Lesson Plan

Name: Mr Viney Gaur (Theory)

Discipline: Electronics and Communication Engineering Department

Semester: 4th

Subject: Numerical Analysis (AS-206N)

Lesson Plan Duration: 15 weeks (from January, 2018 to April, 2018)

Work Load: Lectures-03

Week	Theory	
	Lecture Day	Topic
1	1st	**UNIT-1** **Solution of Algebraic and Transcendental Equation and Eigen Value Problem**.
	2nd	Solution of algebraic by the method of bisection
	3rd	Solution of transcendental equation by the method of bisection
2	4th	the method of false position
	5th	Newton-Raphson method
	6th	Graeffe's Root squaring method
3	7th	**ASSIGNMENT**
	8th	Eigen value problem by power method
	9th	Jacobi method
4	10th	REVISION OF UNIT-1
	11th	**UNIT-II** **Solution of System of Equations and Matrix Inversion : Solution of** **linear algebraic equation**
	12th	Gauss elimination
5	13th	Gauss-Jordan methods
	14th	Method of Triangularization
	15th	**ASSIGNMENT**
6	16th	Iterative methods
	17th	Gauss-Jacobi
	18th	Gauss-Seidel
7	19th	Relaxation methods
	20th	Matrix inversion by Gauss -Jordan elimination
	21st	Crout's Method
	22nd	Doolittle Method

8	23rd	Choleski Methods
	24th	**UNIT-III** **Interpolation:**Finite Differences
9	25th	Relation between operators
	26th	Interpolation by Newton's forward and backward difference formulae for equal intervals
	27th	Newton's divided difference method and Lagrange's method for unequal intervals
10	28th	**ASSIGNMENT**
	29th	Bessel formulae
	30th	Stirling formulae
11	31st	Numerical differentiation: Newton's forward difference formula to compute derivatives
	32nd	Newton's backward difference formula to compute derivatives
	33rd	Derivatives using Central difference formulae
12	34th	to find the maxima and minima of a tabulated function
	35th	Numerical Integration**:**by Newton's Cotes formulae
	36	Trapezoidal and Simpson's 1/3 and 3/8 rules
13	37th	Romberg method
	38th	**UNIT-IV** **Solution of Ordinary Differential Equation:** Single step methods: Taylor series method
	39th	Picard's method of successive approximation, Euler,
14	40th	Modified Euler's and Improved Euler methods
	41st	Runge Kutta method of fourth order only.
	42nd	**ASSIGNMENT**
15	43rd	Curve fitting**:** Introduction
	44th	Principle of Least squares ,Method of Least squares
	45th	Fitting of a straight line,parabola and exponential functions

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References Books:

1. M. K. Jain, SRK Iyengar and R.K. Jain, Numerical Methods For Scientific & Engg 6e, New Age International (P) Ltd (2008), ISBN-13:978-8122420012.

LESSON PLAN

Name : Ms. Deepti (Theory)

Discipline: Electronics & Communications

Semester: 4th

Subject: Data Structures and Algorithm (ECE-202N)

Lesson Plan Duration: 15 weeks (from January, 2018 to April, 2018)

Work Load: Lectures-03

Week	Theory	
	Lecture Day	**Topic**
1st	1st	Overview of 'C': History, Characters used in C
	2nd	Data Types, 'C' Tokens, Structures of 'C' program,
	3rd	Operators and Expressions
2nd	4th	Flow of Control
	5th	Flow of Control
	6th	I/O functions in C
3rd	7th	Arrays, Structures
	8th	user defined data types Introduction: Overview
	9th	Concept of Data Structures
4th	10th	Design of suitable Algorithm, Algorithm analysis
	11th	Revision of Important Concepts
	12th	Introduction, 1-D arrays - addressing an element in an array, array traversal ,
5th	13th	insertion and deletion in Array
	14th	Multi-D arrays, representation of arrays in physical memory, application of arrays
	15th	Searching algorithms: linear search, binary search
6th	16th	Sorting algorithms: selection sort, insertions sort,
	17th	Sorting Algo's: bubble sort, shell sort,
	18th	Sorting Algo's: merge sort, radix sort (Algorithm and Analysis)
7th	19th	Introduction to Stack, Stack Operations
	20th	Applications of Stacks – Arithmetic operations using Infix to prefix and postfix notations, their conversion and evaluation
	21st	Stack Operations
8th	22nd	Introduction to Queue, Queue Operations
	23rd	Circular Queue, Priority queue
	24th	Dequeue
9th	25th	Revision of Important Concepts
	26th	Pointers: Introduction, Pointer variables, pointers and arrays
	27th	Array of pointer, pointers and structures

10th	28th	Dynamic allocation Linked Lists: Introduction, linked lists, operations on linked lists
	29th	Operations on Link List
	30th	Operations on Link List
11th	31st	Circular linked list
	32nd	Doubly linked list
	33rd	Linked Stacks
12th	34th	Linked Queues
	35th	Comparison of sequential and linked storage
	36th	Revision of Important Concepts
13th	37th	Trees: Binary Trees, representation of trees (Linear and linked),
	38th	Traversal of binary trees. Types of binary trees: Expression tree, threaded binary trees.
	39th	BST,Heap
14th	40th	Graphs: Introduction, Graph terminology,
	41st	Representations of Graphs,
	42nd	Operations: Insertion, Deletion and traversal.
15th	43rd	Operations on Graph
	44th	Operations on Graph
	45th	Revision of Important Concepts

Text Books:

1. Data Structures using C by A. K. Sharma , Pearson Publication

2. Theory & Problems of Data Structures by Jr. Symour Lipschetz, Schaum's outline by TMH.

Reference Books:

1. Data Structures using C by A. M. Tenenbaum, Langsam, Moshe J. Augentem, PHI Pub

2. Data Structures and program design in C by Robert Kruse, PHI Expert Data Structures with C by R.B. Patel

Lesson Plan

[redacted]

Name of the Faculty : Mr. Salil Bhalla

Discipline : Electronics & Comm Engineering

Semester : 4th

Subject : Electronics Measurements and Instruments (ECE-204N)

Lesson plan : 15 Weeks (From January, 2018 to April, 2018)

Lecture per Week (in Hours) : Lectures-03

Week	Theory	
	Lecture Day	Topic (including Assignment/test)
1st	1.	**Unit 1: Measurement and Error:** Functional elements and generalized configuration of a measuring Instrument
	2.	Characteristics of instruments
	3.	Errors in measurements
2nd	4.	Errors in measurements
	5.	Statistical analysis. **Assignment**
	6.	Measurement of Resistance: Wheat stone bridge, Carey-Foster Bridge
3rd	7.	Kelvin double bridge
	8.	Measurement of Insulation resistance
	9.	**Test**
4th	10.	**Unit 2:** A-C Bridges: Maxwell Inductance bridge
	11.	Maxwell Inductance Capacitance Bridge
	12.	Anderson's Bridge
5th	13.	Hay's Bridge
	14.	De-Sauty's Bridge

