.	Understand
CO 6	To provide time varying and Maxwell's equations in different forms and Maxwell's fourth equation for the induced e.m.f	Analyze

II. CO-PO/PSO MATRIX:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3	-	-	-	-	1	-	-	-	-	1	1	2
CO2	2	3	-	-	-	-	1	-	-	-	-	1	-	-
CO3	3	3	-	-	-	-	1	-	-	-	-	1	-	-
CO4	2	3	-	-	-	-	1	-	-	-	-	1	1	-
CO5	2	3	-	-	-	-	1	-	-	-	-	1	-	-
CO6	3	3	-	-	-	-	1	-	-	-	-	1	1	-
Course	**3**	**3**	**-**	**-**	**-**	**-**	**1**	**-**	**-**	**-**	**-**	**1**	**1**	**2**

Ch. Pavan Kumar

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SREE VAHINI INSTITUTE OF SCIENCE &TECHNOLOGY::TIRUVURU
Department of Electrical & Electronics Engineering
Course outcome mapping with PO's and PSO's

Course Title:	Thermal and hydro prime movers
Programme:	B. Tech
Academic Year	2019-20
Year/Semester:	II/I
Regulation:	R16
Subject Code:	R1621025
Name of the Faculty:	Dr. Surreddy. Kiran Kumar

COURSE OUTCOMES (COs):

Upon completion of the course, students will be able to:

S.No.	Course Outcomes	Blooms Taxonomy level
CO1	Analyse the operations of different internal combustion engines and calculating performance of different types of internal combustion engine.	Analyze
CO 2	Calculate the performance of steam turbines using velocity diagrams, vapour power cycles	Apply
CO3	Analyse the fundamentals of gas turbine and methods to improve the efficiency.	Analyze
CO4	Apply the various fluid dynamic equations to fluid jets, working and performance of various types of pumps.	Apply
CO 5	Calculate the performance of hydraulic turbines. Constructional and operationas of various types of hydraulic turbines	Apply
CO 6	Develop the various types of hydropower plants by using different loads	Create

II. CO-PO/PSO MATRIX:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	1	3	2	-	-	-	-	-	-	-	-	2	2	1
CO2	2	3	2	-	-	-	-	-	-	-	-	2	3	2
CO3	2	3	-	-	-	-	-	-	-	-	-	2	2	3
CO4	2	3	-	-	-	-	-	-	-	-	-	2	3	2
CO5	3	2	-	-	-	-	-	-	-	-	-	2	2	2
CO6	3	2	-	-	-	-	-	-	-	-	-	2	2	3
Course	2.17	2.67	2	-	-	-	-	-	-	-	-	2	2.33	2.17

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SREE VAHINI INSTITUTE OF SCIENCE &TECHNOLOGY::TIRUVURU
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Course outcome mapping with PO's and PSO's

Course Title:	ELECTRICAL CIRCUITS LABORATORY
Programme:	B. Tech
Academic Year	**2019-20**
Year/Semester:	II/I
Regulation:	R16
Subject Code:	R1621027
Name of the Faculty:	G VENKAT

COURSE OUTCOMES (COs):

Upon completion of the course, students will be able to:

S. No.	Course Outcomes	Blooms Taxonomy level
CO1	Evaluate the different circuit parameters using network theorems andverify them practically.	ANALYSIS
CO 2	Illustrate concepts of locus diagrams	APPLY
CO 3	Simplify the resonance parameters and verify them practically	APPLY
CO 4	Illustrate concepts of inductances and determine the coefficient of coupling.	ANALYSIS
CO 5	Examine two port network parameters.	ANALYSIS
CO 6	Illustrate the concept of power measurement and compute types ofpower	APPLY

II. CO-PO/PSO MATRIX:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	2	1	-	2	-	-	-	-	-	-	-	3	2
CO2	3	3	-	-	1	-	-	-	-	-	-	-	3	2
CO3	3	-	2	-	1	-	-	-	-	-	-	-	2	2
CO4	2	2	-	-	1	-	-	-	-	-	-	-	2	2
CO5	2	2	2	-	2	-	-	-	-	-	-	-	2	2
CO6	2	2	2	-	2	-	-	-	-	-	-	-	2	2
Course	**2.5**	**2.2**	**1.75**	**-**	**1.5**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**2.3**	**2**

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SREE VAHINI INSTITUTE OF SCIENCE &TECHNOLOGY::TIRUVURU

Department of Electrical & Electronics Engineering

Course outcome mapping with PO's and PSO's

Course Title:	Managerial Economics and Financial Analysis
Programme:	B. Tech
Academic Year	2019-20
Year/Semester:	II/I
Regulation:	R16
Subject Code:	R1621055
Name of the Faculty:	Mr. O. Naresh

COURSE OUTCOMES (COs):

Upon completion of the course, students will be able to:

S. No.	Course Outcomes	Blooms Taxonomy level
CO1	To introduce micro as well as macro, economic concepts that are useful in business decision making	Apply
CO 2	To introduce the concepts of cost and significance, limitation of Break even analysis.	Apply
CO 3	To master the basic tools of microeconomics: supply and demand analysis; firms' production and pricing decisions, market equilibrium and market structure analysis.	Apply
CO 4	The objective of this course is to acquaint the students regarding various accounting concepts and its application in managerial decision making	Apply
CO 5	To enable the students to analyze a company's financial statements and come to a reasoned conclusion about the financial situation of the company.	Analyze
CO 6	To provide the optimal decisions acquiring the knowledge on financial accounting and its analysis	Understand

II. CO-PO/PSO MATRIX:

PO's/Co's	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	-	2	3	-	3	-	-	-	-	-	-	-	2	2
CO2	3	-	2	-	-	-	-	-	-	-	-	2	3	2
CO3	2	-	3	-	-	-	-	-	-	-	-	2	2	2
CO4	3	3	-	-	3	-	-	-	-	-	-	2	3	2
CO5	3	3	-	-	3	-	-	-	-	-	-	2	3	2
CO6	3	2	-	-	-	-	-	-	-	-	-	2	2	2
Course	**2.8**	**2.5**	**2.67**	**-**	**3**	**-**	**-**	**-**	**-**	**-**	**-**	**2**	**2.5**	**2**

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Department of Electrical & Electronics Engineering
Course outcome mapping with PO's and PSO's

Course Title:	Thermal and hydro Lab
Programme:	B. Tech
Academic Year	2019-20
Year/Semester:	II/I
Regulation:	R16
Subject Code:	R1621
Name of the Faculty:	Mr. M .Oliva

COURSE OUTCOMES (COs):

Upon completion of the course, students will be able to:

S.No.	Course Outcomes	Blooms Taxonomy level
CO1	Determine the theoretical assumptions with actual operation of valves and ports of diesel and petrol engines respectively	Apply
CO 2	Apply the relevant formulae to determine the various performance parameters of IC engines through performance and heat balance tests.	Apply
CO3	Determine the frictional power of IC engines through Morse, Retardation and Motoring tests.	Apply
CO4	Evaluation of 2 stroke and 4 stroke petrol and diesel engine performances	Evaluate
CO 5	Calculate the actual performance of hydraulic turbines by applying mathematical correlations	Apply
CO 6	Evaluate the actual performance of Reciprocating and Centrifugal pumps through the application of mathematical relations.	Evaluate
CO7	determine the actual measurement of various flow measuring devices	Apply
CO8	determine the friction factor of pipe lines having various diameters	Apply

II. CO-PO/PSO MATRIX:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	1	1	1	-	1	1	-	-	-	-	1	1	1
CO2	3	1	1	1	-	1	2	-	-	-	-	3	1	1
CO3	3	1	1	1	-	1	2	-	-	-	-	3	1	1
CO4	3	1	1	1	-	1	1	-	-	-	-	1	1	1
CO5	3	1	1	1	-	1	2	-	-	-	-	3	1	1
CO6	3	1	1	1	-	1	2	-	-	-	-	3	1	1
CO7	3	1	1	1	-	1	2	-	-	-	-	3	1	1
CO8	3	1	1	1	-	1	2	-	-	-	-	1	1	1
Course	**3**	**1**	**1**	**1**	**-**	**1**	**1.75**	**-**	**-**	**-**	**-**	**2.25**	**1**	**1**

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Department of Electrical and Electronics Engineering

Course outcome mapping with PO's and PSO's

Course Title:	ELECTRICAL MEASUREMENTS
Programme:	B.Tech
Academic Year	2019-20
Year/Semester:	II/II
Regulation:	R16
Subject Code:	R1622021
Name of the Faculty:	K.RAMYA

I COURSE OUTCOMES (COs):

Upon completion of the course, students will be able to:

