

BLUE EYE TECHNOLOGY

R.Rajalakshmi-student,

B.Rohini-student,

G.Anjana-student.

Abstract:

By using 'BLUE EYES' is the technology to make computers sense and understand human behaviour, feelings and react in the proper ways through gadgets. The machine can understand what a user wants, where he is looking at and realise his physical or emotional states. Blue eyes uses sensing technology to identify a users actions and to extract key information. The information is then analyzed to determine users physical, emotional or informational state which in turn can be used to make the user more productive by performing expected actions or by providing expected information. Adding the perceptual abilities of human to computers, would enable computers to interact and work together with human beings as intimate partners. The most important thing in BLUE EYES is to create perceptual and sensory abilities.

KEYWORDS: Blue eyes, Emotional mouse, Expression glass, DAU, LED, Visualtration.

INTRODUCTION

BLUE -> Bluetooth connection

EYE -> Eye movement

TECHNOLOGY -> Technique



'BLUE EYE TECHNOLOGY' is aims at creating computational machines that have sensory abilities like those of human beings. Use camera and microphone to identify user actions and emotions.

NEEDS:

->To built a machine that can understand your emotions.

->A pc that can listen, talk or scream.

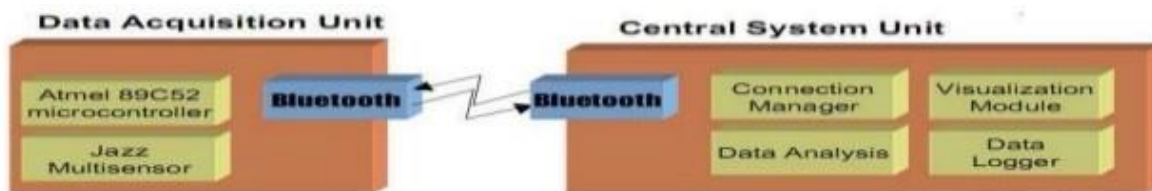
->Verify your identity, feels your presence and interact with you.

->Adding such perceptual abilities to computers would enable computers and humans to work together more as partners.

SYSTEM OVERVIEW:

Blue eye system monitors that status of the operator’s visual attention through measurement of saccadic activity. The system checks parameters like HEART BEAT RATE and BLOOD OXYGENATION against abnormal and triggers user defined alarms.

The system consists of:



->Data Acquisition Unit(DAU)

->Central System Unit(CSU)

Bluetooth technology provides means for creating a personal area network linking the operations and the central system.

DAU:

- Data Acquisition Unit comprises several hardware modules.
- Atmel 89C52 microcontroller-system core
- Bluetooth module(based on ROK101008)
- HD44780-small LCD display
- 24C16-12C EEPROM(on a removable ID card
- MC145483-13bit PCM codec
- Jazz Multi sensor interface
- Beeper and LED indicators,6 AA batteries and voltage level monitor.

DAU FEATURES:



Lightweight and it runs on batteries-low power consumption.its very easy to use-does not disturb the operator working.ID cards for operator authorization.The Voice transmission using hardware PCM codec.

CSU COMPONENTS:

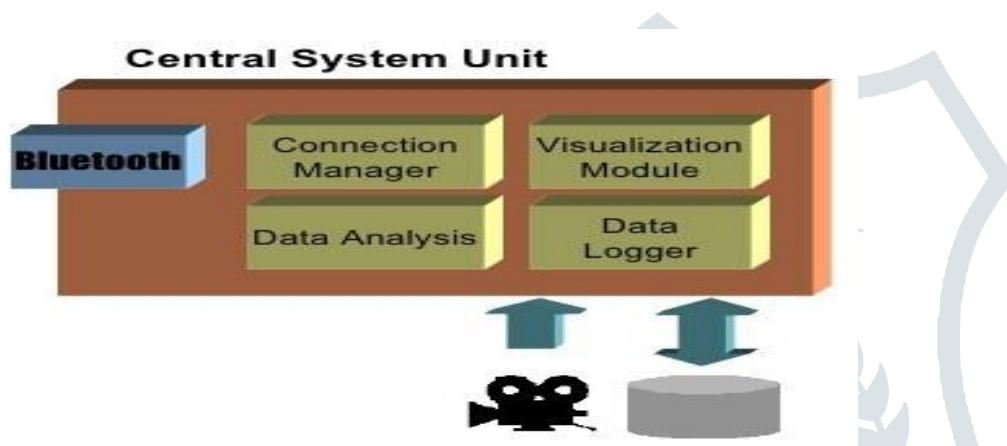
CONNECTION MANAGER-main task to perform low-level Bluetooth communication

