SUBJECT NO-EC21004, SUBJECT NAME- Signals and Systems

LTP- 3-1-0,CRD- 4

SYLLABUS :-

Pre-requisite: EC21005

Introduction to signals and systems; Review of Fourier and Laplace Transforms; LTI system: Causality, stability, region of convergence; Classification and representation of signals, Concepts of linear vector space and orthogonal signal representation; Discrete signals: Sampling, digitization and reconstruction of analog signals; Fourier transform of discrete signals: DFT, z-transforms; Discrete systems, transfer functions and convolution; Random variables and processes: stationarity, ergodicity, correlation functions, power density spectra, Wiener-Khinchin theorem; functions of random signals; System response to random signals: Filtered random process â lowpass and bandpass; Basic concept of optimum filtering: Wiener Hopf filter