S.No.	Course Outcomes	Blooms Taxonomy level
CO1	Acquire knowledge of the characteristics of measuring instruments and their classification	Understand
CO 2	Be conversant in construction, working of measuring instruments and their proficient us	Understand
CO3	Acquire knowledge various methods of electrical parameters measurement.	Understand
CO4	Be competent to handle various instruments for the measurement of electrical quantities.	Understand
CO 5	Concept of ballistic galvanometer	Analyze
CO 6	Demonstrate Cathode Ray Oscilloscope (CRO)	Understand

II. CO-PO/PSO MATRIX:

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	-	-	-	-	2	-	3	-	-	-	2	2	2
CO2	3		3	2		2	-	2		2		2	3	2
CO3	2	-	-	-	2	2	-	-	-	-	-	2	2	2
CO4	2	-	-	-	2	2	-	-	2	2	-	2	3	2
CO5	2	-	-	-	2		-	-	2	2	-	2	3	2
CO6	2	-	-	-	2	3	-	-	-	-	-	2	2	2
Course	**2.33**		**3**	**2**	**2**	**2.2**		**2.5**	**2**	**2**	**-**	**2**	**2.5**	**2**

K. Ramya

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Department of Electrical and Electronics Engineering

Course outcome mapping with PO's and PSO's

Course Title:	ELECTRICAL MACHINES-II
Programme:	B.Tech
Academic Year	**2019-20**
Year/Semester:	II/II
Regulation:	R16
Subject Code:	R1622022
Name of the Faculty:	CH. Pavan Kumar

I COURSE OUTCOMES (COs):

Upon completion of the course, students will be able to:

S.No.	Course Outcomes	Blooms Taxonomy level
CO1	Understand the principle of operation and performance of 3-phase induction motor & To understand the torque producing mechanism of a single-phase induction motor	Apply
CO 2	Quantify the performance of induction motor and induction generator in terms of torque and slip	Analyze
CO 3	To understand the principle of emf generation, the effect of armature reaction and predetermination of voltage regulation in synchronous generators	Apply
CO 4	Analyze parallel operation of synchronous generators	Understand
CO 5	Analyze the control of real and reactive powers for synchronous generators	Understand
CO 6	To understand the operation, performance and starting methods of synchronous motors	Analyze

II. CO-PO/PSO MATRIX:

	PO1	PO2	PO3	PO 4	PO 5	PO 6	PO7	PO8	PO9	PO1 0	PO1 1	PO1 2	PSO1	PSO2
CO1	2	3	-	-	-	-	1	-	-	-	-	1	1	1
CO2	1	3	-	1	1	-	-	-	-	-	1	1	1	-
CO3	1	2	3	1	1	1	1	-	-	-	1	2	1	-
CO4	-	2	-	3	-	-	1	1	-	-	-	1	1	1
CO5	1	3	-	1	-	-	-	-	-	-	1	2	1	1
CO6	2	3	3	2	1	1	1	1	-	-	1	2	1	1
Course	**1.4**	**2.67**	**3**	**1.6**	**1**	**1**	**1**	**1**	**-**	**-**	**1**	**1.5**	**1**	**1**

Ch. Pavan Kumar

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SREE VAHINI INSTITUTE OF SCIENCE AND TECHNOLOGY : TIRUVURU

Department Electrical and Electronics Engineering

Course outcome mapping with PO's and PSO's

Course Title:	**Management Science**
Programme:	B.TECH (EEE)
Academic Year	2019-2020
Year/Semester:	II/II
Regulation:	R16
Subject Code:	R1622023
Name of the Faculty:	G.Narendra Babu

I. COURSE OUTCOMES (COs):

Upon completion of the course, students will be able to:

S. No.	Course Outcomes	Blooms Taxonomy level
CO1	Explain the management science approach to identification, analysis, decision, and implementation of problem solving.	Apply
CO 2	Identify, categorize and discuss management problems that can be analyzed by linear programming. Explain the importance of forecasting in organizations.	Apply
CO3	Construct models for a variety of PERT/CPM. Describe the EOQ model and its variations or expansions.	Analyze
CO4	Ilustrate the decision tree method of analysis for decision making under risk and under certainty and expected value	Apply
CO 5	Demonstrate the transportation method to solve problems manually and with the northwest corner method .Solve case problems using computer software.	Understand

II. CO-PO/PSO MATRIX:

PO's/Co's	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11	PO12	PSO1	PSO2
CO1	-	2	3	-	-	-	-	-	-	-	-	-	2	2
CO2	3	-	2	-	-	-	-	-	-	-	-	2	3	2
CO3	2	-	3	-	-	-	-	-	-	-	-	2	2	2
CO4	3	3	-	-	-	-	-	-	-	-	-	2	3	2
CO5	3	3	-	-	-	-	-	-	-	-	-	2	3	2
CO6	3	2	-	-	-	-	-	-	-	-	-	2	2	2
Course	**2.8**	**2.5**	**2.6**	-	-	-	-	-	-	-	-	**2**	**2.5**	**2**

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G. Narendra Babu

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SREE VAHINI INSTITUTE OF SCIENCE AND TECHNOLOGY::TIRUVURU

Department of Electrical and Electronics Engineering

Course outcome mapping with PO's and PSO's

Course Title:	**Control Systems**
Programme:	B.Tech
Academic Year	**2019-20**
Year/Semester:	II/II
Regulation:	R16
Subject Code:	R1622024
Name of the Faculty:	K. Kiran Kumar

I. COURSE OUTCOMES(COs):

S .No.	Course Outcomes	Blooms Taxonomy level
CO1	Calculate the transfer function of physical systems	Apply
CO 2	Determine time response specifications of second order systems and error constants of linear systems.	Apply
CO 3	Analyse stability of Liner time invariant systems using time domain analysis methods such as Routh's stability criterion and the root locus method.	Analyse
CO 4	Analyse the stability of Liner time invariant systems using frequency response methods such as Nyquist, Bode and polar plots	Analyse
CO 5	Design Lag, Lead, Lag-Lead compensators to improve system performance by using Bode diagrams.	Create
CO 6	Develop the state model equations and identify the controllability and observability of a physical system	Create

II. CO-PO/PSO MATRIX:

	PO1	PO2	PO3	PO 4	PO 5	PO 6	PO7	PO8	PO9	PO1 0	PO1 1	PO1 2	PSO1	PSO2
CO1	2	3	-	2	2	1	-	-	-	-	-	1	3	2
CO2	2	3	1	2	2	-	-	-	-	-	-	2	3	2
CO3	2	3	-	2	2	-	-	-	-	-	-	2	3	2
CO4	2	3	-	2	2	-	-	-	-	-	-	2	3	1
CO5	2	2	3	2	2	-	-	-	-	-	-	2	3	2
CO6	2	2	3	2	2	-	-	-	-	-	-	2	3	1
Course	2	3	2	2	2	1	-	-	-	-	-	2	3	2

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Course outcome mapping with PO's and PSO's

Course Title:	**Power Systems - I**
Programme:	B.Tech
Academic Year	**2019-20**
Year/Semester:	II/II
Regulation:	R16
Subject Code:	R1622025
Name of the Faculty:	G.Tejaswi

I. COURSE OUTCOMES(COs):

Upon completion of the course, students will be able to:

S.No.	Course Outcomes	Blooms Taxonomy level
CO1	Understand the principle of operation of different components of a thermal power stations and nuclear power station.	Apply
CO 2	Analyze the concepts of DC/AC distribution systems and voltage drop calculations	Understand
CO 3	Concept of the constructional and operation of different components of an Air and Gas Insulated substations.	Apply
CO 4	Analyze the constructional details of different types of cables.	Understand
CO 5	Analyze different types of load curves and tariffs applicable to consumers	Apply
CO 6	To study the principle of operation of different components of a thermal power stations and nuclear power station.	Analyze

II. CO-PO/PSO MATRIX:

	PO1	PO2	PO3	PO 4	PO 5	PO 6	PO7	PO8	PO9	PO1 0	PO1 1	PO1 2	PSO1	PSO2
CO1	1	-	-	-	1	1	3	1	-	-	-	1	1	-
CO2	2	3	1	-	-	1	-	-	-	-	-	1	1	1
CO3	1	-	1	-	-	1	1	-	-	-	-	1	1	-
CO4	1	3	1	-	-	-	-	-	-	-	-	1	1	-
CO5	1	3	2	-	-	2	-	1	-	-	-	2	1	-
CO6	2	3	2	-	1	2	2	1	-	-	-	2	1	1
Course	1.33	3	1.4	-	1	1.4	2	1	-	-	-	1.33	1	1

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Department of Electrical and Electronics Engineering