DATA ANALYSIS MODULE-performs the analysis of the raw sensor data

DATA LOGGER MODULE-provides support for storing the monitored data

VISUALIZATION MODULE-provides user interface for the supervisors

CSU FEATURES:



They used for connection management,process sing the data,recording the data,access verification and maintenance the system.

TECHNOLOGIES USED:

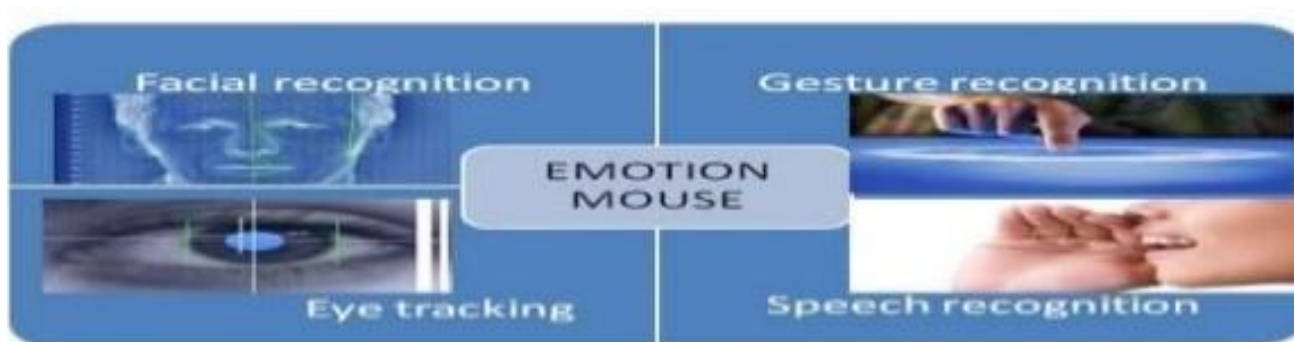
Emotion pointing

Manual And Gaze Input Cascaded(MAGIC)

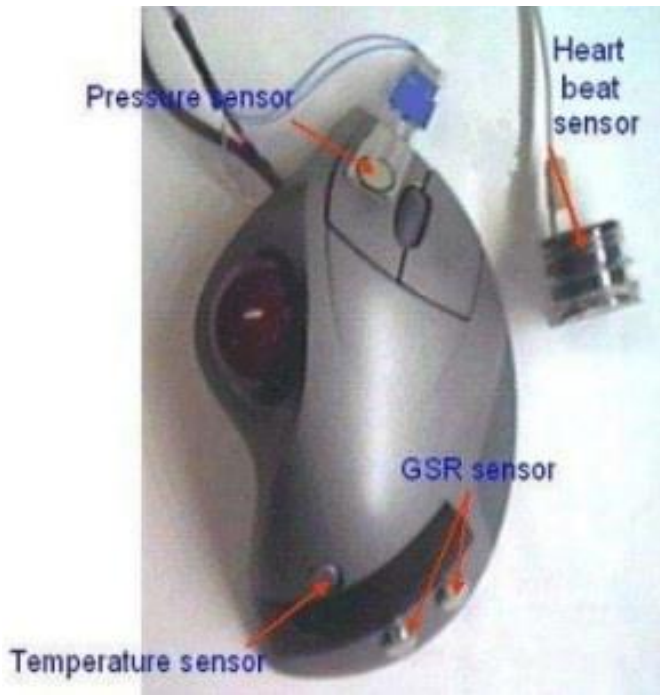
Artificial Intelligent Speech Recognition

Simple User Interest Tracker (SUITOR)

