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Actuation in Intelligent Brain IOT System with Optimized Privacy

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ABSTRACT: Privacy is the Most Prominent Tool to have their Own well beings by Itself .It whether Indicates Directly or Indirectly one's Personal Belonging's authority. This paper simply Implies to Share the Messages of the user's after Only his Demise to the Concern Person .This provide the Users Inevitable Privacy which does not Exist in the Previous System. In this paper We had Improved the User's Control Based Brain IOT System Which Consists of the Two Button Controls – One for Deactivate the Message and Another one for Forwarding the Messages to Others. This Button Control Enhances and Keep the Last Minute Changes with Confidential Advantages .The Thingspeak web Page Store the Data in Online and Blynk IOT Application Used for the Plan B execution. The Manual Control Optimizing the Privacy for the User Based On his Circumstances .The Project Revolves around the IOT Based information Shared System for Efficient Information passing Interms of the Relationship between the User and Receiver

KEYWORDS: Optimized Privacy, Manual Controller, Brain-Human Interface, Data Transmission, Blue Brain

I. INTRODUCTION

In Our Paper the Privacy was kept Personally or Socially by through the Various Platforms like Blynk IOT or Thingspeak through the EEG Sensor which Actually works like the Gateway of this Project .The Heart of the project is Data Transmission which was happened by Confidentially and Controlled by the Two Buttons . Due to the lack of Faithfulness in the Current social world and Importance of the Plan B Execution every Secret Moves Becomes Confidential. The problem of the context is Focusing on the Manual Control Done by the user. The user Must know all the things About the Data Transmission and Receiving Techniques in this Technology. EEG Sensing and IOT is the Integral Part of this Project. EEG converts Physical into Electrical Data .Later Shared by the IOT . IOT shares the Data over by the Internet and Does share . This project used as Assisting tool to Share Their Data after his Death which was Delivered and Detected by the EEG Sensor. Each and Every Activity of the Project Contain the Crucial role to Acheive the Successful Outcome. The User should be Aware about the Information of Sharing to the Person . The Information may Consist Bank PIN, Mail Password, DEMAT PIN. The Customization will Be Executed According to the the User Dpendency and Need

II. RELATED WORK

The concept of data link is found in the early of the 20 th century. In this context the project introduce about the concept of data link to the universe. Brain computer interface , EEG based neuro prosthesis , Non invasive data sharing had developed by this project by the last two decades gradually .The virtual brain Implies Blue Brain which can work by itself and it can send the information to the concern Person , the Base paper introduces the sudden information transfer to the concern Person [1]. Neural activities of the Brain Stored by Bi Directional Telemetry system and It creates the Revolution Our Project [2] . Brain Computer Interface is used for the Wheel chair for the first time time for the Handicaps[5]. Study of on-line adaptive discriminant analysis for EEG-based brain computer interfaces[8]. A fully automated correction method of EOG artifacts in EEG recordings,[9]. Non Invasive Method is Used For the Brain computer Interfaces [11] . Neuroprosthesis is Step towards Control By the EEG system [13]. For Asynchronous Application Brain computer Interface is Desinged.

In[14] From the above gradual raise of our project implies EEG data sharing and brain computer interface is the old concept and evolved step by step .in our project we had additionally add pulse rate monitor to watch the user’s condition whether the user alive or death.

III. PROPOSED METHODOLOGY

This paper includes various components to do the confidential exchanges of the data .This project consists EEG sensor , AVR micro controller, IOT modem , UART wire , TFT display and Power Supply .The transformer is used to associated with micro controller. High speed signal processing is done by the AVR controller .The Transformer is used to convert 240 V into 5 V .TFT display is used for the display the condition of the patient and other measurements .The vital role of the TFT display is patient condition about the status. Node MCU plays the important role in designing the IOT product and Arduino board is used as a micro controller which is controlled by our specified button controls. The crystal Clear Motive of the Project is Enhanced Protection of the User who wants to keep their Personal as their wish.The following

Block diagram Explain about the each and every key terms Used in this Project. EEG sensor is used detect the User’s Electrical activity of the Brain .Signal Conditioning circuit is Used for Noise removal for Preparing signals.