Course outcome mapping with PO's and PSO's

Course Title:	**STLD**
Programme:	B.Tech
Academic Year	**2019-20**
Year/Semester:	II/II
Regulation:	R16
Subject Code:	R1622026
Name of the Faculty:	M.Anusha

I.COURSE OUTCOMES (COs):

S.No.	Course Outcomes	Blooms Taxonomy level
CO1	Able to manipulate numeric information in different forms, e.g. different bases, signed integers, various codes such as ASCII, gray, and BCD.	Apply
CO 2	Able to manipulate the different logics using NAND and NOR gates	Apply
CO 3	Able to manipulate simple Boolean expressions using the theorems and postulates of Boolean algebra and to minimize combinational functions.	Analyse
CO 4	Able to design and analyze small combinational circuits and to use standard combinational functions/building blocks to build larger more complex circuits.	Analyse
CO 5	Able to design and analyze small sequential circuits and devices and to use standard sequential functions/building blocks to build larger more complex circuits	Create

II. CO-PO/PSO MATRIX:

	PO 1	PO2	PO3	PO 4	PO 5	PO 6	PO7	PO8	PO9	PO1 0	PO1 1	PO1 2	PSO1	PSO2
CO1	2	3	-	2	2	1	-	-	-	-	-	1	3	2
CO2	2	3	1	2	2	-	-	-	-	-	-	2	3	2
CO3	2	3	-	2	2	-	-	-	-	-	-	2	3	2
CO4	2	3	-	2	2	-	-	-	-	-	-	2	3	1
CO5	2	2	3	2	2	-	-	-	-	-	-	2	3	2
Course	**2**	**3**	**2**	**2**	**2**	**1**	-	-	-	-	-	**2**	**3**	**2**

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SREE VAHINI INSTITUTE OF SCIENCE AND TECHNOLOGY::TIRUVURU

Department of Electrical and Electronics Engineering

Course outcome mapping with PO's and PSO's

Course Title:	**Electronic device and circuits lab**
Programme:	B.Tech
Academic Year	**2019-20**
Year/Semester:	II/II
Regulation:	R16
Subject Code:	R1622027
Name of the Faculty:	M.Anusha

I.COURSE OUTCOMES (COs):

Upon completion of the course, students will be able to:

S.No.	Course Outcomes	Blooms Taxonomy level
CO1	Understand the fundamentals of construction of the semiconducting material, fabrication of elements, working principles and operation of semiconductors.	Apply
CO 2	Analyze the concept with the working principles of forward and reverse bias characteristics.	Apply
CO 3	Demonstrate the basic skills in design and analysis of filter circuits, biasing circuits.	Analyse
CO 4	Discriminate the principle, construction and operation of BJTs, FETs and MOSFETs.	Analyse
CO 5	Interpret the different techniques for FET and MOSFET circuit designs, performance and analysis-volt amp characteristics of BJT and FET amplifiers	Create
CO 6	Analyze the small signal low frequency Transistor amplifiers using h-parameters	Create

II. CO-PO/PSO MATRIX:

	PO 1	PO2	PO3	PO 4	PO 5	PO 6	PO7	PO8	PO9	PO1 0	PO1 1	PO1 2	PSO1	PSO2
CO1	1	2	2	1	1	1	-	2	2	-	1	1	3	2
CO2	1	2	2	2	2	-	-	1	1	1	-	1	3	2
CO3	2	2	2	2	-	-	2	-	2	2	1	1	3	2
CO4	1	2	2	1	2	1	1	-	-	-	-	1	3	1
CO5	3	2	2	2	2	-	1	2	2	2	1	1	3	2
CO6	-	1	-	-	-	-	-	2	-	-	-	1	3	1
Course	**1.6**	**1.83**	**2**	**1.6**	**1.75**	**1**	**1.33**	**1.75**	**1.75**	**1.67**	**1**	**1**	**3**	**1.67**

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Department of Electrical and Electronics Engineering

Course outcome mapping with PO's and PSO's

Course Title:	**Electrical Machines-I Lab**
Programme:	B.Tech
Academic Year	**2019-20**
Year/Semester:	II/II
Regulation:	R16
Subject Code:	R1622028
Name of the Faculty:	K. Kiran Kumar

I.COURSE OUTCOMES(COs):

Upon completion of the course, students will be able to:

S.No.	Course Outcomes	Blooms Taxonomy level
CO1	To plot the magnetizing characteristics of DC shunt generator and understand the mechanism of self-excitation.	Apply
CO 2	To control the speed of the DC motors.	Apply
CO 3	Determine and predetermine the performance of DC machines.	Analyse
CO 4	To predetermine the efficiency and regulation of transformers and assess their performance.	Analyse

II. CO-PO/PSO MATRIX:

	PO1	PO2	PO3	PO 4	PO 5	PO 6	PO7	PO8	PO9	PO1 0	PO1 1	PO1 2	PSO1	PSO2
CO1	2	3	-	2	2	1	-	-	-	-	-	1	3	2
CO2	2	3	1	2	2	-	-	-	-	-	-	2	3	2
CO3	2	3	-	2	2	-	-	-	-	-	-	2	3	2
CO4	2	3	-	2	2	-	-	-	-	-	-	2	3	1
Course	**2**	**3**	**1**	**2**	**2**	**1**	-	-	-	-	-	**1.75**	3	**1.75**

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Department of Electrical & Electronics Engineering

Course outcome mapping with PO's and PSO's

Course Title:	**Power Systems-II**
Programme:	B. Tech
Academic Year	**2019-20**
Year/Semester:	III/I
Regulation:	R16
Subject Code:	R1631021
Name of the Faculty:	K. Kiran Kumar

COURSE OUTCOMES (COs):

Upon completion of the course, students will be able to:

S. No.	Course Outcomes	Blooms Taxonomy level
CO1	Calculate parameters of various types of transmission lines during different operating conditions.	Apply
CO 2	Analyze the performance of short and medium transmission lines.	Analyze
CO 3	Evaluate reflection &Refraction Coefficients of travelling waves on transmission lines.	Apply
CO 4	Analyze various factors related to charged transmission lines.	Understand
CO 5	Determine sag/tension of transmission lines and performance of line Insulators.	Understand
CO 6	Calculate string efficiency of the insulators.	Analyze

II. CO-PO/PSO MATRIX:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3	3	-	-	-	-	-	-	-	-	2	3	2
CO2	3	3	3	-	-	-	-	-	-	-	-	2	3	2
CO3	3	3	2	-	-	-	-	-	-	-	-	2	3	2
CO4	3	3	1	-	-	1	-	-	-	-	-	1	3	1
CO5	3	3	1	-	-	-	-	-	-	-	-	2	3	2
CO6	3	3	3	-	-	-	-	-	-	-	-	1	3	1
Course	3	3	2.17	-	-	1	-	-	-	-	-	1.67	3	1.67

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Department of Electrical & Electronics Engineering
Course outcome mapping with PO's and PSO's

Course Title:	**Renewable Energy Sources**
Programme:	B. Tech
Academic Year	**2019-20**
Year/Semester:	III/I
Regulation:	R16
Subject Code:	**R1631022**
Name of the Faculty:	G. Tejaswi

COURSE OUTCOMES (COs):

Upon completion of the course, students will be able to:

S. No.	Course Outcomes	Blooms Taxonomy level
CO1	Demonstrate the solar radiation data, Extraterrestrial radiation, radiation on earth's surface.	Apply
CO 2	Analyze solar thermal collections.	Analyze
CO 3	Understand solar photo voltaic systems	Apply
CO 4	Analyze maximum power point techniques in solar PV and wind energy.	Understand
CO 5	Analyze wind energy conversion systems, Betz coefficient, tip speed ratio.	Understand
CO 6	Demonstrate the basic principle and working of hydro, tidal, biomass, fuel cell and geothermal systems.	Analyze

II. CO-PO/PSO MATRIX:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	2	2	-	-	1	-	2	-	-	-	-	3	1	3
CO2	-	2	1	-	-	2	2	-	-	-	1	3	-	3
CO3	-	2	2	-	2	1	2	-	-	-	-	3	2	3
CO4	-	2	2	-	2	1	2	-	-	-	-	3	2	3
CO5	-	3	-	-	-	-	2	-	-	-	-	3	-	2
CO6	2	-	-	-	-	-	2	-	-	-	-	3	-	-
Course	**2**	**2.2**	**1.67**	**-**	**1.67**	**1.33**	**2**	**-**	**-**	**-**	**1**	**3**	**1.67**	**2.8**

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Department of Electrical & Electronics Engineering
Course outcome mapping with PO's and PSO's

