Objective: To study the basic and advanced concepts in Data Mining Techniques. To understand the various algorithms involved in data mining and its applications.

UNIT I
Introduction: Basic Data Mining Tasks- Data Mining Versus Knowledge Discovery in Databases. Data Mining Techniques: Introduction-A Statistical Perspective on Data Mining-Similarity Measures- Decision Trees-Neural Networks-Genetic Algorithms

UNIT II
Classification: Introduction- Statistical Based Algorithms-Distance Based Algorithms-Decision Tree Based Algorithms-Neural Network Based Algorithms- Rule Based Algorithms-Combining Techniques.

UNIT III
Clustering: Introduction-Similarity and Distance Measures-Outliers Hierarchical Algorithms- Partitional Algorithms.

UNIT IV

UNIT V

TEXT BOOK:

REFERENCE BOOKS:
2. Jiawei Han, Micheline Kamber, Jian Pei “ Data Mining Concepts and Techniques”, Morgan Kaufmann Publishers, Third Edition
Objective: To understand about object oriented analysis and design and apply the concept in software engineering. To understand the fundamentals of software engineering based OOAD.

UNIT I

Introduction- Systems Development as an industrial process – A useful analogy-System development characteristics- Object Oriented Systems development Life Cycle-Object Orientation-Object Oriented System development-object oriented programming

UNIT II


UNIT III

Identifying use cases – Object Analysis – Classification – Identifying Object relationships – Attributes and Methods.

UNIT IV


UNIT V


TEXT BOOKS:


REFERENCE BOOKS:


CS-1818 - ADVANCED JAVA PROGRAMMING

Objectives:
To understand the advanced concept of internet programming and also developing web based application using java programming

UNIT I
Fundamentals of java: Introduction to java- Features of java- basic fundamentals- Access controls-Static and fixed methods-Inner classes-String class-Inheritance-Overriding methods- Using Super- Abstract classes-Packages-Interfaces-Exception Handling-Threads.

UNIT II
Applet and Swing: Applets-Events-Drawing Images-graphics using applets-Swing Components-Lists-Tress- Tables –Styled Text Components-Progress Indicators- Component Organizers

UNIT III
JDBC and Java networking: Database Drivers-SQL package-Networking in java-Sockets-Creating RMI server-Client-Interface-Networking using RMI-JDBC.

UNIT IV
Servlet and JSP programming: Servlet API-Servlet Life cycle-Html to Servlet Communication-Introduction to JSP-JSP tags-Sessions.

UNIT V
Enterprise java Beans (EJB): Introduction to EJB-Deployment Descriptors-Session java Bean-Entity java bean-Message-Driven Beans.

TEXT BOOKS:
2. Kathy Sierra & Bert Bates, “Head First Servlets & JSP”, O’REILLY publications.(UNIT-IV)

REFERENCE BOOKS:
1. Jim Keogh, J2EE (Complete Reference)–Tata Mcraw Hill
1. Write a Java Program for temperature conversion.

2. Write a Java Program that will display Factorial of the given number.

3. Write a java program to perform all basic arithmetic operation

4. Write a Java Program that will display 25 Prime nos.

5. Write a Java Program that will accept command-line arguments and display the same.

6. Write a Java Program to sort the elements of an array in ascending order.

7. Write a Java Program which will read a text and count all occurrences of a particular word.

8. Write a Java Program which will read a string and display it in reverse.

9. Make an Applet that create two buttons named “Red” and “Blue” change the background color of the applets according to the selection of the button.

10. Write a Java Applet that create some text fields and text areas to demonstrate features of each.

11. Use a Grid layout class to arrange a few instance of circle canvas.

12. Write any Java Program using new operator.

13. Write a Program to create a List Box and a Text Area. Fill up the List Box with some file names. When user double clicks on any filename of the list box, the file should be opened and its contents should be displayed in the text Area.

14. Create an applet with three text Fields and two buttons add and subtract. User will enter two values in the Text Fields. When the button add is pressed, the addition of the two values should be displayed in the third Text Fields. Same the Subtract button should perform the subtraction operation.

15. Develop suitable GUI for the program using proper AWT controls and Layout Manager.

16. Read and Write operations on files using Java.
17. Write Java program to perform database connectivity.

18. Write a Java program to establish network connectivity

19. Write a Servlet program to display your profile in the webpage

20. Write a Java program to perform remote method invocation

21. Write a JSP program to create college application form

22. Create a simple application using EJB.
Objective: This course aims to understand the Linux platform and provide knowledge in implementation various operating system concepts through Shell and various System calls.

UNIT I
Introduction to Linux, Shell, Pipes and redirections, Creating and executing shell scripts - Shell syntax, Variables -conditions-Control structures - User defined Functions.

