ISLAMIAH WOMEN'S ARTS AND SCIENCE COLLEGE
Permanently Affiliated to Thiruvalluvar University
Recognized by UGC under sections 2(f) and 12(B) of the UGC Act 1956
Accredited with "B" Grade by NAAC
Approved by the Government of Tamil Nadu
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DEPARTMENT OF ARTIFICIAL INTELLIGENCE

COURSE OUTCOME

REGULATION 2023-2024

PROGRAMME OUTCOMES

PO1 Disciplinary knowledge: Capable of demonstrating comprehensive knowledge and understanding of one or more disciplines that form a part of an undergraduate Programmed of study

PO2: Communication Skills: Ability to express thoughts and ideas effectively in writing and orally; Communicate with others using appropriate media; confidently share one's views and express herself/himself; demonstrate the ability to listen carefully, read and write analytically, and present complex information in a clear and concise manner to different groups.

PO3: Critical thinking: Capability to apply analytic thought to a body of knowledge; analyze and evaluate evidence, arguments, claims, beliefs on the basis of empirical evidence; identify relevant assumptions or implications; formulate coherent arguments; critically evaluate practices, policies and theories by following scientific approach to knowledge development.

PO4: Problem solving: Capacity to extrapolate from what one has learned and apply their competencies to solve different kinds of non- familiar problems, rather than replicate curriculum content knowledge; and apply one's learning to real life situations.

PO5: Analytical reasoning: Ability to evaluate the reliability and relevance of evidence; identify logical flaws and holes in the arguments of others; analyze and synthesize data from a variety of sources; draw valid conclusions and support them with evidence and examples, and addressing opposing viewpoints.

PO6: Research-related skills: A sense of inquiry and capability for asking relevant/appropriate questions, problem arising, synthesizing and articulating; Ability to recognize cause-and-effect relationships, define problems, formulate hypotheses, test hypotheses, analyze, interpret and draw conclusions from data, establish hypotheses, predict cause-and-effect relationships; ability to plan, execute and report the results of an experiment or investigation

PO7: Cooperation/Team work: Ability to work effectively and respectfully with diverse teams; facilitate cooperative or coordinated effort on the part of a group, and act together as a group or a team in the interests of a common cause and work efficiently as a member of a team

PO8: Scientific reasoning: Ability to analyse, interpret and draw conclusions from quantitative/qualitative data; and critically evaluate ideas, evidence and experiences from an open-

minded and reasoned perspective.

PO9: Reflective thinking: Critical sensibility to lived experiences, with self awareness and reflexivity of both self and society.

PO10 Information/digital literacy: Capability to use ICT in a variety learning situations, demonstrate ability to access, evaluate, and use a variety of relevant information sources; and use appropriate software for analysis of data.

PO 11 Self-directed learning: Ability to work independently, identify appropriate resources required for a project, and manage a project through to completion.

PO 12 Multicultural competence: Possess knowledge of the values and beliefs of multiple cultures and a global perspective; and capability to effectively engage in a multicultural society and interact respectfully with diverse groups.

PO 13: Moral and ethical awareness/reasoning: Ability to embrace moral/ethical values in conducting one's life, formulate a position/argument about an ethical issue from multiple perspectives, and use ethical practices in all work. Capable of demonstrating the ability to identify ethical issues relatedto ones work, avoid unethical behavior such as fabrication, falsification or misrepresentation of data or committing plagiarism, not adhering to intellectual property rights; appreciating environmental and sustainability issues; and adopting objective, unbiased and truthful actions in all aspects of work.

PO 14: Leadership readiness/qualities: Capability for mapping out the tasks of a team or an organization, and setting direction, formulating an inspiring vision, building a team who can help achieve the vision, motivating and inspiring team members to engage with that vision, and using management skills to guide people to the right destination, in a smooth and efficient way.

