ARWA AAMIR  
SMART HOME AUTOMATION SYSTEM

7/19/2020

## Project Background and Description

|  |  |
| --- | --- |
|  | With the ever-growing advancements in technology, everything in our surroundings is being automated to reduce time and increase efficiency. The Internet of Things is growing day by day and gradually affecting every business and even the lifestyles of humans. In this day and time, it is essential for us as the members of this advanced and progressing society to improve our standards of life, and have efficient systems surrounding us that make life easy so we can focus out energy further improvements. Home Automation Systems have prevailed largely in the market in the last decade and are improving day by day. They play a significant part in reducing the man labor and making the human life easy and effortless. |

## Vision

|  |  |
| --- | --- |
|  | The latest advancement in the home automation industry is the introduction of **Voice User Interface (VUIs).** Different companies such as Apple, Amazon and Google have introduced their own Personas such as Siri, Alexa, and Google Assistant. The primary advantage of a VUI is that it allows for a hands-free, eyes-free way in which users can interact with a product while focusing their attention elsewhere.  My aim is to also make use of such voice recognition systems and control the home appliances via voice and using a mobile app via internet. It also involves automatic water motor control and user-controlled speed of fan. |

## Working and Deliverables

|  |  |
| --- | --- |
|  | The deliverables will be in the form of an extension which will have 4 AC ports in which any AC appliances can be plugged, 2 of the ports(AC Lights) will have a simple on/off user defined input while the 3rd port (fan) will also have the variable user defined speed function. The 4th port will be for the water motor, it will monitor the water level and turn on and off automatically. |

## Advantages / Scope / Applications

|  |  |
| --- | --- |
|  | Along with serving the advantages of smart home, I aim to make my project portable in the form of an automated extension which can not only be used at home but also in office or any other place easily. This will give user the ease of access not only at home but also other places as well. This product form is very beneficial as we only need and AC source at a place on which the extension has to be plugged and we can extend the benefits of IOT to wherever we go without any additional wiring or circuitry. |

## Implementation Plan

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | The voice recognition and control has already been tested; the rest of the plan is as follows:   |  |  | | --- | --- | | Procurement of hardware | 7//20/2020 | | **Troubleshooting/ Testing of Hardware** | **7/26/2020** | | **Complete report and Deliverables** | **7/2/2020** | |