USHA RAMA COLLEGE OF ENGINEERING AND TECHNOLOGY::TELAPROLU

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

DISTRIBUTED SYSTEMS LESSON PLAN:R2101

Academic Year : 2015-16	**Sem** : II
Course: Distributed Systems	
Class : IV B.TECH	**Section** : CSE A&B
Date of commencement of Class work: 07/12/2015	**Date of end of Class work** : 2/04/2016
Prepared By: M.SIVA SANKAR NAIK, Assistant Professor	**Approved By**: HOD

S.No	TOPIC	MODE OF	DATE
UNIT-I		Lecture interspersed with discussion	
1	Characterization of Distributed Systems		07-12-2015
2	Introduction Distributed Systems		08-12-2015
3	Why to have Distributed Systems		09-12-2015
4	Examples of Distributed Systems		10-12-2015
5	Other Examples of Distributed Systems		11-12-2015
6	Trends of Distributed Systems		14-12-2015
7	Focus on Resource Sharing		15-12-2015
8	Design issues of Distributed Systems		16-12-2015
9	Challenges of Distributed Systems		17-12-2015
10	Advantages and Disadvantages of Distributed Systems		18-12-2015
11	Review class		19-12-2015
12	Unit Test		21-12-2015
UNIT-II			
13	Introduction about System Models	Lecture interspersed with discussion	22-12-2015
14	Architectural Models, Software Layers		23-12-2015
15	Variation in Client-Server Models		24-12-2015
16	Role of Interface and Objects.		26-12-2015
17	Design Requirements for Distributed Architectures.		28-12-2015
18	Interaction Models.		29-12-2015
19	Failures Models, Security Models.		30-12-2015
20	Review Class		01-01-2016
21	Unit Test		02-1-2016
UNIT-			
22	Introduction about Interprocess Communication	Lecture interspersed with discussion	04-1-2016
23	The API for the Internet Protocols		05-01-2016
24	Characteristics of Interprocess Communication		06-01-2016
25	Sockets,UDP Datagram Communication		07-01-2016
26	TCP Stream Communiction,External Data Representation		08-01-2016
27	Marshalling:Client Server Client Communication		11-01-2016
28	IP Multicasting-an implementation of group communication		12-01-2016

29	Reliability and Ordering of Multicasting.		18-01-2016
30	Review Class,Unit Test		19-01-2016
UNIT-IV			
31	Introduction about Distributed Objects and Remote Invocation	Lecture interspersed with discussion	20-01-2016
32	What is an Object Models		21-01-2016
33	Communication between Distributed Objects		22-01-2016
34	Distributed Object Models.		23-01-2016
35	Design issues of Communication.		25-01-2016
36	Design issues of RMI(Remote method Invocation)		27-01-2016
37	Implementation of RMI		28-01-2016
38	Distributed Garbage collection.		28-01-2016
39	Working of RPC(Remote Procedure Call)		29-01-2016
40	Events and Notifications.		29-01-2016
41	Case Study:JAVA RMI.		30-01-2016
42	Example of JAVA RMI.		30-01-2016
43	Review Class		08-02-2016
44	Unit Test		08-02-2016
UNIT-V			
45	Introduction about Operating System Support.		9-02-2016
46	The Operating System Layer.		9-02-2016
47	Protection of Operating System.		10-02-2016
48	Processes and Threads.		10-02-2016
49	Communication and Invocation.		12-02-2016
50	Address Space.		15-02-2016
51	Creation of a New Process.		16-02-2016
52	Threads.		17-02-2016
53	Review Class		18-02-2016
54	Unit Test		18-02-2016
UNIT-VI			
55	Introduction about Distributed File Systems		19-02-2016
56	File Service Architecture		20-02-2016
57	Implementation of DFS		22-02-2016
58	Peer-to-Peer Systems		23-02-2016
59	Napster and its Legacy		24-02-2016
60	Peer-to-Peer Middleware		26-02-2016
61	Routing Overlays		27-02-2016
62	Review Class		29-02-2016
63	Unit test		1-03-2016
UNIT-VII			
64	Introduction about Coordination and Agreement	Lecture interspersed	3-03-2016
65	Distributed Mutual Exclusion		7-03-2016
66	Examples of Distributed Mutual Exclusion		8-03-2016
67	Implementation of Distributed Mutual Exclusion		10-03-2016

68	Advantages and Disadvantages Distributed Mutual Exclusion	with discussion	11-03-2016
69	Elections		14-03-2016
70	Multicast Communication.		15-03-2016
71	Review Class		17-03-2016
72	Unit Test		18-03-2016
UNIT-VIII			
73	Introduction about Transactions & Replications.	Lecture interspersed with discussion	21-03-2016
74	System Model and Group Communication.		23-03-2016
75	Concurrency Control in Distributed Transactions.		25-03-2016
76	Distributed Dead Locks.		25-03-2016
77	Transaction Recovery.		26-03-2016
78	Replication.		28-03-2016
79	Passive (Primary) Replication		29-03-2016
80	Active Replication		30-03-2016
81	Review Class		31-03-2016
82	Unit Test		02-04-2016

Text books:

1. George Coulouris, Jean Dollimore, Tim Kindberg, "Distributed Systems-Concepts and Design", Fourth Edition, Pearson Publication.

2. Ajay D Kshemkalyani, Mukesh Sighal, "Distributed Computing, Principles, Algorithms and Systems", Cambridge.

3. **List the Course Outcomes (Cos):**

Sub code	Sub Name	COs	Expected level of attainment On 5 scale
R2101	**DISTRIBUTED SYTEMS**	1. Grasp the concepts and features of Distributed System and applications. 2Identify the important issues of developing Distributed System 3.Develop Distributed System applications by analyzing their characteristics and requirements, selectingthe appropriate architectures, and applying standard programming languages and tools. 4.Organize and manage software built for deployment and demonstration.	**4.5**

Signature of HOD **Signature of the Faculty**