

LESSON PLAN

Period	Date (Tentative)	Topic	Unit No.	Teaching Methodology	Remarks	Corrective Action Upon Review
01	16-06-14	Introduction: Basics of digital Image pro-	1	CL.		
02	17-06-14	cessing, uses, funda- mental steps in DIP.		Y		
03	19-06-14	Components of an image processing system, Digital		Y		
04	23-06-14	Image fundamentals, elements of visual per-		Y		
		ception, Light and Electromagnetic spec-		Y		
05	24-06-14	trum, Image sen- sing and Acquisition		Y		
		Image Sampling and Quantization, Some		Y		
06	25-06-14	Basic relationships between pixel, An		Y		
07	25-06-14	introduction to the		Y		
08	26-06-14	Mathematical tools used in digital Image		Y		
		processing.		Y		
09	27-06-14	Image Transformations, Spatial frequencies in		Y		
10	30-06-14	Image processing, intro- duction to Fourier Transform		Y		
11	01-07-14	Discrete Fourier Transform, Fast Fourier Transform		Y		
		and its algorithms, Properties of Fourier		Y		
		transform - Sampling theorem, Parseval's		Y		
12	02-07-14	theorem, Discrete Co- sine transform, Discrete		Y		
		cosine transform, Discrete Walsh transform,		Y		
13	03-07-14	Hadamard transform, Haar transform,		Y		
14	04-07-14	Short transform, SVD		Y		
15	07-07-14	KL transform for		Y		
		Hotelling transform		Y		

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16	08-07-14	Intensity Transformations	I	CL		
17	09-07-14	and Spatial Filtering				
18	10-07-14	Background, Some basic intensity transformations		4		
19	11-07-14	functions, Histograms				
20	12-07-14	processing, fundamentals		4		
		of Spatial Filtering, Smoothing Spatial filter,		4		
21	15-07-14	Sharpening Spatial filter, Combining Spatial filter		4		
22	16-07-14	Recent methods using fuzzy techniques for		4		
23	17-07-14	intensity transformations and spatial filtering		4		
24	18-07-14	Filtering in the frequency domain	II	CL		
		Preliminary concepts, Sampling and Fourier		4		
		transform of sampled functions. The Discrete		4		
25	21-07-14	Fourier transform (1D) of one variable, Extension		4		
26	22-07-14	of functions of two variables, Some		4		
27	23-07-14	properties of the 2D discrete Fourier transform		4		
28	24-07-14	filtering in the frequency domain, Some		4		
29	25-07-14	properties of the 2D discrete Fourier transform		4		
30	28-07-14	selective filtering, complementations		4		
31	30-07-14	Image Restoration and Reconstruction	III	CL		
		A model of the image degradation/restoration		4		
		process, Noise models, Restoration in the frequency		4		

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32	31-07-14	use of noise only - spatial filtering,		CR		
		periodic noise reduction by frequency domain filtering, wave		y		
		ar, position - convolution		y		
33	01-08-14	noise degradation, estimation the degradation		y		
34	04-08-14	tion function, linear filtering, Minimum		y		
		mean square error				
35	05-08-14	(Wiener) filtering,		y		
		Constrained least squares filtering, geo-				
36	06-08-14	metric mean filter,		y		
37	07-08-14	image reconstruction from projections		y		
				y		
38	18-08-14	color image processing, colour fundamentals,	✓	CR		
39	19-08-14	color models, pseudo-				
40	20-08-14	color image processing		y		
41	21-08-14	Range of full color				
42	22-08-14	image processing,		y		
43	23-08-14	color transformations, smoothing and sharp-				
44	26-08-14	ness, image generation based on color,		y		
45	27-08-14	Noise in color images		y		
46	28-08-14	Color image compression				
47	01-09-14	Havelth and multi-resolution processing	✓	1		
48	02-09-14	Image pyramids, Sub band coding & Haar		CR		
49	04-09-14	transformations, multi-resolution, separations		y		
50	08-09-14	Havelth transformations in one dimension		y		
51	09-09-14	2D fast Havelth		y		
52	10-09-14	transformations, Havelth		y		
53	15-09-14					
54	16-09-14					
55	17-09-14					

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