Welcome students we will deal with the third unit module of

this session. That is, the module name is computer

devices part one. It is divided into 2 modules.

Module three and four.

What's the outline for today'stopic? Here is about the

computer devices will be telling about the input devices.

It explains the different types of input devices, highlights the

effects the input devices have

. A computer : computer system comprises of

various elements, each of which affects the user of the system.

It has the input devices which has various types like the text

entry, drawing selections, and so on. We have the output

displays. Then we have the virtual reality systems and 3D

visualizations. They are special interactions. We have the

various other devices like the physical control sensors and we

will see about the paper output and input in this module will be

dealing about the.

About the input devices, let us see about what is interacting

with computers. So to understand human computer interactions, we

need to understand computers.

So what goes in and out?

The devices, paper, sensors etc.

What can you do? It has memory.It has processing capabilities,

can be networked.

So we will be dealing with. Letus see if you have a typical

example of a computer. We have a screen or keyboard, mouse and

either a desktop or a laptop.

The devices dictate the style of interaction that the

system supports. If we use different devices than the

interface will support a different style of

interactions, so we need to know about the different

types of input the an output devices of the computer,

because when we divide interfaces we need Inter

Inter interfaces. We need to know what type of interface

is what type of devices,input, output devices that

will be dealing it when we devise any product.

So we'll be sticking with about the text entry devices

longer code that was batch processing their best punch

cards that it was long wait,was there those automated

routines machines which were there but now the in the

computing is interactive? Itis rapid feedback. The users

are in control most of the time doing something rather

than thinking which was the things of the past.

Let us see one of the input device. The keyboard is the most common type of text input device. It allows rapid entry of text by experience users.

Key presence closes connection,causing a character code to be sent. Can have a cable connected type of a keyboard or or wireless. Keyboard out of various types, you have the QWERTY. That was a way how the keys were arranged QWERTY this is how they have been arranged. They were same like how they used to be used in a typewriter. Can we use without training minor differences are there in the keyboards with respect to UK and USA keyboards. They're cheap and easy to use.There are other types of keyboards. We have the alternative types of keyboards which we have the alphabetic keyboards where the keys are arranged in alphabetical order.They're not faster for train typist because most of the people are used with the QWERTY type of the keyboards, notfaster for bigness either. Then we have the provoke layout,their common letters under dominant fingers. They're biased towards the right handed people. Common combination of letters.

Alternate between their hands. Not much significant

adoption when compared to the QWERTY type of keyboards.

We have other special types of keyboards like you know, based

on the number of years and attempt space because of the

physical improvement. Mainly the economics plays a very important

part because the people who are using the devices should not

come under fatix, so different types of inventions has taken

place and we have used different types of keyboards Now so there

are tilting types, curvingtypes. We have virtual keyboards

we have maltron for left hander.

Types of keyboards. There are called keyboards which are just

for photo which has only four to five keys. They are typed. They

can be used with a hand or a mobile devices, but social

resistance is there because of the phatic, which happens after

extended use. Though we had seen the years old mobile from all of

us, I used with the smart profiles. Previously we had the

phones which we had in the T9entry, so we had to type a

particular type of a letter. We Had to press the numbers so 2

words before. ABC and so on.So predictable. Predict any

key we had to use a combination of guesses, an

sets how word would be entered.

We have handwritten

recognitions. Text can be input into computer using a pen or

digestive tablet that is natural interaction, but there

are technical problems which occurs because of the stroke

path, pressures etc.

And interpreting individual single letters becomes typical

defines difficult coping with their different styles of

handwriting and so on.

Then we have the speechrecognition improving rapidly

more successful when it is fora single user because we need

to initialize with the training an it learns

specularity does limited vocabulary. Problem lies with

the external noise interference, large

vocabularies different speakers so it finds it

difficult to sometime recognize.

Then we come under the pointing positioning and drawing type of

devices. We have already seen most of us are used by using

this when we deal with the

computers mouse. Which is a movement of mouse moves around

the with the movement of the mouse. The cursor moves on the

screen. We have the.

Then we have foot mouse. e being used

heavily in musical instruments and for mechanical equipments

like in the sewing machines and so on. They are mainly relevant

to users with disabilities or with high back or neck problems.

We have a touchpad, mostly using touch sensitive.

Sensitive tablets, so mainly we see it in the laptops

which are being used today.

Then we have the trackball.

Dumbbells trackballs is a ball rotates inside out, like

upside down in a mouse. It's Very good for gaming using

some portable and notebook computers, thumbwheels

accurate for CAD for fast scrolling.

We have a joystick. We have a keyboard nipple. Joystick is

mainly used for in computer games. The pressure of the stick

translate to velocity or movement. We have the keyboard

nipple pointing device typically mounted on a keyboard on

laptops. We have touch sensitive screens, detects the presence of

finger or stylus on the screen.

It is increasingly being accepted in the marks market,

specially in the mobile devices like the smartphone

and tablets. It has its own advantages and disadvantages.

Had the Steelers in the light pencils is a like a small pen

pointing to draw statically on the screen. Using PDS tablets.

Drawing tablets. Light pen is not being used now. Both has

the pros and cons with direct and obvious to use it can

obscure the screen.

Then we have the eye gaze or eye tracking. A laser light reflects

off the retina, provides the control interface by tracking

the eye movement on the screen.

For high. Curious IT types of arequire hate set. It is also

very relevant for disabled

users. Then we have the discrete positioning controls we use in

the phones TV controls.

So some of the references about this
will be dealing with the

remaining part of this chapter on computer devices in the next

module, thank you.