Course Title:	**Signals & Systems**
Programme:	B. Tech
Academic Year	**2019-20**
Year/Semester:	III/I
Regulation:	R16
Subject Code:	**R1631023**
Name of the Faculty:	Sk. Karimoon

COURSE OUTCOMES (COs):

Upon completion of the course, students will be able to:

S. No.	Course Outcomes	Blooms Taxonomy level
CO1	Design linear and non linear wave shaping circuit	Apply
CO 2	Apply the fundamental concepts of wave shaping for various switching and signal generating circuits.	Analyze
CO 3	Design different multivibrators and time base generators	Apply
CO 4	Utilize the non sinusoidal signals in many experimental research areas.	Understand
CO 5	Design different logic gates using diodes and transistors.	Understand

II. CO-PO/PSO MATRIX:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	1	3	1	1	1	-	-	-	-	-	-	-	1	3
CO2	1	1	1	1	-	-	-	-	-	-	-	2	-	3
CO3	3	3	3	3	-	2	-	-	-	-	2	3	2	3
CO4	1	2	2	3	3	3	3	-	-	-	2	3	2	3
CO5	2	2	3	3	-	3	3	-	-	-	3	3	-	2
Course	**1.6**	**2.2**	**2**	**2.2**	**2**	**2.67**	**3**	-	-	-	**2.33**	**2.75**	**1.67**	**2.8**

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Course outcome mapping with PO's and PSO's

Course Title:	**POWER ELECTRONICS**
Programme:	B. Tech
Academic Year	**2019-20**
Year/Semester:	III/I
Regulation:	R16
Subject Code:	**R1631025**
Name of the Faculty:	T. Pardha Saradhi

COURSE OUTCOMES(COs):

Upon completion of the course, students will be able to:

S.No.	Course Outcomes	Blooms Taxonomy level
CO1	Demonstrate basic theory of operation of SCR, characteristics of power MOSFET & power IGBT and to design Uncontrolled converters along with protection circuits.	Apply
CO 2	Design various Firing circuit for SCR & Analyze various converters like 1-Φ Full Wave Controlled Rectifier & Half Wave Controlled Rectifier with & without effect Of freewheeling diode.	Analyze
CO 3	Analyze various 3-Φ uncontrolled & controlled rectifier circuits and Understand their Applications	Apply
CO 4	Analyze & design various DC–DC Converters like BUCK,BOOST& BUCK – BOOST converters in different modes with ripple calculation & operation of different modes with ripple calculation	Understand
CO 5	Analyze steady –state performance of 1-Φ & 3-Φ inverters, applications of PWM techniques for VSI along with harmonic analysis.	Understand
CO 6	Analyze & design various AC–AC Converters like Single phase & 3-Phase CONVERTERS, operation of different modes with output voltage & current calculation	Analyze

II. CO-PO/PSO MATRIX:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3	3	-	-	-	-	-	-	-	-	2	3	2
CO2	3	3	3	-	-	-	-	-	-	-	-	2	3	2
CO3	3	3	2	-	-	-	-	-	-	-	-	2	3	2
CO4	3	3	1	-	-	1	-	-	-	-	-	1	3	1
CO5	3	3	1	-	-	-	-	-	-	-	-	2	3	2
CO6	3	3	3	-	-	-	-	-	-	-	-	1	3	1
Course	3	3	2.17	-	-	1	-	-	-	-	-	1.67	3	1.67

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Course outcome mapping with PO's and PSO's

Course Title:	**PULSE AND DIGITAL CIRCUITS**
Programme:	B. Tech
Academic Year	**2019-20**
Year/Semester:	III/I
Regulation:	R16
Subject Code:	**R1631024**
Name of the Faculty:	Sk. Karimoon

COURSE OUTCOMES (COs):

Upon completion of the course, students will be able to:

S. No.	Course Outcomes	Blooms Taxonomy level
CO1	Design linear and non linear wave shaping circuit	Apply
CO 2	Apply the fundamental concepts of wave shaping for various switching and signal generating circuits.	Analyze
CO 3	Design different multivibrators and time base generators	Apply
CO 4	Utilize the non sinusoidal signals in many experimental research areas.	Understand
CO 5	Design different logic gates using diodes and transistors.	Understand

II. CO-PO/PSO MATRIX:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	1	3	1	1	1	-	-	-	-	-	-	-	1	3
CO2	1	1	1	1	-	-	-	-	-	-	-	2	-	3
CO3	3	3	3	3	-	2	-	-	-	-	2	3	2	3
CO4	1	2	2	3	3	3	3	-	-	-	2	3	2	3
CO5	2	2	3	3	-	3	3	-	-	-	3	3	-	2
Course	2	2	2	2		2	2	-	-	-	2	2	2	3

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Department of Electrical & Electronics Engineering
Course outcome mapping with PO's and PSO's

Course Title:	Electrical Machines-II LAB
Programme:	B. Tech
Academic Year	**2019-20**
Year/Semester:	III/I
Regulation:	R16
Subject Code:	R1631026
Name of the Faculty:	K. Kiran Kumar

COURSE OUTCOMES (COs):

Upon completion of the course, students will be able to:

S. No.	Course Outcomes	Blooms Taxonomy level
CO1	Able to analyse the performance and working of three phase Induction Motor	Apply
CO 2	Able to analyse the performance three –phase alternator	Analyze
CO 3	Able to analyse the performance single phase induction motor	Apply
CO 4	Able to control the a three—phase synchronous motor	Understand

II. CO-PO/PSO MATRIX:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	2	2	2	2	3	2	-	-	2	3	2	1	2	1
CO2	2	2	2	2	3	2	-	-	2	3	2	-	2	1
CO3	2	2	-	-	3	-	-	-	2	3	2	-	-	1
CO4	2	2	-	-	3	2	-	-	2	3	2	-	2	1
Course	2	2	2	2	3	2	-	-	2	3	2	1	2	1

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Department of Electrical & Electronics Engineering
Course outcome mapping with PO's and PSO's

Course Title:	CONTROL SYSTEMS LAB
Programme:	B. Tech
Academic Year	**2019-20**
Year/Semester:	III/I
Regulation:	R16
Subject Code:	R1631027
Name of the Faculty:	CH. Pavan Kumar

COURSE OUTCOMES (COs):

Upon completion of the course, students will be able to:

S. No.	Course Outcomes	Blooms Taxonomy level
CO1	Able to analyse the performance and working Magnetic amplifier, D.C and A.C servo motors and synchronous motors.	Apply
CO 2	Able to design P,PI,PD and PID controllers	Analyze
CO 3	Able to design lag, lead and lag–lead compensators	Apply
CO 4	Able to control the temperature using PID controller	Understand
CO 5	Able to determine the transfer function of D.C motor	Understand
CO 6	Able to control the position of D.C servo motor performance	Analyze

II. CO-PO/PSO MATRIX:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	2	2	2	2	3	2	-	-	2	3	2	1	2	1
CO2	2	2	2	2	3	2	-	-	2	3	2	-	2	1
CO3	2	2	-	-	3	-	-	-	2	3	2	-	-	1
CO4	2	2	-	-	3	2	-	-	2	3	2	-	2	1
CO5	2	2	-	-	3	3	-	-	2	3	2	-	3	2
CO6	1	1	-	-	3	-	-	-	2	3	2	-	-	-
Course	1.83	1.83	2	2	3	2.25	-	-	2	3	2	1	2.25	1.2

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Department of Electrical & Electronics Engineering
Course outcome mapping with PO's and PSO's

Course Title:	**ELECTRICAL MEASUREMENTS LAB**
Programme:	B. Tech
Academic Year	**2019-20**
Year/Semester:	III/I
Regulation:	R16
Subject Code:	**R1631028**
Name of the Faculty:	T. Pardha Saradhi

COURSE OUTCOMES (COs):

Upon completion of the course, students will be able to:

S.No.	Course Outcomes	Blooms Taxonomy level
CO1	Calibrate Single phase energy meter, Phantom Loading	Apply
CO 2	Measure the Resistance, Inductance, Capacitance using Bridges	Analyze
CO 3	Calculate the Power by 1-Phase Wattmeter, 3-phase Reactive power, 3 Voltmeter 3 Ammeter.	Apply
CO 4	Measure the parameters of choke coil, % ratio error of a CT	Understand
CO 5	Test transformer oil for its effectiveness	Understand

II. CO-PO/PSO MATRIX:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	2	2	-	3	-	-	-	2	3	2	-	1	3	2
CO2	2	2	-	3	-	-	-	2	3	2	-	1	3	2
CO3	2	2	-	3	-	-	-	2	3	2	-	1	3	2
CO4	2	2	-	3	-	-	-	2	3	2	-	1	3	1
CO5	1	2	-	3	-	-	-	2	3	2	-	1	3	2
Course	**1.8**	**2**	**-**	**3**	**-**	**-**	**-**	**2**	**3**	**2**	**-**	**1**	**3**	**1.8**

