ABSTRACT

Internet of Things (IoT) is an emerging technology, where devices make world smarter and simple. The integration of IoT and smart building has become promising for the future. Forming the smart building to coverage the distribution of the electrical energy in smart building this thesis purposed an IoT devices that connected to source of electrical energy in the building to do energy distribution. The device could do the) to analyze the place/room.

Thus, the system is made to control the power consumption in a building/ room in a day. The system will notify the user if the usage of power is near to the limit in a day. Using Arduino uno as microcontroller that connected to the internet and the electrical source in the room or building to track the power consumption. This system will be keep monitoring the power consumption and automatically turn off the power in the room/ building. The system will be connected to the user smartphone and user can set the limit power consumption in a day and monitor the power consumption.

The result expected from this undergraduate thesis is a creation of building/ home with efficiency of the use of electrical energy.

Keywords: *Internet of Things*, *Smart Building*, *Electricity System*, *Microcontroller*.