

Course Name: Digital Signal Processing

Faculty Name: Prof. T.K. Basu

Institute Name: IIT, Kharagpur

Discrete Time Signal and System - Frequency Domain Representation of Discrete Signals - Z-Transform - Solution of Difference Equation - Relation Between Discrete Time and Continuous Signals - Discrete Fourier Transform (DFT) - Filters Introduction - FIR Filters - IIR Filters - Computer Aided Design of Filters - FFT and Computer Aided Design of Filters - Introduction to Lattice Filter - Effects of Quantization - Random Signals - Relationship Between Real and Imaginary Parts of DTFT - Multi rate Signal Processing - Poly phase Decomposition.