## ABSTRACT

The temperature monitoring system and diesel level measurement have an important role in maintaining generator performance. Monitoring the temperature of the generator can help detect abnormal temperature increases, which could be a sign of a problem or potential overheating that could damage engine components. Meanwhile, measuring the diesel level is important to ensure that sufficient fuel is available for generator operation. The temperature and humidity monitoring system and measuring the diesel level have an important role in maintaining generator performance.

In this final project, the Arduino Uno-based solar temperature monitoring and height measurement system was designed to be applied to a generator. The aim of this final project is to monitor the generators in the company so that they can find out the temperature, humidity and height of the diesel generator. To build a design for a system for monitoring temperature and measuring the height of diesel fuel based on Arduino Uno applied to the generator. This solution is intended to facilitate monitoring and maintenance while increasing efficiency and accuracy in a generator or generator room.

The results of the temperature and solar altitude measurement parameters this time produced results for the temperature itself at 26 °C and then for the solar altitude at a low value because the altitude value did not reach the value of 350. *Keywords*: Temperature, Height, Sensor