Voice Controlled ESP32 Smart Switch Board

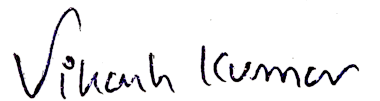Name:- Vikash Kumar, Roll:- 2004247

Project Group No.118

Abstract: This project is a cost-effective and easy-to-implement smart home automation system that integrates voice-controlled assistants, such as Amazon Alexa and Google Home. The system uses an ESP32 microcontroller and an 8-channel relay module to control various devices in the home and communicate with the voice-controlled assistants through the internet. The project was successful in controlling devices using voice commands and is reliable and attractive to users. The proposed system provides a convenient and intuitive solution for smart home automation.

Individual contribution and findings: As a software developer in this project, my primary responsibility was to design and implement the software components required for the smart home automation system. I worked on the development of the control system, which involved programming the microcontroller to control various devices and sensors. I also integrated the software with the hardware components to ensure that the system worked seamlessly. To ensure the reliability and robustness of the software, I conducted extensive testing and debugging, which included both functional and non-functional testing. I wrote test cases and executed them to verify the correctness of the software and to identify and fix any issues that arose during the testing process.

Individual contribution to project report preparation: Creating diagrams, figures, and illustrations to help explain the project design and results.

Individual contribution for project presentation and demonstration: operating the software or hardware being demonstrated, providing technical explanations, or engaging with the audience.

Full signature of the student:

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