PO 15: Lifelong learning: Ability to acquire knowledge and skills, including learning how to learn", that are necessary for participating in learning activities throughout life, through self-paced and self-directed learning aimed at personal development, meeting economic, social and cultural objectives, and adapting to changing trades and demands of work place through knowledge/skill development/re skilling

PROGRAMME SPECIFIC OUTCOMES

PSO1. Arrive at actionable Foresight, Insight from data for solvingsimple and business problems.
PSO2. To create, select and apply the theoretical knowledge of AI andData Analytics along with practical industrial tools and techniques to manage and solve societal problems
PSO3. Develop data analytics and data visualization skills, skills pertaining to knowledge acquisition, knowledge representation and knowledge engineering, and hence be capable of coordinating in projects.

PSO4. Evolve AI based efficient domain specific processes for effective decision making in several domains such as business andgovernance domains.

PSO5. To carry out fundamental research to cater the critical needs ofthe society through cutting edge technologies of AI

SEMESTER I

COURSE: PROGRAMMING FOR PROBLEM SOLVING   Credit: 5

COURSE OUTCOMES

CO1: The Student can understand the fundamentals of computer and program development process.

CO2: The Student can prepare innovative solution for the problem using branching and looping statements.

CO3: The Student can decompose a problem into functions and synthesize a complete program using divide and conquer approach.

CO4: The Student will be able to formulate algorithms and programs using arrays, pointers and structures

CO5: The Student will be able to create a new application software to solve real world problems.

COURSE: PROBLEM SOLVING USING C – PRACTICAL   Credit: 5

COURSE OUTCOMES

CO1: Translate given algorithms to a working and correct program

CO2: Identify and correct logical errors encountered at run time

CO3: Create iterative as well as recursive programs.

CO4: Represent Data in arrays, strings and structures and manipulate them through a program.

CO5: Declare pointers of different types and use them in defining self-referential structures.

COURSE: INTRODUCTION TO HTML   Credit: 2

COURSE OUTCOMES

CO1: Knows the basic concept in HTMLConcept of resources in HTML

CO2: Knows Design concept. Concept of Meta data understand the concept of save the files.

CO3: Understand the page formatting.Concept of list

CO4: Creating Links Know the concept of creating link to email address

CO5: Understand the table creation.

COURSE: OFFICE AUTOMATION   Credit: 2

COURSE OUTCOMES

CO1: Possess the knowledge on the basics of computers and its components

CO2: Gain knowledge on Creating Documents, spreadsheet and presentation.

CO3: Learn the concepts of Database and implement the Query in Database.

CO4: Demonstrate the understanding of different automation tools.

CO5: Utilize the automation tools for documentation, calculation and presentation purpose**.**

SEMESTER II

COURSE: PYTHON PROGRAMMIN   Credit: 5

COURSE OUTCOMES

CO1: Learn the basics of python, Do simple programs on python, Learn how to use an array.

CO2: Develop program using selection statement, Work with Looping and jump statements, Do programs on Loops and jump statements.

CO3: Concept of function, function arguments, implementing the concept strings in various application, Significance of Modules, Work with functions, Strings and modules.

CO4: Work with List, tuples and dictionary, Write program using list, tuples and dictionary.

CO5: Usage of File handlings in python, Concept of reading and writing files, Do programs using files.

COURSE: PYTHON PROGRAMMING LAB   Credit: 5

COURSE OUTCOMES

CO1: Demonstrate the understanding of syntax and semantics of

CO2: Identify the problem and solve using PYTHON programming techniques.

CO3: Identify suitable programming constructs for problem solving.

CO4: Analyze various concepts of PYTHON language to solve the problem in an efficient way.

CO5: Develop a PYTHON program for a given problem and test for its correctness

COURSE: UNDERSTANDING INTERNET   Credit: 2

COURSE OUTCOMES

CO1: Knows the basic concept in internet Concept of internet.

CO2: Know the concept of TCP/IP – Internet Technologies and Protocol

CO3: Understand the concept of Internet connectivity.

CO4: Can be able to know about internet networks

CO5: Understand the concept of Electronic mail.