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Course outcome mapping with PO's and PSO's

Course Title:	**POWER ELECTRONIC CONTROLLERS & DRIVES**
Programme:	B.Tech
Academic Year	**2019-20**
Year/Semester:	III/II
Regulation:	R16
Subject Code:	**R1632021**
Name of the Faculty:	T. Pardha Saradhi

I.COURSE OUTCOMES (COs):

Upon completion of the course, students will be able to:

S.No.	Course Outcomes	Blooms Taxonomy level
CO1	Demonstrate the fundamentals of Electric Drives, Steady state stability and Load Equalization different Braking Techniques	Apply
CO 2	Develop the 1-phase full converter controlled dc motor and also using Dual converter for multi quadrant operations and observe their Voltage current wave forms	Analyze
CO 3	Explain the Chopper circuit differs with Converter circuits and also Classes of chopper circuits for Closed loop operations	Apply
CO 4	Construct AC Voltage controller and VSC Converter for speed control of induction motor drive .	Understand
CO 5	Design Slip ring induction Motor drive for Rotor Resistance control and also for Slip Power schemes of scheirbius Drive	Apply
CO 6	Illustrate Various electrical and mechanical speed control Characteristics of Synchronous motor Drive.	Understand

II. CO-PO/PSO MATRIX:

	PO1	PO2	PO3	PO 4	PO 5	PO 6	PO7	PO8	PO9	PO1 0	PO1 1	PO1 2	PSO1	PSO2
CO1	3	2	-	-	1	-	-	-	-	-	-	-	2	2
CO2	2	3	-	1	1	-	-	-	-	-	-	-	2	2
CO3	3	2	-	1	1	-	-	-	-	-	-	2	2	2
CO4	2	3	-	-	1	-	-	-	-	-	-	2	2	2
CO5	3	2	-	-	1	-	-	-	-	-	-	2	2	2
CO6	2	3	-	-	1	-	-	-	-	-	-	2	2	2
Course	2.5	2.5	-	1	1	-	-	-	-	-	-	2	2	2

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SREE VAHINI INSTITUTE OF SCIENCE AND TECHNOLOGY::TIRUVURU

Department of Electrical and Electronics Engineering

Course outcome mapping with PO's and PSO's

Course Title:	Power system analysis
Programme:	B.Tech
Academic Year	2019-20
Year/Semester:	III/II
Regulation:	R16
Subject Code:	R1632022
Name of the Faculty:	K.RAMYA

I.COURSE OUTCOMES (COs):

Upon completion of the course, students will be able to:

S.No.	Course Outcomes	Blooms Taxonomy level
CO1	To understand the role of power system analysis tools on the planning and operation of power system	Apply
CO 2	To develop one line diagram of the given power system.	Apply
CO3	To compute Ybus and Zbus matrices for power system networks	Apply
CO4	To formulate the power flow problem and solve the same using different methods.	Apply
CO 5	To apply symmetrical component techniques for unsymmetrical fault analysis.	Analyze
CO 6	To solve the swing equation of a power system using different numerical techniques	Understand

II. CO-PO/PSO MATRIX:

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO1 1	PO12	PSO1	PSO2
CO1	3	-	-	2	-	-	-	-	-	-	-	2	2	2
CO2	3	3	-	2	-	-	-	-	-	-	-	2	3	2
CO3	2	-	-	3	-	-	-	-	-	-	-	2	2	2
CO4	3	3	-	3	-	-	-	-	-	-	-	2	3	2
CO5	3	2	-	2	-	-	-	-	-	-	-	2	3	2
CO6	2	2	-	2	-	-	-	-	-	-	-	2	2	2
Course	2.6	2.5	-	2.3	-	-	-	-	-	-	-	2	2.5	2

K. Ramya
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SREE VAHINI INSTITUTE OF SCIENCE AND TECHNOLOGY::TIRUVURU

Department of Electrical and Electronics Engineering

Course outcome mapping with PO's and PSO's

Course Title:	**Microprocessor and microcontroller**
Programme:	B.Tech
Academic Year	**2019-20**
Year/Semester:	III/II
Regulation:	R16
Subject Code:	**R1632023**
Name of the Faculty:	K. Kutumbarao

I.COURSE OUTCOMES (COs):

Upon completion of the course, students will be able to:

S.No.	Course Outcomes	Blooms Taxonomy level
CO1	Understand the architecture of 8086 microprocessor and micro controller, and their operations and pin diagrams	Apply
CO 2	Demonstrate and write programming skills in ALP and 8086 and 8051	Analyze
CO 3	Illustrate the working of different peripherals like 8055,8257,8237,8279,8259 which are interface with 8086 MP.	Apply
CO 4	Distinguish and analyze the interfacing of microprocessor and microcontroller with peripherals	Understand
CO-5	Analyze and apply basic concepts of fundamentals of 8051 microcontroller and advanced microprocessors 80286, 80386,80486.	Apply
CO-6	Analyze and apply basic concepts of fundamentals of PIC microcontroller	Understand

II. CO-PO/PSO MATRIX:

	PO1	PO2	PO3	PO 4	PO 5	PO 6	PO7	PO8	PO9	PO1 0	PO1 1	PO1 2	PSO1	PSO2
CO1	1	1	1	-	-	1	3	-		-	-	1	1	1
CO2	2	-	1	-		1	-	-	1	-	3	3	2	2
CO3	1	3	1	-	-	2	-	-	-	-	-	1	2	2
CO4	-	-	-	-	-	-	-	-	-	-	-	-	2	2
CO-5	1	3	1	-	1	2	-	2	-	-	-	1	-	-
CO-6	2		1		1	-	-	3		2	-	-	-	-
Course	1.4	2.33	1	-	1	1.5	1	2.5	1	2	3	1 .5	1.75	1.75

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SREE VAHINI INSTITUTE OF SCIENCE AND TECHNOLOGY::TIRUVURU

Department of Electrical and Electronics Engineering

Course outcome mapping with PO's and PSO's

Course Title:	DATA STRUCTURES
Programme:	B.Tech
Academic Year	2019-20
Year/Semester:	III/II
Regulation:	R16
Subject Code:	R1632024
Name of the Faculty:	K. MOUNIKA

I.COURSE OUTCOMES (COs):

Upon completion of the course, students will be able to:

S. No.	Course Outcomes	Blooms Taxonomy level
CO1	Apply advanced data structure strategies for exploring complex data structures.	Apply
CO2	Solve problems using data structures such as linear lists, stacks, queues, hash tables	Analyze
CO3	Be familiar with advanced data structures such as balanced search trees, AVL Trees, and B Trees.	Analyze
CO4	To be familiar with the concepts like Inheritance, Polymorphism	Apply
CO5	Implement all data structures like stacks, queues, trees, lists and graphs and compare their Performance	Understand

II. CO-PO/PSO MATRIX:

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO1 1	PO12	PSO1	PSO2
CO1	3	3	3	3	1	-	-	-	-	-	-	2	2	3
CO2	2	3	2	3	2	-	-	-	-	-	-	3	1	3
CO3	2	2	1	3	3	-	-	-	-	-	-	3	-	3
CO4	3	3	3	3	2	-	-	-	-	-	-	2	2	3
CO5	2	3	2	3	1	-	-	-	-	-	-	1	1	3
Course	**2.5**	**3**	**2**	**3**	**2**	-	-	-	-	-	-	**2.5**	**2**	**3**

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Course outcome mapping with PO's and PSO's

Course Title:	**Power Electronics LAB**
Programme:	B.Tech
Academic Year	**2019-20**
Year/Semester:	III/II
Regulation:	R16
Subject Code:	**R1632026**
Name of the Faculty:	T. Pardha Saradhi

I COURSE OUTCOMES (COs):

Upon completion of the course, students will be able to:

S.No.	Course Outcomes	Blooms Taxonomy level
CO1	Analyze Characteristics of IGBT, MOSFET, SCR , Firing Circuits of SCR	Apply
CO 2	Estimate the performance of converters for resistive and inductive loads	Analyze
CO 3	Analyze the performance of AC voltage controller with resistive and inductive loads	Apply
CO 4	Examine the working of Buck and Boost converter, Single Phase Square wave Bridge and PWM inverter	Understand

