

ABSTRACT

Title : **DESIGN AND DEVELOPMENT OF POWER USE MONITORING TOOLS AND INTERFERENCE WITH ELECTRICITY WHEN THE HOUSE IS BASED ON THE INTERNET OF THINGS (IoT) USING MICROCONTROLLER**

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Wise use of electricity is a solution to save on electricity bills. The idea is in the form of a monitoring system that can be accessed on a smartphone application. The data that appears is the value of voltage, current, contact box temperature, electric power, kWh meter, used electricity costs and information if there is an electrical disturbance at that time such as unstable voltage (upper/under voltage), over current (over current) and temperature. excess (over heat) easily monitored directly. besides that data can be exported to excel so that users will easily analyze the electricity in the house. Internet-Based (IoT) Residential Power Usage Monitoring Tool and Electrical Interference. Previously, this idea had existed in the form of a Smart electrical contact box to prevent fires caused by electricity.

Keywords : Smartphone application, Monitoring, IoT.

ABSTRAK

Judul Skripsi : **Rancang Bangun Alat Monitoring Pemakaian Daya dan Gangguan Pada Listrik Saat Rumah Ditinggal Berbasis (IoT) Menggunakan Mikrokontroler**
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Penggunaan listrik secara bijak merupakan solusi untuk menghemat pengeluaran biaya tagihan listrik. Ide tersebut berupa sistem monitoring yang dapat diakses pada aplikasi smartphone. Data yang dimunculkan berupa nilai tegangan, arus, suhu kotak kontak, daya listrik, kWh meter, biaya listrik terpakai dan informasi jika terjadi gangguan listrik pada saat tersebut seperti tegangan tidak stabil (upper/under voltage), arus lebih (over current) dan suhu berlebih (over heat) dengan mudah dipantau secara langsung. selain itu data dapat di ekspor ke bentuk excel sehingga pengguna akan mudah menganalisis listrik yang ada di rumah tinggal. Alat Monitoring Pemakaian Daya Dan Gangguan Listrik Rumah Tinggal Berbasis Internet of Things. Sebelumnya ide tersebut sudah pernah ada berupa Smart kotak kontak listrik untuk mencegah kebakaran akibat listrik.

Kata kunci : Aplikasi Smartphone, monitoring, Internet Of Things.