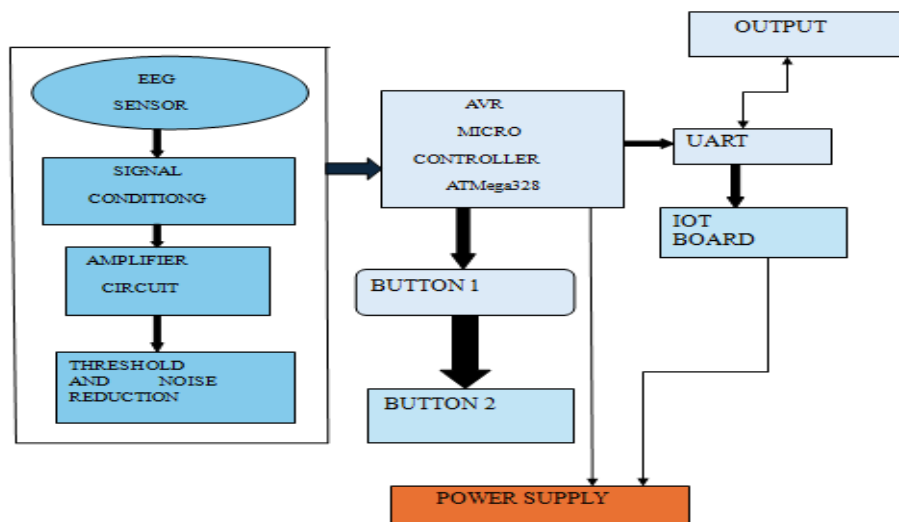


Fig. 1. Block diagram of the proposed system

When the topic comes to the proposed system, it overcomes the privacy system which did not present in the existing system. The project Revolves that It is used to Add the two Controller. First Manual controller is Used to Deactivate the Message and second Manual Controller is used to Forward the Message. The Node MCU is Used to deliver Message which was kept by the user to Transform via the IOT system. The Proposed Manual Controller in the Project.

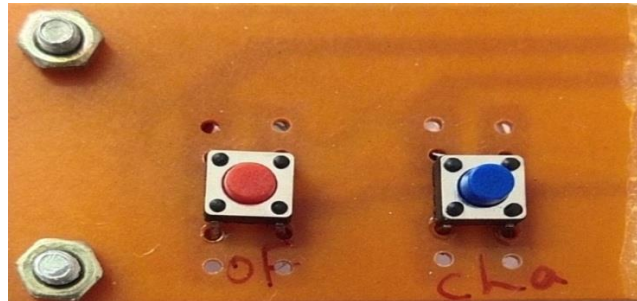
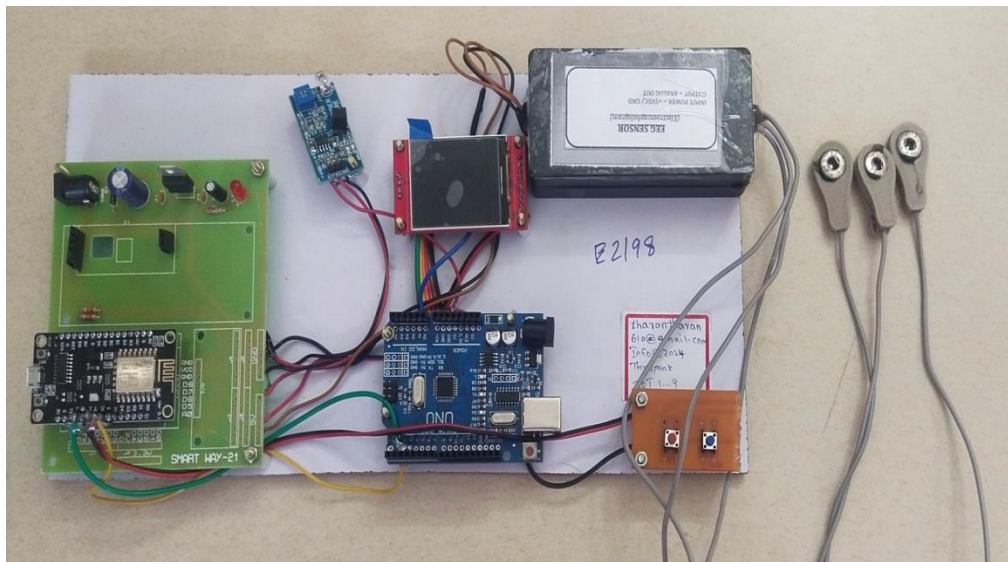


Fig. 2. Manual Controller.

