

18EC5DCDSP-Digital Signal Processing

MODULE -1

Discrete Fourier Transforms (DFT):DFT as a linear transformation, Relationship of DFT with other transforms. Properties of DFT and Numerical Examples. Linear filtering using DFT:Use of DFT in linear filtering. - Text book1

TEXT BOOKS:

1.Proakis&Manolakis, "Digital signal processing – Principles Algorithms & Applications", *Pearson education*, 4th Edition, New Delhi, 2007.

2.A. Nagoorkani, "Digital Signal Processing", *Tata McGraw Hill*, 2ndEdn., New Delhi, 2012.

3.RulphChassaing, "Digital Signal Processing and Applications with the C6713 and C6416 DSK", John Wiley & Sons, Inc., Publication, 2005

4.Li Tan, "Digital Signal Processing", Academic Press, *Elsevier*, 2007.

REFERENCES BOOKS:

1.Oppenheim & Schaffer, "Discrete Time Signal Processing", *PHI*, 2003.

2.Sanjith K. Mitra, "Digital Signal Processing", *Tata Mc-Graw Hill*, New Delhi, India, 3rd Edition, 2010.

3.Dimitris G. Manolakis, Vinay K. Ingle, "Applied DSP theory and Practice", *Cambridge University Press*, USA, 2011.

E.C. Ifeachor, and B. W. J. *et al*, "Digital Signal Processing: The Computer-Based Approach", Second Edition, *Pearson Education*, India, 2002.

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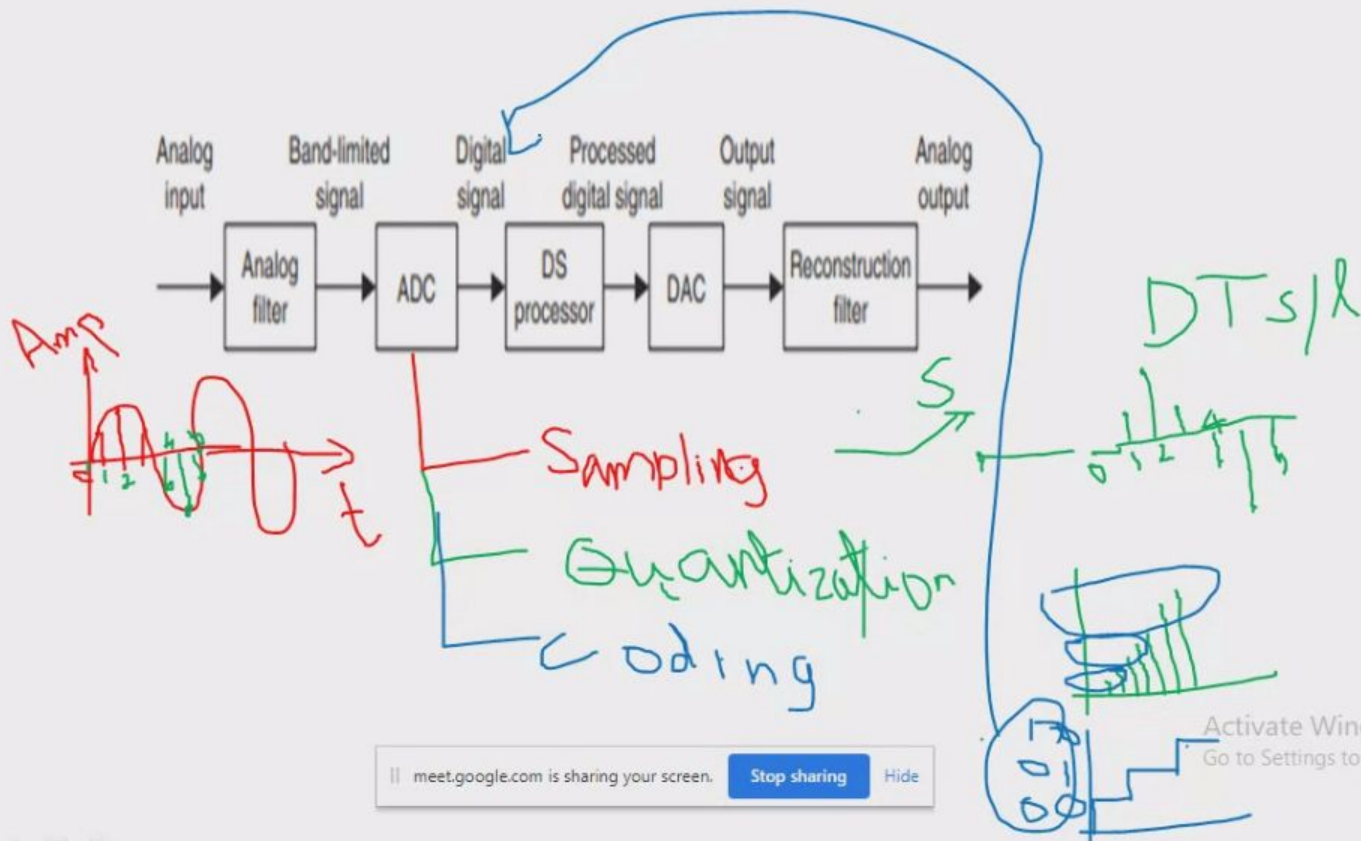
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Activate Windows

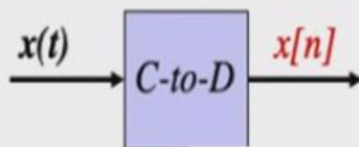
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Introduction to DSP

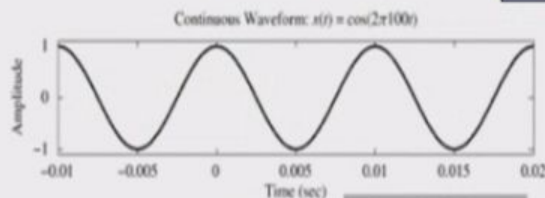


Introduction contd...

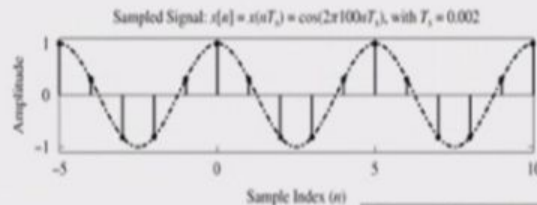
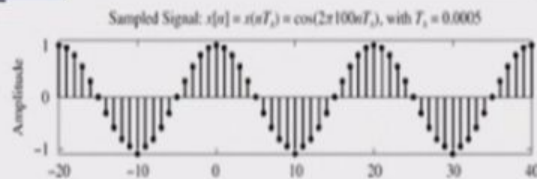
$$x[n] = x(nT_s)$$



$$f_s = 2 \text{ kHz}$$



$$f = 100 \text{ Hz}$$



$$f_s = 500 \text{ Hz}$$