S.G.S.I.T.S, Indore

Information_Technology

Distributed Computing

Course Contents:	
1:	**Maths**
Introduction, Examples of Distributed Systems, Resource Sharing and the Web Challenges, Architectural Models, Fundamental Models. The Operating System Layer, Protection, Processes and Threads, Communication and Invocation.	
Recommended Books	
Math everywhere	
2:	**Networking**
External Data Representation and Marshalling Group Communication, Distributed Objects and Remote Invocation: Introduction, Communication between Distributed Objects, Remote Procedure Calling, Events and Notifications, Java RMI Case Study	
Recommended Books	
Proceedings of Workshop on Distributed Computing and Network, 27-28 February 1992, KEK, Tsukuba	
3:	**File Sys**
Introduction, File Service Architecture, Sun Network File System, The Andrew File System, Recent advances, Name Services and the Domain Name System, Directory and Discovery Services, Case study of the Global Name Service and X.500 Directory Service.	
Recommended Books	
4:	**Global**
Introduction, Clocks, Events, and Process States, Synchronizing Physical Clocks, Logical Time and Logical Clocks, Global States, Distributed debugging, Failure Detectives, Distributed Mutual Exclusion, Elections, Multi cast Communication, Consensus and Related Problems.	
Recommended Books	
Global Distributed Applications With Windows DNA (Artech House Computing Library)	
5:	**Transactio**
Introduction, Transactions, Nested Transactions, Locks, Optimistic Concurrency Control, Flat and Nested Distributed Transactions, Atomic Commit Protocols, Concurrency Control in Distributed Transactions, Distributed Deadlocks, Transaction Recovery, Case Study of CORBA: CORBA RMI, CORBA Services.	
Recommended Books	