



# **SNS COLLEGE OF ENGINEERING**

**Kurumbapalayam(Po), Coimbatore - 641 107**

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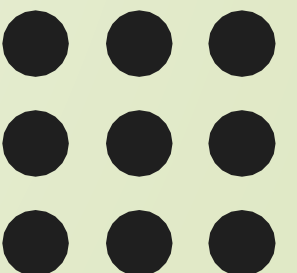
## **Department of Information Technology**

**Course Name - COMPUTER GRAPHICS**

**III Year / V Semester**

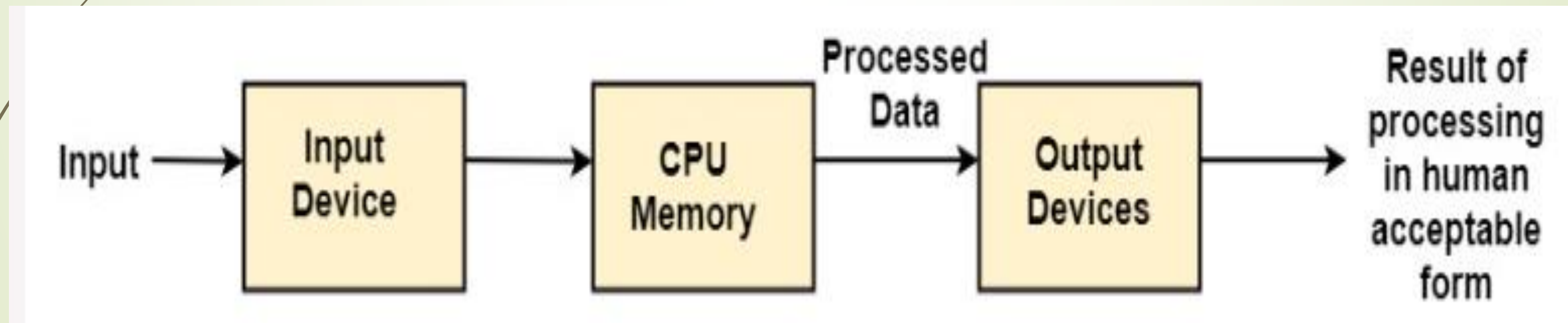
**Unit 1 - INTRODUCTION TO COMPUTER GRAPHICS**

