

Lesson Plan

Name of the Faculty : Mr. Rajesh Kumar

Discipline : Electronics & Communication Engineering

Semester : 6th

Subject : Computer Communication Networks

Lesson Plan Duration: 15 weeks (from January, 2019 to April, 2019)

Week	Theory	
	Lecture Day	Topic (including assignment / test)
1 st	1 st	<ul style="list-style-type: none"> • Introduction to Computer Networks
	2 nd	<ul style="list-style-type: none"> • Protocols
	3 rd	<ul style="list-style-type: none"> • Standards
2 nd	1 st	<ul style="list-style-type: none"> • Network Models
	2 nd	<ul style="list-style-type: none"> • The OSI Model
	3 rd	<ul style="list-style-type: none"> • Layers in the OSI Model
3 rd	1 st	<ul style="list-style-type: none"> • TCP/IP protocol suite
	2 nd	<ul style="list-style-type: none"> • Introduction to addressing
	3 rd	<ul style="list-style-type: none"> • Physical Layer and Media
4 th	1 st	<ul style="list-style-type: none"> • Analog and Digital (signals & data) • Transmission media
	2 nd	<ul style="list-style-type: none"> • The Telephone System • ATM
	3 rd	<ul style="list-style-type: none"> • Narrowband ISDN • Broadband ISDN
5 th	1 st	<ul style="list-style-type: none"> • The Data Link Layer • Data Link Layer Design issues
	2 nd	<ul style="list-style-type: none"> • Error Detection & correction
	3 rd	<ul style="list-style-type: none"> • Data link control
6 th	1 st	<ul style="list-style-type: none"> • Noiseless channels • Noisy channels
	2 nd	<ul style="list-style-type: none"> • HDLC • Point to Point protocols
	3 rd	<ul style="list-style-type: none"> • The Medium Access Sublayer • Aloha Protocols

7 th	1 st	<ul style="list-style-type: none"> • LAN Protocols: wired LAN,s , Wireless LAN
	2 nd	<ul style="list-style-type: none"> • Satellite Networks
	3 rd	<ul style="list-style-type: none"> • Revision
8 th	1 st	<ul style="list-style-type: none"> • Test
	2 nd	<ul style="list-style-type: none"> • Network Layer • Design issues
	3 rd	<ul style="list-style-type: none"> • IPv4 addresses
9 th	1 st	<ul style="list-style-type: none"> • IPv6 addresses
	2 nd	<ul style="list-style-type: none"> • Internetworking,IPv4, IPv6
	3 rd	<ul style="list-style-type: none"> • Congestion control algorithms.
10 th	1 st	<ul style="list-style-type: none"> • Transport & Session Layer
	2 nd	<ul style="list-style-type: none"> • Protocol design issues
	3 rd	<ul style="list-style-type: none"> • Process to process delivery
11 th	1 st	<ul style="list-style-type: none"> • UDP, TCP connection Management
	2 nd	<ul style="list-style-type: none"> • Remote procedure calls
	3 rd	<ul style="list-style-type: none"> • Revision
12 th	1 st	<ul style="list-style-type: none"> • Test
	2 nd	<ul style="list-style-type: none"> • Presentation Layer
	3 rd	<ul style="list-style-type: none"> • Design issues
13 th	1 st	<ul style="list-style-type: none"> • Abstract Syntax notation
	2 nd	<ul style="list-style-type: none"> • Data compression technique
	3 rd	<ul style="list-style-type: none"> • Cryptography
14 th	1 st	<ul style="list-style-type: none"> • Application Layer
	2 nd	<ul style="list-style-type: none"> • Design issues
	3 rd	<ul style="list-style-type: none"> • file transfer • Access and and management
15 th	1 st	<ul style="list-style-type: none"> • Electronic mail • virtual terminals
	2 nd	<ul style="list-style-type: none"> • WWW & HTTP • Revision
	3 rd	<ul style="list-style-type: none"> • Test

