

## S.S.G.M.C.E. SHEGAON

### DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING

# COURSE OUTCOMES OF ALL COURSES OF THE FOURTH SEMESTER B.E. (ELECTRONICS AND TELECOMMUNICATION ENGINEEING)

### 4ETC01 - Analog and Digital Communication

After successfully completing the course, the students will be able to:

CO1	Understand the necessity of modulation and identify the various components of analog and Digital communication systems.
CO2	Understand different modulation and demodulation schemes in analog communication systems.
CO3	Apply the concepts of Probability theory in communication systems.
CO4	Analyze the performance of various pulse modulation scheme
CO5	Understand concepts of information theory and analyze information transmission over communication channel.

### **4ETC02 - Analog Circuits**

After successfully completing the course, the students will be able to:

CO1	Comprehend the knowledge of basic concepts and performance parameters of Op
	Amp.
CO2	Design and anlaysis of Op-Amp based linear and non-linear applications.
CO3	Comprehend the knowledge of IC based voltage regulator(723) and waveform
	generators(555)
CO4	Comprehend the knowledge of PLL, its applications and data converters.

### 4ETC03 - Network Theory

After successfully completing the course, the students will be able to:

CO1	Analyze electrical circuits using Mesh and Node analysis.
CO2	Apply suitable Network Theorem to analyze electrical circuits.
CO3	Draw oriented Graph of the network to determine their currents and voltages.
CO4	Implement the concept of Laplace Transform for electrical circuit analysis.
CO5	Apply Two-Port network theory for electrical network analysis.
CO6	Evaluate different Network Functions

#### 4ETC04 - Signal and Systems

After successfully completing the course, the students will be able to:

CO1	Understand and apply the continues time signals and systems mathematically and their classification along with the mathematical operations performed on them.
CO2	Analyze the spectral characteristics of continuous-time periodic signals and systems using Fourier series. Apply the spectral characteristics of continuous-time aperiodic signals and systems using Fourier Transform.
CO3	Apply the Laplace transform for analysis of continuous-time systems. Evaluate the classical Solution of Linear Difference Equations. Apply the discrete time signals and systems mathematically and analyze their classification along with the mathematical operations that can be performed on them.
CO4	Analyze and evaluate the spectral characteristics of Discrete Time signals and systems using DTFT and its properties.

#### **4ETC05 - Values and Ethics**

After successfully completing the course, the students will be able to:

CO1	To explore possibilities for better life through value education.
CO2	To Apply the concept of coexistence in life situations.
CO3	To cultivate harmony in nature through emphasis on dimensions of human endeavor.
CO4	To Implement the concept of ethical human conduct.
CO5	To distinguish between ethical and unethical professionalism.