	15.	Schering's bridge and Wein's bridge. **Assignment**
6th	16.	Voltage Indicating and Recording Devices: Analog voltmeters
	17.	Potentiometers
	18.	Self balancing potentiometer
7th	19.	X-Y recorders
	20.	Galvanometers -Oscillographs,Cathode -Ray Oscilloscopes.
	21.	**Test**
8th	22.	Magnetic Tape Recorders
	23.	UNIT -3: Electronic Instruments:Wave analyzer
	24.	Distortion meter
9th	25.	Q-meter & Measurement of Op-Amp parameters.
	26.	Digital Instruments:Digital Indicating Instruments **ASSIGNMENT**
	27.	Digital methods of time measurements
10th	28.	Digital methods of frequency measurements
	29.	Digital voltmeters
	30.	Digital voltmeters
11th	31.	**Test**
	32.	**UNIT-4**: Transducers: Classification of Transducers
	33.	Strain Gauge
12th	34.	Displacement Transducers -Capacitive Transducers
	35.	LVDT
	36.	Piezo-electric Transducers
13th	37.	Temperature Transducers –resistance thermometer
	38.	Thermocouples and Thermistors
	39.	Liquid level measurement and Low pressure(vacuum) measurement
14th	40.	Data Acquisition Systems: A to D and D to A converters

	41.	Analog and Digital Data Acquisition Systems
	42.	Multiplexing
15th	43.	Spatial Encoders & Telemetry
	44.	**Test**
	45.	Revision

Text Books:

1. A Course in Electrical and Electronics Measurements and Instrumentation: A.K. Sawhney; Dhanpat Rai & Sons.

Reference Books:

1. Electronics Instrumentation and Measurement Techniques: Cooper W.D & Helfrick A.D.; PHI
2. Doeblin E.O., Measurement Systems: Application & Design, Mc Graw Hill.

Lesson Plan

Name : Mr. Nirmal Singh (Theory)

Discipline: Electronics and Communication Department

Semester: 4th

Subject: Electromagnetic Theory

Lesson Plan Duration: 15 weeks (from January, 2018 to April, 2018)

Work Load: Lectures-03

Week	Theory	
	Lecture Day	Topic
1	1st	**UNIT 1:** Introduction to Vectors, Addition, Subtraction, Multiplication & Differentiation.
	2nd	Coordinate Systems: Rectangular, Cylindrical & Spherical.
	3rd	Coulomb's law. Electric Field Intensity
2	4th	Electric Potential, Field of a Line Charge, Field of a Sheet of Charge
	5th	Electric Flux Density
	6th	**ASSIGNMENT**
3	7th	Current Density
	8th	Continuity of Current
	9th	Gauss's Law and Applications, Electric Field Behavior in Dielectrics
4	10th	Boundary Conditions at Interface between Two Dielectrics
	11th	Method of Images, Capacitance of Two Wire Line
	12th	Poisson's and Laplace’s Equations, Uniqueness Theorem.
5	13th	**UNIT 2:** Biot - Savart Law. Ampere's law
	14th	Magnetic Vector potentials, Differential Current Element
	15th	**ASSIGNMENT**
6	16th	the Magnetic Circuit, Faraday's Law
	17th	Maxwell's Equations in Point and Integral form for Free space
	18th	Good Conductors & Lossy Dielectric for Sinusoidal Time Variations& Static Fields
7	19th	Retarded potentials
	20th	Force on a moving charge
	21st	Magnetic Boundary Conditions
8	22nd	**UNIT 3: The Uniform Plane Wave**
	23rd	Plane Waves & its Properties
	24th	Wave Equation for Free Space
	25th	Wave Equation for Conducting Medium

	26th	Propagation of Plane Waves in Lossy Dielectrics
9	27th	Good Dieletric
	28th	**ASSIGNMENT**
10	29th	The Poynting Vector and Power considerations
	30th	Skin Effect,
	31st	Reflection of Uniform Plane Waves (Normal & Oblique Incidence)
11	32nd	**Unit 4:** The Transmission Line Equations
	33rd	Graphical Methods
	34th	Smith chart
	35th	Time-domain and Frequency- domain Analysis
12	36th	Reflection in Transmission Lines
	37th	SWR
	38th	TE, TM, TEM waves
13	39th	TE and TM modes in Rectangular and Circular Waveguides
	40th	Cut-off & Guided Wavelength
	41st	Wave Impedance and Characteristic Impedance
14	42nd	**ASSIGNMENT**
	43rd	Power Flow in waveguides
	44th	Excitation of Waveguides
15	45th	Dielectric Waveguides

Text Books:

1. Hayt W H., Engineering Electromagnetics, Tata McGraw Hill, 6th Edition.

References Books:

1. Jordan E C & Balmain K G, Electromagnetic Waves and Radiating Systems, PHI.2 David K. Chang, Field and Waves Electromagnetics, Addison Wesley.

Lesson Plan

Name : Ms Shaweta (Theory)

Discipline: Electronics and Communication Department

Semester: 4th

Subject: Analog Electronics

Lesson Plan Duration: 15 weeks (from January, 2018 to April, 2018)

Work Load: Lectures-03

Week	Theory	
	Lecture Day	Topic
1	1st	Amplifier Models: Voltage amplifier
	2nd	Current amplifier
	3rd	Trans-conductance amplifier and Trans-resistance amplifier.
2	4th	Biasing schemes for BJT and FET amplifiers
	5th	Bias stability of CE/CS configurations
	6th	Bias stability of CB/CG, CC/CD configurations
3	7th	Features of various configurations (such as CE/CS, CB/CG, CC/CD)
	8th	**ASSIGNMENT**
	9th	estimation of voltage gain, input resistance, output resistance etc.,
4	10th	**UNIT-2** Transistor Frequency Response: High frequency transistor models
	11th	frequency response of single stage
	12th	frequency response of multistage amplifiers and cascade amplifier
5	13th	Various classes of operation (Class A)
	14th	Various classes of operation(Class B,AB)
	15th	Various classes of operation(Class C)
6	16th	power efficiency and linearity issues
	17th	Feedback Topologies:Voltage series
	18th	current series
7	19th	voltage shunt
	20th	current shunt
	21st	**ASSIGNMENT**
8	22nd	calculation with practical circuits
	23rd	concept of stability, gain margin and phase margin
	24th	**Unit-3** Oscillators: Review of the basic concept
9	25th	Barkhausen criterion for oscillators
	26th	Type of RC oscillators : RC phase shift oscillator
	27th	Wien bridge oscillator
	28th	LC oscillators

10	29th	Hartley oscillator
	30th	Collpit oscillator
11	31st	**ASSIGNMENT**
	32nd	555 Timer as a monostable
	33rd	555 Timer as astable multivibrator
12	34th	Op-Amp Applications: Schmitt trigger and its applications.
	35th	Current mirror: Basic topology
	36th	and its variants
13	37th	V-I characteristics, output resistance and
	38th	**ASSIGNMENT**
	39th	Differential amplifier: Basic structure and principle of operation
14	40th	calculation of differential gain,
	41st	common mode gain, CMRR and ICMR.
	42nd	OP-AMP design
15	43rd	design of differential amplifier for a given specification
	44th	Design of gain stages
	45th	Design of output stages

Text Books:

1. Electronic Devices and Circuits by Millman and Halkias, McGraw Hills, New Delhi

Reference Books:

1. Operational Amplifiers and Linear Integrated Circuits by Ramakant A Gayakwad,PHI.
2. A.S. Sedra & K.C.Smith, Microelectronics Circuits, Oxford University Press
3. Robert L. Boylestad & Louis Nashelsky, Electronic Devices & Circuit Theory,Pearson

LESSON PLAN

Name of Faculty: Alisha Gupta
Semester: 4th
Discipline: ECE
Subject Name and Code: Computer Architecture & Organization ECE 210N
Lesson Plan Duration : 15 weeks (From January, 2018 to April, 2018)
Work Load (Lecture / Lab) per week : Lectures – 03

WEEK	THEORY	
	Lecture Day	Topic
1st	1	Introduction to basic computer architecture
	2	register transfer
	3	bus and memory transfers
2nd	4	Arithmetic
	5	logic and shift micro operations
	6	Central Processing Unit: Introduction
3rd	7	general register organization
	8	stack organization
	9	instruction formats
4th	10	addressing modes
	11	data transfer and manipulation
	12	program control
5th	13	RISC, Macros and Subroutines
	14	Control Design: Micro programmed control
	15	control memory
6th	16	address sequencing
	17	micro program example
	18	design of control unit

	19	Hardwired Control: design methods
7th	20	Multiplier Control Unit
	21	CPU Control unit
	22	Processor Design: Decimal arithmetic unit
8th	23	BCD adder
	24	BCD subtraction
	25	decimal arithmetic operations
9th	26	ALU design
	27	Forms of Parallel processing classification of Parallel structures
	28	Array Processors
10th	29	Structure of general purpose Multiprocessors
	30	Memory hierarchy
	31	main memory
11th	32	auxillary memory
	33	associative memory
	34	cache memory
12th	35	virtual memory
	36	memory management
	37	hardware multiprocessor architectures and their characteristics
13th	38	interconnection structures
	39	Random access memories: semiconductor RAMS
	40	Serial – access Memories Memory organization, Main Memory Allocation
14th	41	Pipeline and Vector Processing: Parallel processing
	42	pipelining, arithmetic pipeline, instruction pipeline
	43	RISC pipeline, vector processing, array processors , Input
15th	44	output Organisation: Peripheral devices, input-output interface, asynchronous data transfer
	45	modes of transfer, priority interrupt,DMA, IOP serial communication

Text Books:

1. Morris Mano, “Computer System Architecture”, PHI.
2. J.F. Heys, “Computer Organization and Architecture”, TMH.

Reference Books:

1. J. Hennessy and D. Patterson, Computer Architecture A Quantitative Approach, 3rd Ed, Morgan Kaufmann, 2002.

Lesson Plan (Lab)

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Name of the Faculty : Ms. Deepti

Discipline : Electronics & Communications

Semester : 4th

Subject : Data Structure Lab (ECE-212N)

Lesson plan : 15 Weeks (From January, 2018 to April, 2018)

Lecture per Week (in Hours): Lectures-03

Week	Practical	
	Practical Day	Topic
1st	1.	Introduction to Data Structure Recall to important topics of C Language
2nd	2.	1. Write a program to print a 2D array. 2. Write a program to find the factorial of an nth number using recursion. 3. Write a program to print Fibonacci sequence.
3rd	3.	4.Using clock() function of time.h header file, compare the timings of linear search and binary search for an 1D array of 1000 elements
4th	4.	5. Compare the timings of the following sorting algorithm a. Bubble sort b. Selection sort c. Insertion sort
5th	5.	6. Implement stacks using arrays for the following user defined functions a. Size of stack b. Number of elements in the stack c. Pop with underflow check d. Push with overflow check
6th	6.	7. Implement queues using arrays for the following user defined functions a. Size of queue b. Number of elements in the queue c. Insert an element with overflow check d. Delete an element with underflow check
7th	7.	8. Implement linked list for the following user defined functions a. Create a node and Insert an element b. Delete an element and its node c. Find the location of a given value d. Print the list in forward or reverse order
8th	8.	9. Traverse a tree and print the elements in a. Preorder b. Post order c. In order
9th	9.	10. Traverse a graph and print the elements using a. Depth first search b. Breadth first search
10th	10.	Revision

11th	11.	Revision
12th	12.	Revision
13th	13.	Revision
14th	14.	Viva
15th	15.	Viva

Lesson Plan

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Name of the Faculty	:	Mr. Salil Bhalla
Discipline	:	Electronics & Comm Engineering
Semester	:	4th
Subject	:	Electronics Measurements and Instruments LAB (ECE-214N)
Lesson plan	:	15 Weeks (From January, 2018 to April, 2018)
Work Load	:	03

Week	Practical	
	Practical Day	Topic
1st	1.	Introduction of various instruments
2nd	2.	To measure the unknown Inductance in terms of capacitance and resistance by using Maxwell's Inductance bridge.
3rd	3.	To measure unknown Inductance using Hay's bridge.
4th	4.	To measure unknown capacitance of small capacitors by using Schering's bridge.
5th	5.	To measure 3-phase power with 2-Wattmeter method for balanced and unbalanced bridge.
6th	6.	**VIVA**
7th	7.	To measure unknown capacitance using De-Sauty's bridge.
8th	8.	To measure unknown frequency using Wein's frequency bridge.
9th	9.	To measure unknown low resistance by Kelvin's Double bridge.
10th	10.	To test the soil resistance using Meggar (Ohm meter).
11th	11.	**VIVA**
12th	12.	To calibrate Energy meter using standard Energy meter.
13th	13.	To plot the B-H curve of different magnetic materials.

