DISTRIBUTED COMPUTING IV B.Tech – VII Semester (Code: 18CSD13)			
Lectures :	**4** Periods / Week	Continuous Internal Assessment :	**50** Marks
Final Exam :	**3** hours	Semester End Exam :	**50** Marks
UNIT-I			12 Periods
Introduction: What is a distributed system? Design goals, Types of distributed systems. **Architectures:** Architectural styles, Middleware organization, System architecture, Example architectures.			
UNIT-II			13 Periods
Processes: Threads, Virtualization, Clients, Servers, Code migration. **Communication**: Types of Communication, Remote procedure call, Message-oriented communication, Multicast communication.			
UNIT-III			12 Periods
Naming: Names, identifiers, and addresses, Flat naming, Structured naming, Attribute-based naming. **Coordination**: Clock synchronization, Logical clocks, Mutual exclusion, Election algorithms, Location systems.			
UNIT-IV			13 Periods
Consistency and replication: Introduction, Data-centric consistency models, Client-centric consistency models, Replica management, Consistency protocols. **Fault tolerance**: Introduction to fault tolerance, Process resilience, Reliable client-server communication, Reliable group communication, Distributed commit, Recovery.			
Text Book(s) :	1. Andrew S.Tanenbaum, Maarten Van Steen, "Distributed Systems", Third Edition (2017), Pearson Education/PHI.		
References :	1. Coulouris, Dollimore, Kindberg, "Distributed Systems-Concepts and Design", 3rd edition, Pearson Education. 2. Mukesh, Singhal & Niranjan G.Shivarathri, "Advanced Concepts in Operating Systems", TMH. 3. Sinha, "Distributed Operating System – Concepts and Design", PHI.		