COURSE: PHP PROGRAMMING   Credit: 2

COURSE OUTCOMES

CO1: Analyze the behavior of basic quantum algorithms

CO2: Implement simple quantum algorithms and information channels in the quantum circuit model

CO3: Simulate a simple quantum error-correcting code

CO4: Prove basic facts about quantum information channels

SEMESTER III

COURSE: ARTIFICIAL INTELLIGENCE   Credit: 5

COURSE OUTCOMES

CO1: Understand the basics of the theory and practice of Artificial Intelligence as a discipline and about intelligent agents.

CO2: Understand search techniques and gaming theory

CO3: The student will learn to apply knowledge representation techniques and problem solving strategies to common AI applications.

CO4: Student should be aware of techniques used for classification and clustering.

CO5: Student should aware of basics of pattern recognition and steps required for it.

COURSE: ARTIFICIAL INTELLIGENCE LAB   Credit: 5

COURSE OUTCOMES

CO1: Use of python to understand the concept of AI
CO2: Implementation of Different AI Techniques
CO3: Application of AI techniques in practical Life
CO4: Understanding of Natural Language Tool Kit.
CO5: Practical Application of Natural Language Tool Kit

COURSE: IOT AND ITS APPLICATIONS   Credit: 3

COURSE OUTCOMES

CO1: Work with big data tools and its analysis techniques.

CO2: Analyze data by utilizing clustering and classification algorithms.

CO3: Learn and apply different mining algorithms and recommendation systems for large volumes of data.
CO4: Perform analytics on data streams.

CO5: Learn NoSQL databases and management.

COURSE: SOFTWARE ENGINEERING   Credit: 1

COURSE OUTCOMES

CO1: Gain basic knowledge of analysis and design of systems

CO2: Ability to apply software engineering principles and techniques

CO3: Model a reliable and cost-effective software system

CO4: Ability to design an effective model of the system

CO5: Perform Testing at various levels and produce an efficient system.

COURSE: OPERATING SYSTEM DESIGN   Credit: 1

COURSE OUTCOMES

CO1: Define OS with its view and goals and services rented by it Deign of Operating System with its structure. Message through Inter process communication.

CO2: Describe the allocation of process through scheduling algorithms. Define critical section problems and its usage. Prevention of multiple process executing through the concept of semaphores.

CO3: Describe the concept of Mutual exclusion, Deadlock detection and agreement protocols for deadlock prevention and its avoidance.

CO4: Analyze the strategies of Memory management schemes and the usage of Virtual memory. Apply Replacement algorithms to avoid thrashing.

CO5: Brief study of storage management. Categorize the methods to allocate files for proper protection.

SEMESTER IV

COURSE: R PROGRAMMING   Credit: 5

COURSE OUTCOMES

CO1: Demonstration and implement of basic R programming framework and data structures

CO2: Explain critical R programming language concepts such as control structures and recursion

CO3: Applying mathematical and statistical operations data in R

CO4: Examine data-sets to create testable hypotheses and identify appropriate statistical tests

CO5: Make use of appropriate statistical tests using R and Create and edit visualizations with regression models

COURSE: R PROGRAMMING   LAB   Credit: 5

COURSE OUTCOMES

CO1: Understand the fundamental concepts in R

CO2: Acquire programming skills in R

CO3: be able to use R to solve statistical problems

CO4: be able to implement and describe Monte Carlo the technology

CO5: be able to minimize and maximize functions using R

COURSE: CLOUD COMPUTING   Credit: 3

COURSE OUTCOMES

CO1: Understand the fundamental concepts and Technologies in Cloud Computing.

CO2: Able to understand various cloud service types and their uses and pitfalls.

CO3: Able to understand Cloud Architecture and Application design.

CO4: Understand the various aspects of application design, benchmarking and security in the Cloud.

CO5: Understand various Case Studies in Cloud Computing.

