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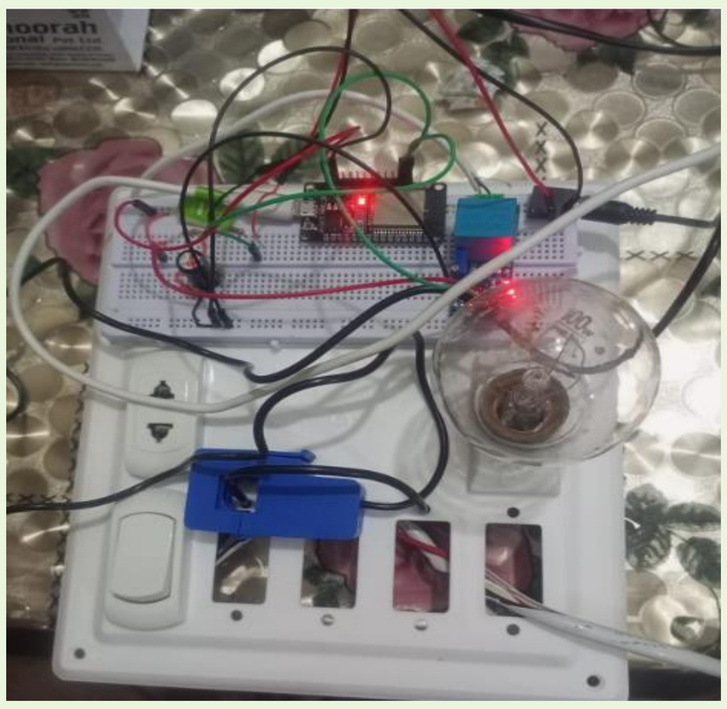
Smart Electricity Energy Meter Reading

Objective

The Smart Electricity Energy Meter project aims to develop an innovative solution using embedded systems to monitor and manage electrical energy consumption in real-time. This project seeks to create an efficient, user-friendly system that offers insights into energy usage patterns.

Introduction

The landscape of energy management is undergoing a transformative shift, propelled by cuttingedge technologies like the Internet of Things (IoT), wireless communication, and advanced data analytics. Automatic Electricity Energy Meter Reading, at the forefront of this evolution, embraces these innovations to bring about seamless and remote monitoring of energy consumption.



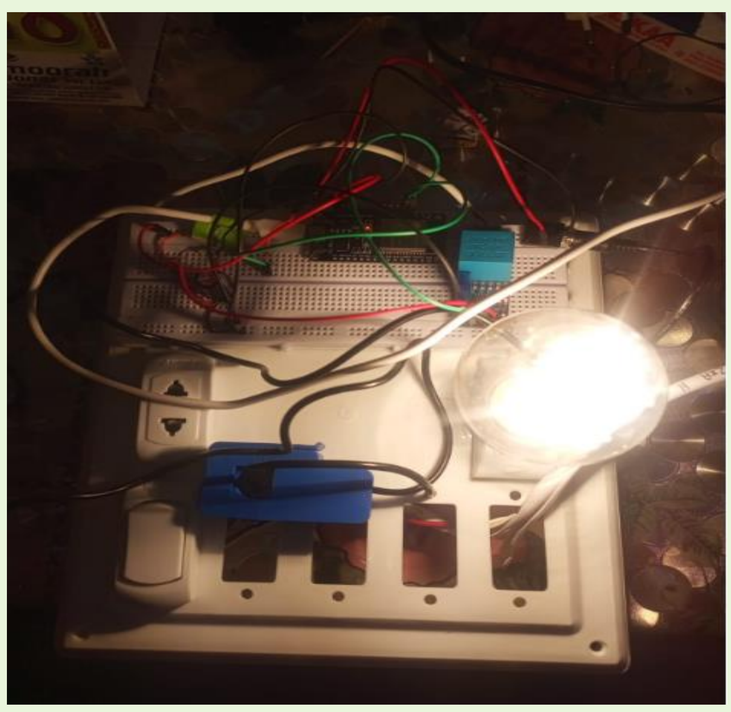


Fig 2: Smart energy meter reading system

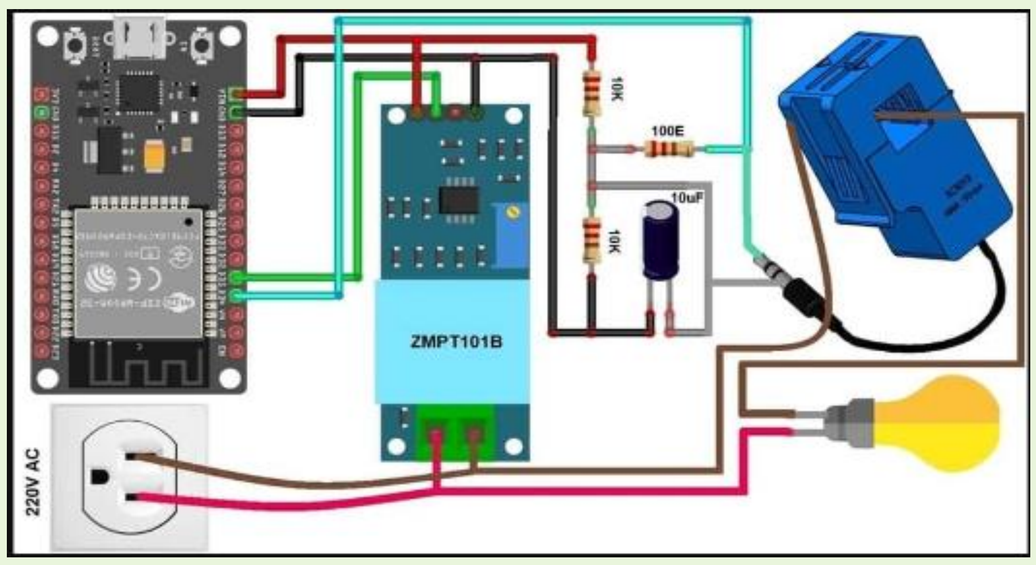


Fig 3: Circuit Diagram

Components

❖**Hardware Components:**

- SCT-013 current sensor
- ZMPT101B Voltage Sensor
- ESP32 Wifi Module
- Capacitor 10uF
- Resistor 10K -2
- Resistor 100ohm
- Connecting Wires -10
- Breadboard

❖**Software Components:**

- Blynk Application

Conclusion

The chosen components, like sensors and Wi-Fi modules, work together to give you real-time information through an user-friendly app. We picked these components because they ensure accurate readings and make it easy for you to manage your energy usage.

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