14th	14.	To calibrate the Voltmeter using Crompton Potentiometer.
15th	15.	**VIVA**

Lesson Plan

Name : Ms Shweta

Discipline: Electronics and Communication Department

Semester: 4th

Subject: Analog Electronics Lab

Lesson Plan Duration: 15 weeks (from January, 2018 to April, 2018)

Work Load: Practicals-03

	Practical	
Week	Practical Day	Topic
1	1	Design CE amplifier circuit using BJT, Find gain and frequency response
2	2	Design differential amplifier using BJT, Find gain and frequency response.
3	3	Viva-Voce
4	4	Design RC coupled single stage BJT amplifier & determine gain, frequency response, I/O impedances.
5	5	Design BJT emitter follower & determine gain, I/O impedances.
6	6	Viva-Voce
7	7	Design & test performance of BJT-RC phase shift oscillator
8	8	Design & test performance of BJT-Hartley oscillator
9	9	Design & test performance of BJT-colpitt oscillator
10	10	Viva-Voce
11	11	Design an astable multivibrator using 555 timer.
12	12	Design a monostable multivibrator using 555 timer.
13	13	Viva -Voce
14	14	Design Schmitt trigger using op-amp and verify its operational characteristics
15	15	Internal Viva

Lesson Plan

Name of the Faculty : Ms. Anoop Gorshi

Discipline : Electronics and Communication Engineering

Semester : 6th

Subject : Digital Signal Processing(ECE- 302N)

Lesson plan :15 Weeks (From January, 2018 to April, 2018)

Lecture per Week (in Hours):Lectures-03

Week	Theory	
	Lecture Day	Topic
1st	1.	**UNIT-1** Discrete Transforms: Z- transform and its properties,
	2.	Inversion of Z-transform
	3.	One sided Z-transform and solution of differential equations
2nd	4.	Analysis of LTI systems in Z-domain, causality, stability, schur-cohn stability test
	5.	**ASSIGNMENT**
	6.	Frequency Selective Filters: All pass filters, minimum-phase, maximum-phase and mixed-phase systems
3rd	7.	Goertzel algorithm
	8.	Chirp Z-transform
	9.	applications of Z-Transform
4th	10.	**TEST OF UNIT-1**
	11.	**UNIT-2** Frequency Domain Sampling and DFT
	12.	Linear filtering using DFT
5th	13.	Frequency analysis of signals using DFT, radix 2, radix-4,
	14.	computation of DFT of real sequences
	15.	**ASSIGNMENT**
6th	16.	Implementation of Discrete Time Systems
	17.	Direct form, cascade form
	18.	Frequency sampling and lattice structures for FIR systems.
7th	19.	Direct forms, transposed form, cascade form parallel form
	20.	Lattice and lattice

	21.	ladder structures for IIR systems.
8th	22.	**TEST OF UNIT-2**
	23.	**UNIT-3** Design of FIR Filters : Characteristics of practical frequency selective filters.
	24.	Filters design specifications

9th	25.	peak pass band ripple, minimum stop band attenuation,
	26.	Four types of FIR filters,
	27.	**ASSIGNMENT**
10th	28.	Design of FIR filters using windows
	29.	Kaiser window
	30.	**ASSIGNMENT**
11th	31.	design methods for FIR filters
	32.	design of FIR filters by frequency sampling method,
	33.	design of optimum equiripple FIR filters.
12th	34.	**TEST OF UNIT-3**
	35.	**UNIT-4** Design of IIR Filters: Design of IIR filters from analog filters,
	36.	Design by approximation of derivatives,
13th	37.	Impulse Invariance Method
	38.	Bilinear Transformation Method
	39.	Characteristics of Butterworth filter
14th	40.	**ASSIGNMENT**
	41.	Characteristics of Chebyshev filter
	42.	Characteristics of Elliptical analog filters
15th	43.	Design of IIR filters,Frequency transformation
	44.	design of IIR filters in frequency domain
	45.	**TEST OF UNIT-4**

Text Books:

1.John G. Proakis, Digital Signal Processing, PHI
.

Reference Books:

2. S. K. Mitra, Digital Signal Processing , TMH
3. Rabiner and Gold, Digital Signal Processing, PHI
4. Salivahan, Digital Signal Processing , TMH
5. Digital Signal Processing: Alon V. Oppenhelm;PHI

Lesson Plan

Name of the faculty: Mr. Maninder Singh

Discipline: Electronics & Communication Engineering

Semester: 6th

Subject: Digital Design using Verilog (ECE-304N)

Lesson Plan Duration: 15 Weeks (from January, 2018 to April, 2018)

Week	Theory	
	Lecture Day	Topic Covered
1st	1	Introduction , Conventional Approach to Digital Design
	2	VLSI design, ASIC design flow
	3	Role of HDL. Conventional Data flow, ASIC data flow
2nd	4	Verilog as HDL Levels of Design Description, Concurrency
	5	Synthesis and Simulation
	6	Functional Verification, System Tasks
3rd	7	Programming Language Interface (PLI)
	8	Module, Simulation and Synthesis Tools
	9	Test Benches
4th	10	Language Constructs and conventions, Keywords,
	11	Identifiers, White Space characters, Comments, Numbers
	12	Strings, Logic Values, Strengths, Data Types, Scalars and Vectors
5th	13	Parameters, Memory, Operators, System Tasks
	14	Gate level modeling: Introduction, AND Gate Primitive
	15	Module Structure, Other Gate Primitives, Illustrative Examples,
6th	16	Module Structure, Other Gate Primitives, Illustrative Examples,
	17	Tri-State Gates
	18	Array of Instances of Primitives, Additional Examples

7th	19	Design of Flip-flops with Gate Primitives
	20	Delays, Strengths and Contention Resolution
	21	Net Types, Design of Basic Circuits
8th	22	Behavioral modeling: Operations and Assignments
	23	Functional Bifurcation
	24	Initial Construct, Always Construct, Examples
9th	25	Initial Construct, Always Construct, Examples
	26	Wait construct, Multiple Always Blocks, Designs at Behavioral Level
	27	Blocking and Non-blocking Assignments
10th	28	The case statement, Simulation Flow
	29	IF and IF ELSE constructs, assign-deassign construct, repeat construct
	30	FOR loop, the disable construct, While loop
11th	31	Forever loop, parallel blocks, force-release construct, Event
	32	Modeling at data flow level: Introduction, Continuous Assignment Structures
	33	Delays and Continuous Assignments
12th	34	Assignment to Vectors, Operators
	35	Additional Examples
	36	Switch level modeling: Introduction, Basic Transistor Switches
13th	37	CMOS Switch, Bi-directional Gates, Time Delays with Switch Primitives
	38	Instantiations with Strengths and Delays, Strength Contention with Trireg Nets
	39	Functions, tasks, and user defined primitives: Introduction, Function Tasks
14th	40	User- Defined Primitives (UDP)
	41	FSM Design (Moore and Mealy Machines)
	42	System tasks, functions, and compiler directives: Introduction, Parameters, Path Delays.
15th	43	Module Parameters, System Tasks and Functions
	44	File-Based Tasks and Functions, Compiler Directives
	45	Hierarchical Access, General Observations