**Topic :Graphics Input Primitives and Devices**

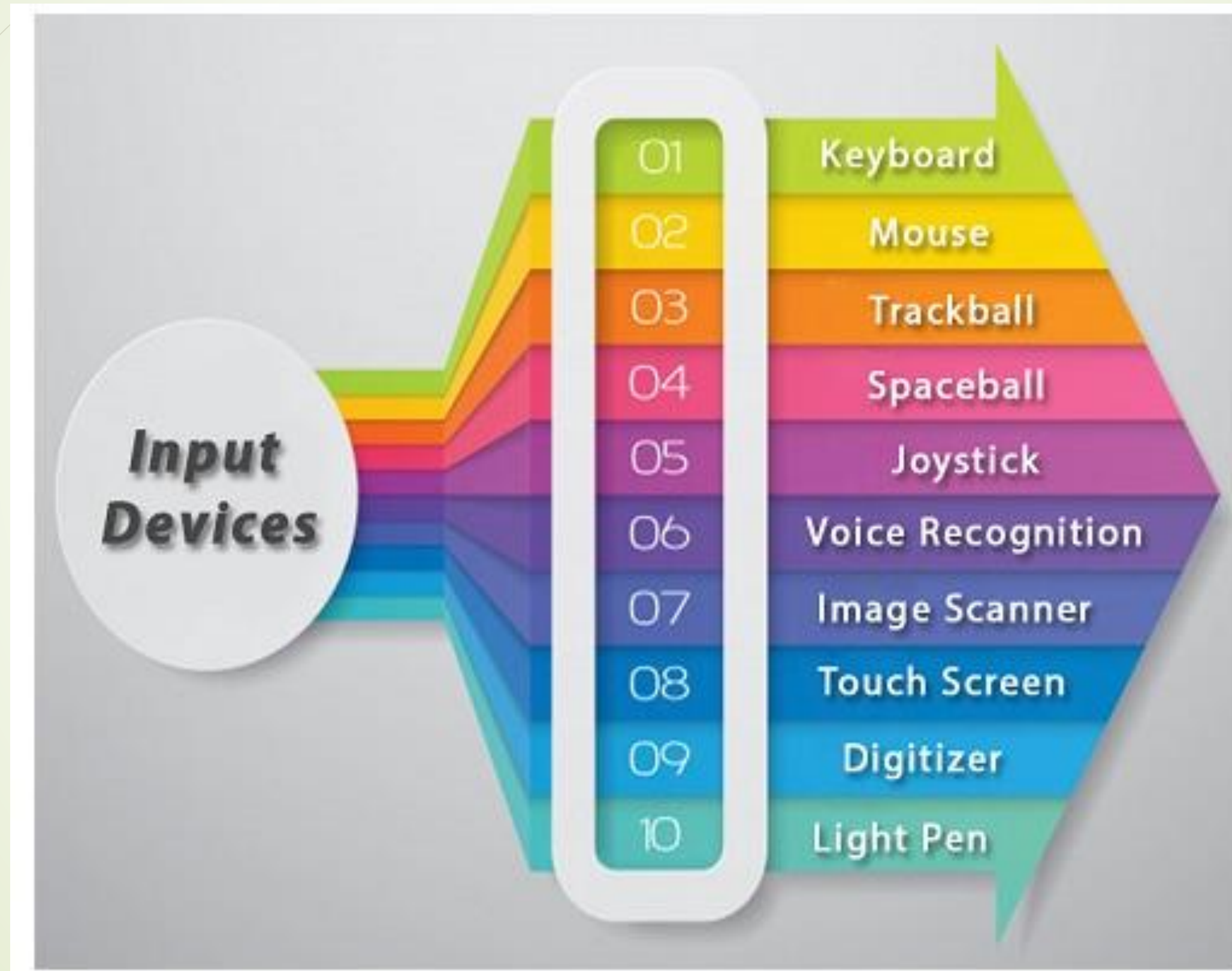


# INPUT DEVICES

- ❖ The Input Devices are the hardware that is used to transfer input to the computer.
- ❖ The data can be in the form of text, graphics, sound, and text.



# INPUT DEVICES





# Keyboard

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- ❖ The most commonly used input device is a keyboard. A keyboard with 101 keys is called a QWERTY keyboard.
- ❖ The keyboard has
  - **Numeric Keys:** 0, 1, 2, 3, 4, 5, 6, 7, 8, 9
  - **Alphabetic keys:** a to z (lower case), A to Z (upper case)
  - **Special Control keys:** Ctrl, Shift, Alt
  - **Special Symbol Keys:** ; , " ' ? @ ~ ? :
  - **Cursor Control Keys:** ↑ → ← ↓
  - **Function Keys:** F1 F2 F3....F9.
  - **Numeric Keyboard:** It is on the right-hand side of the keyboard and used for fast entry of numeric data.



# MOUSE

- ❖ Mouse is the most popular pointing device.
- ❖ A mouse can be used to control the position of the cursor on the screen, but it cannot be used to enter text into the computer.
- ❖ Functions of the mouse:
  - Clicking
  - Double Clicking
  - Right Clicking
  - Dragging
  - Scrolling



# TRACKBALL

- ❖ Track ball is an input device that is mostly used in notebook or laptop computer, instead of a mouse.
- ❖ It can move two directions.





# SPACEBALL

- **A graphical input device that is based on a fixed spherical ball.**
- It is similar to trackball, but it can move in six directions
- It is used for three-dimensional positioning of the object.
- It is applicable in CAD applications .Animation is also done using space ball.



# JOYSTICK

- Joystick is also a pointing device, which is used to move the cursor position on a monitor screen.
- The joystick can be changed in all four directions. The function of a joystick is similar to that of the mouse
- It is mainly used in Computer Aided Designing (CAD) and playing computer games.





# DIGITIZERS

- A digitizer is a machine that converts an analog object, image or signal into a digital (i.e. computer-readable) format.
- Suitable only for applications which required high-resolution graphics.
- Digitizer is also known as Tablet or Graphics Tablet as it converts graphics and pictorial data into binary inputs



# IMAGE SCANNERS

- An image scanner is a device that optically scans images, printed text, handwriting or an object and converts it to a digital image.
- There are three types of scanners available: drum scanner, flatbed, and handheld scanners



# LIGHT PENS

- Light pen is a pointing device similar to a pen. It is used to select a displayed menu item or draw pictures on the monitor screen.





# TOUCH SCREEN

- It is a computer display screen that is sensitive to human touch.
- A touch panel is a piece of equipment that lets users interact with a computer by touching the screen directly



# VOICE SYSTEM

- Voice recognition(or voice system) is the ability of a machine or program to receive and interpret dictation or to understand and perform spoken commands.
- There are two variants of voice recognition – speaker dependent and speaker independent



THANK YOU