

# Department of Electrical Engineering IIT Hyderabad

#### EE 1370 - DIGITAL SIGNAL PROCESSING

JAN - APR. 2019 (1-2 SEGMENTS)

Instructor: K. Sri Rama Murty (ksrm@iith.ac.in)

#### **Course Contents**

Review of LTI systems and their properties, Convolution sum, Sampling of continuous-time signals, Discrete-time Fourier transform (DTFT) and its properties, Sampling in frequency domain, Discrete Fourier transform (DFT) and its properties, Z-transform and its properties.

### References

- 1. A. V. Oppenheim, R. Schafer and J. Buck *Discrete-Time signal processing*, PHI.
- 2. Thomas J. Cavicchi, Digital Signal Processing, Wiley India.
- 3. John G. Proakis and D. G. Manolakis, *Digital Signal Processing: Principles, Algorithms And Applications*, PHI.

## **Evaluation**

• Home Work: 20%

• Surprise Quiz: 40%

• End Exam: 40%