

LESSON PLAN

NAME OF FACULTY : Anuj Gupta
DISCIPLINE : ME
SEMESTER : 8th
SUBJECT : Data Communication System
LESSON PLAN DURATION : 15 WEEKS (FROM JANUARY , 2018 TO APRIL, 2018)
WORK LOAD (LECTURE/PRACTICAL)PER WEEK (IN HOURS) : 4 LECTURE, 2 PRACTICAL, 1 Tutorial

WEEK	THEORY		Practical	
	Lecture Day	Topic (Including Assignment/Test)	Practical Day	Topic
1st	I	Introduction to data Comm. Systems and their use in practical life	1st	Introduction to demonstrate and understand the MATLAB.
	II	Overview to entire syllabus		
	III	Detailed description of communication system & its parts		
	IV	Detailed description of how we measured information		
2nd	I	Discrete Memoryless source & Entropy	2nd	Write a MATLAB program to implement simple operation using MATLAB.
	II			
	III	Expression for Entropy & its numericals		
	IV	Types of channel & channel capacity		
3rd	I	Conditional & joint Entropy & its proof	3rd	Write a MATLAB program to implement sampling theorem for all Nyquist rate.
	II			
	III	Relationship among different Entropy & its numericals		
	IV			
4th	I	Shannon-fano encoding & its numericals	4th	Write a MATLAB program to compute self information content with given probability
	II	Huffman minimum redundancy coding & its numericals		
	III	Unit-1 Test		
	IV	Introduction of flow & error control technique		
5th	I	Generation & detection of coded signal	5th	Write a MATLAB to compute joint & conditional entropy.
	II	types of error control schemes		
	III			
	IV	ARQ techniques & its types		
6th	I	Error detection schemes & its types	6th	Write a MATLAB program to implement BPSK technique.
	II			
	III	Parity checking & checksum error detection schemes		
	IV			
7th	I	CRC techniques & its numericals	7th	Write a MATLAB program to plot multiplexing technique.
	II	Block code & convolution code		
	III			
	IV			
8th	I	Unit-2 Test	8th	Write a MATLAB program for PCM technique
	II	Introduction to digital modulation techniques		
	III			
	IV	ASK, BPSK Technique		
9th	I	PCM & its error probability schemes	9th	Write a MATLAB code to design the encoder and decoder.
	II			
	III	Classification of noise		
	IV			
10th	I	Noise temperature & its calculation	10th	Write a MATLAB code to compute entropy.
	II	Noise figure & its measurement		
	III			
	IV			
11th	I	Performance of receiver in presence of AWGN	11th	Write a MATLAB code for MSK techniques.
	II			
	III	Introduction to cellular system & its complete overview		
	IV			
12th	I	Mobile communication & cellular concept & its all related terms	12th	Write a MATLAB code for QPSK techniques.
	II			
	III	Multiple access techniques & its description		
	IV			
13th	I	Multiple access techniques & its description		
	II			
	III	TDM & FDM Techniques		
	IV			
14th	I	Trunking & grade of service, Multipath fading		
	II			
	III	Cell Splitting & sectoring, Doppler spread		
	IV			
15th	I	Practice/Revision Session		
	II			
	III	Practice/Revision Session		
	IV			