ITE308	Distributed Systems	L	T	P	C
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Version	1.0
Aim	To learn the concepts of distributed systems and technologies
Prerequisite	ITE303/Computer Networks/Java
Objectives	• To learn distribution of computing elements • To understand the building blocks of distributed system models • To learn how to implement the RPC and distributed protocols and their applications
Outcomes	At the end of the course, student should be able to: • Understand the build blocks and functions of distributed systems and their implementation processes • Implement distributed applications

Unit 1	Characterization of Distributed Systems	9 hr
	Introduction to Distributed Systems – System Models – Networking and Internetworking – Interprocess Communications - Case Study: IPC in UNIX	
Unit 2	Distributed Objects and File System	9 hr
	Distributed Objects and Remote Invocation – Distributed File Systems - Architecture – Recent Advances – Overview of Distributed Databases	
Unit 3	Name Services and Directory Service	9 hr
	Name services – Domain Name Systems – Coordination and Agreement – Time and Global states	
Unit 4	Transaction and Concurrency Control-Distributed Transactions	9 hr
	Transaction and Nested Transactions – Concurrency Control – Distributed Transactions	
Unit 5	Distributed OS and Shared Memory	9 hr
	Distributed Operating System Support – Distributed Shared Memory- Peer to Peer networks – Web Services Overview – CORBA and Java RMI Case Study	

Text Books	1.G. Coulouris, J. Dollimore, and T. Kindberg, "Distributed Systems: Concepts and Designs", Fourth Edition, Addison Wesley, 2005 2.Andrew.S.Tanenbaum,Maarten Van Steen, " Distributed Systems – Principles and Paradigms", 3e,Second Edition,Prentice Hall -2002,??.
Reference Books	1. Randy Chow and Theodore Johnson, "Distributed Operating Systems and Algorithms. Addison-Wesley, 1997 2. Mukesh Singhal and N. G. Shivaratri, Advanced Concepts in Operating Systems, Distributed, Database, and Multiprocessor Operating Systems, McGraw Hill, 1994 3. Vijay K. Garg, Elements of Distributed Computing, Wiley & Sons, 2002
MoE	CAT, Quiz, Seminar, Group Discussion, TEE
DoR by BoS	27-11-2010
DoA by AC	21st Academic Council held on 30-11-2010