SILIGURI INSTITUTE OF TECHNOLOGY

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

COURSE OUTCOME

3RD SEMESTER

Course Title :- Circuit Theory & Network and Circuit Theory & Network Lab Code :- EC 301 & EC391

CO1: Understand the concept of resonance in Circuits.
CO2: Interpret kirchoff's laws and solve the electrical networks for dc & AC Using network theorems
CO3: Solve the Electrical Network using Graph Theory
CO4: Explain the Laplace Transformation technique and its application in Electrical Circuit Analysis.
CO5: Determine Relationship between Parameter Sets of two port Networks.

Course Title: Solid State Devices (EC302) & Solid State Devices Lab (EC- 392)

CO1: Identify the different kinds of semiconductors and explain different properties of different types of materials.
CO2: Describe the junction properties of P-N junction and utilize them to make rectifiers and other circuits
CO3: Explain the structure, the input and output characteristics and applications of BJTs, JFETs and MOSFETs.
CO4: Verify the basic theories and solve problems related with Solid State Devices circuits.
CO5: Check and justify the operation of electronic devices by constructing real electronic circuits and also with computer simulation.

Course Title : Signals and Systems (EC303) & Signals and Systems Lab. (EC393)

CO1: Describe the basic concepts of systems and the way signals interact with the physical systems.
CO2: Determine the signal frequency content and the system representation in the frequency domain using Fourier Series/ Transform.
CO3: Apply the Laplace Transform and Z-Transform for analyzing the response of LTI systems.
CO4: Generate various types of signals and perform basic signals operations.
CO5: Obtain the response of LTI systems and perform analysis in transformed domain.

Course Title: Analog Electronic Circuits (EC- 304) & Analog Electronic Circuits Lab (EC- 394)

CO1: Discuss the fundamental analog electronic circuits like filters, voltage regulator, transistor biasing, RC coupled amplifier, feedback amplifier, operational amplifier, multivibrator etc.
CO2: Solve problems on basic analog electronic circuits.
CO3: Study, compare and explain the structure and function of basic and integrated circuits.
CO4: Verify the principle, operation and limitation of analog electronic circuits.
CO5: Design various fundamental analog circuits.

Course Title: Numerical Methods & Nunerical Lab   CODE: M(CS)301(Theory) & M(CS)391(Practical)

CO1: Describe the concepts of error due to approximation.
CO2: Explain the concepts of Interpolation and solve the related problems.
CO3: Execute the idea of Numerical Integration for solving relevant problems.
CO4: Utilize various techniques to determine the solution of Algebraic equations, transcendental equations and system of linear equations.
CO5: Solve Ordinary differential equations by various numerical techniques.