

## 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. 8

### UNIT-II

**Introduction to algebraic operations, filtering:** Convolution, optimal filter design, data processing, computing, truncation, optics and system analysis, diffraction limited, optical systems, abbreviations 8

### UNIT-III

**Application:** Image restoration, approaches and models, image segmentation, segmented image structure. 8

### UNIT-IV

Measurement and classification of size, shape measurement feature selection, classification, three dimensional image processing, optics sectioning. 8

### UNIT-V

CAT, Steriometric ranging, Stereoscopic Image Display, Shaded surface display 6

### Reference:

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