

## **Digital Signal Processing**

SWAYAM Prabha Course Code – E21

PROFESSOR'S NAME	Prof. T.K. Basu
DEPARTMENT	Electrical Engineering
INSTITUTE	Indian Institute of Technology, Kharagpur
COURSE OUTLINE	Besides course outline, it should also indicate if there are any pre-requisities (i.e, prior knowledge) required .
	The course covers lessons in digital signal processing. Topics include: Discrete Time Signal and System, Frequency Domain Representation of Discrete Signals, z-Transform, Solution of Difference Equation, Tutorial on Discrete Time Signals and their Transforms, Relation between Discrete Time and Continuous Signals, Discrete Fourier Transform, State Space Representation, Filters, FIR Filters, IIR Filters, Computer Aided Design of Filters, Lattice Filter, Effects of Quantization, Relationship between Real and Imaginary Parts of DTFT, and Multirate Signal Processing. The content of this website aims to provide a virtual laboratory platform for undergraduate Engineering students studying the course of Digital Signal Processing.

## COURSE DETAILS

S. No	Module ID/ Lecture ID	Lecture Title/Topic
1	L1	Discrete Time Signal and System
2	L2	Discrete Time Signal and System (cont)
3	L3	Discrete Time Signal and System (cont)
4	L4	Frequency Domain Representation of Discrete Signals

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**References if** 

Any: