

DIGITAL IMAGE PROCESSING (EC 024)

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UNIT-I

Introduction to Digital Signal Processing: Fourier & Z-transform, Multidimensional sequence, Image digitizing, image processing software, Histograms, point operations.

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UNIT-II

Introduction to algebraic operations, filtering: Convolution, optional filter design, data processing, computing, truncation, optics and system analysis, diffraction limited, optical systems, abbreviations

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UNIT-III

Application: Image restoration, approaches and models, image segmentation, segmented image structure.

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UNIT-IV

Measurement and classification of size, shape measurement feature selection, classification, three dimensional image processing, optics sectioning.

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UNIT-V

CAT, Steriometric ranging, Stereoscopic Image Display, Shaded surface display

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Reference:

1. Kenneth R. Castleman/ Digital Image Processing/ Pearson Education 2003
2. A.K. Jain/Image Processing/ PHI
3. GonzaleZ R.C. & P. Wint/ Digital Image Processing/ Addison Wesley.

Teacher:

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