

## 3/4 B.Tech - SECOND SEMESTER

**IT6T5FE1****CLIENT SERVER COMPUTING****Credits: 3****Lecture: 3 Periods/week****Internal assessment: 30 marks****Practice/Interaction: 1Period/week****Semester end examination: 70 marks****Objectives:**

- To provide knowledge on construction of a complete end-to-end information system.
- Exposure to middleware technologies on client server environment.
- To demonstrate the concepts of core CORBA and Extensional CORBA.
- To provide basic knowledge on java beans and EJBs.

**Outcomes:**

Students will be able to

- Understand the basic concepts of client server computing.
- Differentiate various client server invocations in CORBA /JAVA.
- Understand the basic concepts of IDL Mappings.
- Know the creation of bean components using CORBA and JAVA.
- Understand the concept of Ejb in client server environment.

**Syllabus:****UNIT-I**

Introduction to client server computing: Evolution of corporate computing models from centralized to distribute computing, client server models, Benefits of client server computing, pitfalls of client server programming.

CORBA with Java: Review of Java concept like RMI, RMI API and JDBC, Client/Server CORBA-style, the object web CORBA with Java.

**UNIT- II**

Core CORBA /Java: Two types of Client/ Server invocations-static, dynamic, the static CORBA, first CORBA program, ORBlets with Applets.

**UNIT-III**

Extensional CORBA: CORBAIDL mapping CORBA java- to- IDL mapping.

**UNIT-IV**

Java Bean Component Model: Events, properties, persistency, Introspection of beans, CORBA Beans.

**UNIT-V**

EJBs and CORBA: Object transaction monitors CORBA OTM's, EJB and CORBA OTM's, EJB container frame work, Session and Entity Beans, The EJB client/server development Process The EJB container protocol, support for transaction EJB packaging EJB design Guidelines.

**Text Books:**

1. Client/Server programming with Java and CORBA Robert Orfali and Dan Harkey, John Wiley & Sons ,SPD 2<sup>nd</sup> Edition.
2. Java programming with CORBA 3rd Edition, G.Brose, A Vogel and K.Duddy, Wiley-dreamtech, India John wiley and sons.

**Reference Books:**

1. Distributed Computing, Principles and applications, M.L.Liu, Pearson Education.
2. Client/Server Survival Guide 3rd edition Robert Orfali Dan Harkey& Jeri Edwards, John Wiley & Sons.
3. Client/Server Computing D T Dewire, TMH.

**e-Learning Resources:**

1. <http://www.slideshare.net/jayasreep3/client-servercomputing>
2. <http://nptel.ac.in/courses/106105084/30> (NPTEL)
3. <https://www.youtube.com/watch?v=OEPaNB-X99Y> (NPTEL)