COURSE: SOFTWARE PROJECT MANAGEMENT   Credit: 2

COURSE OUTCOMES

CO1: Understand the principles and concepts of project management

CO2: Knowledge gained to train software project managers

CO3: Apply software project management methodologies.

CO4: Able to create comprehensive project plans

CO5: Evaluate and mitigate risks associated with software development process

COURSE: DATA COMMUNICATION AND NETWORKING   Credit: 2

COURSE OUTCOMES

CO1: Understand the basics of data communication, networking, internet and their importance.

CO2: Analyze the services and features of various protocol layers in data networks.

CO3: Differentiate wired and wireless computer networks

CO4: Analyze TCP/IP and their protocols.

CO5: Recognize the different internet devices and their functions.

COURSE: MACHINE LEARNING   **Credit: 3**

COURSE OUTCOMES

CO1: Describe the concepts, mathematical background, applicability, limitations of existing machine learning techniques.

CO2: Identify the performance evaluation criteria of the model developed

CO3: Analyze and design various machine learning based applications with a modern outlook focusing on recent advances.

CO4: Build the learning model for a given task

CO5: Apply some state-of-the-art development frameworks and software libraries for implementation

COURSE: MACHINE LEARNING LAB   **Credit: 3**

COURSE OUTCOMES

CO1: Identify the most relevant features in a dataset

CO2: Understand the implementation procedures for the machine learning algorithms

CO3: Write Python programs for various Learning algorithms.

CO4: Apply appropriate Machine Learning algorithms for the given data sets.

CO5: Develop applications using Machine Learning algorithms to solve real world problems

COURSE: RELATIONAL DATABASE MANAGEMENT SYSTEM

                                                Credit: 3

COURSE OUTCOMES

CO1: To demonstrate the characteristics of Database Management Systems.

      To study about the concepts and models of database.

      To impart the concepts of System Development Life Cycle and E-R Model.

CO2: To classify the keys and the concepts of Relational Algebra.

      To impart the applications of various Normal Forms Classification of Dependency.

CO3: To elaborate the different types of Functions and Joins and their applications.

Introduction of Views, Sequence, Index and Procedure.

CO4: Representation of PL-SQL Structure.

To impart the knowledge of Sub Programs, Functions and Procedures.

CO5: Representation of Exception and Pre-Defined Exception.

To Point out the Importance of Triggers, Implicit and Explicit Cursors.

COURSE: NATURAL LANGUAGE PROCESSING   Credit: 3

COURSE OUTCOMES

CO1: Describe the fundamental concepts and techniques of natural language processing. Explain the advantages and disadvantages of different NLP technologies and their applicability in different business situations.

CO2: Distinguish among the various techniques, taking into account the assumptions, strengths, and weaknesses of each

Use NLP technologies to explore and gain a broad understanding of text data.

CO3: Use appropriate descriptions, visualizations, and statistics to communicate the problems and their solutions.

Use NLP methods to analyse sentiment of a text document.

CO4: Analyze large volume text data generated from a range of real-world applications. Use NLP methods to perform topic modelling.

CO5: Develop robotic process automation to manage business processes and to increase and monitor their efficiency and effectiveness.

Determine the framework in which artificial intelligence and the Internet of things may function, including interactions with people, enterprise functions, and environments.

COURSE: SOFTWARE TESTING   **Credit: 3**

COURSE OUTCOMES

CO1: Students learn to apply software testing knowledge and engineering methods

CO2: Have an ability to identify the needs of software test automation, and define and develop a test tool to support test automation.

CO3: Have an ability understand and identify various software testing problems, and

solve these problems by designing and selecting software test models, criteria, strategies, and methods.

CO4: Have basic understanding and knowledge of contemporary issues in software testing, such as component-based software testing problems

CO5: Have an ability to use software testing methods and modern software testing tools for their testing projects.