LESSON PLAN

Name :Ms Shaweta (Theory)

Discipline: Electronics and Communication Department

Semester: 6th

Subject: DIGITAL COMMUNICATION (ECE-306N)

Lesson Plan Duration: 15 weeks (from January, 2018 to April, 2018)

Work Load: Lectures-03

Week	Theory	
	Lecture Day	Topic
1st	1st	UNIT 1: InformationTheory: Introduction, Entropy
	2nd	• Huffman Coding • Channel Capacity • Capacity,Channel Coding,
	3rd	Linear Block Codes, Matrix Description
2nd	4th	• Syndrome Decoding • Hamming Code
	5th	Cyclic Code
	6th	• Convolution Code • Viterbi decoding
3rd	7th	Revision Test
	8th	**Unit 2:Pulse Modulation System:** Introduction to Digital communication, Basic block diagram, Advantages of digital systems over analog systems
	9th	Sampling Process
4th	10th	Aperture effect
	11th	PAM TDM system
	12th	Quantization Process
5th	13th	Quantization Noise
	14th	• PCM • DPCM
	15th	Companding, A law and μ law compressors
6th	16th	Noise in PCM : Assignment Topic
	17th	Delta modulation/ demodulation
	18th	• ADM • Delta sigma modulator
7th	19th	Time division multiplexed systems (T & E type systems), Calculation of O/P signal power
	20th	O/P signal to noise ratio in delta modulation
	21st	**Unit 3:Base Band Pulse Transmission:** Matched filter and its properties average probability of symbol error in binary enclosed PCM receiver,
8th	22nd	Intersymbol interference
	23rd	Nyquist criterion for distortionless base band binary transmission

	24th	Ideal Nyquist channel raised cosine spectrum,
9th	25th	Correlative level coding Duo binary signalling
	26th	Tapped delay line equalization
	27th	Adaptive Equalization
10th	28th	LMS algorithm, Eye pattern
	29th	LMS algorithm, Eye pattern
	30th	Revision Test
11th	31st	**Unit 4: Digital Pass Band Transmission:** Pass band transmission model
	32nd	Gram Schmidt orthogonalization procedure
	33rd	Gram Schmidt orthogonalization procedure,
12th	34th	Geometric Interpretation of signals
	35th	Response of bank of correlaters to noise input
	36th	Detection of known signal in Noise
13th	37th	Hierarchy of digital modulation techniques
	38th	• BPSK • DPSK • DEPSK
	39th	QPSK systems; ASK, FSK,
14th	40th	QASK, Many FSK
	41st	MSK, Many QAM,
	42nd	Signal space diagram and spectra of the above systems
15th	43rd	Effect of intersymbol interference
	44th	Bit symbol error probabilities
	45th	Synchronization.

Lesson Plan

Name of faculty : Ms. Poonam

Discipline : B.Tech (ECE)

Semester : 6th

Subject : Fundamentals of Management

Lesson Plan during : 15 Weeks (From January 2018 to April, 2018)

** Work load (Lecture / practical) per week (In hours): lectures-03, practical – 00

WEEK	THEORY	
	LECTURE DAY	TOPIC (INCLUDING ASSIGNMENT/ TEST)
1.	1.	Meaning, Definition, Nature Of FOM
	2.	Importance & Functions Of FOM
	3.	Management As Art, Science & Profession
2.	4.	Management As Social System
	5.	Concepts Of Management-Administration
	6.	Evolution Of Management Thought
3.	7.	Development Of Management Thought
	8.	Scientific Management
	9.	Administrative Theory Of Management
4.	10.	Bureaucratic Organization, Behavioral Approach
	11.	Human Relations Movement
	12.	Behavioral Science Approach
5.	13.	Modern Approach To Management
	14.	Systems Approach And Contingency Approach
	15.	Nature, Purpose And Functions, Types Of Plans
6.	16.	Planning Process
	17.	Strategies And Policies
	18.	Concept Of Corporate Strategy, Formulation Of Strategy
7.	19.	Types Of Strategies
	20.	Management By Objectives (MBO)

	21.	SWOT Analysis, Types Of Policies
8.	22.	Principles Of Formulation Of Policies
	23.	Nature, Importance, Process, Organization Structure
	24.	Line And Staff Organization
9.	25.	Delegation Of Authority And Responsibility
	26.	Centralization And Decentralization
	27.	Decision Making Process & Models
10.	28.	Departmentalization: Concept And Types
	29.	Formal & Informal Organizations
	30.	Concept, Process, Features; Manpower Planning; Job Analysis: Concept And Process
11.	31.	Recruitment And Selection: Concept, Process, Sources Of Recruitment
	32.	Performance Appraisal, Training And Development
	33.	Communication- Nature, Process, Formal And Informal, Barriers To Effective Communication
12.	34.	Theories Of Motivation-Maslow, Herzberg, McGregor
	35.	Concept And Theories, Managerial Grid, Situational Leadership
	36.	Transactional And Transformational Leadership
13.	37.	Concept, Process, Types, Barriers To Controlling, Controlling Techniques:
	38.	Budgetary Control, Return On Investment
	39.	Management Information System-MIS , TQM-Total Quality Management, Network Analysis- PERT And CPM
14.	40.	Social Responsibility Of Management–Management Of Crisis, Total Quality Management, Stress Management
	41.	Concept Of Corporate Social Responsibility (CSR) And Business Ethics. Functional Aspects Of Business
	42.	Conceptual Framework Of Functional Areas Of Management
15.	43.	Finance
	44.	Marketing
	45.	Human Resources

Lesson Plan

Name of the Faculty	:	Mr. Arun Bhatia
Discipline Engineering	:	Electronics &Communication
Semester	:	6th
Subject (ECE-308-N) NETWORKS	:	COMPUTER COMMUNICATION
Lesson plan	:	15 Weeks(January, 2018 to April, 2018)
Lecture per Week (in Hours)	:	Lectures-03

Week	Theory	
	Lecture Day	Topic (including Assignment/test)
1st	46.	**Unit 1:** Introduction to Computer Networks
	47.	Protocols and standards
	48.	Network Models: The OSI Model
2nd	49.	Network Models: The OSI Model
	50.	Layers in the OSI Model
	51.	TCP/IP protocol suite
3rd	52.	Introduction to addressing
	53.	**Test**
	54.	**Assignment 1:** The TelephoneSystem, Narrowband ISDN, Broadband ISDN and ATM
4th	55.	Analog and Digital signals Transmission media : Guided &Unguided
	56.	Guided & Unguided Media
	57.	**Unit 2:** The Data Link Layer:Data Link Layer Design issues
5th	58.	Error Detection & correction
	59.	Data link control: Framing, Flow & Error control
	60.	Data link control: Framing, Flow & Error control
6th	61.	**Test**
	62.	Noiseless channels, Noisy channels,
	63.	HDLC
7th	64.	Point to Point Protocols
	65.	The Medium Access Sublayer:Aloha Protocols
	66.	LAN Protocols: wired LAN,s, Wireless LANS
8th	67.	Satellite Protocols
	68.	**Unit 3:** Network Layer : Design Issues
	69.	IPv4 addresses
9th	70.	IPv6 addresses

