

Revision: A

Semester Plan
(Practical / tutorials / Assignment)

Semester: **BE(VII)**

Course: **BE(ETRX)**

Batches: **(BEETRX)**

Subject: Digital Signal Processing **EXC7051**

Class: (BEETRX) Batch

Laboratory faculty In-Charge: **Ms. Sujata Alegavi**

Lab Assistant / Attendant: **Ms.**

Note: **Experiments are planned as per University Curriculum**

Basic Experiments

Sr. No	TITLES Experiments / Tutorials / Assignment (Planning with use of Technology)	Planned Date	Completion Date	Remarks
1	To perform basic arithmetic operations on an image	27.07.17		
2	To perform basic logical operations on an image	03.08.17		
3	To enhance an image using digital negative,	10.08.17		
4	To implement filtering of salt and pepper noise using median filter	24.08.17		
5	To implement convolution of two images in spatial domain and frequency domain	31.08.17		

Design /Development Experiments

Sr. No	TITLES Experiments / Tutorials / Assignment (Planning with use of Technology)	Planned Date	Completion Date	Remarks
1	To develop Histogram equalization algorithm for enhancement of images	07.09.17		
2	To design different edge detection algorithms like Prewitt, Sobel, Robert, Canny, LOG and DOG for detection of edges in an image	14.09.17		
3	To design various Morphological operators and apply them on an image	21.09.17		
4	To design Block Truncation coding for an image, choose different block sizes for the same image and comment on the result	28.09.17		
5	To develop fixed length coding and variable length coding for compression of images	05.10.17		

Experiments / Tutorials / Assignment

I.

Sr. No	TITLES Experiments / Tutorials / Assignment (Planning with use of Technology)		Completion Date	Remarks
1	Assignment 1: Mod-1 Basic concepts of Image processing Mod-2 Enhancement of images in spatial and temporal	11.08.17		
2	Assignment 2: Mod-3 Segmentation of images based and continuities in an image and discontinuities in an image Mod-4 Understanding the concept of morphology and applying various morphological algorithms on images	11.09.17		
3	Assignment 3: Mod-5 Applying various image transform algorithms on images for different applications Mod-6 Compressing images using lossy and lossless image compression techniques	10.10.17		

II.

Sr. No	TITLES Experiments / Tutorials / Assignment (Planning with use of Technology)		Completion Date	Remarks
1	Case Study on Biometric Authentication such as Face / Finger Print / Signature Recognition)	11.08.17		
2	Case Study on Content Based Image Retrieval	11.09.17		
3	Case Study on Image Enhancement using Adaptive Histogram Equalization (AHE), Modified AHE (MAHE) Technique	10.10.17		

III. Mini Project

Sr. No	TITLES Experiments / Tutorials / Assignment (Planning with use of Technology)	Type of Project	Modes of Learning	Reference
1	Design of different image processing algorithms for Medical Field applications	Research	paper Publication	must refer and study technical papers / articles from
2	Development of Morphological Toolkit	Research	Technical paper Publication	

IV. Bridge Course

Bridge courses Objective: Bridging of gaps with respect to prerequisites and industry skills or to carry out research in that particular field. (30 Hrs / Semester / student)

Sr. No	TITLES Experiments / Tutorials / Assignment (Planning with use of Technology)	Planned Date	Completion Date	Remarks
1				
V. Project				

Sr. No	TITLES Experiments / Tutorials / Assignment (Planning with use of Technology)	Type of Project	Modes of Learning	Reference
1	Emotion Recognition using Image Processing	Research		
2	Interactive Virtual Reality using Image Processing	Research		

No. of Practical		No. of Assignments		No. of Tutorial	
Planned	ted	Planned	Conducted	ed	Conducted
Basic :5		3		0	
Design Base Experiment :5					
Group Learning : 03					
Bridge Course :0					
Minor Project :2					
Project : 02					

DOSLNE:	DOSLE (engaged in some other dates):
---------	--------------------------------------

Group activities are required to be added with the practical related to course to enhance the learning activity of the student in the course. Group activity includes: Group presentation, new experiment design, mini projects etc.

Note:

- be stated in remark column.
- Learning objective and outcome shall be clearly stated with each of experiments/ tutorials/ assignments and are required to be mapped at the end of the semester.
- Entry for DOSLE (engaged on some other date) shall be done with proper mapping to DOSLNE.

Name & Signature of Faculty

Date: 07/07/2017

Signature of Principal / Dean Academic

Date:

