

Lesson Plan

Name of the Faculty : **Ms. Hemlata**

Discipline : **Computer Sc. & Engineering**

Semester : **8th**

Subject : **Distributed Operating Systems – CSE-440**

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)
1 st	1.	Unit 1: Architecture of distributed operating system
	2.	Introduction
	3.	Motivation Assignment No 1: Issues in distributed system
2 nd	4.	System architecture type
	5.	Communication primitive
	6.	Test 1: Different Architecture Of Distributed OS
3 rd	7.	Unit 2: Distributed mutual exclusion:
	8.	Introduction
	9.	Classification preliminaries simple solution Assignment No 2: Types Of Operating System
4 th	10.	Non token based algorithm, Ricart algorithm
	11.	Lamport algorithm
	12.	Test 2: Ricart Algorithm
5 th	13.	Mackawa's algorithm,
	14.	Token based algorithm
	15.	Broad cast algorithm Assignment No 3: Heuristic algorithm
6 th	16.	Tree based algorithm
	17.	Comparative
	18.	Test 3: Token Based Algorithm
7 th	19.	Performance analysis
	20.	Distributed dead lock detection
	21.	Assignment No 4: Non Token Based
8 th	22.	Unit 3: Introduction ,dead lock handling
	23.	Strategies, issues in deadlock detection & resolution
	24.	Test 4: Deadlock

9 th	25.	Control organization
	26.	Centralized, distributed
	27.	Assignment No 5: hierarchical detection algorithm
10 th	28.	Unit 4: Distributed file system
	29.	Introduction, architecture mechanism for building
	30.	Test 5:FileSystem
11 th	31.	Distributed Scheduling
	32.	Log structure file system
	33.	Assignment No 6: Design issues
12 th	34.	Introduction
	35.	Motivation, issues in load distribution
	36.	Test 6: Load distribution
13 th	37.	Component of load algorithm
	38.	Stabilizing load distribution algorithm
	39.	Assignment No 7: performance comparison
14 th	40.	selection of a suitable load sharing algorithm
	41.	load sharing algorithm, Load distribution
	42.	Test 7: Load Distribution Algorithm
15 th	43.	Requirement for load distribution
	44.	Task migration
	45.	Assignment No 8: Issues in task migration

BOOKS :

1. Mukesh Singhal & N.G. Shivaratri : Advanced concepts in operating systems, TMH 2001.
2. A S Tanenbaum : Modern Operating System
3. A. Silberschatz, P. Galving, G. Gahne : Applied operating system concepts, Wiley.

Lesson Plan

Name of the Faculty	:	Mr. Lalit Bansal
Discipline	:	Computer Sc. & Engineering
Semester	:	8th
Subject	:	Date Warehousing and Mining (CSE-476)
Lesson plan	:	14 Weeks(From January, 2018 to April, 2018)
Lecture per Week (in Hours)	:	Lectures-04

Week	Theory	
	Lecture Day	Topic(including assignment/test)
1 st	1.	Data Warehousing: Definition
	2.	Data Warehousing: Scope
	3.	Data Warehousing: Practical Implications,
	4.	Data Warehousing: Practical Implications, Assignment 1: Introduction to Data Warehousing
2 nd	5.	Data Warehousing: Structures
	6.	Data Warehousing: Structures
	7.	Data Warehousing: functions.
	8.	Test 1
3 rd	9.	Technologies & Rules
	10.	Technologies & Rules
	11.	platform tools & tool characteristics,
	12.	platform tools & tool characteristics, Assignment 2: Data Mining Process
4 th	13.	operational vs. information systems.
	14.	operational vs. information systems.
	15.	Revision & Test
	16.	Test 2
5 th	17.	Types of Data Warehouses: Single stage
	18.	Types of Data Warehouses: Multistage
	19.	Types of Data Warehouses: Stationary distributed
	20.	Types of Data Warehouses: Virtual data-warehouses Assignment 5: Types of Data Warehousing
6 th	21.	Types of Data Warehouses: Host based
	22.	Types of Data Warehouses: Single stage
	23.	Types of Data Warehouses: Multistage

	24.	Test 3
7 th	25.	Data warehouse architecture model, 2-tier, 3-tier & 4-tier data warehouses.
	26.	Data warehouse architecture model, 2-tier, 3-tier & 4-tier data warehouses.
	27.	Data warehouse architecture model, 2-tier, 3-tier & 4-tier data warehouses.
	28.	OLAP & DSS support in data warehouses. Assignment 6: DW Modeling
8 th	29.	OLAP & DSS support in data warehouses.
	30.	OLAP & DSS support in data warehouses.
	31.	Revision & test
	32.	Test 4
9 th	33.	Data Mining : Knowledge discovery through statistical techniques
	34.	Data Mining : Knowledge discovery through statistical techniques
	35.	Data Mining : Knowledge discovery through neural network
	36.	Neural network Assignment 7: Neural Network
10 th	37.	Data Mining : Knowledge discovery through neural network
	38.	Data Mining: Fuzzy tech. & genetic algorithms
	39.	Data Mining: Fuzzy tech. & genetic algorithms
	40.	Revision & Test
11 th	41.	Hot based vs Single Stage
	42.	Revision of distributed system
	43.	Data Warehouses and Stationary distribute
	44.	Data Mining Assignment 8: Knowledge discovery through statistical techniques
12 th	45.	Data Mining : Knowledge discovery through neural network
	46.	Data Mining: Fuzzy tech. & genetic algorithms
	47.	Genetic Algorithm
	48.	Test 6
13 th	49.	Genetic Algorithm vs Data Mining
	50.	Brief discussion Hot based vs Single Stage
	51.	Distribution system and uses
	52.	Assignment 9 and revision
14 th	53.	OLAP vs OLTP
	54.	OLTP and uses
	55.	OLAP & OLTP support in data warehouses.
	56.	Test 7

Books

Text Books:

T1: J. Han & M. Kamber, Data Mining Concepts and Techniques, Morgan Kaufmann/ Elsevier, India,

Reference Books/Websites:

R1: J. Han & M. Kamber, Data Mining: Concepts and Techniques, Morgan Kaufmann 2001.

R2 : "Fayyad, Usama M Advances in knowledge discovery & Data Mining.

R3 : Dr. Sachin Kumar, Kadambri Agarwal, "Data Mining & Data Warehousing",

Lesson Plan

Name of the Faculty : **Mr. Bhavinder**

Discipline : **Computer Sc. & Engineering**

Semester : **8th**

Subject : **NEURAL NETWORKS AND FUZZY LOGIC
(CSE-402)**

Lesson plan : **14 Weeks (From January, 2018 to April, 2018)**

Lecture per Week (in Hours) : **Lectures-04**

Week	Theory	
	Lecture Day	Topic(including assignment/test)
1 st	1	Introduction : Concepts of neural networks
	2	Concepts of neural networks
	3	Characteristics of Neural Networks
	4	Historical Perspective & Applications of Neural Networks Assignment 1, Concepts in short
2 nd	5	The biological prototype
	6	Neuron concept
	7	Single layer Neural Networks
	8.	Test 1, biological prototype
3 rd	9	Multi-Layer Neural Networks
	10	Terminology , Notation & representation of Neural Networks
	11	Training of Artificial Neural Networks
	12	Representation of perceptron and issues Assignment 2, Training of ANN
4 th	13	Perceptron learning & training
	14	Classification
	15	linear Separability
	16.	Test 2, Classification
5 th	17	Hopfield nets: Structure
	18	Training

	19	Hopfield Net : application
	20	Stability Assignment 3, Hopfield nets, Structure
6 th	21	Back Propagation : Concept
	22	Back Propagation Training Algorithms.
	23	Applications
	24	Test 3, Algorithm of back propagation.
7 th	25	Counter Propagation Networks: Kohonan Network
	26	Grossberg Layer & Training,
	27	Applications of counter propagation
	28	Applications of counter propagation Assignment 4, Grossberg training method
8 th	29	Image classification.
	30	Bi-directional Associative Memories: Structure
	31	Retrieving a stored association
	32	Test 4, Image classification
9 th	33	Encoding associations
	34	Memory capacity
	35	ART: ART architecture
	36	ART classification operation Assignment 5, ART
10 th	37	ART implementation
	38	characteristics of ART
	39	Image Compression Using ART
	40	Test 5, Image compression using ART
11 th	41	Optical Neural Networks : Vector Matrix Multipliers
	42	Hop field net using Electro optical matrix multipliers
	43	Holographic correlator
	44	Optical Hopfield net using Volume Holograms Assignment 6, Optical neural networks
12 th	45	The Cognitrons : Structure and training.
	46	Necognitrons: Structure and training.
	47	Genetic Algorithms: Elements, a simple genetic algorithm
	48	Test 6, neocognitron, cognitrons
13 th	49	Working of genetic algorithms evolving Neural Networks.
	50	Fuzzy logic

14 th	51 52.	Fuzzy logic Assignment 7, Genetic algorithm
	53.	Test 7, Fuzzy logic

BOOKS:

1. Li Min Fu, "Neural Networks in Computer Intelligence", McGraw-Hill, Inc.
2. Philip D. Wasserman, "Neural Computing Theory and Practice", ANZA Research Inc.
3. Melaine Mitchell, "An Introduction to Genetic Algorithms", PHI.
4. M. H. Hassun, "Fundamentals of Artificial Neural Networks", PHI.

Lesson Plan

Name of the Faculty	:	Mr. Kamal Gupta
Discipline	:	Computer Sc. & Engineering
Semester	:	8th
Subject	:	Interactive Computer Graphics (CSE-404)
Lesson plan	:	14 Weeks(From January, 2018 to April, 2018)
Lecture per Week (in Hours)	:	Lectures-04

Week	Theory	
	Lecture Day	Topic(including assignment/test)
1 st	1.	Unit 1: Display Devices: Line and point plotting systems:
	2.	Raster, vector
	3.	pixel and point plotters,
	4.	Continual refresh and storage displays (contd. To Next Lecture) Assignment 1: Raster and Random Graphics
2 nd	5.	Continual refresh and storage displays
	6.	Digital frame buffer, Plasma panel display,
	7.	Very high resolution devices, High-speed drawing
	8.	Test 1: Plotting Systems
3 rd	9.	Colour Display techniques –shadowmask
	10.	penetration CRT, colour look-up tables,
	11.	analog false colours, hard copy colour printers. (contd. To Next Lecture)
	12.	analog false colours, hard copy colour printers Assignment 2: CRT
4 th	13.	Unit 2: Display Description: Screen co-ordinates, user co-ordinates
	14.	Graphical data structures compressed incremental list,
	15.	vector list, use of homogeneous coordinates
	16.	Test 2: Data Structures used in Graphics
5 th	17.	Display code generation
	18.	Graphical functions: the view algorithm
	19.	two-dimensional transformation,
	20.	Line drawing Assignment 3: 2-D Transformations

6 th	21.	Line drawing Algorithms (contd. To Next Lecture)
	22.	Line drawing Algorithms (contd. To Next Lecture)
	23.	Line drawing Algorithms
	24.	Test 3: DDA Algorithms
7 th	25.	Circle drawing algorithms. (contd. To Next Lecture)
	26.	Circle drawing algorithms.
	27.	Unit 3: Interactive graphics: Pointing and position devices
	28.	cursor, lightpen, digitizing tablet, the mouse, track ball Assignment 4: Pointing and position devices
8 th	29.	Interactive graphical techniques
	30.	Positioning : Elastic or Rubber Bank lines,
	31.	Linking , zooming ,panning clipping
	32.	Test 4: Circle drawing Algorithms
9 th	33.	windowing, scissoring
	34.	Mouse Programming (contd. To Next Lecture)
	35.	Mouse Programming
	36.	Mouse Programming Assignment 5: Positioning Methods
10 th	37.	Unit 4: 3-D Graphics
	38.	Wire-Frame
	39.	perspective display (contd. To Next Lecture)
	40.	Test 5: Clipping Methods
11 th	41.	perspective display
	42.	Perspective depth (contd. To Next Lecture)
	43.	Perspective depth
	44.	projective transformations Assignment 6: 3-D Graphics Examples
12 th	45.	projective transformations
	46.	hidden line and surface elimination (contd. To Next Lecture)
	47.	hidden line and surface elimination
	48.	Test 6: Transformations
13 th	49.	hidden line and surface elimination
	50.	Transparent solids, shading,
	51.	Two dimensional Transformations
	52.	3-dimensional Transformations (contd. To Next Lecture) Assignment 7: Rotaion Scaling
14 th	53.	3-dimensional Transformations
	54.	Interactive Graphical Technique GUI (contd. To Next Lecture)
	55.	Interactive Graphical Technique GUI.
	56.	Test 7: Hidden Line Algorithms

Text Books:

1. Hern & Baker – Computer graphics, 2nd Ed. Phi
2. Newmann, W., Sproul, R.F., Principles of Interactive Graphics, McGraw Hill

Reference Books:

1. Foley-Fundamental of Interactive Computer Graphics-Addison Wesley
2. Giloi, W.K., Interactive Computer Graphics, Prentice-Hall
3. Harrington, s., Computer Graphics : A Programming Approach, Tata McGram Hill
4. Hears, d., Basker, Computer Graphics, Prentice Hall
5. Kelley Bootle, Mastering Turbo C
6. Roggers , D.F., Procedural Elements for Computer Graphics,. McGraw Hill
7. Foley, J.D., Van Dam A, Fundamentals of Interactive Computer Graphics, Addison Wesley.
8. Tosijasu. L.K. Computer Graphics, Springer Verilag.

Lesson Plan

Name of the Faculty : **Mr. Bhavinder**

Discipline : **Computer Sc. & Engineering**

Semester : **8th**

Subject : **NEURAL NETWORKS LAB (CSE-406)**

Lesson plan : **8 Weeks (From January, 2018 to April, 2018)**

Lecture per Week (in Hours) : **LAB-03**

WEEK	LAB	PRACTICAL
1ST	1	Introduction to MATLAB
2ND	2	NN for AND , OR gate using perceptron.
3RD	3	Perceptron to classify add and even numbers.
4TH	4	NN for alphabet recognition using back propagation.
5TH	5	Hopfield network for recognizing patterns such as '+' and '-'
6TH	6	NN for EXOR classification using Back propagation.
7TH	7	CPN for image classification.
8TH	8	Name and Telephone number recognition system