Lesson Plan

Name of the Faculty : Mr. Amit Kumar

Discipline : ECE

Semester : 6TH

Subject : Digital Communication

Lesson Plan Duration: 15 weeks (from January, 2019 to April, 2019)

Week	Theory		Practical	
	Lecture Day	Topic (including assignment / test)	Practical Day	Topic
1 st	1 st	Introduction	1 st	To Study ASK
	2 nd	Huffman Coding		
	3 rd	Entropy		
2 nd	1 st	Channel Capacity	2 nd	To Study PSK
	2 nd	Channel Coding		
	3 rd	Linear Block Codes, Matrix Description		
3 rd	1 st	Syndrome Decoding, Hamming Code	3 rd	To Study FSK
	2 nd	Cyclic Code, Convolution Code		
	3 rd	Generation and Viterbi decoding.		
4 th	1 st	Model of digital communication systems, Sampling theorem for baseband and band pass signals: natural sampling	4 th	Internal viva
	2 nd	Flat top sampling, Signal recovery & holding,		
	3 rd	Quantization of signal, Quantization error, Source coding		
5 th	1 st	Assignment 1	5 th	To Study Balanced Modulator & Demodulator.
	2 nd	Companding, Pulse code modulation (PCM), Noise in PCM systems		
	3 rd	Differential pulse code modulation (DPCM), Adaptive pulse code modulation (ADPCM),		
6 th	1 st	Delta modulation (DM), Comparison of PCM,	6 th	To Study PCM

		DPCM and DM,		
	2 nd	Adaptive delta modulation, Quantization noise		
	3 rd	Time division multiplexed systems (T & E type systems), Calculation of O/P signal power		
7th	1 st	The effect of thermal noise, O/P signal to noise ratio in PCM, Quantization noise in delta modulation	7th	Setting up a Fiber Optic Analog Link
	2 nd	The O/P signal to quantization noise ratio in delta modulation		
	3 rd	O/P signal to noise ratio in delta modulation		
8th	1 st	Matched filter and its properties average probability of symbol error in binary enclosed PCM receiver.	8th	Internal viva
	2 nd	Intersymbol interference, Nyquist criterion for distortion less base band binary transmission		
	3 rd	ideal Nyquist channel raised cosine spectrum		
9th	1 st	Revision	9th	Setting up a Fiber Optic Digital Link
	2 nd	correlative level coding Duo binary signaling		
	3 rd	Assignment2		
10th	1 st	tapped delay line equalization, adaptive equalization	10th	Losses in Optical Fiber
	2 nd	LMS algorithm, Eye pattern		
	3 rd	Pass band transmission model; gram Schmidt orthogonalization procedure,		
11th	1 st	geometric Interpretation of signals	11th	Measurement of Numerical Aperture.
	2 nd	Response of bank of correlators to noise input		
	3 rd	detection of known signal in noise		
12th	1 st	BPSK, DPSK	12th	Internal viva
	2 nd	DEPSK		

	3 rd	Pin diagram of Programmable Interval Timer		
13th	1 st	ASK, FSK	13th	Time Division multiplexing of signals carry IN 8086.
	2 nd	QASK		
	3 rd	Many FSK, MSK		
14th	1 st	Many QAM	14th	To study CDMA
	2 nd	Signal space diagram and spectra of the above systems		
	3 rd	effect of intersymbol		
15th	1 st	Assignment3	15th	Final Internal Viva
	2 nd	QPSK system		
	3 rd	Revision		

Lesson Plan

Name of the Faculty : Mr. Ashok Gill

Discipline : Electronics & Communication Engineering

Semester : 6th

Subject : Digital Design Using Verilog

Lesson Plan Duration: 15 weeks (from January, 2019 to April, 2019)

Week	Theory		Practical	
	Lecture Day	Topic (including assignment / test)	Practical Day	Topic
1 st	1 st	<ul style="list-style-type: none"> • Introduction • conventional approach to digital design, • VLSI design 	1 st	Write a Program to implement logic gates.
	2 nd	<ul style="list-style-type: none"> • ASIC design flow • Role of HDL 		
	3 rd	<ul style="list-style-type: none"> • Verilog as HDL • Levels of Design Description 		
2 nd	1 st	<ul style="list-style-type: none"> • Concurrency • Simulation and Synthesis 	2 nd	Write a Program to implement half-adder.
	2 nd	<ul style="list-style-type: none"> • Functional Verification • System Tasks • Programming Language Interface (PLI) 		
	3 rd	<ul style="list-style-type: none"> • Module • Simulation and Synthesis Tools 		
3 rd	1 st	<ul style="list-style-type: none"> • Test Benches 	3 rd	Write a Program to implement full-adder.
	2 nd	<ul style="list-style-type: none"> • Language constructs and conventions: Introduction, • Keywords, • Identifiers, • White Space Characters, 		

		<ul style="list-style-type: none"> • Comments 		
	3 rd	<ul style="list-style-type: none"> • Numbers, • Strings, • Logic Values • Strengths 		
4 th	1 st	<ul style="list-style-type: none"> • Data Types 	4 th	Write a Program to implement 4 bit addition/subtraction.
	2 nd	<ul style="list-style-type: none"> • Scalars and Vectors, • Parameters, Memory 		
	3 rd	<ul style="list-style-type: none"> • Operators, • System Tasks 		
5 th	1 st	<ul style="list-style-type: none"> • Gate level modeling: Introduction, • AND Gate • Primitive, • Module Structure, • Other Gate Primitives, • Illustrative Examples 	5 th	Viva of Experiment No. 01 to 04.
	2 nd	<ul style="list-style-type: none"> • Tri-State Gates, Array of Instances of Primitives, • Additional Examples 		
	3 rd	<ul style="list-style-type: none"> • Design of Flip-flops with Gate Primitives 		
6 th	1 st	<ul style="list-style-type: none"> • Delays, • Strengths and Contention Resolution 	6 th	Write a Program to implement a 3:8 decoder.
	2 nd	<ul style="list-style-type: none"> • Net Types, • Design of Basic Circuits 		
	3 rd	<ul style="list-style-type: none"> • Behavioral modeling: Introduction, • Operations and Assignments, • Functional Bifurcation 		
7 th	1 st	<ul style="list-style-type: none"> • Initial Construct, Always 	7 th	Write a Program to implement an 8:1

		Construct, Examples <ul style="list-style-type: none"> • Assignments with Delays 		multiplexer.
	2 nd	<ul style="list-style-type: none"> • Wait construct, Multiple Always Blocks, • Designs at Behavioral Level 		
	3 rd	<ul style="list-style-type: none"> • Blocking and Non-blocking Assignments 		
8 th	1 st	<ul style="list-style-type: none"> • The case statement, • Simulation Flow, • if and ifelse constructs, • assign-deassign construct 	8 th	Write a Program to implement a 1:8 demultiplexer.
	2 nd	<ul style="list-style-type: none"> • for loop, • the disable construct, • while loop, • forever loop 		
	3 rd	parallel blocks, force-release construct, Event		
9 th	1 st	<ul style="list-style-type: none"> • Modeling at data flow level: Introduction, • Continuous Assignment Structures 	9 th	Viva of Experiment No. 05 to 07.
	2 nd	<ul style="list-style-type: none"> • Delays and Continuous Assignments 		
	3 rd	<ul style="list-style-type: none"> • Assignment to Vectors 		
10 th	1 st	<ul style="list-style-type: none"> • Operators 	10 th	Write a Program to implement various flip-flops.
	2 nd	<ul style="list-style-type: none"> • Additional Examples 		
	3 rd	Test		
11 th	1 st	<ul style="list-style-type: none"> • Switch level modeling: Introduction, • Basic Transistor Switches, • CMOS Switch 	11 th	Write a Program to implement Mod-10 up counter.
	2 nd	<ul style="list-style-type: none"> • Bi-directional 		