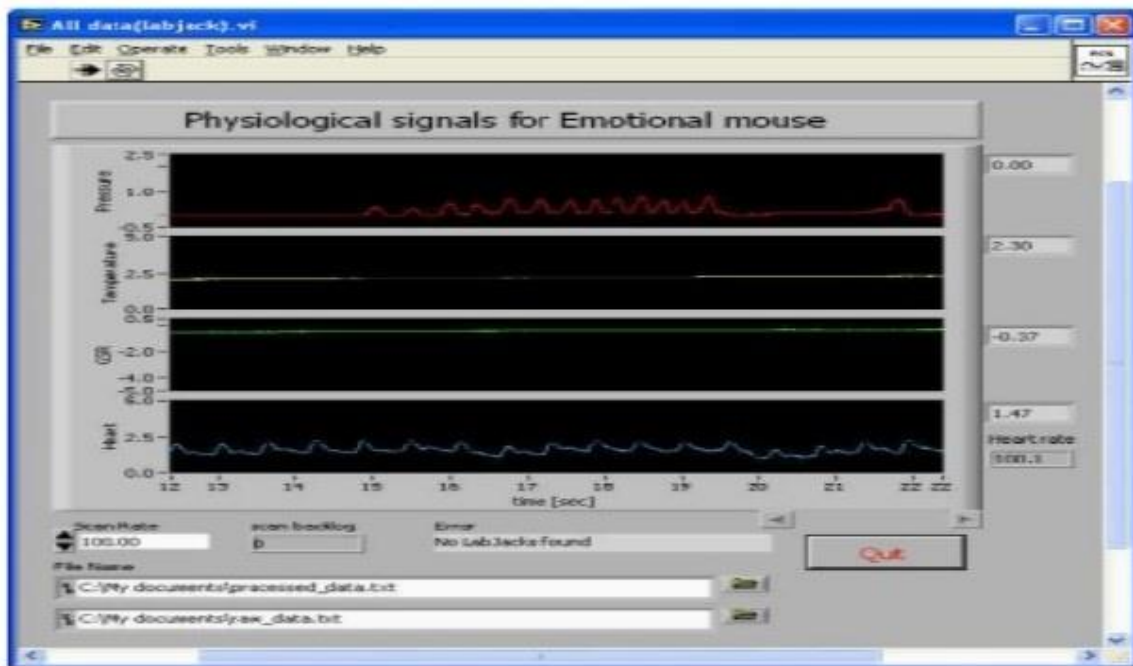
THE DIFFERENT WAYS ARE-



EMOTION MOUSE:



SAMPLE OBTAINED FROM
EMOTION MOUSE:



SENTIC MOUSE:**EXPRESSION GLASSES:****MAGIC POINTING:**

It reduces the cursor movement needed for target selection. Click on the target with a regular manual input device

Two magic pointing techniques are

Liberal Approach-To warp the cursor to every new object user looks at.

-Conservative Approach-Does not warp the cursor target until the manual input device has been actuated.

ARTIFICIAL INTELLIGENT SPEECH RECOGNITION:

Input words are scanned and matched against internally stored words. Identification causes some action to be taken, user speaks to the computer through microphone. Filtered and fed to ADC and then stored in RAM.

APPLICATIONS:

To control weapons by voice commands

Pilot give commands to computers by speaking into microphones.

Can be connected to word processors and instead of writing, simply dictate to them.

SUITOR:

Help by fetching more information at desktop

Notice where the users eyes focus on the screen

Fills a scrolling ticker on a computer screen with information related to users task

Ex.if reading headline,pops up the story in the browser window

DATA SECURITY:

Only registered mobile devices can connect to the system. Bluetooth connection authentication and Bluetooth connection is encryption. Access rights restrictions. Personal and physiological data encryption.

APPLICATIONS:

->In smart cameras, lie detectors and emotional speech processing retailing record and interpret customer movements

->In automobile industry

->In video games

->Military

->Power station

->Flight control centres

->Ovens and refrigerators

CONCLUSION:

Hence provide more delicate and user friendly facilities in computing devices. The gap between the electronic and physical world is reduced. The computers can be run using implicit commands instead of the explicit commands.

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