Bharathidasan University

Centre for Differently Abled Persons

Khajamalai Campus
Tiruchirappalli-620 023
Tamilnadu

Bachelor of Computer Applications

(For Students with Vision Impairment and Learning Disabilities)

Course: Fundamentals of Computer Applications unit-1

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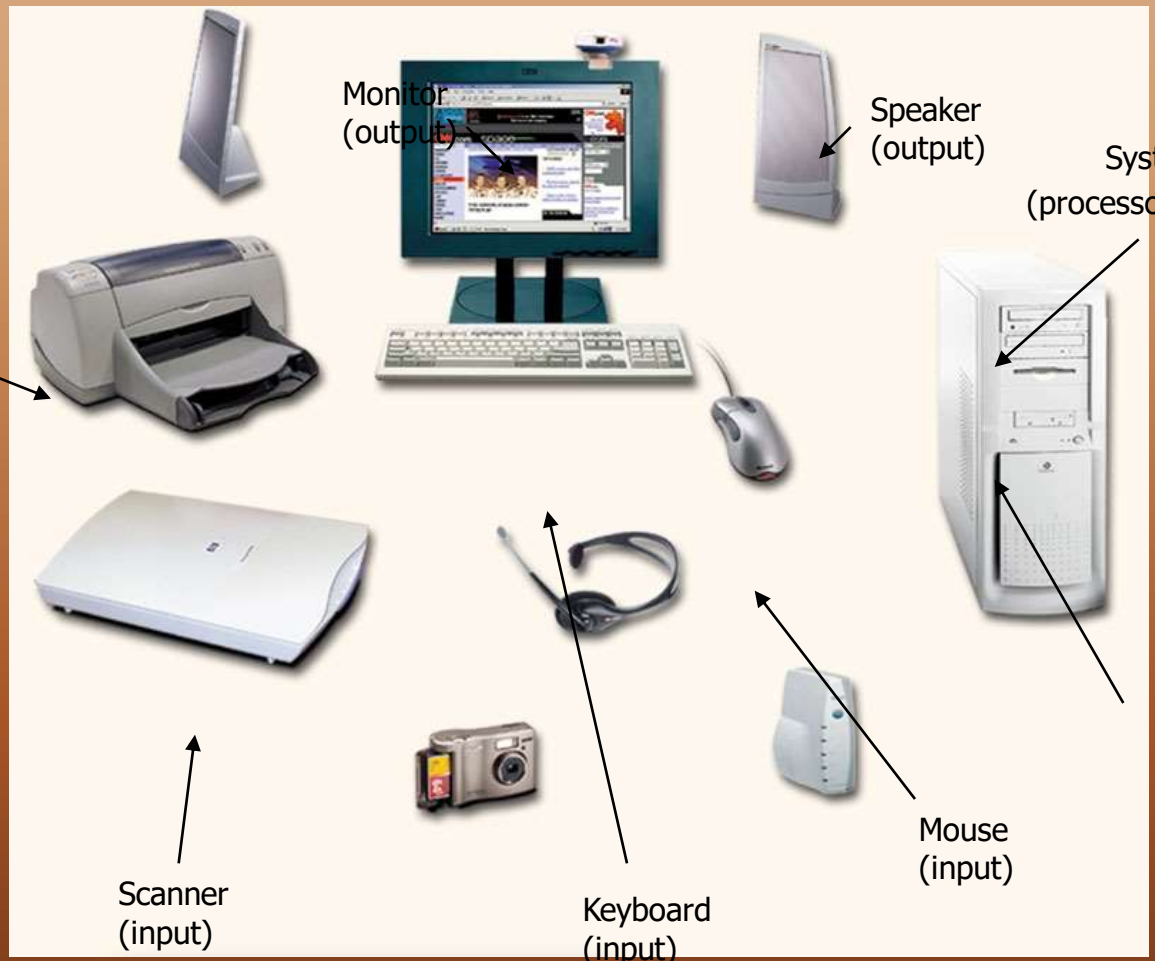
Introduction to Computers

What Is A Computer?

