ENTERPRISE APPLICATION DESIGN AND DEVELOPMENT

**CT 785 04**

**Course Objectives:**

1. Design and implementation of scalable enterprise applications.
2. To introduce problem solving design patterns.
3. Development of service oriented solutions.
4. Design and implantation of Rich Internet Applications
5. **Introduction[3 hours]**
   1. Enterprise Applications trends and Challenges
   2. Application Architecture
   3. Multi-tier Architecture
   4. MVC Architecture

1. **Design Pattern [6 hours]**
   1. Introduction
   2. Creational Pattern
   3. Structural Pattern
   4. Behavioral  Patterns

1. **Database Concepts[4 hours]**
   1. Database Design
   2. Enterprise Database (Oracle/DB2/MSSQL)
   3. Database Connectivity (JDBC/ODBC)
   4. Connection Pool

1. **Service-Oriented Architecture[5 hours]**
   1. SOA Concepts and principles
   2. XML/SOAP
   3. Web services

1. **Platform for Enterprise Solutions: Java EE5:[9 hours]**
   1. Java EE Platform Overview
   2. Web Core Technologies: Servlets and JSP

1. **Enterprise Java Bean[6 hours]**
   1. Enterprise JavaBean architecture
   2. Developing EJB3.0
   3. Session and message-driven EJBs

1. **Advanced Web Technology[12 hours]**
   1. Web2.0 Introduction and Concepts
   2. Rich Internet Application Development
   3. AJAX
   4. AJAX Frameworks(Prototype Library, DWR Java Ajax Framework)

**Reference**

1. Kevin Mukhar, Beginning Java  EE 5, Apress,2006
2. Markl Grand, Patterns in Java, John Wiley & Sons,2003
3. Dana Moore,Raymond Budd, Edward Benson, Professional Rich Internet Application, John Wiley & Sons, 2007

**Evaluation Scheme:**  
The questions will cover all the chapters of the syllabus. The evaluation scheme will be as indicated in the table below:

|  |  |  |
| --- | --- | --- |
| **Chapters** | **Hours** | **Marks Distribution\*** |
| 1 | 3 | 5 |
| 2 | 6 | 11 |
| 3 | 4 | 7 |
| 4 | 5 | 9 |
| 5 | 9 | 16 |
| 6 | 6 | 11 |
| 7 | 12 | 21 |
| **Total** | **45** | **80** |

\*There could be a minor deviation in Marks distribution