## **ABSTRACT**

Monitoring system kWh meter monitoring is a system built for quantities that can be used and can be accessed at any time. The construction of this monitoring system aims to facilitate the logistics team to find out the details of electricity usage in a particular area without having to carry out manual checks on each installed kWh Meter. In addition, this application is used to analyze data using electricity using the K-Means algorithm method of grouping data so that the logistics team can make policies regarding electricity use in each region. This system has three main parts, namely Hardware Systems, IoT Servers, and Website Monitoring that are connected to each other. If one of the main parts combined will be interrelated to form a large system called IoT-based kWh meter monitoring system. In this Final Project, the focus is on creating a monitoring website that can display information about details of electricity usage in each block in each building located in the area and also displays the results of grouping data using the K-Mean algorithm with the results of the analysis obtained at 80, 0%.

Keywords: Monitoring System, Mapping Electricity Use, IoT, K-Means Clustering