		Gates		
	3 rd	<ul style="list-style-type: none"> Time Delays with Switch Primitives 		
12 th	1 st	<ul style="list-style-type: none"> Instantiations with Strengths and Delays 	12 th	Write a program to perform serial to parallel transfer of 4 bit binary number.
	2 nd	<ul style="list-style-type: none"> Strength Contention with Tri-reg Nets 		
	3 rd	Test		
13 th	1 st	<ul style="list-style-type: none"> Functions, tasks, and user defined primitives: Introduction, Function 	13 th	Write a program to perform parallel to serial transfer of 4 bit binary number.
	2 nd	<ul style="list-style-type: none"> Tasks 		
	3 rd	<ul style="list-style-type: none"> User- Defined Primitives (UDP) 		
14 th	1 st	<ul style="list-style-type: none"> FSM Design (Moore Machines) 	14 th	Write a program to implement a 8 bit ALU containing 4 arithmetic & 4 logic operations.
	2 nd	<ul style="list-style-type: none"> FSM Design (Mealy Machines) 		
	3 rd	<ul style="list-style-type: none"> System tasks, functions, and compiler directives: Introduction, Parameters 		
15 th	1 st	<ul style="list-style-type: none"> Path Delays, Module Parameters, System Tasks and Functions 	15 th	Viva of Experiment No. 08 to 12.
	2 nd	<ul style="list-style-type: none"> File-Based Tasks and Functions, Compiler Directives 		
	3 rd	<ul style="list-style-type: none"> Hierarchical Access, General Observations 		

Lesson Plan

Name of the Faculty : Mr. Vikas Kumar

Discipline : ECE

Semester : 6TH

Subject : DIGITAL SIGNAL PROCESSING

Lesson Plan Duration: 15 weeks (from January, 2019 to April, 2019)

Week	Theory		Practical	
	Lecture Day	Topic (including assignment / test)	Practical Day	Topic
1 st	1 st	INTRODUCTION TO DIGITAL SIGNAL PROCESSING AND ABOUT HISTORY OF VARIOUS TRANSFORMS FOR THE RESEARCH POINT OF VIEW	1 st	Familiarization with some matlab commands used in dsp lab.
	2 nd	Discrete Transforms: Z-transform		
	3 rd	Properties of Z- Transform		
2 nd	1 st	Inversion of Z-transform,	2 nd	Wap To Implement Matrix Algebra
	2 nd	One sided Z-transform and solution of differential equations.		
	3 rd	Analysis of LTI systems in Z-domain		
3 rd	1 st	causality, stability	3 rd	AIM: To Generate continuous time sinusoidal signal, Discrete time cosine signal.
	2 nd	schur-cohn stability test		
	3 rd	relationship between Z-transform and Fourier transform		
4 th	1 st	Frequency Selective Filters: All pass filters,	4 th	WAP For Generation Of Basic Signals → Unit Impulse, Unit Step.
	2 nd	minimum-phase, maximum-phase and mixed-phase systems,		
	3 rd	TEST		
5 th	1 st	Goertzel algorithm	5 th	WAP For Generation Of Ramp Sequence, Exponential
	2 nd	Chirp Z-transform		
	3 rd	applications of Z-Transform		