II. CO-PO/PSO MATRIX:

	PO1	PO2	PO3	PO 4	PO 5	PO 6	PO7	PO8	PO9	PO1 0	PO1 1	PO1 2	PSO1	PSO2
CO1	2	2	-	3	1	-	-	2	3	2	-	1	1	1
CO2	2	2	-	3	2	-	-	2	3	2	-	2	2	2
CO3	2	2	-	3	2	-	-	2	3	2	-	2	2	2
CO4	2	2	-	3	2	-	-	2	3	2	-	2	2	2
Course	**2**	**2**	**-**	**3**	**2**	**-**	**-**	**2**	**3**	**2**	**-**	**2**	**2**	**2**

T. Pardha

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Course outcome mapping with PO's and PSO's

Course Title:	**Microprocessor and Microcontroller lab**
Programme:	B.Tech
Academic Year	**2019-20**
Year/Semester:	III/II
Regulation:	R16
Subject Code:	**R1632027**
Name of the Faculty:	M.Vara Prasad

I.COURSE OUTCOMES (COs):

Upon completion of the course, students will be able to:

S.No.	Course Outcomes	Blooms Taxonomy level
CO1	Development of assembly language programming using MASM.	Apply
CO 2	Design the interfacing of Microprocessor with peripheral devices.	Analyze
CO 3	Design the interfacing of Microcontroller with peripheral devices.	Apply
CO 4	Develop sample programs for serial data transfer	Understand

II. CO-PO/PSO MATRIX:

	PO1	PO2	PO3	PO 4	PO 5	PO 6	PO7	PO8	PO9	PO1 0	PO1 1	PO1 2	PSO1	PSO2
CO1	2	3	2	-		-	-	-	-	-	-	-	1	1
CO2	1	1	3	-	-	-	-	-	-	-	-	-	2	2
CO3	1	1	3	-	-	-	-	-	-	-	-	-	2	2
CO4	1	1	3	-	-	-	-	-	-	-	-	-	2	2
Course	2	2	3	-	-	-	-	-	-	-	-	-	2	2

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Department of Electrical and Electronics Engineering

Course outcome mapping with PO's and PSO's

Course Title:	DATA STRUCTURES-LAB
Programme:	B.Tech
Academic Year	2019-20
Year/Semester:	III/II
Regulation:	R16
Subject Code:	R1632027
Name of the Faculty:	K. MOUNIKA

I.COURSE OUTCOMES (COs):

Upon completion of the course, students will be able to:

S.No.	Course Outcomes	Blooms Taxonomy level
CO1	Be able to design and analyze the time and space efficiency of the data structure	Understand
CO2	Be capable to identity the appropriate data structure for given problem	Analyze
CO3	To Gain knowledge in practical applications of data structures	Analyze
CO4	To Strengthen the ability to identify and apply the suitable data structure for the given real-world problem	Apply
CO6	To develop skills to design and analyze simple linear and nonlinear data structures	Understand

II. CO-PO/PSO MATRIX:

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO1 1	PO12	PSO1	PSO2
CO1	3	3	3	3	1	-	-	-	-	-	-	2	2	3
CO2	2	3	1	3	2	-	-	-	-	-	-	3	1	1
CO3	2	2	3	3	3	-	-	-	-	-	-	2	2	2
CO4	1	3	2	3	2	-	-	-	-	-	-	2	3	1
CO6	3	3	2	3	1	-	-	-	-	-	-	3	2	2
Course	**2.5**	**3**	**2.5**	**3**	**2**	-	-	-	-	-	-	**2.5**	**2.5**	**2**

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Department of Electrical and Electronics Engineering

Course outcome mapping with PO's and PSO's

Course Title:	JAVA PROGRAMMING
Programme:	B. Tech
Academic Year	2019-20
Year/Semester:	III/II
Regulation:	R16
Subject Code:	R1632053
Name of the Faculty:	M. MANJUSHA

I. COURSE OUTCOMES(COs):

Upon completion of the course, students will be able to:

S.No.	Course Outcomes	Blooms Taxonomy level
CO1	Understand Java programming concepts and utilize Java Graphical User Interface in Program writing.	Understand
CO2	Write, compile, execute and troubleshoot Java programming for networking concepts.	Analyze
CO3	Build Java Application for distributed environment	Analyze
CO4	Design and Develop multi-tier applications.	Apply
CO5	Identify and Analyze Enterprise applications.	Understand

II. CO-PO/PSO MATRIX:

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	2	3	2	1	-	-	-	-	-	-	3	2	2
CO2	3	3	2	3	2	-	-	-	-	-	-	2	3	3
CO3	2	2	3	2	3	-	-	-	-	-	-	3	3	2
CO4	3	3	1	2	2	-	-	-	-	-	-	3	1	2
CO5	3	2	2	2	1	-	-	-	-	-	-	2	2	1
Course	**2.8**	**2.4**	**2.2**	**2.2**	**1.8**	-	-	-	-	-	-	**2.6**	**2.2**	**2**

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Department of Electrical & Electronics Engineering

Course outcome mapping with PO's and PSO's

Course Title:	**Utilization of Electrical Energy**
Programme:	B. Tech
Academic Year	**2019-20**
Year/Semester:	IV/I
Regulation:	R16
Subject Code:	**R1641021**
Name of the Faculty:	G. Tejaswi

COURSE OUTCOMES (COs):

Upon completion of the course, students will be able to:

S. No.	Course Outcomes	Blooms Taxonomy level
CO 1	To understand the operating principles and characteristics of traction motors with respect to speed, temperature, loading conditions.	Apply
CO 2	To acquaint with the different types of heating and welding techniques.	Apply
CO 3	To study the basic principles of illumination and its measurement.	Analyze
CO 4	To understand different types of lightning system including design.	Analyze
CO 5	To understand the basic principle of electric traction including speed–time curves of different traction services.	Apply
CO 6	To understand the method of calculation of various traction system for braking, Acceleration and other related parameters, including demand side management of energy.	Understand

II. CO-PO/PSO MATRIX:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	2	3	2	-	2	2	-	-	-	-	1	3	1	3
CO2	3	1	-	-	-	2	1	-	-	-	-	3	1	1
CO3	3	1	-	-	-	1	-	-	-	-	-	1	1	2
CO4	3	3	3	-	-	3	1	-	-	-	-	2	1	2
CO5	3	3	-	-	-	1	1	-	-	-	-	1	1	2
CO6	3	3	-	-	-	1	-	-	-	-	-	1	1	2
Course	**2.8**	**2.3**	**2.5**	**-**	**2**	**1.7**	**1**	**-**	**-**	**-**	**1**	**1.8**	**1**	**2**

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SREE VAHINI INSTITUTE OF SCIENCE &TECHNOLOGY::TIRUVURU
Department of Electrical & Electronics Engineering
Course outcome mapping with PO's and PSO's

Course Title:	**LINEAR IC APPLICATIONS**
Programme:	B. Tech
Academic Year	**2019-20**
Year/Semester:	IV/I
Regulation:	R16
Subject Code:	R1641022
Name of the Faculty:	K. Nirmala

COURSE OUTCOMES (COs):

Upon completion of the course, students will be able to:

S. No.	Course Outcomes	Blooms Taxonomy level
CO1	Design circuits using operational amplifiers for various applications	Apply
CO 2	Diagnose and trouble-shoot linear electronic circuits.	Analyze
CO 3	Analyze and design amplifiers and active filters using Op-amp.	Apply
CO 4	Understand thoroughly the operational amplifiers with linear integrated circuits.	Understand
CO 5	Understand the gain-bandwidth concept and frequency response of the amplifier configurations	Understand

II. CO-PO/PSO MATRIX:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3	1	1	1	2	2	-	-	-	1	1	1	3
CO2	2	3	1	1	1	2	2	-	-	-	1	1	1	1
CO3	1	3	1	-	2	2	-	-	-	-	-	1	2	1
CO4	2	3	2	-	2	-	-	-	-	-	-	1	2	1
CO5	1	3	2	-	2	1	-	-	-	-	-	1	2	1
Course	1.8	3	1.4	1	1.6	1.75	2	-	-	-	1	1	1.6	1.4

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SREE VAHINI INSTITUTE OF SCIENCE &TECHNOLOGY::TIRUVURU
Department of Electrical & Electronics Engineering
Course outcome mapping with PO's and PSO's

Course Title:	POWER SYSTEM OPERATION & CONTROL
Programme:	B. Tech
Academic Year	**2019-20**
Year/Semester:	IV/I
Regulation:	R16
Subject Code:	R1641023
Name of the Faculty:	CH. Pavan Kumar

COURSE OUTCOMES (COs):

Upon completion of the course, students will be able to:

S. No.	Course Outcomes	Blooms Taxonomy level
CO1	Analyze optimal dispatch of generation with and without losses.	Apply
CO 2	Illustrate the optimal scheduling of hydro thermal systems.	Analyze
CO 3	To understand the optimal unit commitment problem.	Apply
CO 4	Explain the load frequency control for single area system with and without controllers	Understand
CO 5	Analyze the load frequency control for two area system with and without controllers	Understand
CO 6	To understand the reactive power control and compensation of transmission lines	Analyze

II. CO-PO/PSO MATRIX:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3	1	1	1	2	2	-	-	-	1	1	1	3
CO2	2	3	1	1	1	2	2	-	-	-	1	1	1	1
CO3	1	3	1	-	2	2	-	-	-	-	-	1	2	1
CO4	2	3	2	-	2	-	-	-	-	-	-	1	2	1
CO5	1	3	2	-	2	1	-	-	-	-	-	1	2	1
CO6	2	3	-	1	1	1	-	-	-	-	-	1	1	1
Course	**1.8**	**3.0**	**1.4**	**1.0**	**1.5**	**1.6**	**2.0**	-	-	-	**1.0**	**1.0**	**1.5**	**1.3**

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Department of Electrical & Electronics Engineering
Course outcome mapping with PO's and PSO's

Course Title:	**Switch Gear & Protection**
Programme:	B. Tech
Academic Year	**2019-20**
Year/Semester:	IV/I
Regulation:	R16
Subject Code:	**R1641024**
Name of the Faculty:	T. Pardha Saradhi

COURSE OUTCOMES (COs):

Upon completion of the course, students will be able to:

S. No.	Course Outcomes	Blooms Taxonomy level
CO1	Illustrate the principles of arc interruption for application to high voltage circuit breakers of air, oil, vacuum, SF6gas type	Apply
CO 2	Explain the working principle and constructional features of different types of electromagnetic protective relays	Understand
CO 3	Relate the acquired in depth knowledge of faults that is observed in high power generator and transformers and protective schemes used for all protections	Analyze
CO 4	Improve the ability to understand various types of protective schemes used for feeders and bus bar protection	Analyze
CO 5	Compare different types of static relays with a view to application in the system..	Apply
CO 6	Explain different types of over voltages appearing in the system, including existing protective schemes	Understand

II. CO-PO/PSO MATRIX:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	1	1	-	-	1	1	-	-	-	-	1	-	-
CO2	3	-	1	-	-	1	-	-	-	-	-	1	-	-
CO3	1	3	1	-	-	2	-	-	-	-	-	1	-	-
CO4	-	3	1	-	1	-	-	-	-	-	-	1	1	2
CO5	1	2	1	-	-	3	-	-	-	-	-	1	-	-
CO6	2	3	1	-	1	2	1	-	-	-	-	1	1	2
Course	2	2.4	1	-	1	1.8	1	-	-	-	-	1	1	2

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Course outcome mapping with PO's and PSO's

Course Title:	INSTRUMENTATION
Programme:	B. Tech
Academic Year	2018-2019
Year/Semester:	IV/I
Regulation:	R16
Subject Code:	R164102D
Name of the Faculty:	K.RAMYA

COURSE OUTCOMES (COs):

Upon completion of the course, students will be able to:

S.No.	Course Outcomes	Blooms Taxonomy level
CO1	To understand the performance characteristics of measuring instruments	Understand
CO 2	Understand and explain the classification of transducers and construction and operating principle of LVDT, thermo couples	Understand
CO3	Explain Concept of measuring temperature, velocity, flow…	Understand
CO4	Understand and explain the classifications of DVM	Understand
CO 5	Complete explaination of CRO	Understand
CO 6	Understand and explain signal analyzers	Understand

II. CO-PO/PSO MATRIX:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	-	-	-	2	-	-	-	-	-	-	2	2	2
CO2	3	-	-	-	2	-	-	-	-	-	-	2	3	2
CO3	2	-	-	-	2	-	-	-	-	-	-	2	2	2
CO4	3	2	2	-	2	-	-	-	-	-	-	2	3	2
CO5	2	2	2	-	2	-	-	-	-	-	-	2	3	2
CO6	2	2		-	2	-	-	-	-	-	-	2	2	2
Course	2.5	2	2	-	2	-	-	-	-	-	-	2	2.5	2

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Course outcome mapping with PO's and PSO's

Course Title:	Special Electrical Machines
Programme:	B. Tech
Academic Year	**2019-20**
Year/Semester:	IV/I
Regulation:	R16
Subject Code:	**R164102G**
Name of the Faculty:	G. Tejaswi

COURSE OUTCOMES (COs):

Upon completion of the course, students will be able to:

S.No.	Course Outcomes	Blooms Taxonomy level
CO1	To explain theory of operation and control of switched reluctance motor.	Apply
CO 2	To explain the performance and control of stepper motors, and their applications.	Apply
CO 3	To describe the operation and characteristics of permanent magnet dc motor.	Analyze
CO 4	To distinguish between brush dc motor and brush less dc motor.	Analyze
CO 5	To explain the theory of travelling magnetic field and applications of linear motors.	Apply

II. CO-PO/PSO MATRIX:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	2	3	-	-	-	-	1	-	-	-	-	1	1	1
CO2	1	3	-	1	1	-	-	-	-	-	1	1	1	1
CO3	1	2	3	1	1	1	1	-	-	-	1	2	1	1
CO4	-	2	-	3	-	-	1	1	-	-	-	1	1	1
CO5	1	3	-	1	-	-	-	-	-	-	1	2	1	1
CO6	2	3	3	2	1	1	1	1	-	-	1	2	1	1
Course	**1.4**	**2.7**	**3**	**1.6**	**1**	**1**	**1**	**1**	**-**	**-**	**1**	**1.5**	**1**	**1**

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Course outcome mapping with PO's and PSO's

Course Title:	Electrical Simulation LAB
Programme:	B. Tech
Academic Year	**2019-20**
Year/Semester:	IV/I
Regulation:	R16
Subject Code:	R1641027
Name of the Faculty:	G. Tejaswi

COURSE OUTCOMES(COs):

Upon completion of the course, students will be able to:

S.No.	Course Outcomes	Blooms Taxonomy level
CO1	Able to simulate integrator circuit, differentiator circuit	Apply
CO 2	Able to simulate Boost converter, Buck converter, full convertor and PWM inverter.	Analyze
CO 3	Able to simulate transmission line by incorporating line, load and transformer models	Apply
CO 4	Able to perform transient analysis of RLC circuit and single machine connected to infinite bus(SMIB).	Understand

II. CO-PO/PSO MATRIX:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	2	3	2	3	3	-	-	2	3	2	-	2	3	-
CO2	1	-	-	3	-	1	-	2	3	2	-	2	-	1
CO3	2	3	1	3	3	-	-	2	3	2	-	2	3	-
CO4	1	3	3	3	3	1	-	2	3	2	-	2	3	1
Course	**1.5**	**3**	**2**	**3**	**3**	**1**	**-**	**2**	**3**	**2**	**-**	**2**	**3**	**1**

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TIRUVURU-521 235

SREE VAHINI INSTITUTE OF SCIENCE &TECHNOLOGY::TIRUVURU
Department of Electrical & Electronics Engineering
Course outcome mapping with PO's and PSO's

Course Title:	POWER SYSTEMS LAB
Programme:	B. Tech
Academic Year	**2019-20**
Year/Semester:	IV/I
Regulation:	R16
Subject Code:	R1641028
Name of the Faculty:	CH. Pavan Kumar

COURSE OUTCOMES (COs):

Upon completion of the course, students will be able to:

S. No.	Course Outcomes	Blooms Taxonomy level
CO1	Able to determine the parameters of various power system components which are frequently occur in power system studies and he can execute energy management systems functions at load dispatch centre.	Apply
CO 2	Analyse the swing equation of the given problem by using point-by-point method	Analyze
CO 3	Able to determine Transient Stability for a given system	Apply
CO 4	Design the frequency control of a system With and Without control	Understand
CO 5	Able to determine optimum loading of two units for the given load with & without losses	Understand
CO 6	Analyze Load flow Studies	Analyze

II. CO-PO/PSO MATRIX:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	2	3	2	3	3	-	-	2	3	2	-	2	3	-
CO2	1	-	-	3	-	1	-	2	3	2	-	2	-	1
CO3	2	3	1	3	3	-	-	2	3	2	-	2	3	-
CO4	1	3	3	3	3	1	-	2	3	2	-	2	3	1
CO5	2	3	2	3	3	1	-	2	3	2	-	2	3	1
CO6	1	3	2	3	3	-	-	2	3	2	-	2	3	1
Course	**1.5**	**3**	**2**	**3**	**3**	**1**	**-**	**2**	**3**	**2**	**-**	**2**	**3**	**1**

