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# IOT-Based Home Automation System

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**Abstract:** *The rapid advancement of Internet of Things (IoT) technology has transformed the way we interact with everyday objects, leading to the creation of smart homes that offer increased convenience, energy efficiency, and automation. This project aims to design and implement an IoT-based system for remotely controlling home appliances such as lights, fans, and a garden pump. The system leverages a microcontroller (e.g., ESP8266 or ESP32) integrated with sensors and connected to the internet, allowing users to monitor and control devices via a smartphone application or web interface*

**Keywords:** IoT, Home Automation, ESP8266, Sensors, Energy Efficiency, Remote Monitoring


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