

ISE 465 : WEB TECHNOLOGIES

Hours/Week: 4
Credits : 4

I.A. Marks: 30
Exam. Marks: 70

UNIT-I

12 Hrs.

Web Essentials: Clients, Servers, and Communication. The Internet-Basic Internet Protocols - The World Wide Web-HTTP request message-response message-Web Clients Web Servers-Case Study. Markup Languages: XHTML. An Introduction to HTML History-Versions-Basic XHTML Syntax and Semantics-Some Fundamental HTML Elements-Relative U RLs-Lists-tables-Frames-Forms-XML Creating HTML Documents Case Study. Style Sheets: CSS-Introduction to Cascading Style Sheets-Features-Core Syntax-Style Sheets and HTML Style Rle Cascading and Inheritance-Text Properties-Box Model Normal Flow Box Layout-Beyond the Normal Flow-Other Properties-Case Study. Client- Side Programming: The JavaScript Language-History and Versions Introduction JavaScript in Perspective-Syntax-Variables and Data Types-Statements-Operators- Literals-Functions-Objects-Arrays-Built-in Objects-JavaScript Debuggers.

UNIT-II

12 Hrs.

Host Objects : Browsers and the DOM-Introduction to the Document Object Model DOM History and Levels-Intrinsic Event Handling-Modifying Element Style-The Document Tree-DOM Event Handling-Accommodating Noncompliant Browsers Properties of window-Case Study. Server-Side Programming: Java Servlets- Architecture -Overview-A Servlet-Generating Dynamic Content-Life Cycle-Parameter Data-Sessions-Cookies-U RL Rewriting-Other Capabilities-Data Storage Servlets and Concurrency-Case Study- Related Technologies.

UNIT-III

12 Hrs.

Representing Web Data: XML-Documents and Vocabularies-Versions and Declaration -Namespaces JavaScript and XML: Ajax-DOM based XML processing Event-oriented Parsing: SAX-Transforming XML Documents-Selecting XML Data :XPath-Template-based Transformations: XSLT-Displaying XML Documents in Browsers-Case Study- Related Technologies. Separating Programming and Presentation: JSP Technology Introduction-JSP and Servlets-Running JSP Applications Basic JSP-JavaBeans Classes and JSP- Tag Libraries and Files-Support for the Model-View-Controller Paradigm-Case Study-Related Technologies.

UNIT-IV

12 Hrs.

Web Services: JAX-RPC-Concepts-Writing a Java Web Service-Writing a Java Web Service Client-DescribingWeb Services: WSDL- Representing Data Types: XML Schema-Communicating Object Data: SOAP Related Technologies-Software Installation-Storing Java Objects as Files-Databases and Java Servlets

REFERENCE BOOKS:

1. Jeffrey C.Jackson, "Web Technologies--A Computer Science Perspective", Pearson Education, 2006.
2. Robert. W. Sebesta, "Programming the World Wide Web", Fourth Edition, Pearson Education, 2007.
3. Deitel, Deitel, Goldberg, "Internet & World Wide Web How To Program", Third Edition, Pearson Education, 2006.
4. Marty Hall and Larry Brown,"Core Web Programming" Second Edition, Volume I and II, Pearson Education, 2001.
5. Bates, "Developing Web Applications", Wiley, 2006.

ISE 466 : DATA MINING TECHNIQUES

Hours/Week: 4

Credits : 4

I.A. Marks: 30

Exam. Marks: 70

UNIT-I

12 Hrs.

Introduction: Motivations, Data Mining Databases-Relational Data Bases, Data warehouse, Transactional Databases, Advanced Database systems and advanced Database applications. Data Mining Functionalities- Concept/Class Discrimination; characterizations and Discrimination, Association Analysis, Classification and Prediction, Cluster Analysis, Outlier Analysis and Evolution Analysis. Classifications of Data Mining Systems, Major issues in Data Mining.

Data Preprocessing: Introduction, Descriptive Data Summarization, Data Cleaning, Data Integration and Transformation, Data Reduction, Data Discretization and Concept Hierarchy Generation Discretization.

UNIT-II

12 Hrs.

Data Warehouse and OLAP Technology: An Overview, Introduction to Data Warehouse, Multidimensional Data Model, Data Warehouse Architecture, Data Warehouse Implementation, From Data Warehousing to Data Mining.

Data Cube Computation and Data Generalization: Data Cube Computation and Data Generalization: Efficient Method for Data Cube Computations, Further Development of Data Cube and OLAP Technology, Attribute-Oriented Induction.

UNIT-III

12 Hrs.

Mining Frequent Patterns, Associations, and Correlations: Basic Concepts and a Road Map, Efficient and Scalable Frequent Itemset Mining Methods, Mining Various Kinds of Association Rules, From Association Mining to Correlation Analysis, Constraint-Based Association Mining.

Classification and Prediction: Introduction, Issues regarding classification and prediction, classification by decision tree Induction, Bayesian classification, Rule based Classification, Classification by back propagation and advanced classification methods, prediction, classification accuracy.

UNIT-IV

12 Hrs.

Cluster Analysis: Introduction, Types of data in cluster analysis, A categorization of major cluster Methods, Partitioning methods, Hierarchical methods, Density-Base Methods, Grid-based methods, Model based Methods, Clustering High Dimensional Data, Outlier analysis. Introduction to Advanced Data Mining and their applications. Introductions to outlier Analysis Methods.

REFERENCE BOOKS:

1. Jaiawei Han and Micheline Kamber, Data Mining Concepts and Techniques, Morgan Kaufmann/Elsevier Science publisher, 3rd Edition. Indian Reprint 2009.
2. Arun K Pujari, Data Mining Techniques, University Press (INDIA) Pvt., 2003.
3. Krzysztof J Cios; Witold Pedrycz and Roman W Swiniarski and Lukasz A. Kurgan, Data Mining A Knowledge Discovery Approach, Springer International Edition: first Indian Reprint 2010.