COURSE: PROJECT WITH VIVA VOCE   **Credit: 4**

COURSE OUTCOMES

CO1: Show leadership skills and learn t2ime management

CO2: Identify various tools to be applied to a specific problem

CO3: Evaluate the reports

CO4: Take part in a team as well as manage it to deliver stunning outcomes

CO5: Assess and develop the individual skills to present and organize projects

COURSE: INTERNSHIP / INDUSTRIAL TRAINING   **Credit: 2**

COURSE OUTCOMES

CO1: Find their specific areas of interest, refine their skills and abilities

CO2: Show a greater sense of self-awareness and appreciation for others

CO3: Apply problem solving and critical thinking skills to solve real time problem

CO4: Design various solution approaches for addressing IT business needs.

CO5: Apply best practices of IT industries by working in the Product or service domain.

SEMESTER VI

COURSE: TENSOR FLOW   Credit: 3

COURSE OUTCOMES

CO1: After studied unit-1, the student will be able to understand the concept variables, and Data Types, Operators and Expressions

CO2: After studied unit-2, the student will be able to understand the concepts of linear and nonlinear regressions.

CO3: After studied unit-3, the student will be able to understand the concepts of variable sharing principle.

CO4: After studied unit-4, the student will be able to understand the concepts of encoder with networks.

CO5: After studied unit-5, the student will be able to understand the concepts of language translations

COURSE: TENSOR FLOW LAB   Credit: 3

COURSE OUTCOMES

CO1: The student will be able to understand the concept variables, and Data Types, Operators and Expressions

CO2: The student will be able to understand the concepts of linear and nonlinear regressions.

CO3: The student will be able to understand the concepts of variable sharing principle.

CO4: The student will be able to understand the concepts of encoder with transformer

CO5: The student will be able to understand the concepts of reinforcement learning in tensorflow

COURSE: DEEP LEARNING   Credit: 3

COURSE OUTCOMES

CO1: Understand the basics of deep learning

CO2: Implement various deep learning models

CO3: Realign high dimensional data using reduction techniques

CO4: Analyze optimization and generalization in deep learning

CO5: Explore the deep learning applications

COURSE: DEEP LEARNING LAB   Credit: 3

COURSE OUTCOMES

CO1: Understand the basics of deep learning

CO2: Implement various deep learning models

CO3: Realign high dimensional data using reduction techniques

CO4: Analyze optimization and generalization in deep learning

CO5: Explore the deep learning applications

COURSE: ROBOTICS AND ITS APPLICATION   Credit: 3

COURSE OUTCOMES

CO1: Describe the different physical forms of robot architectures.

CO2: Kinematically model simple manipulator and mobile robots.

CO3: Mathematically describe a kinematic robot system

CO4: Analyze manipulation and navigation problems using knowledge of coordinate frames, kinematics, optimization, control, and uncertainty.

CO5: Program robotics algorithms related to kinematics, control, optimization, and uncertainty.

COURSE: BIG DATA ANALYTICS   Credit: 3

COURSE OUTCOMES

CO1: Work with big data tools and its analysis techniques.

CO2: Analyze data by utilizing clustering and classification algorithms.

CO3: Learn and apply different mining algorithms and recommendation systems for large volumes of data.

CO4: Perform analytics on data streams.

CO5: Learn NoSQL databases and management.

COURSE: ETHICAL HACKING   Credit: 2

COURSE OUTCOMES

CO1: Explain the importance of security and various types of attacks

CO2: Understand the concepts of scanning and system hacking

CO3: Explain about penetration testing and its methodology

CO4: Identify the various programming languages used by security professional

CO5: Understand the concept of security assessments

REGULATION 2022-2023

PROGRAMME OUTCOMES

PO1. Apply the knowledge of mathematics and science to the solution of complex engineering problems.

PO2. Identify, formulate, review research literature, and analyse complex problems reaching substantiated

conclusions using first principles of mathematics, natural sciences.

PO3. Design solutions for complex problems and design system components or processes that meet the specified

needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4. Use research-based knowledge and research methods including design of experiments, analysis and

interpretation of data, and synthesis of the information to provide valid conclusions.

