## 4-YEAR B. TECH. & DUAL DEGREE IN

## **COMPUTER SCIENCE & ENGINEERING**

VIII Semester B. Tech - CSE						
Course No.	Name of the Courses	L	T	P	Credit	
					Hrs	
CSC18103	Wireless & Mobile Communication	3	0	0	6	
CSC181xx	Elective – III	3	0	0	6	
CSC181xx	Elective – IV	3	0	0	6	
CSC181xx	Elective – V	3	0	0	6	
CSC18203	Wireless & Mobile Communication Lab	0	0	2	2	
CSC18502	Composite Viva Voce	0	0	0	4	
CSC18801	Project	0	0	6	6	
TOTAL		12	0	8	36	
Contact					20	
Hours						

CSE18106 Distributed Operating Systems	3-0-0
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**Introduction to Distributed Systems:** Distributed Computing System Models, Operating Systems, Goals of Distributed System, Hardware Concept.

**Message Passing:** Desirable features, Issues in IPC, Synchronization, Buffering, Encoding and Decoding, Process Addressing, Failure Handling, Group Communication.

**Remote Procedure Calls:** RPC Model, Transparency of RPC, Implementation of RPC Mechanism, RPC Messages, Marshalling, Server Management (Stateful and Stateless Server), Parameter-Passing Semantics (Call-by-Value, Call-by-Reference), Call-Semantics, Communication Protocols for RPCs, Client-Server Binding, Special Types of RPCs.

**Distributed Shared Memory**: General Architecture of DSM Systems, Design and Implementation Issues of DSM, Structure of Shared-Memory Space, Consistency Models, Replacement Strategy, Thrashing, Advantages of DSM

**Synchronization:** Clock Synchronization, Event Ordering, Mutual Exclusion, Deadlock, Election Algorithms

**Resource Management:** Task Assignment Approach, Load-Balancing Approach, Load-Sharing Approach

**Process Management:** Process Migration, Threads.

**Distributed File Systems:** File Models, File-Accessing Models, File-Sharing Semantics, File-Caching Schemes, File Replication.

**Security:** Potential Attacks to Computer Systems, Cryptography, Authentication, Access Control, Digital Signatures