

Lecture Plan
Digital Image Processing (EC-024)

Units	Lecture	Topics to Cover
Unit 1		Introduction to Digital Signal Processing
	Lecture 1	Fourier Transform
	Lecture 2	Z-Transform
	Lecture 3	Multidimensional Sequence
	Lecture 4	Image Digitizing
	Lecture 5	Image Processing Software
	Lecture 6	Histograms
	Lecture 7	Point Operations
	Lecture 8	Surprise Test-I
Unit 2		Introduction to algebraic operations, filtering
	Lecture 1	Convolution
	Lecture 2	Optional Filter Design
	Lecture 3	Data Processing And Computing
	Lecture 4	Truncation
	Lecture 5	Optics And System Analysis
	Lecture 6	Diffraction Limited Optical Systems
	Lecture 7	Abbreviations
	Lecture 8	Quiz-I
Unit 3		Application
	Lecture 1	Image Restoration
	Lecture 2	Approaches And Models
	Lecture 3	Image Segmentation
	Lecture 4	Segmented Image Structure.
	Lecture 5	Quiz-II
	Lecture 6	Surprise Test-II
	Lecture 7	Revision
	Lecture 8	Revision Contd.
Unit 4		Measurements
	Lecture 1	Measurement And Classification Of Size
	Lecture 2	Shape Measurement
	Lecture 3	Feature Selection
	Lecture 4	Classification
	Lecture 5	Three Dimensional Image Processing
	Lecture 6	Optics Sectioning
	Lecture 7	Revision
	Lecture 8	Revision Contd.
Unit 5		
	Lecture 1	CAT
	Lecture 2	Steriometric Ranging,
	Lecture 3	Stereoscopic Image Display,
	Lecture 4	Shaded Surface Display
	Lecture 5	Revision
	Lecture 6	Revision Contd.

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.

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