	71.	internetworking,IPv4, IPv6
	72.	**Test 3:**
10th	73.	congestion control algorithms
	74.	Transport & Session Layer:Protocol design issues
	75.	Process to process delivery
11th	76.	UDP, remote procedurecalls
	77.	TCP connection Management
	78.	**Unit 4:** Presentation Layer:Design issues
12th	79.	abstract Syntax notation
	80.	abstract Syntax notation
	81.	data compression technique, cryptography
13th	82.	**Test**
	83.	Application Layer:Design issues
	84.	Design Issues, file transfer
14th	85.	access and management
	86.	electronic mail
	87.	electronic mail, Virtual Terminals
15th	88.	WWW & HTTP
	89.	**Test**
	90.	Revision

Text Books:

2 Forouzan B.A, Data Communications and Networking, Tata-Mc-Graw Hill .
3 Tanenbaum A.S, Computer Networks, PHI.

Reference Books:

3. Stallings W, Data and Computer Communications, PHI.
4. Leon –Garcia, Computer Networks, Mc Graw Hill

Lesson Plan

Name of the Faculty : Mr. Rupinder Singh

Discipline : Electronics and Communication Engineering

Semester : 6th

Subject : Digital Signal Processing Lab(ECE- 310N)

Lesson plan :15 Weeks (From January, 2018 to April, 2018)

Lecture per Week (in Hours):Practical-03

Week	Practical	
	Practical Day	Topic
1st	1.	Introduction to MATLAB
	2.	
	3.	
2nd	4.	Write a program to plot the following functions: a)impulse function b)unit step c)unit ramp d)exponential e) sinusoidal
	5.	
	6.	
3rd	7.	Write a program to plot the Sine wave, cosine wave and Tangent wave.
	8.	
	9.	
4th	10.	Write a program to plot the convolution and multiplication of two signals
	11.	
	12.	
5th	13.	VIVA
	14.	
	15.	
6th	16.	Write a program to verify the Symmetry, time shifting and modulating properties of DTFT with a rectangular pulse.
	17.	
	18.	
7th	19.	Write a program to study the aliasing effect by using a Sinusoidal Signal. Show the plots of' continuous time Signal. Sampled Signal and reconstructed signals by using subplot
	20.	
	21.	
8th	22.	Write a program to find the convolution of two sequences using in built convolution function
	23.	
	24.	
9th	25.	To study the frequency shift property of DTFT
	26.	
	27.	
10th	28.	VIVA
	29.	
	30.	

11th	31.	Write a program to plot real, imaginary phase and magnitude of exponential function
	32.	
	33.	
12th	34.	Write a program to verify the properties of Discrete Fourier Transform (DFT).
	35.	
	36.	
13th	37.	To study different window functions available in signal processing
	38.	
	39.	
14th	40.	Write a program to study the sampling theorem of a continuous time signal.
	41.	
	42.	
15th	43.	VIVA
	44.	
	45.	

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Lesson Plan

Name of the faculty: Mr. Maninder Singh

Discipline: Electronics & Communication Engineering

Semester: 6th

Subject: Digital Design using Verilog Lab (ECE-312N)

Lesson Plan Duration: 15 Weeks (from January, 2018 to April, 2018)

Week No.	Practical
1st	Write a Program to implement logic gates.
2nd	Write a Program to implement half-adder.
3rd	Write a Program to implement full-adder.
4th	1st Viva-Voce.
5th	Write a Program to implement 4 bit addition/subtraction.
6th	Write a Program to implement a 3:8 decoder.
7th	Write a Program to implement an 8:1 multiplexer.
8th	2nd Viva-Voce.
9th	Write a Program to implement a 1:8 demultiplexer.
10th	Write a Program to implement 4 bit comparator.
11th	Write a Program to implement Mod-10 up counter.
12th	Write a program to perform serial to parallel transfer of 4 bit binary number.
13th	3rd Viva-Voce

LESSON PLAN

Name :Ms shweta (Practical)

Discipline: Electronics and Communication Department

Semester: 6th

Subject: DIGITAL COMMUNICATION LAB (ECE-314N)

Lesson Plan Duration: 15 weeks (from January, 2018 to April, 2018)

Work Load: Practical:03

Week	Practical	
	Practical Day	Topic
1st	1st	Introduction to lab
2nd	2nd	To Study ASK
3rd	3rd	To Study PSK
4th	4th	Viva Voice
5th	5th	To Study FSK
6th	6th	To Study Balanced Modulator & Demodulator
7th	7th	Viva Voice
8th	8th	To Study PCM
9th	9th	Setting up a Fiber Optical Analog Link
10th	10th	Viva Voice
11th	11th	Setting up a Fiber Optic Digital Link
12th	12th	Losses in Optical Fiber
13th	13th	Measurement of Numerical Aperture
14th	14th	Time Division multiplexing of signals
15th	15th	Viva Voice

LESSON PLAN

Name: Mr. Rupinder Singh (Theory)

Discipline: Electronics and Communication Department

Semester: 8th

Subject: Transducers & Their Applications (ECE-430E)

Lesson Plan Duration: 15 weeks (from January, 2018 to April, 2018)

Work Load: Lectures-03

Week	Theory	
	Lecture Day	Topic
1st	1st	**UNIT 1:**Definition of transducer
	2nd	Advantages of an electrical signal as out-put
	3rd	Basic requirements of transducers
2nd	4th	• Primary Transducer • Secondary Transducer
	5th	• Analog Transducer • Digital types of transducers
	6th	• Resistive Transducer • Inductive Transducer
3rd	7th	Revision
	8th	Capacitive Transducer
	9th	**ASSIGNMENT**
4th	10th	Photoelectric Transducer
	11th	Photoelectric Transducer
	12th	Hall effect Transducer
5th	13th	**UNIT 2:**Measurement of pressure – Manometers
	14th	Measurement of pressure – Manometers
	15th	Force summing devices
6th	16th	Electrical transducers
	17th	Measurement of temperature – Metallic resistance thermometers
	18th	Measurement of temperature – Metallic resistance thermometers
7th	19th	Revision
	20th	Semi conductor resistance sensors (Thermistors)
	21st	Thermo-electric sensors
8th	22nd	Pyrometers
	23rd	**UNIT 3:**Measurement of displacement – Potentiometric resistance type transducers
	24th	• Inductive type transducers

