Department of B.Sc. Computer Science (Artificial Intelligence)

Bridge Course Report

(4.7.2024 to 9.7.2024)

Department of Computer Science (Artificial Intelligence) had conducted offline Bridge Course in the title Basics of Computer Science for computer and non-computer students in this Induction Program from 4th to 9th July 2023, at 1.30 am to 3.30 am. The purpose of this session is to bridge the gap between computer and non-computer students. The students were interestedly attended the session and acquired basic knowledge about the computer and programming language. In this students come to know about the fundamentals of computer science, Introduction to Operating System, How to work with MS-Office, uses of Networks with its topologies, Data Structures and Design and basic concept of Artificial Intelligence . Our Faculty covered the following topics in this session.

Topics Covered On Bridge Course

Fundamentals of Computer Science

Definition of a Computer, History of Computers, Generations of Computers, types of computer – based on size and working principle, Block diagram of a Computer with functional units(explanation), Parts of a computer system, Information processing Cycle – What is Hardware and Software – Hardware components with its uses – Software components with its uses. LAN, LAN topologies, WAN, MAN, Internet: Introduction, Internet, extranet and Intranet- IP address, Structure of IP Address.

Introduction To Operating Systems

Operating Systems Overview-Basic Elements – Instruction Execution – Interrupts-Memory Management 8 Main Memory-Storage Management - Mass Storage Structure: Overview – Disk Scheduling and Management; File System Storage: File Concepts.

Fundamentals of Networks

Introduction of Networks - Definition of Networks – Types of Network Devices – Advantages and Disadvantages of Network Devices – Types of Networks – LAN – MAN – WAN – SAN – PAN – CAN – Topologies of Networks – Uses of Network Topology – Merits and Demerits of Network Topology.

Basic concept of MS – Office

Introduction of MS-Office – MS-Word – MS-Excel – MS-PowerPoint – MS-Access – MS-Publisher – Important Features of MS-Words – Introduction to MS-PowerPoint – Features of MS-PowerPoint – Introduction to MS-Excel – Features of MS-Excel – AutoSum – List AutoFill – AutoShapes toolbar – Drag and Drop – Charts – PivotTable – Shortcut Menus.

Data Structures and Design

Abstract Data Types- Application-Types-stack-queue –shortest path-Linear Structures-Sorting and Searching-Tree Structures-Graph Structures.

Artificial Intelligence

Intelligent Agents- Problem Solving -Game Theory – Optimal Decisions In Games-Logical Agents 9 Knowledge-Based Agents –Knowledge Representation and Planning-AI and Robotics-Robot Planning and Navigation - Planning and navigation – planning and reacting – path planning – obstacle avoidance – navigation architectures.

Screenshot