Voice Controlled Home Automation System using Google Assistants

Publisher: IEEE

Ajmeera Kiran ; G. R. Sakthidharan ; D Divya Priya ; B.Uma Mahesh ; K.Prem Kumar ; K.Pavan Kumar **All Authors**

Abstract:
One of the most rapidly developing technologies that helps reduce the amount of work done by humans is known as “home automation.” People who are looking for luxury and s... **View more**

Metadata

Abstract:
One of the most rapidly developing technologies that helps reduce the amount of work done by humans is known as “home automation.” People who are looking for luxury and sophisticated home automation platforms are the target audience for some home automation systems. On the other hand, some systems are designed to be user-friendly for people who have special needs, such as the elderly and the disabled. Home automation and the use of applications that are controlled by voice are becoming more common as a result of advancements in technologies such as Google Assistance and Amazon Alexa. Now, we have developed our own version of this project, which is called “Voice Controlled Home Automation Using Google Assistant.” The goal of this paper is to design a home automation board that is both functional and aesthetically pleasing, and that can be concealed within the AC power units that are mounted on our walls. We are able to control all of the gadgets that are linked to the board by giving it a simple voice command such as “Okay, Google, turn on the lights.” This will cause the lights to turn on. Because of this paper, we are able to control our household appliances online, manually, and using a timer.

Published in: 2023 International Conference on Computer Communication and Informatics (ICCCI)

Date of Conference: 23-25 January 2023

DOI: 10.1109/ICCCI56745.2023.10128217

Date Added to IEEE *Xplore*: 24 May 2023

Publisher: IEEE

ISBN Information:

Conference Location: Coimbatore, India

ISSN Information:

Ajmeera Kiran
Department of Computer Science and Engineering, MLR Institute of Technology, Hyderabad, India

G. R. Sakthidharan
Department of Computer Science and Engineering, Gokaraju Rangaraju institute of Engineering and technology, Hyderabad, Telangana State

D Divya Priya
Department of Computer Science and Engineering, MLR Institute of Technology, Hyderabad, India

B.Uma Mahesh
Department of Computer Science and Engineering, MLR Institute of Technology, Hyderabad, India

K.Prem Kumar
Department of Computer Science and Engineering, MLR Institute of Technology, Hyderabad, India

K.Pavan Kumar
Department of Computer Science and Engineering, MLR Institute of Technology, Hyderabad, India

Contents

The term “home automation” refers to the process of electronically and automatically controlling many aspects, activities, and equipment within a home. Through the use of the internet, we have the ability to simply control the utilities and features of our home. A home automation system is comprised of three essential components, which are the sensors, controllers, and actuators. The fact that technology is always improving is something that the entire globe can be proud of. The primary purpose of the technology is, first and foremost, to improve productivity while simultaneously reducing labour requirements. The Internet of Things is currently being accorded a great deal of significance in our modern world. In this regard, automation leads to substantially greater efficiency while also reducing the amount of labour required. We have achieved success in managing the appliances in a number of different domains by making use of IoT. One of these domains is the control of home automation by making use of Node Microcontroller. Additionally, we are able to utilise additional boards like as Raspberry Pi, Beagle Bone, and others. Voice is the most efficient mode of communication available in the technology of the present day since the entirety of the task is performed through the medium of communication.

Authors

Ajmeera Kiran
Department of Computer Science and Engineering, MLR Institute of Technology, Hyderabad, India

G. R. Sakthidharan
Department of Computer Science and Engineering, Gokaraju Rangaraju institute of Engineering and technology, Hyderabad, Telangana State

D Divya Priya
Department of Computer Science and Engineering, MLR Institute of Technology, Hyderabad, India

B.Uma Mahesh
Department of Computer Science and Engineering, MLR Institute of Technology, Hyderabad, India

K.Prem Kumar
Department of Computer Science and Engineering, MLR Institute of Technology, Hyderabad, India

K.Pavan Kumar
Department of Computer Science and Engineering, MLR Institute of Technology, Hyderabad, India

Figures

References