PO5. Create, select, and apply appropriate techniques, resources, and modern tools including prediction and

modelling to complex activities with an understanding of the limitations.

PO6. Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural

issues and the consequent responsibilities relevant to the professional practice.

PO7. Understand the impact of the solutions in societal and environmental contexts, and demonstrate the

knowledge of, and need for sustainable development.

PO8. Apply ethical principles and commit to professional ethics and responsibilities and norms of theengineering practice.

PO9. Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinarysettings.

PO10. Communicate effectively on complex activities and with society at large, such as, being able tocomprehend and write effective reports and design documentation, make effective presentations, and giveand receive clear instructions.

PROGRAMME SPECIFIC OUTCOMES

PSO1. Demonstrate the knowledge of human cognition, Artificial Intelligence, Machine Learning and dataengineering for designing intelligent systems.

PSO2. Apply computational knowledge and project development skills to provide innovative solutions.

PSO3. Use tools and techniques to solve problems in AI and ML.

COURSE: PROGRAMMING IN C   Credit: 4

COURSE OUTCOMES

CO1. After studied unit-1, the student will be able to understand the concepts of Constants, Variables, and Data Types, Operators and Expressions

CO2. After studied unit-2, the student will be able to understand the concepts of Managing Input and Output Operations, Decision Making and Branching, Decision Making and Looping.

CO3. After studied unit-3, the student will be able to understand the concepts of Arrays, Character Arrays and Strings, User Defined Functions.

CO4. After studied unit-4, the student will be able to understand the concepts of Structure and Unions, Pointers, File Management in C.

CO5. After studied unit-5, the student will be able to understand the concepts of Fundamental Algorithms, Factoring Methods.

CORE PRACTICAL I: PROGRAMMING IN C LAB   Credit: 2

COURSE OUTCOMES

CO1. After studied, the student will be able to Enhance the analysing and problem-solving skills and use the same for writing programs in C

CO2. After studied, the student will be able to Write diversified solutions, draw flowcharts and develop a well-documented and indented program according to coding standards

CO3. After studied, the student will be able to Learn to debug a given program and execute the C Program

CO4. After studied, the student will be able to have enough practice the use of conditional and looping statements

CO5. After studied, the student will be able to implement arrays, functions and pointers.
Matching Table

<center>**SEMESTER - II**</center>

COURSE: JAVA PROGRAMMING   Credit: 4

COURSE OUTCOMES

CO1. After studied unit-1, the student will be able to understand the concept of General purpose and purely object-oriented programming language including data types and classes

CO2. After studied unit-2, the student will be able to understand the concept of loops

CO3. After studied unit-3, the student will be able to understand the concepts of Arrays

CO4. After studied unit-4, the student will be able to understand the concepts of Files

CO5. After studied unit-5, the student will be able to understand the concept of internet programming using applets and GUI-based

CORE PRACTICAL II: JAVA PROGRAMMING LAB   Credit: 2

COURSE OUTCOMES

CO1. After studied unit-1, the student will be able to understand the concept of purely object oriented programming language including data types and classes.

CO2. After studied unit-2, the student will be able to implement layout managers.

CO3. After studied unit-3, the student will be able to develop an application using frames.

CO4. After studied unit-4, the student will be able to understand the concepts of RMI.

CO5. After studied unit-5, the student will be able to handle exceptions in program.

<center>**SEMESTER - III**</center>

COURSE: TENSOR FLOW   Credit: 3

COURSE OUTCOMES

CO1.. After studied unit-1, the student will be able to understand the concept variables, and Data Types, Operators and Expressions

CO2. After studied unit-2, the student will be able to understand the concepts of linear and Non linear regressions.

CO3.After studied unit-3, the student will be able to understand the concepts of variable sharing principle.

CO4. After studied unit-4, the student will be able to understand the concepts of encoder with networks.

CO5. After studied unit-5, the student will be able to understand the concepts of language

translations.

