Blue Eye Technology

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Abstract - *In this era, we have studied a lot of science and fiction and development but for human progress, we should study further human emotions and feelings. The best example to define this line is Blue Eye Technology. The technology, which is used in this Blue Eye Technology, can sense one's emotional level through facial and voice recognition. It shows how far the human mind can work and think. Through Blue Eye Technology, we can understand human emotions (anger, Fear, Admiration, Joy, and Sorrow) and control them. So that the mental balance of humans can be kept stable. This technology feels the presence of humans and specifies the identity of a person through the sensory mouse. In this converse, the computers can be known as the Sensation world of Blue Eye Technology, which reveals that human's tendency to feel or react using depiction processing technique.*

Figure 1: Blue Eye Technology

Key Words: *Human ability, sensors, computer, communication, technology.*

Objective - The main aim of Blue Eye Technology is to give human abilities, feeling, and emotions to machines through sensors

1. INTRODUCTION

The Blue Eye Technology works on Artificial Intelligence. It targets to give human potentiality to a computer. This technology can be used to simplify life by delivering user-friendly facilities. It also helps to bring down the gap between the computer and humans. Think about the future if we could communicate with a machine or a computer and tell them our feelings, joys, and sorrows, and the computer could understand them. You can sit in front of the computer, talk with the computer, and express emotions. And the computer will understand your feelings and communicate with you. It uses an unobtrusive sensing method, employing most modern video cameras and microphones to identify the user's gestures through the use of imparted sensory abilities. Technology such as the military operation voice control of weapons is an example of reliable speech recognition equipment. A pilot can view commands and information on the computer by simply speaking into their microphones. With the help of this technology, the physical condition of employees and operators in various fields can be monitored.

2. Structure

Blue Eye system consists of a mobile measuring device called Data Acquisition Unit (DAU) and a central analytical system called Central System Unit (CSU) interconnected by Bluetooth. DAU accumulates information from the sensor and sends it over Bluetooth which delivers the messages sent from CSU to the operator.

3. Used hardware

 a. Data Acquisition Unit(DAU): In blue Eye Technology, the Bluetooth modules connected with the Android gadget DAU provide a wireless connection between a Central system unit and the users who have the sensors. This gadget has a five key keyboard, LCD panel screen, and buzzer for the communication with the users or in any unexpected situation, the appliance used device to alert the operator. 4 digit codes, screen codes, or the ID cards are used to the entire operator for the two step verification or the authentication purpose. The audio process from the operators is transferred through the use of headphones or headsets which is related to the data acquisition unit by using a Mini jack plug. DAU consists of various hardware like the buzzer, LCD(HD44780), and lED Gauge, it also monitors the voltage level and the 6A batteries. 89 C52 microcontroller Atmel, Bluetooth section are also the various system cores.

b. Central System Unit(CSU): In Blue Eye Technology wireless network connection is the next level of the process. It mainly runs through the Central system unit which contains the code language PCM codec which is used randomly for the voice transfer and wireless Bluetooth module. The case is connected to the PC using a parallel and serial cable or USB. A Mini Jack socket is used to access data

for the collection of audio data. It contains the personal identity program to connect to the computer through the power ports. The UART transmission and the programming handle the 12CEEPROM and the microcontroller of (ATMEL-89C251).
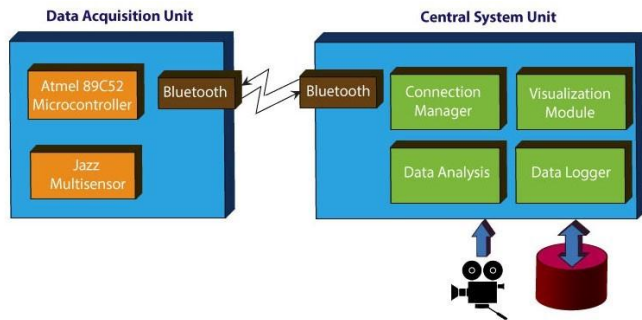

