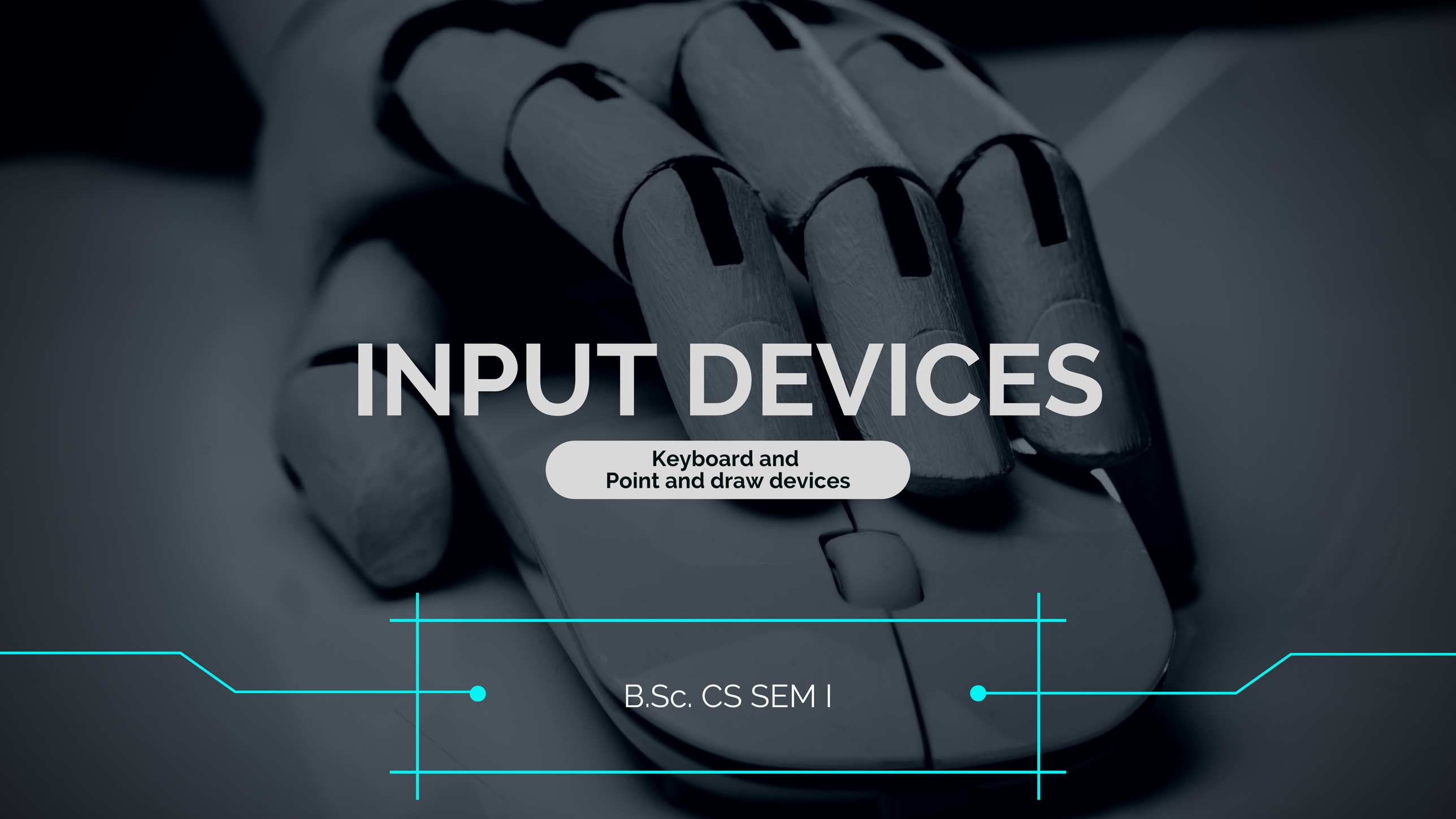


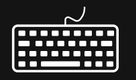
INPUT DEVICES

Keyboard and
Point and draw devices

B.Sc. CS SEM I

INPUT DEVCES

KEYBOARD AND
POINT & DRAW DEVICES

KEYBOARD 

MOUSE

TRACKBALL 

JOYSTICK 

LIGHT PEN 

What are Input Devices?

An INPUT DEVICE transmits data to a computer and allows you to communicate with it and control it. They serve as an interface between the user and the computer system.

Categorisation of Input Devices

INPUT DEVCES can be mainly categorized based on:

MODE OF INPUT

Mechanical motion - Mouse, Keyboard
Audio input - Microphone
Visual Input - Camera, Scanner

CONTINUITY OF INPUT

Discrete - Keypress
Continuous - Free movement

DEGREES OF MOVEMENT

2-Dimensional
3-Dimensional

KEYBOARD

The keyboard is the usual text input device for a computer. The keyboard translates keystrokes into signals that can be interpreted by the PC.

In a modern computer, the interpretation of key presses is generally left to the software: the information sent to the computer, the scan code, tells it only which physical key or keys was pressed or released.

QWERTY is the facto standard keyboard layout on English-language computer and typewriter keyboards. It takes its name from the first six letters seen in the keyboard's top first row of letters.

Types of keys in the **KEYBOARD**

01 Control - used alone or in combination to perform a function

02 Navigation - moving around in documents and webpages

03 Function - do specific tasks which differ by program

04 Alphanumeric - Letters, Numbers, Punctuation Symbols etc

05 Numeric Keypad - make typing numbers handy

06 Miscalleneous - PrtScn, Scroll Lock, Pause/Break

The mouse is a hand-held input device whose basic purpose is to move a cursor or a pointer across the screen.

MOUSE

TYPES OF MICE

MECHANICAL

Mechanical mouse contains a metal or rubber ball in the back surface side. When we move the mouse then mouse's ball roll and sensors that are embedded inside identify the motion and move on screen's surface portion at the same directions.

OPTICAL

Optical mice rely on one or more light-emitting diodes (LEDs) and an imaging array of photodiodes to detect movement relative to the underlying surface.

3-D

A 3-D mouse is a device that allows multifaceted navigation using ultrasound technology. It allows a user to work with both hands simultaneously and was designed for use in console applications, such as Computer-Aided Design (CAD).

TOUCHPAD

A touchpad is an input device on laptops and some keyboards. It allows the user to move a cursor with their finger. It can be used in place of an external mouse.

WHAT IS TRACKBALL?

A trackball is a pointing device consisting of a ball held by a socket containing sensors to detect a rotation of the ball about two axes—like an upside-down mouse with an exposed protruding ball. Users roll the ball to position the on-screen pointer, using their thumb, fingers, or commonly the palm of the hand while using the fingertips to press the mouse buttons.

A JOYSTICK is an input device that is commonly used to control gaming applications and, sometimes, used in graphics applications.
Typically, the joystick often comes with software that makes capable the users to allocate the function of every buttons. And, using a serial port or a basic USB connection, joysticks connect to your computer.

A LIGHT PEN, basically a stylus, is a computer input device in the form of a light-sensitive wand used in conjunction with a computer's cathode-ray tube (CRT) display. It is generally used to highlight text, object or alter data on a computer screen or monitor.
A light pen detects changes in brightness of nearby screen pixels when scanned by cathode-ray tube electron beam and communicates the timing of this event to the computer. Since a CRT scans the entire screen one pixel at a time, the computer can keep track of the expected time of scanning various locations on screen by the beam and infer the pen's position from the latest timestamp.