CORE PRACTICAL III: TENSOR FLOW LAB   Credit: 3

COURSE OUTCOMES

CO1. The student will be able to understand the concept variables, and Data Types, Operators and Expressions

CO2. The student will be able to understand the concepts of linear and nonlinear regressions.

CO3. The student will be able to understand the concepts of variable sharing principle.

CO4 The student will be able to understand the concepts of encoder with transformer

CO5. The student will be able to understand the concepts of reinforcement learning in tensor flow

CORE OUTCOMES: INTRODUCTION TO INFORMATION TECHNOLOGY

Credit: 2

COURSE OUTCOMES

CO1. After studied unit-1, the student will be able to understand the Major components of Computer System and its working principles.

CO2. After studied unit-2, the student will be able to know the Role of an Operating System and basic terminologies of networks.

CO3. After studied unit-3, the student will be able to know How the Information Technology aids for the Current Scenario.

CO4. After studied unit-4, the student will be able to understand the Computer Software

CO5. After studied unit-5, the student will be able to understand internet applications

SEMESTER - IV

COURSE: ADVANCED PYTHON PROGRAMMING   Credit: 3

COURSE OUTCOMES

CO1. After studied unit-1, the student will be able to write simple Python programs gives basic knowledge.

CO2. After studied unit-2, the student will be able to understand Multithreading

CO3. After studied unit-3, the student will be able to create web services.

CO4 After studied unit-4, the student will be able to understand array.

CO5. After studied unit-5, the student will be able to visualization

CORE PRACTICAL IV: ADVANCED PYTHON PROGRAMMING LAB

Credit: 3

COURSE OUTCOMES

CO1. The student will be able to write simple Python programs gives basic knowledge.

CO2. The student will be able to understand Multithreading

CO3. The student will be able to create web services

CO4. The student will be able to create web services.

CO5. The student will be able to visualization

COURSE: INTERNET TECHNOLOGY   Credit: 2

COURSE OUTCOMES

CO1. After studied unit-1, the student will be able to understand the Fundamentals of Internet, Connectivity and its Resource Requirements.

CO2. After studied unit-2, the student will be able to understand the Internet Technology and its applications

CO3. After studied unit-3, the student will be able to understand the basis of WWW and Web Browsers.

CO4. After studied unit-4, the student will be able to learn how to Mailing system and applications of Internet.

CO5. After studied unit-5, the student will be able to Understand relay chat that is how to read contents.

SEMESTER - V

COURSE: PRINCIPLES OF ROBOTICS   Credit: 4

COURSE OUTCOMES

CO1. After studied unit-1, the student will be able to write simple Python programs gives basic knowledge.

CO2. After studied unit-2, the student will be able to understand Multithreading

CO3. After studied unit-3, the student will be able to create web services

CO4. After studied unit-4, the student will be able to understand array

CO5. After studied unit-5, the student will be able to visualization.

COURSE: R PROGRAMMING   Credit: 4
COURSE OUTCOMES

CO 1. After studied unit-1, the student will be able to learn operating system structure and services.

CO2. After studied unit-2, the student will be able to Enrich the process scheduling skills.

CO3. After studied unit-3, the student will be able to know about memory allocation.

CO4. After studied unit-4, the student will be able to understand disk structure and allocation methods.

CO5 After studied unit-5, the student will be able to understand LINUX system

COURSE: ARTIFICIAL INTELLIGENCE AND KNOWLEDGE REPRESENTATION   Credit: 3

COURSE OUTCOMES

CO1. After studied unit-1, the student will be able to understand the concepts of artificial neural network

CO2. After studied unit-2, the student will be able to understand the concepts of problem solving methods

CO3. After studied unit-3, the student will be able to understand the objects and reasoning in AI.

CO4. After studied unit-4, the student will be able to understand the concepts of fuzzy logic.

CO5. After studied unit-5, the student will be able to understand the concepts of speech recognition.

CORE PRACTICAL V: ROBOTICS LABORATORY   Credit: 3

COURSE OUTCOMES

CO1. The students are able to understand the concept of accuracy and resolution.

