Mahavir Education Trust's

SHAH & ANCHOR KUTCHHI ENGINEERING COLLEGE

Chembur, Mumbai - 400 088

UG Program in Electronics & Telecommunication Engineering

Academic Year:- 2018-19

Semester - III

Unique Course Number: 1.ECC301 Course Name: Applied Mathematics - III

Unique CO Number	Course Outcome (CO) Statement
1.ECC3011	Understand the concept of Laplace Transform of various functions
1.ECC3012	Apply the Laplace Transform technique to solve ordinary differential equations
1.ECC3013	Expand the periodic function by using Fourier Series and Complex form of Fourier Series
1.ECC3014	Choose the Vector differential operator to compute the Gradient, Divergence and Curl of a given Scalar point function/ vector point function and find the Gradient, Divergence and Curl of sum and product of two functions
1.ECC3015	Apply Green's theorem to evaluate vector integral& to evaluate surface integral use Stoke's& Divergence theorem
1.ECC3016	Understand complex variable theory, applications of Harmonic Conjugate to get Orthogonal Trajectories and Analytics function

Unique Course Number: 2.ECC302 Course Name: Electronic Devices & Circuits - I

Unique CO Number	Course Outcome (CO) Statement
2.ECC3021	Understand the basic operation of Active and Passive Devices
2.ECC3022	Implement and design different parts of power supplies
2.ECC3023	Study biasing and DC analysis of transistors
2.ECC3024	Study different transistor models and perform small signal analysis of amplifiers
2.ECC3025	Understand the concept of high frequency response of BJT and FET amplifiers
2.ECC3026	Design Small Signal amplifiers

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Unique Course Number:2.ECC303 Course Name: Digital System Design

Unique CO Number	Course Outcome (CO) Statement
2.ECC3031	Understand different Number Systems and Codes & Compare different digital logic families based upon their characteristics.
2.ECC3032	Analyze, design and implement combinational logic circuits.
2.ECC3033	Classify different semiconductor memories.
2.ECC3034	Analyze, design and implement sequential logic circuits.
2.ECC3035	Analyze digital system design using PLD.
2.ECC3036	Simulate and implement combinational and sequential circuits using VHDL systems.

Unique Course Number:2.ECC304 Course Name: Circuit Theory and Networks

Unique CO Number	Course Outcome (CO) Statement
2.ECC3041	Apply their knowledge in analyzing dc circuits, ac circuits and magnetic circuits by using various methods like mesh analysis, nodal analysis & network theorems.
2.ECC3042	Understand the basic concepts of graphs, directed graphs, and able to present a graph by matrices.
2.ECC3043	Apply the time and frequency method of analysis to RL,RC and RLC circuits.
2.ECC3044	Understand and formulate the network transfer function and driving point function in s-domain, pole-zero concept and stability of the network.
2.ECC3045	Evaluate various parameters of two port network.
2.ECC3046	Synthesize two port network using Foster and Cauer Forms.

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Unique Course Number:2.ECC305 Course Name: Electronic Instrumentation and Control

Unique CO Number	Course Outcome (CO) Statement
2.ECC3051	Students will be able to explain principle of operation for various sensors.
2.ECC3052	Students will be able to describe functional blocks of data acquisition system.
2.ECC3053	Students will be able to find transfer functions for given system.
2.ECC3054	Students will be able to calculate time domain and frequency domain parameter for given system
2.ECC3055	Students will be able to understand different assessment criterion of stability in frequency domain.
2.ECC3056	Students will be able to predict stability of given system using Bode plot criteria.

Unique Course Number:2.ECL302 Course Name: Electronic Devices & Circuits - I Laboratory

Unique CO Number	Course Outcome (CO) Statement
2.ECL3021	Study basic measuring instruments and components
2.ECL3022	Implement circuits based on Diode using simulation tools
2.ECL3023	Perform DC analysis of Transistors using simulation tools
2.ECL3024	Analyze High Frequency response
2.ECL3025	Design small signal amplifiers
2.ECL3026	Design or implement a Mini Project

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Unique Course Number: 2.ECL303 Course Name: Digital System Design Laboratory

Unique CO Number	Course Outcome (CO) Statement
2.ECL3031	Realize basic and universal digital logic gates.
2.ECL3032	Design and implement various combinational logic circuits.
2.ECL3033	Realise given function using combinational circuit.
2.ECL3034	Design and implement various sequential logic circuits.
2.ECL3035	Write hardware description languages (VHDL) to observe behavior of logic circuits.
2.ECL3036	Design and implement Mini-Project

Unique Course Number: 4.ECL3041 Course Name: OOP using JAVA Laboratory

Unique CO Number	Course Outcome (CO) Statement
4.ECL3041	Students will be able to understand the concept of Object Oriented Programming and be able to code a program using JAVA constructs.
4.ECL3042	Students will be able to understand fundamental features of Object Oriented language: concept of class & objects, array methods and string operations.
4.ECL3043	Students will be able to implement the concept of inheritance, interface, package and handle exceptions using exception handling to solve real world problems.
4.ECL3044	Students will be able to implement threads, multithreading and applet.
4.ECL3045	Develop and implement Mini-Project
4.ECL3046	Students will be able to understand the concept of Object Oriented Programming and be able to code a program using JAVA constructs.