IV. HARDWARE



The Hardware includes EEG sensor, TFT Display, Node MCU, Arduino UNO, Pulse rate sensor, IC Voltage Regulator to Use this Ultimate privacy keeper. This hardware is users friendly and Easy to Access and share the Data to the Concern Members.

V. COMPONENTS

EEG SENSOR:

EEG sensor is used to Detect the users electrical activity of the Brain. This is the heart component of the entire system .In three numbers of electrodes which placed in the different regions can get the accurate results of the patient status. EEG sensor must be handled carefully cause it's sensitive to detect in the Human body. The EEG Sensor is Used to Detect the Users Brain Activity, If the User's Brain Activity does not Traced By the EEG Upto 10 Seconds the EEG sensor Send the Message to the Concern Person as the User want.

AMPLIFIER CIRCUIT:

This amplifier circuit determine the amount of EEG signal amplifying For the Processing. The amplifying circuit remove the unwanted frequency ranges of the EEG signal.

CONDITION CIRCUIT:

This is used for specific noise reduction techniques. This plays the major role to eliminate the background noise and also amplify the signal.

THRESHOLD AND NOISE REDUCTION:

An adaptive threshold has the potential to remove the noise Present in the overall processing . This work as a optimal noise remover.

AVR MICRO CONTROLLER ATMEGA 328:

The microcontroller can be used to extract the EEG signals for processing .Virtual system and brain IOT system wants more accurate processing for the signal transmission .This micro controller used for the communication with other internet applications . Arduino UNO and AVR controller does similar work in this project . Arduino UNO can handle the EEG sensor and does send to the IOT for the further implementation .

IOT BOARD:

In this paper the system share the data via wi- fi connection. Blynk application show the message processed by the IOT .This IOT automatically stores the history of patient’s death , secret codes etc. Cloud storage can be used for save the messages and can be revisit according to the needed of the data Blynk application show the message processed by the IOT .This IOT automatically stores the history of patient’s death , secret codes etc. Cloud storage can be used for save the messages and can be revisit according to the needed of the data

BUTTON 1 & BUTTON 2:

Button 1 is the essential component which is used for stop or deactivate the message passed by the user which can be controlled manually .

Button 2 is also the new essential component which is used to share the data to another person and stop to prevent the data to the first concerned person

VI. CIRCUIT CONNECTIONS

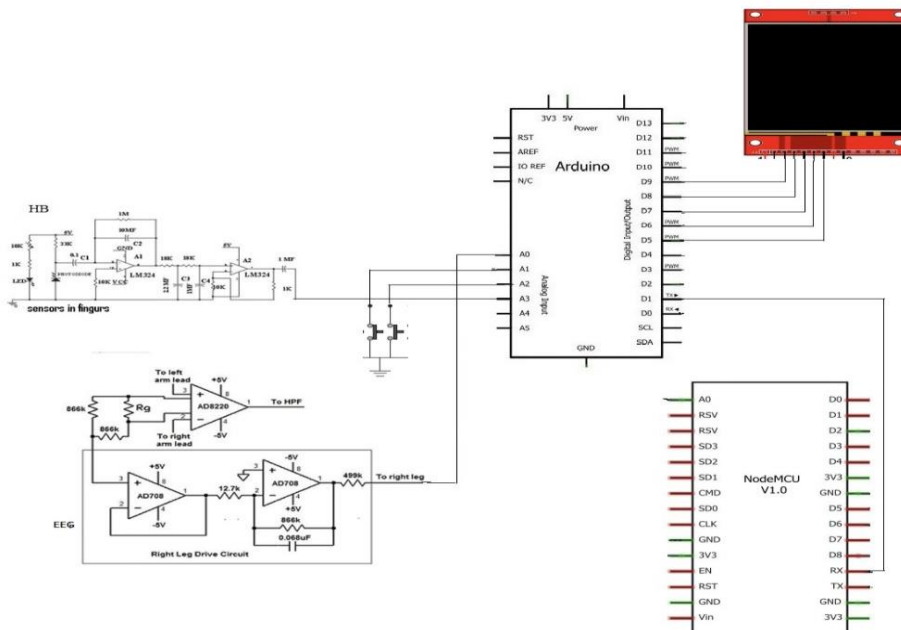


Fig. 3. Circuit connections.

