



**FINAL YEAR PROJECT REPORT**

**BRAIN COMPUTER INTERFACES (BCI) BASED  
SMART HOME CONTROL FOR DISABLED  
PERSONS USING IOTS**

In fulfillment of the requirement

For degree of

BS (Information Technology)

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2016-2020**

## DECLARATION

We, at this moment, declare that this project report is based on our original work except for citations and quotations which have been duly acknowledged. We also declare that it has not been previously and concurrently submitted for any other degree or award at Bahria University or other institutions.

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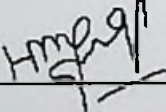
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## APPROVAL FOR SUBMISSION

We certify that this project report entitled “**Brain Computer Interfaces (BCI) based Smart Home Control for Disabled Persons Using IOTs**” is prepared by **Fariha Hanif and Muhammad Ahsan** have met the required standard for submission in partial fulfilment of the requirements for the award of Bachelor of Information Technology (Honours) at Bahria University.

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## **BRAIN COMPUTER INTERFACES (BCI) BASED SMART HOME CONTROL FOR DISABLED PERSONS USING IOTS**

### **ABSTRACT**

The development in Smart home automation is touching advancing to the upcoming in making the perfect smart homes environment. Alternatively, home computerization framework configuration additionally been created for certain circumstance which for the individuals who need an uncommon consideration, for example, mature age individual, debilitated patients, and incapacitated individual. A cerebrum PC interface (BCI), regularly called a psyche machine interface (MMI), or now and again called a mind machine interface (BMI), it is an immediate correspondence pathway between the cerebrum and an outer gadget. A cerebrum PC interface (BCI) is a gadget that empowers seriously impaired individuals to convey and communicate with their surroundings thinking carefully waves. Most examination exploring BCI in people has utilized scalp-recorded electroencephalography. EEG headset is used to detect Electroencephalogram (EEG) signal from brain activity. Perceiving the mind movement for specific contemplations and eye squinting examples, we figured out how to relate them with the exchanging and guideline of certain home apparatuses like fan, bulb, and so forth. BCI based frameworks can yield the precision from (80 to 100) %. Control, has not recently been investigated. We present a keen home computerization framework utilizing cerebrum PC interface. The extent of this exploration work will incorporate the control for home apparatuses from Graphical User Interface (GUI) utilizing mind PC interface that utilization an information source and being control remotely. The exploration procedure included is utilization of information in the field of radio recurrence correspondence, microcontroller and PC programming. Finally, the result will be observed and analyse to obtain better solution in the future.

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