A computer is an electronic device, operating under the control of instructions (software) stored in its own memory unit, that can accept data (input), manipulate data (process), and produce information (output) from the processing. Generally, the term is used to describe a collection of devices that function together as a system.

Devices that comprise a computer system



What Does A Computer Do?

Computers can perform four general operations, which comprise the information processing cycle.

- Input
- Process
- Output
- Storage

What Do Computers Do?

- Input, Process, Output, & Store data

Input ⇒ **Process** ⇒ **Output**

⇕

Store Data

Data and Information

- All computer processing requires **data**, which is a collection of raw facts, figures and symbols, such as numbers, words, images, video and sound, given to the computer during the input phase.
- Computers manipulate data to create information. **Information** is data that is organized, meaningful, and useful.
- During the output Phase, the information that has been created is put into some form, such as a printed report.
- The information can also be put in computer storage for future use.

Why Is A Computer So Powerful?

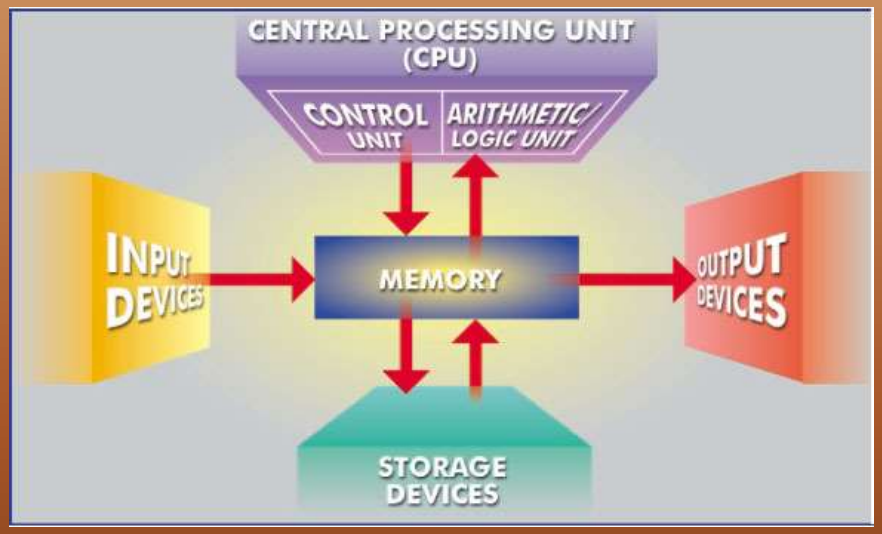
- The ability to perform the information processing cycle with amazing speed.
- Reliability (low failure rate).
- Accuracy.
- Ability to store huge amounts of data and information.
- Ability to communicate with other computers.

How Does a Computer Know what to do?

- It must be given a detailed list of instructions, called a **compute program** or **software**, that tells it exactly what to do.
- Before processing a specific job, the computer program corresponding to that job must be stored in memory.
- Once the program is stored in memory the compute can start the operation by executing the program instructions one after the other.

What Are The Primary Components Of A Computer ?

- Input devices.
- Central Processing Unit (containing the control unit and the arithmetic/logic unit).
- Memory.
- Output devices.
- Storage devices.



Uses of Computer

PC at Home

Common uses for the computer within the home

- Computer games
- Working from Home
- Banking from Home
- Connecting to the Web

Uses of Computer

Office Applications

Stock Control

- Stock control is ideal for automation and in many companies it is now completely computerized. The stock control system keeps track of the number of items in stock and can automatically order replacement items when required.

Accounts / Payroll

- In most large organizations the accounts are maintained by a computerized system. Due to the repetitive nature of accounts a computer system is ideally suited to this task and accuracy is guaranteed.

Uses of Computer

Automated Production Systems

- Many car factories are almost completely automated and the cars are assembled by computer-controlled robots. This automation is becoming increasingly common throughout industry.

Design Systems

- Many products are designed using CAD (Computer Aided Design) programs to produce exact specifications and detailed drawings on the computer before producing models of new products.

Uses of Computer

Computers in Daily Life

- Accounts
- Games
- Educational
- On-line banking
- Smart ID cards
- Supermarkets
- Working from home (Tele-working)
- Internet

Thank You