		• Differential transformer (L.V.D.T)
9th	25th	• Capacitive transducers • Hall effect devices
	26th	**ASSIGNMENT**
	27th	Measurement of velocity – variable reluctance pick up
10th	28th	Electromagnetic tachometers
	29th	Photoelectric tachometer
	30th	Toothed rotor tachometer generator
11th	31st	Toothed rotor tachometer generator
	32nd	Revision
	33rd	**Unit 4:** Measurement of Force – Strain-gauge
12th	34th	Measurement of Force – Strain-gauge
	35th	Load cells
	36th	Load cells
13th	37th	**ASSIGNMENT**
	38th	LVDT type force transducer
	39th	LVDT type force transducer
14th	40th	Measurement of Torque
	41st	Revision Test
	42nd	Torque meter
15th	43rd	Torsion meter
	44th	Inductive torque transducer
	45th	Digital methods

Suggested Books:

6. B.C. Nakra, K.K. Chaudhry, "Instrumentation Measurement and Analysis," Tata McGraw- Hill Publishing Company Limited, New Delhi.
7. Thomas G. Beckwith etc. all, "Mechanical Measurements (International Student Edition), Addison-Wesley Longman, Inc. England.
8. A.K. Sawhney, " A Course in Electrical and Electronic Measurements and Instrumentation," Dhanpat Rai & Sons, Delhi-6.

Lesson Plan

Name of the faculty: Mr. Arun Bhatia

Discipline: Electronics & Communication Engineering

Semester: 8th

Subject: Embedded Systems Design (ECE-424E)

Lesson Plan Duration: 15 Weeks (from January, 2018 to April, 2018)

Week	Theory	
	Lecture Day	Lecture Day
1st	1st	Different Types of Microcontrollers
	2nd	Processor Architectures
	3rd	Microcontroller's Memory Types
2nd	4th	Microcontrollers Features
	5th	Introduction to PIC Microcontroller
	6th	Architecture and Pipelining
3rd	7th	Architecture and Pipelining
	8th	Program Memory Considerations
	9th	Addressing Modes
	10th	CPU Registers

4th	11th	Instruction Set
	12th	Simple Operations
	13th	Simple Operations
th 5	14th	Interrupt Logic
	15th	Timer2 Scalar Initialization
th 6	16th	Timer2 Scalar Initialization

	17th	IntService Interrupt Service Routine
	18th	Loop Time Subroutine
7th	19th	External Interrupts and Timers
	20th	External Interrupts and Timers
	21st	Synchronous Serial Port Module
8th	22nd	Serial Peripheral Device
	23rd	O/P Port Expansion
	24th	I/P Port Expansion
9th	25th	I/P Port Expansion
	26th	UART
	27th	UART
10th	28th	Arithmetic Operations
	29th	Bit Addressing
	30th	Loop Control, Stack Operation
11th	31st	Subroutines
	32nd	RAM Direct Addressing

	33rd	State Machines
12th	34th	State Machines
	35th	Oscillators
	36th	Timer Interrupts
13th	37th	Memory mapped I/O
	38th	Music Box
	39th	Mouse Wheel Turning
14th	40th	PWM Motor Control

15th	41st 42nd 43rd 44th	Aircraft Demonstration Ultra sonic Distance Measuring Temperature Sensor
	45th	Pressure Sensor REVISION OF UNIT-4
TEXT BOOK:		

1. Design with PIC Microcontrollers by John B. Peatman , Pearson.

REFERENCE BOOKS:

4 Programming and Customizing the 8051 Microcontroller : Predko ; TMH.
5 Designing Embedded Hardware : John Catsoulis ;SHROFF PUB. & DISTR. ND.
6 Programming Embedded Systems in C and C++ : Michael Barr; SHROFF PUB. & DISTR. ND.

Lesson Plan

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Name of the Faculty : Mr. Nirmal Singh

Discipline : Electronics and Communication Engineering

Semester : 8th

Subject : Wireless and Mobile Communication (ECE-402E)

Lesson plan :15 Weeks (From January, 2018 to April, 2018)

Lecture per Week (in Hours):Lectures-03

Week	Theory	
	Lecture Day	Topic
1st	1.	**UNIT-1** Radio Propagation Characteristics,
	2.	Models for Path loss
	3.	Shadowing
2nd	4.	Multipath fading
	5.	delay spread,
	6.	ASSIGNMENT
3rd	7.	Coherence bandwidth, Coherence Time
	8.	Doppler Spread, Jake's Channel model.
	9.	REVISION OF UNIT-1
4th	10.	**TEST OF UNIT-1**
	11.	**UNIT-2** Digital Modulation for Mobile radio
	12.	Analysis under fading channel
5th	13.	diversity techniques
	14.	Rake demodulator
	15.	ASSIGNMENT
6th	16.	Introduction to Spread Spectrum Communication
	17.	Multiple Access Techniques used in Mobile Wireless Communications
	18.	FDMA
7th	19.	TDMA

	20.	CDMA
	21.	REVISION OF UNIT-2
8th	22.	**TEST OF UNIT-2**
	23.	**UNIT-3** The Cellular concept
	24.	Frequency Reuse
9th	25.	basic theory of hexagonal cell layout

	26.	spectrum efficiency
	27.	FDM/TDM, Cellular System
10th	28.	channel allocation schemes
	29.	Handover Analysis
	30.	cellular CDMA
11th	31.	Soft capacity
	32.	Erlang capacity comparison
	33.	REVISION OF UNIT-3
12th	34.	**TEST OF UNIT-3**
	35.	**UNIT-4** Wireless standards ,
	36.	GSM
13th	37.	IS-95
	38.	ASSIGNMENT
	39.	UMTS-IMT-2000
14th	40.	Signaling,
	41.	Call Control
	42.	Mobility Management
15th	43.	Location Tracking.
	44.	REVISION OF UNIT-4
	45.	**TEST OF UNIT-4**

Text Books:

5. Theodore S. Reppeport, Wireless Communications Principles and Practice, IEEE Press,Prentice Hall.
6. William C.Y.Lec, Mobile Cellular Telecommunications, Analog and Digital Systems, Mc-Graw Hill Inc

Reference Books:

2. Data & Computer Communication: William Stallings

Lesson Plan

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Name of the Faculty : Mr.Rohit Arora

Discipline : Electronics and Communication Engineering

Semester : 8th

Subject : Radar Engineering (ECE-404E)

Lesson plan : 15 Weeks (From January, 2018 to April, 2018)

