Alexa Based CCTV Control System

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Abstract- *The goal of this project is to provide more security using Alexa. Prevent theft and Vandalism, Real-time Monitoring, Useful Criminal Evidence, Enhance Customer Experience, Reduce Costs to make easier we add voice command feature in CCTV cameras. Alexa is used in this and it is work quickly within a second. Alexa is capable of voice interaction, music playback, making to-do lists, setting alarms, streaming podcasts, playing audio books, and providing weather, traffic, and other real-time information. We use in this project Alexa with voice command which allows users to a rotate the device using voice command, such as "left" "right" "forward" "back" and "start" "stop". It also records the video Card Upto 128 GB. We can use at least one month after that video will be rewritten. Using Bluetooth, we can monitor and give the command to the cameras.*

I. INTRODUCTION

The major aim of this project is to provide a platform which has never existed before. The application software will work along with thevoice recognition services, where it will get the voice command and it will be converted into text format so that it could be understandable in a logical way and that command will be transferred to Arduino Uno device via Bluetooth or Wi-Fi, and at that point the command will be executed to complete the task, ultimately the action will be performed in the way device is pre-programmed. This project is designed to use the voice recognition technology to control CCTV cameras.Voice recognition facility will be utilised to input voice. Android phone will be used for the application software which will be connected to the voice command input.

II. LITERATURE SURVEY

1) Faisal and his co-others described a system which control the home appliance remotely.It Talks about two ways of controlling appliances

a) voice to text SMS.

b)mobile as aremote control.

2) Jia-Ren suggested the control of home appliances applyling Bluetooth technology.

a)Remote control with a keypad as an interface to a microcontroller.

3) Anamul Haqueinhis paper deals with controlling appliances based on timer and speech recognition.It demonstrated the design of an interface box that can be controlled by the computer by connecting to parallel port.

III. METHODOLOGY

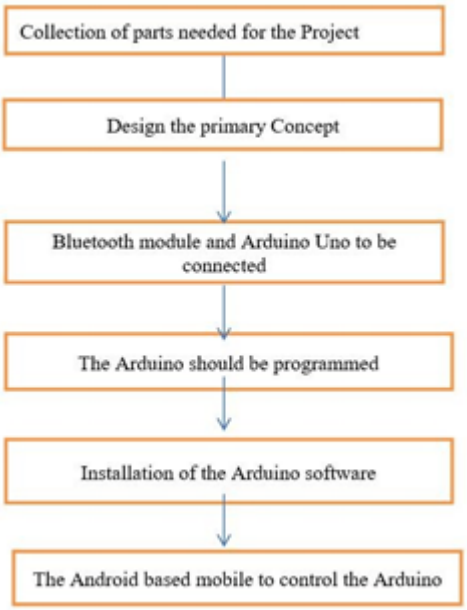

Fig: Project Flow

Figure shows the steps needed to accomplish the goals of this project in a sequential manner. First, all the parts needed to design the project are collected and a primary concept is designed based on it. Next is the connection between the Arduino Uno and the Bluetooth via the Bluetooth module which is the most important part of the project. After all the connection is being done, the Arduino board needs to be programmed and the Arduino software has to be installed. At the end, the Android based mobile phone is used to control the Arduino Uno via Bluetooth.

IV. PROBLEM STATEMENT

Security is main part of in any field. We all know that CCTV cameras are used everywhere. but sometimes what happen if any problem is occurred then and we want to see CCTV cameras immediately we can see it suppose camera it left sideand we want to move right then using our project we can move it using voice.

V. OBJECTIVE

The main Aim of this project is to make more effective access the CCTV cameras and easy to use. Provide voice feature to access cameras in various field like Traffic monitoring, Overseeing locations that would be hazardous to a human. for example, highly radioactive or toxic industrial environments, CCTV can sometimes be used in court as evidence to prove someone was in a certain place or that they coiamitted an offence.

VI. BLOCK DIAGRAM

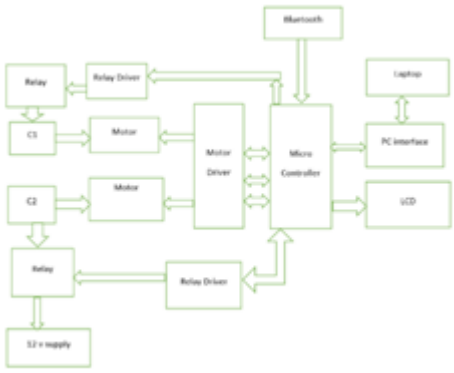

Fig: Block Diagram

VII. APPLICATION

- Outdoor security: HD infrared waterproof cameras are commonly used in outdoor security systems to monitor entrances, driveways, backyards, and perimeters of homes, businesses, and industrial sites.
- Commercial and Industrial use: Businesses, warehouses, factories, and construction sites use these cameras to monitor large outdoor areas and deter theft or vandalism.
- Traffic monitoring: Infrared waterproof cameras are used in traffic management systems to monitor intersections, highways, and tunnels, ensuring road safety day and night.

VIII. CONCLUSION

The Alexa Based CCTV Control System has a lot of interesting challenges to be solved. One very important problem that we tried to address in this paper is that of non-smart. We made use of one of the hottest smart devices available today in the market, CCTV cameras rotating using voice command. The module we used CCTV for performing control tasks worked well. Further, on testing the application on V3 pro in real-time, we obtained promising results. We believe that this a step towards a cost- effective smart CCTV camera.

AUTHORS PROFILE

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