				Sequence,
6th	1 st	Unit-II Frequency Domain Sampling and DFT: Properties of DFT,	6 th	VIVA
	2 nd	Linear filtering using DFT, Frequency analysis of signals using DFT,		
	3 rd	radix 2, radix-4, computation of		
7th	1 st	DFT of real sequences. Implementation of Discrete Time Systems: Direct form, cascade form,	7 th	WAP For Generation Of Sine Wave, Cosine Wave
	2 nd	frequency sampling and lattice structures for FIR systems..		
	3 rd	Direct forms, transposed form, cascade form parallel form.		
8th	1 st	Lattice and lattice ladder structures for IIR systems	8 th	Program For Computing Discrete Fourier Transform
	2 nd	Unit-III Design of FIR Filters : Characteristics of practical frequency selective filters.		
	3 rd	Filters design specifications peak pass band ripple, minimum stop band attenuation.		
9th	1 st	Four types of FIR filters	9 th	Wap for performing discrete correlation operation.
	2 nd	alternation theorem.		
	3 rd	Design of FIR filters using windows,		
10th	1 st	Kaiser window method comparison of design methods for FIR filters	10 th	Design Fir Filter Using Matlab
	2 nd	Gibbs phenomenon,.		
	3 rd	design of FIR filters by frequency sampling method,		
11th	1 st	design of optimum equiripple FIR filters	11 th	Write A Program To Verify The Properties Of Dft
	2 nd	TEST		
	3 rd	Unit-IV Design of IIR Filters:		
12th	1 st	Design of IIR filters from analog filters	12 th	Program For Generation Of Convolution Of Two
	2 nd	Design by approximation of derivatives		

	3 rd	Impulse Invariance Method,		Sequences
13th	1 st	Bilinear Transformation Method	13 th	WAP to implement the amplitude modulation and demodulation.
	2 nd	Least Square Methods.		
	3 rd	TEST		
14th	1 st	Characteristics of Butterworth,	14 th	Write A Program To Implement Fir Filter
	2 nd	Chebyshev and Elliptical analog filters,		
	3 rd	Design of IIR filters,		
15th	1 st	Frequency transformation, ..	15 th	VIVA
	2 nd	design of IIR filters in frequency domain		
	3 rd	TEST		

Load (lecture / Practical) per week (in hours): Lectures-03, Practical's -03

Name of the Faculty : Ms. Neeru

Discipline : B.Tech (ECE)

Semester : VIth

Subject : Fundamentals of Management

Lesson Plan Duration: 15 weeks (from January, 2019 to April, 2019)

Week	Theory	
	Lecture Day	Topic (Including Assignment/ Test)
1	1	Management meaning
	2	Definition and nature of management
	3	Importance and functions of management
	4	Management as Art, Science and Profession
2	5	Management as social system, Management v/s Administration
	6	Management as social system, Management v/s Administration
	7	Revision
	8	Case study
3	9	Test
	10	Scientific Management Theory-Taylor Theory
	11	Scientific Management Theory-Taylor Theory
	12	Administrative Theory of Management-Henry Fayol Theory
4	13	Bureaucratic Organization, Behavioural Approach
	14	Human Relation Movement,
	15	Behavioural science approach
	16	Modern approach to management, Nature of planning, Purpose and functions of planning
5	17	Types of plan, planning process
	18	Case study
	19	Class test
	20	Revision
6	21	concept of corporate strategy
	22	strategies and policies,
	23	strategies and policies,
	24	Formulation of strategy
7	25	Types of strategy
	26	Types of strategy
	27	MBO, SWOT
	28	Revision
8	29	line and staff organization
	30	Types of policies and policy formulation,

	31	Revision
	32	Test
9	33	Nature, importance and function of organisation structure
	34	delegation of authority and responsibility
	35	centralization and decentralization
	36	centralization and decentralization
10	37	Decision making process
	38	Man power planning, job analysis
	39	formal and informal organization,
	40	Revision
11	41	recruitment and selection, performance appraisal
	42	recruitment and selection, performance appraisal
	43	Case study
	44	Test
12	45	Training and development
	46	Training and development
	47	Communication cycle
	48	Theories of motivation
13	49	Leadership theories
	50	Leadership theories
	51	Corporate social responsibility
	52	stress management, TQM, Management crisis
14	53	CSR and business ethics
	54	conceptual framework of functional areas of management-marketing, finance, HR
	55	conceptual framework of functional areas of management-marketing, finance, HR
	56	Revision
15	57	Controlling process and techniques
	58	Revision
	59	Case study
	60	Test