Lecture per Week (in Hours): Lectures-03

Week	Theory	
	Lecture Day	Topic
1st	1	**UNIT 1**. RADAR BASICS
	2.	Radar Block Diagram & operation
	3.	Applications of Radar
2nd	4.	RADAR EQUATION: Simple form of Radar Equation,
	5.	Minimum detectable signal, Receiver noise,
	6.	**ASSIGNMENT**
3rd	7.	Signal to Noise ratio, Transmitter Power
	8.	Pulse repetition frequency & range ambiguities,
	9.	Propagation effects
4th	10.	**TEST OF UNIT-1**
	11.	**UNIT-2** CW & FREQUENCY MODULATED RADAR: The Doppler effect
	12.	CW Radar,
5th	13.	FM- CW Radar
	14.	Multiple Frequency CW Radar.
	15.	**ASSIGNMENT**
6th	16.	MTI : Introduction
	17.	PULSE DOPPLER RADAR: Introduction

	18.	Multiple or staggered frequencies
7th	19.	range-Gated Doppler Filters,
	20.	Other MTI delay line
	21.	Limitation of,MTI performance, ,
8th	22.	Noncoherent MTI Pulse Doppler Radar
	23.	MTI from a moving platform

	24.	revision
9th	25.	**TEST OF UNIT-2**
	26.	**UNIT-3** TRACKING RADAR
	27.	Tracking with Radar
10th	28.	Sequential Lobbing
	29.	Conical Scan
	30.	Monopulse Tracking Radar
11th	31.	Tracking in range,
	32.	Acquisition of target
	33.	revision
12th	34.	**TEST OF UNIT-3**
	35.	**UNIT-4** RECEIVERS, DISPLAYS & DUPLEXERS:
	36.	Radar Receivers
13th	37.	Noise Figure
	38.	**ASSIGNMENT**
	39.	Mixer
14th	40.	Low-noise Front ends
	41.	Displays
	42.	Duplexer
15th	43.	Receiver protectors.
	44.	revision
	45.	**TEST OF UNIT-4**

TEXT BOOK:

1. Introduction to Radar Systems: Merrill I. Skolnik, ; MGH

REFERENCE BOOK:

2. Electronic Communication Systems : Kennedy; TMH

Lesson Plan

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Name of the Faculty : Mr. Sahibinder Singh

Discipline : Electronics & Comm Engineering

Semester : 8th

Subject : MULTIMEDIA COMMUNICATION (ECE-406)

Lesson plan : 15 Weeks (From January, 2018 to April, 2018)

Lecture per Week (in Hours) : Lectures-03

Week	Theory	
	Lecture Day	Topic (including Assignment/test)
1st	1.	**Unit 1:** Multimedia communications: Introduction, multimedia networks
	2.	Multimedia Applications
	3.	Multimedia information representation
2nd	4.	Introduction, digitization principles (contd. To Next Lecture) **Assignment**
	5.	digitization principles
	6.	Representation of Audio
3rd	7.	Representation of Video
	8.	**Test**
	9.	**Unit 2:** Text & Image compression
4th	10.	Various Compression Techniques
	11.	Various Compression Techniques
	12.	Various Compression Techniques **Assignment**
5th	13.	Static Huffmann coding, dynamic Huffman coding
	14.	arithmetic coding,
	15.	Lempel-ziv coding

6th	16.	**Test**
	17.	Graphics Interchange format
	18.	tagged image file format,
7th	19.	digitized document
	20.	digitized pictures
	21.	JPEG (Introduction)

8th	22.	**Unit 3:** Audio compression: Differential PCM
	23.	Adaptive diffential PCM
	24.	Code excited LPC
9th	25.	MPEG Audio Coders (contd. To Next Lecture)
	26.	MPEG Audio Coders
	27.	**Test 3:**
10th	28.	Dolby audio coders
	29.	Video Compression: Basic principles
	30.	Video compression standard H.261
11th	31.	Video compression standard H.261
	32.	Video compression standard H.263
	33.	**Unit 4:** Internet applications: Domain name system
12th	34.	name structure and administration
	35.	name structure and administration
	36.	DNS resource records
13th	37.	**Test 4**
	38.	Electronic mail message structure
	39.	Electronic mail message structure
14th	40.	content transfer
	41.	Basic concept of internet telephony
	42.	Basic concept of internet telephony
15th	43.	World Wide Web.
	44.	**Test 5**
	45.	Revision

Text Books:

T1.William Stallings, Data and Computer Communications, PHI, Eighth Edition
T2. Forozan,"Data Communication & Networking", Tata McGraw Hill.

Reference Books:

R1.Proakin, "Digital Communications",McGraw Hill.

R2.Stallings,“Data & Computer Communications”, PHI.

Lesson Plan

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Name of the Faculty : Ms Ritu

Discipline : Electronics & Comm Engineering

Semester : 8th

Subject : AUDIO VISUAL ELECTRONICS PRACTICAL (ECE-410E)

Lesson plan : 15 Weeks (From January, 2018 to April, 2018)

Work Load : 03

Week	Practical	
	Practical Day	Topic
1st	1.	Introduction to Lab
2nd	2.	To study the AV LAB components.
3rd	3.	Familiarization of PCBs and Mechanical Components of Tape recorder/ CD Player/VCD Player/Colour TV.
4th	4.	Study of tuner section of a Colour T.V.
5th	5.	Study of VIF section of a Colour T.V.
6th	6.	**VIVA**
7th	7.	Study of Sound section of a Colour T.V.
8th	8.	Study of Chroma section of a Colour T.V
9th	9.	Study of Mechanical portion of VCD player.
10th	10.	**VIVA**
11th	11.	Study of Sound processing of VCD player.
12th	12.	Study of Camcorder's mechanical portion
13th	13.	VIVA
14th	14.	Study of Camcorder's Electronic portion.
15th	15.	VIVA

Lesson Plan

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Name of the Faculty : Mr. Arun Bhatia

Discipline : Electronics & Comm Engineering

Semester : 8th

Subject : MICROWAVE ENGINEERING PRACTICAL (ECE-408E)

Lesson plan : 15 Weeks (From January, 2018 to April, 2018)

Work Load : 03

Week	Practical	
	Practical Day	Topic
1st	1.	Introduction to Lab
2nd	2.	To study the microwave components.
3rd	3.	To study the characteristics of the reflex Klystron tube and to determine its electronic tuning range
4th	4.	To determine the frequency and wavelength in a rectangular waveguide working in TE IO mode.
5th	5.	To determine the standing wave ratio and reflection coefficient.
6th	6.	VIVA
7th	7.	To study the I-V characteristics of Gunn diode.
8th	8.	To study the magic tee.
9th	9.	To study the isolator and attenuator.
10th	10.	VIVA
11th	11.	To measure the coupling coefficient and directivity of a wave guide directional coupler.
12th	12.	To measure the polar pattern and the gain of a waveguide horn antenna.
13th	13.	VIVA
14th	14.	To measure the insertion loss and attenuation.
15th	15.	Study of Camcorder's Electronic portion.