UNIT II

UNIT III

UNIT IV

UNIT V

TEXT BOOK:

REFERENCE BOOKS:
CS – 1821 -LINUX PROGRAMMING - LAB

1. Create a script to redirect your input to file.
2. Program to manipulate parameter and environment variables.
3. Program using control structures.
4. Program to demonstrate lists.
5. Program to demonstrate functions.
6. Program to execute commands from script.
7. Program to create simple dialog box.
8. Program to copy file.
9. Program to examine its arguments.
11. Memory allocation.
12. Processes and signals.
13. Client-server socket program.
14. Client & Server program to chat
15. Encryption and decryption program.
CS – 2817 CRYPTOGRAPHY AND NETWORK SECURITY

Objective: To learn the security issues in Computer Networks and to master the Cryptographic algorithms.

UNIT I

Services, mechanisms and attacks-The OSI security architecture-A model for network security-Symmetric Cipher model- Substitution techniques- Transposition techniques- Simplified DES-Block Cipher principles- the strength of DES block- Cipher design principles and modes of operation.

UNIT II

Triple DES-Blow fish-RC5- Advanced Symmetric Block Ciphers- RC4 -Stream Cipher- Confidentiality using symmetric encryption. Introduction to Number theory- Public Key cryptography and RSA.

UNIT III


UNIT IV


UNIT V

Intruders-intrusion detection- password management- viruses and Related threats-virus countermeasures- Fire wall design principles-Trusted systems.

TEXT BOOK:


REFERENCE BOOKS:

OBJECTIVES: To introduce the classic algorithms in various domains of data structures. Also provides different programming paradigms for solving problems.

UNIT I


UNIT II


UNIT III


UNIT IV


UNIT V


TEXT BOOK:


REFERENCE BOOKS:


1. Find-Biggest & Smallest in a set of numbers
2. Arrange the given set in Ascending & Descending Order
3. Find the Greatest Common Divisor
4. Find the greatest common divisor using Consecutive Integer Checking
5. Binary Search
6. Sequential Search
7. Merge Sort
8. Quick Sort
9. Binary Tree Traversal
10. Strassen’s Matrix Multiplication
11. Prim’s Algorithm-Greedy Method
12. Kruskels Algorithm-Greedy Technique
13. Binomial Coefficient-Dynamic Programming
14. Warshalls algorithm- Dynamic Programming
15. Floyd’s Algorithm- Dynamic Programming
16. Optimal BinarySearch Tree- Dynamic Programming
17. Implement the Knapsack problem
18. Implement the Dijkstra Algorithm
Objective: To study about the basics of .Net Framework, Asp.net web form controls, Ado.net to develop web applications.

UNIT I


UNIT II

Anatomy of a Web Form, Writing Code, Debugging, Anatomy of an ASP.NET Application, server controls, HTML control Classes, Page Class, Application Events, Web Control Classes, List controls, Table controls, Web Control Events and AutoPost back.

UNIT III

Exception Handling, Page Tracing, State Management-View state, Transferring information between Pages, Cookies, Session State, Session State Configuration, Application state, Validation- Understanding validation, Validation controls, Rich Controls- Calendar, AdRotator and Pages with multiple views, User controls.

UNIT IV

ADO.NET-Data Provider model, Direct Access model, Disconnected Data Access model, Data Binding-Single value data binding, Repeated value data binding, Data Controls- GridView, Formatting, GridView – Selecting, editing, Sorting and Paging, Files and streams-File system information, Reading and writing with streams, Allowing file uploads.

UNIT V


TEXT BOOK:

REFERENCE BOOKS:


1. Program to display Dates in different formats.
2. Exception Handling
3. File Handling
4. Working with Array list
5. Fetch data from database using connected architecture
6. Fetch data from database using disconnected architecture
7. Login page in ASP.Net
8. Validate user input using validation controls.
9. Output caching
10. Fragment caching
11. Fetch data from XML
12. Web service to perform calculations
13. Client application connected to web services to perform calculation.
14. Library Management System(Windows Application)
15. Online Air Ticketing System (Web Application)
CS- 2822 ADVANCED DATABASE MANAGEMENT SYSTEM

Objective: To develop a Database with enhanced models and techniques and to understand the fundamentals of Relational Database Management Systems and Object oriented Databases.

UNIT I

UNIT II
Relational Approach :The Relational Model– Integrity Constraints over Relations – Enforcing integrity constraints – Querying Relational Data – Logical Database Design – Introduction to Views – Destroying or Altering tables and views, Relational Algebra and Relational Calculus.

UNIT III

UNIT IV

UNIT V
Current Trends: Parallel Database-Distributed Database-Object base Database-Data warehousing Data Mining-Spatial and Temporal Data and Mobility

TEXT BOOKS:
REFERENCE BOOKS:


Objective: To develop skills in application of computation techniques in biological problems relevant applications.

UNIT I

UNIT II
Data Visualization: Sequence Visualization – Structure Visualization – User Interface – Animation versus Simulation.

UNIT III

UNIT IV

UNIT V

TEXT BOOK:
REFERENCE BOOKS:

