SEMINAR REPORT ON
5 PEN PC TECHNOLOGY

Submitted by,

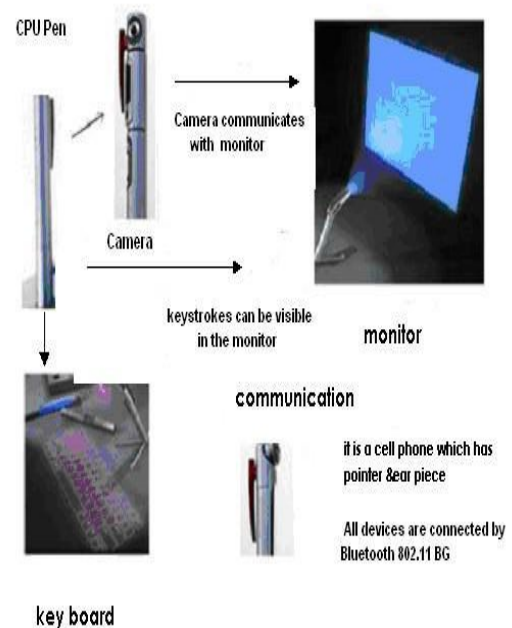Albin Thomas

5 Pen PC Technology

INTRODUCTION

Five pen pc shortly called as P-ISM("Pen-style Personal Networking Gadget Package"), is nothing but the new discovery, which is under developing stage by NEC Corporation. P-ISM is a gadget package including five functions: a CPU pen, communication pen with a cellular phone function, virtual keyboard, a very small projector, and a camera-SM's are connected with one another through short-range wireless technology.

The whole set is also connected to the Internet through the cellular phone function. This personal gadget in a minimalist pen style enables the ultimate ubiquitous computing.

COMPONENTS NAME

Concept Component	Function
CPU Pen	Computing Engine
Communications Pen	Cell Phone, Pressure Sensitive Pointing Device, Pointer and ear piece. Communications using Bluetooth
Display	LED Projector A4 Size Approx. 1024 X 768
Keyboard	Projected keyboard with 3D IR Sensor
Camera	Digital Camera

CPU PEN

The functionality of the CPU is done by one of the pen. It is also known as computing engine. It consists of dual core processor embedded in it and it works with WINDOWS operation system.The central processing unit (CPU) is the portion of a computer system that carries out the instructions of a computer program, and is the primary element carrying out the computer's functions. The central processing unit carries out each instruction of the program in sequence, to perform the basic arithmetical, logical, and input/output operations of the system.

The control unit of the CPU contains circuitry that uses electrical signals to direct the entire computer system to carry out, stored program instructions. The control unit does not execute program instructions; rather, it directs other parts of the system to do so. The control unit must communicate with both the arithmetic/logic unit and memory.

COMMUNICATION PEN

P-ISM's are connected with one another through short-range wireless technology. The whole set is also connected to the Internet through the cellular phone function. They are connected through Tri-wireless modes (Blue tooth, 802.11B/G, and terabytes of data, exceeding the capacity of today's hard disks.

This is very effective because we can able to connect whenever we need without having wires. They are used at the frequency band of 2.4 GHz ISM (although they use different access mechanisms). Blue tooth mechanism is used for exchanging signal status information between two devices. This techniques have been developed that do not require communication between the two devices (such as Blue tooth's Adaptive Frequency Hopping), the most efficient and comprehensive solution for the most serious problems can be accomplished by silicon vendors. They can implement information exchange capabilities within the designs of the Blue tooth

VIRTUAL KEYBOARD

The Virtual Laser Keyboard (VKB) is the ULTIMATE new gadget for PC users. The VKB emits laser on to the desk where it looks like the keyboard having QWERTY arrangement of keys i.e., it uses a laser beam to generate a full-size perfectly operating laser keyboard that smoothly connects to of PC and most of the handheld devices. As we type on the laser projection, it analyses what we are typing according to the co-ordinates of the location. A virtual keyboard is a software component that allows a user to enter characters. A virtual keyboard can usually be operated with multiple input devices, which may include a touch screen, an actual keyboard, a computer mouse, a head mouse and an eye mouse.

DIGITAL CAMERA

The digital camera is in the shape of pen .It is useful in video recording, video conferencing, simply it is called as web cam. It is also connected with other devices through Blue tooth. It is a 360 degrees visual communication device. This terminal will enable us to know about the surrounding atmosphere and group to group communication with a round display and a central super wide angle camera.

LED PROJECTOR

The role of monitor is taken by LED Projector which projects on the screen. The size of the projector is of A4 size. It has the approximate resolution capacity of 1024 X 768. Thus it is gives more clarity and good picture.
A video projector is a device that receives a video signal and projects the corresponding image on a projection screen using a lens system. All video projectors use a very bright light to project the image, and most modern ones can correct any curves, blurriness, and other inconsistencies through manual settings. Video projectors are widely used for conference room presentations, classroom training, home theatre and live events applications. Projectors are widely used in many schools and other educational settings, connected to an interactive whiteboard to interactively teach pupils.

BATTERY

The most important part in portable type of computer is battery and storage capacity. Usually batteries must be small in size and work for longer time. For normal use it can be used for 2 weeks. The type of battery used here is lithium ion battery. The storage device is of the type tubular holographic which is capable of storing. The use of lithium ion battery in this gadget will reduce energy density, durability and cost factor.

ADVANTAGES

- ➢ Portable Feasible Ubiquitous
- ➢ Makes use of Wi-Fi technology
- ➢ portable
- ➢ Feasible
- ➢ Pens produces both the monitor as well as the keyboard on any flat surface from where you can carry out functions.
- ➢ Touch and feel the technology

DISADVANTAGES

- ➢ Currently unclear
- ➢ Cost
- ➢ positioning is main
- ➢ Battery
- ➢ Easily misplaced

CONCLUSION

The communication devices are becoming minor and compressed.5 pen pc is only an example for the surprise of this new technology.We can think more such expansions in future.