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SREE VAHINI INSTITUTE OF SCIENCE AND TECHNOLGY::TIRUVURU

DEPARTMENT OF MECHANICAL ENGINEERING

Course outcome mapping with PO's and PSO's

Course Title:	CAD/CAM LAB
Programme:	B.Tech
Academic Year	2019-2020
Year/Semester:	IV/I
Regulation:	R16
Subject Code:	R1641037
Name of the Faculty:	v. Ramachandra Rao

I.COURSE OUTCOMES(COs):

Upon completion of the course, students will be able to:

S.No.	Course Outcomes	Blooms Taxonomy level
CO1	Development of part drawings for various components in the form of orthographic and isometric representation of dimensioning and tolerances scanning and plotting. study of script, DXE and IGES files.	Apply
CO 2	Creating 3D model on any CAD software like Pro-E, CATIA,UGetc	Create
CO3	To impart the fundamental knowledge on using various analytical tools like ANSYS, FLUENT, etc., for Engineering Simulation	Apply
CO4	Developping any four part programs lathe and milling operations	analyse

II. CO-PO/PSO MATRIX:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	2	-	-	-	2	-	-	-	-	-	-	2	2	3
CO2	2	-	3	-	3	-	-	-	-	-	-	3	3	2
CO3	3	-	3	-	3	-	-	-	-	-	-	3	2	2
CO4	3	-	2	-	3	-	-	-	-	-	-	3	3	2
Course	2.5	-	2.6	-	2.75	-	-	-	-	-	-	2.75	2.6	2.25

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Department of Electrical and Electronics Engineering

Course outcome mapping with PO's and PSO's

Course Title:	DIGITAL CONTROL SYSTEMS
Programme:	B.Tech
Academic Year	**2019-20**
Year/Semester:	IV/II
Regulation:	R16
Subject Code:	R1642021
Name of the Faculty:	G VENKAT

I.COURSE OUTCOMES (COs):

S.No.	Course Outcomes	Blooms Taxonomy level
CO1	Learn the advantages of discrete time control systems and the "know-how" of various associated accessories	ANALYSIS
CO 2	Understand z–transformations and their role in the mathematical analysis of different systems	APPLY
CO 3	Perform State space analysis using the concepts of Controllability and Observability	APPLY
CO 4	Apply the stability criterion for digital systems and methods adopted for testing the same	APPLY
CO 5	Differentiate the conventional and state–space methods of design	APPLY
CO 6	Design of state feedback controllers	APPLY

II. CO-PO/PSO MATRIX:

	PO1	PO2	PO3	PO 4	PO 5	PO 6	PO7	PO8	PO9	PO1 0	PO1 1	PO1 2	PSO1	PSO2
CO1	2	-	-	-	-	-	-	-	-	-	-	2	2	2
CO2	2	3	2	-	-	-	-	-	-	-	-	2	3	2
CO3	3	2	3	-	-	-	-	-	-	-	-	2	3	2
CO4	2	3	3	-	-	-	-	-	-	-	-	2	2	3
CO5	2	2	3	-	-	-	-	-	-	-	-	2	2	2
CO6	2	3	3	-	-	-	-	-	-	-	-	2	2	2
Course	2	3	3	-	-	-	-	-	-	-	-	2	2	2

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Course outcome mapping with PO's and PSO's

Course Title:	HVDC Transmission
Programme:	B.Tech
Academic Year	**2019-20**
Year/Semester:	IV/II
Regulation:	R16
Subject Code:	R1642022
Name of the Faculty:	CH. Pavan Kumar

I.COURSE OUTCOMES (COs):

Upon completion of the course, students will be able to:

S.No.	Course Outcomes	Blooms Taxonomy level
CO1	To Understand basic concepts of HVDC Transmission	Apply
CO 2	To analyze the converter configuration	Analyze
CO 3	To Know the control of converter and HVDC Transmission	Apply
CO 4	To Understand the significance of reactive power control and AC/Dc load flow	Understand
CO 5	To Know different converter faults, protection and effect of harmonics.	Understand
CO 6	To leave low pass and high pass filters	Analyze

II. CO-PO/PSO MATRIX:

	PO1	PO2	PO3	PO 4	PO 5	PO 6	PO7	PO8	PO9	PO1 0	PO1 1	PO1 2	PSO1	PSO2
CO1	3	3	3	2	2	-	1	-	-	1	-	1	3	2
CO2	3	2	3	2	2	-	1	-	-	1	-	1	3	2
CO3	2	1	3	2	2	-	1	-	-	1	-	1	3	2
CO4	2	2	3	2	2	-	1	-	-	1	-	1	3	2
CO5	2	2	3	2	2	-	1	-	-	1	-	1	3	2
CO6	2	2	3	2	2	-	1	-	-	1	-	1	3	2
Course	**2**	**2**	**3**	**2**	**2**	**-**	**1**	**-**	**-**	**1**	**-**	**1**	**3**	**2**

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Department of Electrical and Electronics Engineering

Course outcome mapping with PO's and PSO's

Course Title:	**Electrical Distribution Systems**
Programme:	B.Tech
Academic Year	**2019-20**
Year/Semester:	IV/II
Regulation:	R16
Subject Code:	**R1642023**
Name of the Faculty:	G.Tejaswi

I.COURSE OUTCOMES (COs):

Upon completion of the course, students will be able to:

S.No.	Course Outcomes	Blooms Taxonomy level
CO1	Describe the various factors and characteristics of loads connected to distribution system	Apply
CO 2	Design the substation and feeders	Apply
CO 3	Determine the voltage drop and power loss of distribution lines.	Analyze
CO 4	Conduct fault analysis to select protective devices and its	Analyze
CO 5	Design capacitive compensation for power factor improvement.	Apply
CO 6	Illustrate voltage control equipment and their effects on voltage	

II. CO-PO/PSO MATRIX:

	PO1	PO2	PO3	PO 4	PO 5	PO 6	PO7	PO8	PO9	PO1 0	PO1 1	PO1 2	PSO1	PSO2
CO1	3	1	1	-	-	1	-	-	-	-	1	1	1	2
CO2	3	2	3	-	-	3	-	-	-	-	1	1	1	-
CO3	2	3	-	-	1	2	-	-	-	-	-	1	2	-
CO4	3	3	1	-	-	1	-	-	-	-	-	2	1	1
CO5	2	2	3	-	1	-	-	-	-	-	-	1	1	2
CO6	2	3	-	-	1	-	-	-	-	-	-	1	3	2
Course	**2.5**	**2.33**	**2**	**-**	**1**	**1.75**	**-**	**-**	**-**	**-**	**1**	**1.17**	**1.5**	**1.75**

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Course outcome mapping with PO's and PSO's

Course Title:	**FLEXIBLE ALTERNATING CURRENT TRANSMISSION SYSTEMS**
Programme:	B.Tech
Academic Year	**2019-20**
Year/Semester:	IV/II
Regulation:	R16
Subject Code:	**R16A2021**
Name of the Faculty:	T. Pardha Saradhi

I.COURSE OUTCOMES (COs):

S.No.	Course Outcomes	Blooms Taxonomy level
CO1	Understand Power flow for Loading Capability Limits of Power systems and Controlling facts controllers of high-power devices	Apply
CO 2	Study Voltage Source Converter by determining bridge converter and current source converter	Analyze
CO 3	Acquire the skill to analyze shunt compensation for determining voltage regulation and support and improve transient stability	Understand
CO 4	Analyze the Thyristor switched capacitor for developing the slope of transfer function and dynamic performance and power oscillation damping	Apply
CO 5	Design the different series compensators like GSC, TSSC and TCSC for improving transient stability, power oscillation damping and functional requirements	Analyze
CO 6	Study the principal of Unified power flow controller and for application of these controllers.	Analyze

II. CO-PO/PSO MATRIX:

	PO1	PO2	PO3	PO 4	PO 5	PO 6	PO7	PO8	PO9	PO1 0	PO1 1	PO1 2	PSO1	PSO2
CO1	3	2	2	2	-	-	-	-	-	1	-	2	2	3
CO2	3	3	2	2	-	-	-	-	-	1	-	2	2	3
CO3	3	3	3	-	-	-	-	-	-	1	-	2	2	3
CO4	3	3	3	3	-	-	-	-	-	1	-	2	2	3
CO5	3	3	2	-	-	-	-	-	-	1	-	2	2	3
CO6	3	3	2	2	-	-	-	-	-	1	-	2	2	3
Course	3	2.83	2.3	2.2	-	-	-	-	-	1	-	2	2	3

T. Pardhy

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