

## ABSTRACT

Energy Management System is a major step to limit energy use along with the possibility of further investment into the Building Automation Control. The application or use of automation technology in the management of electrical energy intended to limit the use of electrical energy in a building in order to avoid waste of energy resources. Therefore, it takes direct control and monitoring activities of electric energy that runs on a building. Control and monitoring are referred to as SCADA.

Currently SCADA systems can now be used to monitor, control and store data to a database in realtime. However, due to the increasing needs of companies and institutions to the process of reporting data, the required reporting data regularly and automatically by a SCADA system that has the ability to report data periodically and automatically.

In this study we will design a system of Supervisory Control and Data Acquisition (SCADA) for the Energy Management System (Ems) equipped with automatic reporting regularly and using Active Factory and Generic Data Grid so that by the SCADA system is the management can get data faster.

The results of the research is concluded, that by using Wonderware Active Factory and SQL Data Grid in the design process electrical usage reports periodically and automatically on a SCADA system has been successfully designed. And is expected to further research can be done a study that integrate the website with reporting data using Active Factory.

Keywords: Supervisory Control and Data Acquisition (SCADA), Active Factory, Generic Data Grid, Energy Management System.