

LESSON PLAN

Period	Date (Tentative)	Topic	Unit No.	Teaching Methodology	Remarks	Corrective Action Upon Review
5	14/7	Introduction to Digital Image processing, origin of Digital Image processing	1	PPT, chalk & duster		
23	15/7	Fundamental steps in Digital Image processing	1	PPT "		
7	16/7	Components of Digital Image processing	1	"		
5	21/7	Digital Image fundamentals	1	"		
		elements of visual perception		"		
23	22/7	Light and electromagnetic spectrum, Image sensing and acquisition		"		
				"		
7	23/7	Image sampling and quantization, Some basic relationship between pixels	1	"		
				"		
5	28/7	Some basic relationship between pixels (contd.)	1	"		
		Introduction of mathematical tools used in DIP.		chalk & duster		
23	29/7	Image Transforming, Spatial resolution, Image processing, Fourier Transform	1	"		
		Discrete Fourier Transform		"		
7	30/7	Fast Fourier Transform, properties of DFT	1	"		
5	4/8	Properties of DFT, Walsh Hadamard Transform	1	"		
		Discrete cosine and sine Transforming		"		
23	5/8	2D and 1D scaling Transform	1	"		
		Introduction to Intensity transformation and spatial filtering	2	"		
7	6/8	Basic intensity Transformation functions	2	"		
5	11/8	Histogram processing fundamentals of spatial filtering	2	PPT, chalk & duster		

LESSON PLAN

Period	Date (Tentative)	Topic	Unit No.	Teaching Methodology	Remarks	Corrective Action Upon Review
23	12/8	Smoothing spatial filtering, Sharpening spatial filtering	2	PPT, chalk & duster		
7	13/8	Combining spatial filtering methods	2	"		
5	18/8	Fourier logic Techniques for Intensity Transformation and spatial filtering	2	"		
23	19/8	Sampling and Fourier Transform of sampled functions DFT, Inverse of DFT,	3	"		
7	20/8	Basic filtering in frequency domain	3	"		
5	25/8	Image enhancement using frequency domain filtering	3	"		
23	26/8	Selective filtering and Image restoration	3	"		
		Introduction to Restoration and Reconstruction	4	"		
		Image degradation/ Restoration model.				
7	27/8	Noise models, Restoration in the presence of noise possible noise reduction by frequency domain filtering.	4	"		
5	1/9	Linear P.E. degradation Estimating the degradation function, Average filtering	4	"		
23	2/9	Wiener filtering, Constrained Least Square filtering, Gram-Schmidt	4	"		
		Mean filtering, Image Reconstruction from projections	4	"		
7	3/9	Color fundamentals, Color models.	5	"		

LESSON PLAN

Period	Date (Tentative)	Topic	Unit No.	Teaching Methodology	Remarks	Corrective Action Upon Review
5	15/9	Basics of color image processing.	5	PPT and discussion		
2,3	16/9	Basics of full color image processing, color transformation	5	"		
7		Smoothing and sharpening				
7	17/9	Image segmentation based on color	5	"		
		Color in color images		"		
5	22/9	Image thresholding, edge detection & Hough transform	6	"		
2,3	23/9	Multi-resolution expansion wavelet transform	6	"		
7	24/9	fast wavelet transform wavelet transform	6	"		
5	29/9	wavelet packets Multi-resolution Analysis	6	"		
2,3	30/9	Image compression fundamentals compression models		"		
7	1/10	Coding Techniques	6	"		
5	6/10	Digital Image watermarking	6	"		
2,3	7/10	Preliminaries of Morphological Image processing.	7	"		
7	8/10	Erosion and dilation opening closing	7	"		
5	13/10	Hough transform based morphological algorithm	7	"		
2,3	14/10	Some basic morphological algorithms	7	"		
7	15/10	Gray scale morphology	7	"		
5	24/10	Preliminaries of morphological Image processing	7	"		

LESSON PLAN

Period	Date (Tentative)	Topic	Unit No.	Teaching Methodology	Remarks	Corrective Action Upon Review
23	21/10	Image Segmentation, Point detection	8	PPT chalkboard duster		
7	22/10	Line detection Edge detection.	8	"		
5	27/10	Thresholding Region based Segmentation	8	"		
23	28/10	Region based Segmentation	8	"		
7	29/10	Segmentation using morphological watershed	8	"		
5	3/11	Segmentation using morphological watershed	8	"		
		already		"		
23	4/11	The use of motion in Segmentation	8	"		
7	5/11	use of motion in Segmentation	8	"		

4/11/21