



The Islamia University of Bahawalpur Pakistan



# Introduction to Computer Computer System Architecture

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

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# **Input & Output Devices**

# input devices



# Input Devices

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An input device is any hardware component that allows users to enter data and instructions into a computer

- These are the Instructions can be entered into the computer in the form of programs, commands, and user responses

# Input Devices

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- The **Keyboard** • A keyboard is an input device that contains keys users press to enter data and instructions into a computer
- The **insertion point**, also known as the cursor, is a symbol on the screen that indicates where the next character you type will appear
- A **mouse** is a pointing device that fits under the palm of your hand comfortably— Most widely used pointing device on desktop computers • A mouse can be wired or wireless

# Input Devices

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- **Touch Screens and Touch-Sensitive Pads** • A touch screen is a touch-sensitive display device
- **Pen Input** • With pen input, you touch a stylus or digital pen on a flat surface to write, draw, or make selections

# Output Devices

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- **What Is Output?** • An output device is any type of hardware component that conveys information to one or more
- **Display Devices** • A display device visually conveys text, graphics, and video information • A monitor is packaged as a separate peripheral—LCD monitor—Widescreen people
- **Liquid crystal display (LCD)** uses a liquid compound to present information on a display device
- **Printers** • A printer produces text and graphics on a physical medium—Printed information is called a hard copy, or printout—Landscape or portrait orientation

SPEAKER



MONITOR



HEADPHONE



## Output Devices of Computer

PLOTTER



PROJECTOR



PRINTER



# Summary

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- **Input/Output (I/O):** Interfaces with external devices like keyboard, mouse, display, printer, and network for data exchange.
- I/O ports, buses, and devices (USB, HDMI, etc.)
- Interrupts and Direct Memory Access (DMA)
- **Input Devices:** devices that are used entre data to computer system
- **Examples:** Mouse, keyboard, Joystick, Scanner
- **Output Devices:** devices that are used to display the result of processing
- **Examples:** LED/ Monitor, Printers, Speakers