CO2. The students are able to understand the concept of shape identifications

CO3. The students are able to understand the concept of multi processes

CO4. The students are able to understand the concept of industrial process

CO5. The students are able to understand the concept of color identifications

CORE PRACTICAL V: R PROGRAMMING LAB   Credit: 3

COURSE OUTCOMES

CO1. The students are able to understand the basic concept of numbers and vectors

CO2. The students are able to understand the concept of array and matrices

CO3. The students are able to understand the concept of Bi variety category matrices

CO4. The students are able to understand the basic concept 1D, 2D, 3D

CO5. The students are able to understand the concept of correlations

COURSE: FUZZY LOGIC AND NEURAL NETWORKS   Credit: 3

COURSE OUTCOMES

CO1. After studied unit-1, the students are able to understand the concept of fuzzy logics.

CO2. After studied unit-2, the students are able to understand the concept of adaptive fuzzy logic system

CO3. After studied unit-3, the students are able to understand the concept of neural networks

CO4. After studied unit-4, the students are able to understand the concept mapping

CO5. After studied unit-5, the students are able to understand the concept of fuzzy logic system.

COURSE: MACHINE LEARNING TECHNIQUES   Credit: 4

COURSE OUTCOMES

CO1. After studied unit-1, the student will be able to understand the concepts of machine learning

CO2. After studied unit-2, the student will be able to understand the concepts of supervised learning.

CO3. After studied unit-3, the student will be able to understand the concepts of Unsupervised learning.

CO4. After studied unit-4, the student will be able to understand the concepts of learning with its type.

CO5. After studied unit-5, the student will be able to understand the concepts of representation of data.

COURSE: NATURAL LANGUAGE PROCESSING   Credit: 4

COURSE OUTCOMES

CO1. After studied unit-1, the student will be able to understand the concepts NLP and its problems

CO2. After studied unit-2, the student will be able to understand the concepts of lexical analysers.

CO3. After studied unit-3, the student will be able to understand the concepts of grammars.

CO4. After studied unit-4, the student will be able to understand the concepts of semantic networks.

CO5. After studied unit-5, the student will be able to understand the concepts of natural languages.

CORE PRACTICAL VI: MACHINE LEARNING LAB   Credit: 3

COURSE OUTCOMES

CO1. The student are able to understand the basic concept of machine learning

CO2. The students are able to understand the concept of ID3 algorithm

CO3. The students are able to understand the support vector network

CO4. The students are able to understand the basic concept of K means algorithm

CO5. The students are able to understand the concept of linear regression

CORE PRACTICAL VI: NATURAL LANGUAGE PROCESSING LAB

Credit: 2

COURSE OUTCOMES

CO1. The students are able to understand the basic concept of NLP problems

CO2. The students are able to understand the concept of lexical analysers

CO3. The students are able to understand the concept of grammar with its level

CO4. The students are able to understand the basic concept of semantic networks

CO5. The students are able to understand the concept of natural language Matching Table

CORE PRACTICAL VI: COMPUTER ORGANIZATION   Credit: 3

COURSE OUTCOMES

CO1. After studied unit-1, the student will be able to understand Boolean algebra and basic gates.

CO2. After studied unit-2, the student will be able to understand how to simplify expression using K-Map.

CO3. After studied unit-3, the student will be able to understand how to build combinational circuits.

CO4. After studied unit-4, the student will be able to know about registers and addressing modes

CO5. After studied unit-5, the student will be able to understand types of memories.

CORE PRACTICAL VI: OPERATING SYSTEM   Credit: 3

COURSE OUTCOMES

CO1. After studied unit-1, the student will be able to learn operating system structure and services.

CO2. After studied unit-2, the student will be able to Enrich the process scheduling skills.

CO3. After studied unit-3, the student will be able to know about memory allocation.

CO4. After studied unit-4, the student will be able to understand disk structure and allocation methods.

CO5. After studied unit-5, the student will be able to understand LINUX system