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NOVEL SMART ENERGY THEFT SYSTEM FOR INTERNET OF THINGS **BASED SMART HOME**

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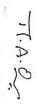
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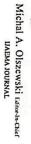
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NOVEL SMART ENERGY THEFT SYSTEM FOR INTERNET OF THINGS BASED SMART HOME

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Abstract: Electricity is one of the most powerful forces in our lives. Almost every device in homes and industries run with the help of electrical energy. Thus this energy should be utilized effectively so that they can be saved for future generation. Internet of Things (IoT) refers to the network of physical objects where each object can be accessed through network. Internet of things has been governing the electronics era with cloud services dominating the ever increasing electronics product segment. Security and safety has always become a basic necessity for urban population. The paper proposes a novel security system based on Open source cloud server "things speak .com" and a low cost esp8266 Wi-Fi module.

The project includes a continuity sensor which constantly monitoring the Home or Work space to be monitored. When the continuality detects break a intruder it sends a signal to the cortex m3 microcontroller and the controller is connected to a Esp8266 wifi module and also to a alarm system. The System transmits an alert signal to the Open source cloud which provides a alert signal on the users mobile phone. The system employs a second esp8266 module which is programmed to act as a web server, which allows the user to activate or deactivate the security system by means of any device with internet. Thus the system uses esp8266 Wi-Fi module and cortex m3 to control the security

system from the users mobile phone by means of any device with a potential internet connection.

Keywords: Cortex M3, GSM, IOT, Cloud server.

I. INTRODUCTION

In the modern smart grid, massive deployment of advanced metering infrastructures (AMI) facilitate the efficient and reliable information exchange. The AMI can be divided into different sectors depending on the location which is crucial to end consumer. AMI includes smart meters and Internet of Things (IoT) monitoring devices that were able to collect data in large volumes and fast speed. Smart home innovators today focus on system development, system architecture, communication protocols, and forecasting tools [1], [2]. These innovations provide home consumers with a better technology in terms of energy monitoring, control, and reliability. For example, Demand Side Management System (DSMS) was introduced to better manage and control power consumption for the smart homes [3]. This power conservation concept increased the research on improving DSMS methods like load-shifting, dynamic price management, forecasting demand, and

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