VII. EXPERIMENTAL RESULTS

This project shows and indicates the importance of privacy which is generated automatically or manually. The result of the project is to deliver the confidential data to the concern Person according to the situation and environment. This project has the potential capacity to control the situation either .This entire process is done EEG sensor to IOT data storing. Cloud storing and button control can be determine the last minute changes . The data obtained by the concerned person is interms of the user’s hand. The Results show that the the message Deliver to the concern message which includes E-Mail Password, DEMAT PIN, Bank Password .

The Following Picture Implies the Message Receiving via Blink Application. The Blynk Application is Used To Show the condition of the user and send the Message to the the person as who needs.

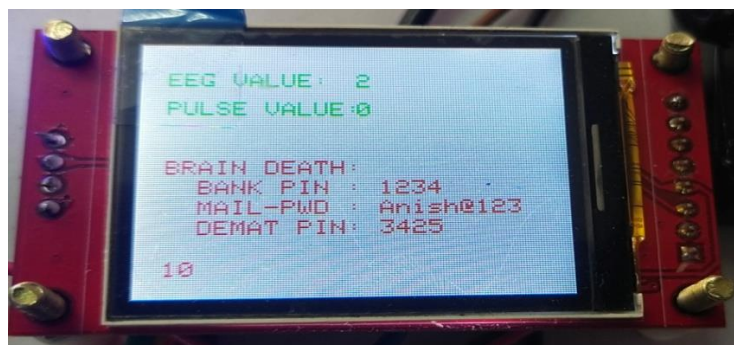
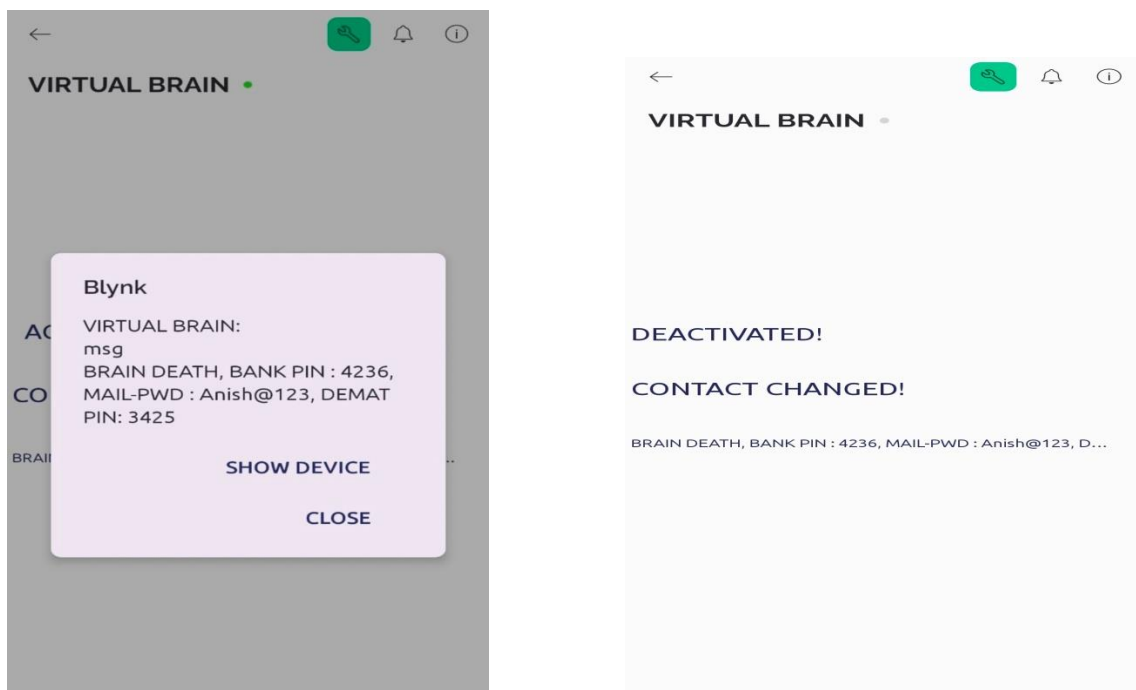


Fig. 4.Experimental Results

VIII. CONCLUSION

Thus the system has the superior potential to have the confidential data of the user. This can be delivered by user according to Persons situation. All the component of this project contributed to the each steps to pursue the implementation of the project. This work can be done to the patient after the 10 seconds of demise of the user. It is crucial to concern about the user's preference which may contain the must deliverables of user's secret. The project had implied that the privacy must be shared to the person, Thus it is incorporate with the Most Advanced Technology to Acheive the core of the Project.

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