

# ***IOT-BASED SMART HOME CONTROL SYSTEM USING EWELINK FOR ELECTRICITY USAGE***

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## ***ABSTRACT***

*The development of Internet of Things (IoT) technology has opened up significant opportunities for the implementation of smart home systems, which can improve efficiency, comfort, and safety in daily life. One of the main challenges in managing a modern household is high electricity consumption due to a lack of control over the use of electronic devices. Inefficient electricity consumption not only increases costs but also negatively impacts the environment. This research aims to design and build an IoT-based electricity usage control system using the eWeLink platform, allowing users to monitor and control electrical devices remotely via a smartphone. This system utilizes a Sonoff module as the primary controller, connected to a WiFi network and controlled via the eWeLink app on an Android device. The system is designed to operate in two modes: automatic and manual, and supports scheduling of electrical device usage according to user needs. Test results show that the system operates stably, responds quickly to commands, and provides real-time device status information. The contribution of this research lies in the development of an IoT-based electricity control system that effectively and efficiently manages power consumption while simultaneously providing users with the convenience of monitoring and controlling household devices remotely via an internet connection.*

**Keywords:** *Internet of Things, smart home, eWeLink, electricity usage, Sonoff, energy saving.*