# ABSTRACT

Home automation is becoming more and more popular day by day due to its numerous advantages. This can be achieved by local networking or by remote control. This project aims at designing a basic home automation application on Raspberry Pi through recognising the voice. We can also design it on Raspberry Pi through reading the subject of E-mail and the algorithm for the same will be developed in python environment which is the default programming environment provided by Raspberry Pi. Results will show the efficient implementation of proposed algorithm for home automation. LEDs will be used to indicate the switching action.

The project aims in designing a system which is capable of switching ON/OFF the electrical devices based on the speech (command). This system creates a new era in the automation system. This system integrates human-machine interface. This project consists of voice recognition based light control system that transmits the wireless signals according to the input being selected based on speech commands given by the user through Raspberry Pi using microphone. This will be more useful when the user is present at home.

When the user is not present at his home, he/she can control the lights or fans by just sending an email. This project presents a basic application of Raspberry Pi in home automation control through internet (E-mail) where subject of the received e-mail is read by the developed algorithm fed into Raspberry Pi and the system responds to the corresponding instructions. The presented system is interactive, efficient and flexible according to the consumer needs. It immediately replies the status of work done by Raspberry Pi to the consumer. The proposed system can be tested practically using LEDs as switching signal indicators, which can be seen in the presented results. The project can be extended for more applications apart from switching of home devices like surveillance, power monitoring, fault monitoring, power control, security etc.

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