



**Bahria University**  
Discovering Knowledge

## **FINAL YEAR PROJECT REPORT**

# **A SMART HOME APPLIANCES POWER MANAGEMENT FOR HANDICAPPED AND ELDER PEOPLE**

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**A project report submitted in partial fulfilment of the  
requirements for the award of the degree of  
Bachelor of Computer Science (Honors)**

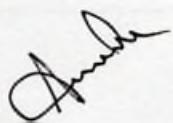
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**December 2017**

**DECLARATION**

We hereby 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.

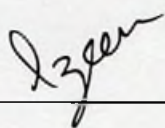
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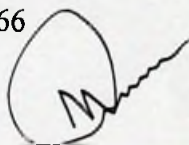
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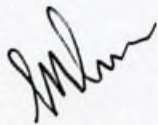
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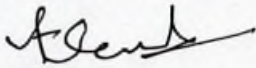
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**APPROVAL FOR SUBMISSION**

We certify that this project report entitled “**A SMART HOME APPLIANCES POWER MANAGEMENT FOR HANDICAPPED AND ELDER PEOPLE**” was prepared by AREEBA IRTAZA, IZAAN SOHAIL, MARIA ZAFAR, MEHAK SYED and MEHREEN M SALEEM has met the required standard for submission in partial fulfilment of the requirements for the award of Bachelor of Computer Science (Honors) at Bahria University.

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## **A SMART HOME APPLIANCES POWER MANAGEMENT FOR HANDICAPPED AND ELDER PEOPLE**

### **ABSTRACT**

As compare to the other healthy people Elderly and disabled people are more likely to face the difficulties performing their everyday. Elderly and disabled people can be supported by using Smart homes, providing them secure, safe, and controlled environments. Statistics shows that there is 4.4% of population belongs to elderly people. And then there is 18.93% of population that belongs to crippled, most of the people among them requires assistance to accomplish their personal day to day needs. The system allows the users to be able control the appliances with least physical effort. Moreover the home applications and appliances requires high energy making homes to be considered as critical area for impacting energy consumption, so smart home power management system can save the power from wastage.

The system allow users to switch the appliances ON and OFF just by sending message command by android app or SMS with the help of a cell phone.

Secondly the project uses an android application and messaging to regulate electrical loads. The system also uses the Bluetooth input signal received from the android device to control electric flow. Moreover the system can also be operated by sending the voice/speech commands via its android app. As it would be difficult for elderly and handicapped people to operate electrical switches manually each time.

The system solves the problem by an interface connecting a unit with home appliances that triggers the loads based on the input received from the device.

The device may be any simple mobile phone for SMS or android based phone. The application contains an effective user interface for providing this functionality.

This system can be used in various domestic applications controlling as well as in industrial setups, by further enhancement.

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