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Smart Android Based Home Automation System Using Internet of Things (IoT)

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Abstract

Recently, home automation system has getting significant attention because of the fast and advanced technology, making daily living more convenient. Almost everything has been digitalized and automated. The development of home automation will become easier and more popular because of the use of the Internet of Things (IoT). This paper described various interconnection systems of actuators, sensors to enable multiple home automation implementations. The system is known as HAS (Home automation system). It operates by connecting the robust Application Programming Interface (API), which is the key to a universal communication method. The HAS used devices, often implemented the actuators or sensors that have an upwards communication network followed by HAS (API). Most of the devices of the HAS (home automation system) used Raspberry Pi boards and ESP8285 chips. A smartphone application has been developed that allows users to control a wide range of home appliances and sensors from their smartphones. The application is user-friendly, adaptable, and beneficial for consumers and disabled people. It has the potential to be further extended via the use of various devices. The main objectives of this work are to make our home automation system, more secure and intelligent. HAS is a highly effective and efficient computational system that may be enhanced with a variety of devices and add-ons. © 2022 by the authors.

Author Keywords

application-programming interface; discipline; home automation systems; internet of things

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