Figure 2: Interaction between DAU and CSU

4. Used Software's

1. Connection manager
2. Data analysis module
3. Visualization module

Looking after the pitch of a working machinist the corporeal condition is the important work of the Blue Eye Technology. To analyze the data, to moderate the real-time revenue data & the clock triggers are performed by the software to show the occurrence of the Operator's Circumstances. The system key is presented in the Blue Eye Technology software which shows the course of transfer of data between the other system modules (ex. user management, content management system, remote data transfer, underdone data from the connection manager to Data analyst, exercise the data from the data analyzers to GUI controls and data. The visualization module provides a user confluence for the manager. The sound streams and the televised source streams the working operators physical and mental condition supervising is authorized by these processes. These envision modules can also be set in an offline mode that collects all the database data. The people who are working on this paper are providing more human abilities to the computer which helps the computer to interact with the human being that will allow them to perform like humans or words or to listen or to predict the human feelings. Its goal is to create mathematical machines that would have sensing features like those of human beings. To develop the most modern microphone or the visual camera to recognize the user's action through the sensory abilities. The machine will be able to recognize where the user is looking, what he wants, and know the state of physical or emotional feelings. Overall Blue Eye Technology's goal at creates an advanced machine that has sensing abilities like those of humans. It can sense one's feelings and emotions through the visual camera and the microphone to recognize the user's activity through sensory abilities. The Machines can also understand human feelings in every state.

In the term, Blue Eye Technology blue stands for Bluetooth (enable wireless connection) & eye stands for the movement of the eye to obtain data.

5. Technologies and sensors used

Emotion mouse :

Human-computer interaction aims to advance the program of the computer system. By sensing also, we can obtain the data of any person. To store collect operate by the people computers are used to obtain any data via computer or by the touch method in which mouse is one of the suggested methods. The inner state of any human can be determined by the physiological information which is obtained from the user's state of mind and is correlated with the work done on the computer to get the sensing ability of the user's mind over a particular period of use a model will be created. The extent of this project is to bring progress in the society and environment where the operators are more productive for the computer adaptation to the user. Humans have six sense belts in their body for each of 6 emotions which include the corporal evaluation of pulse rate, body temperature, GSR, and GSA across each 5 minutes criteria consisting of the information of each part at every second the GSA information was illustrative 80 Times and transposition were reported at one-period pulse rate was set down as a strike was identified the difference between the standard and test grade where being measured to account for single variance in organisms. According to this study, 12 grades were removed from the detection. The results present that the hypothesis behind the emotion Mouse work is foundational sound. The equivalence model is used to relate the corporal computation.

Manual and gaze input cascaded (MAGIC):

The task explores a new way of making use of an eye stare for computer input data. For the computer input, alternative superior pointing methods are used. We trust that many fundamental concepts exist with the conventional gaze Pointing to an overload of a perceptual channel with a motor control task for a vision. For this purpose, we put forward an interesting approach Magic [Manual Gaze Input Cascaded] pointing with such thinking pointing appears to the user to the alternate task is used for fine manipulation and the selection of data. However, a big portion of the cursor is eliminated by moving the cursor to the eyes area which encloses the target. The two main magic pointing techniques are one is preservative and another is tolerant where the pattern analysis and execution with an eye movement are developed. This aspect shows that this magic Pointing technique offers many advantages that include and reduce the mental and physical efforts of the human as compared to the traditional gaze input method, accurate readings and implementation with an eye movement were developed for the possibly faster speed than manual Pointing.

Artificial intelligence (AI) :

The use of artificial intelligence technology is used to convert human language into readable text. We speak to the computer via voice the device to which we are speaking to create a way with frequency is made Much Better than by removing the background noise and making the volume normal voice recognition which contains the three phases which include extraction of Acoustic in dice from the voice signal to estimate the probability which is observed by the index string was caused by postulate uterine segment and to determine the search among various alternatives.

Simple user interest tracker (SUITOR) :

In simple we thorough a working system which is known as a simple user interest tracker that tracks operator through various web channels gaze applications. To find the user's interest and to make the information need more descriptive. Some system uses to track the model of behavior users increases expectations or action because in the normal range the systems are in problems that focused on the important information system. Such accurate information might be used for the betterment of the simple user interest tracker which points potentially more relevant accurately to users' ongoing activities.

The eye movement sensor :

The computer has the function to capture the eye tracking of the operator the requirement of the observer in both physical and emotional conditions in front of the device. The process in which the computer has given the same thing ability to the human's feelings and emotions human is known as affective computing. When the operator places them in front of the device and captures its eye reflection through the light beam eye moment Technology measures the information about the user by sensing the presence noticed in the action of the use and focus as well as observing the location of the people in the eye and the size of the pupil. It also allows us to collect the unparallel amount of perception in the human brain.

In eye tracking movement we see where the person is looking how long he is looking what he is thinking to capture the particular area. Because ice plays an important role in making a decision and learning, most researchers and scientists work on this to study human nature. Scientifically I tracker works on the infrared light which captures the movement of the eye and high-resolution cameras are used to measure the position of the eye and find out exactly where it is located. This helps to study the optical behavior and fine movements of eyes because I chat multiple times a second. Due to the frequency, the device can capture eye movement very quickly. We can also save the scene of where the operator is looking and after that, we can produce a visual depicting how the operator views things. The eye movement sensor consists of three types mainly screen based these are the single stand distant gadget which either works either as and single digit or a small panel that can be easily attached to the computer or the screen. Variable this consists of the eye movement glasses and the artificial reality headsets with UN segregated eye movement.

Webcams do not contain higher resolution or high-power cameras or any special sensors they simply consist of the webcam device or gadget which are attached or inbuilt into a computer device.

6. Emotion Determination

The way to detect the feelings and express the human emotions at the two parts of emotion computing or emotion Mouse. Affective computing is another important measure of a robust computer system. In 1997 the recent Piccard has given a briefing on the emotions of the enumerated group. An adaptive smart computer system work to find the person's human feelings. People with the same behavior nature or similar companions co-operate with each other well. It is experimentally proven that people view their computers as having a character by the Dryer in 1999. It is very important to advance a computer that can work or tell us according to the user command. The gauging process having a standard attribute to emotional relation is interpreted based on qualitative analysis of gauge signals generated by the users having feelings that are measured at gauge time.

7. Literature View

The relation between the human's emotional state and human corporal calculation is being shown based on the facial expression work by Paul Ekman. In 1997, Ekman and Rosenberg describe the facial expression coding system to record important measurements i.e. touch response, pulse rate, blood pressure, and temperature. It is one of the most important Ekman's experiments. Some people participated in this experiment and were instructed to give clear expressions, which are related to 6 basic emotions. The 6 basic emotions were fear, anger, happiness, surprise, disgust, and sadness. In 1993, Dryer rivers that human emotional states are found using heartbeat, temperature, and corporal activity. These two types of data were analyzed. To determine the dimension of data multidimensional scaling process was first analyzed.

8. Scope of Blue Eye Technology

➢ In the military operation for Voice control of the weapon.

➢ Multiple works can be simultaneously done by the user through a speech recognition system.

➢ Provide prevention from harmful incidents.

- It reduces the environmental consequences monitory and loss a fear to human life.

- Wireless data connectivity is used due to Bluetooth technology.

- User's location is detected (standing, lying).

- The radiologist focused his attention on pictures rather than written work.

- It works on Artificial Intelligence.

- It gives human abilities to a computer.

- It is used in the automobile and gaming industries.

- Provides security and controls the machines.

- It is used for making airline and hotel reservations.

- Flights control centres.

- Perceptive environment generics control rooms.

- By using blue Eye technology in modern farming, we can increase the productivity of the crops.

- By using Blue Eye Technology, the chemical fertilizers that have spread on the crops manually it can be now done by the Drone which controls the use of command due to the voice recognition system.

9. Advantages

- Physiological condition monitoring.

- Reduce manual work and increases productivity.

- Enhance electronics securities.

- Enlargements efficiency.

- Underrate ecological consequences and financial loss.

10. Future scope

- It will be used in residence appliances by using eye contact and voice commands.

- It also provides some more delicate and user-friendly facilities for computing devices.

- It reduces the gap between an electronic and a physical world.

- The machines can run using indirect instructions instead of direct instructions.

- We can control all Motors in the agriculture field by giving the voice command to the mobile connectivity by sitting at home or any distant location through IoT (Internet of things) and Blue Eye Technology.

- India is an agriculture-dominated country to grow any crops the unnecessary water supply will be reduced this could happen by the moisturize which is present in the soil will detect by the moisturizer sensor and the required amount of water will be supplied to the crops. This could be possible only by IoT (Internet of things) and blue eye Technology.

11. Conclusion

Blue Eye Technology makes human life more satisfying and easier. The analysis of human emotions by using Blue Eye Technology can bring pleasure to human life. The wireless link between the sensors worn by the operator and the supervising system makes it possible to improve overall reliability and protection and also assures the proper quality of system performance. These new prospects can cover areas like industry, transportation, military command centers, or operation theatres. With the help of Blue Eye Technology, computers will be able to examine human emotions or recognize emotions and you will be able to talk with computers just like humans. It avoids potential threats resulting from human errors, such as fatigue, negligence, and somnolence.

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