ABSTRACT

20kV cubicle is electrical equipment that functions as a controller, connector and shield and divides electricity from an electric power source, a general term cubicle that includes switching equipment and its combination with control, measurement and protection systems for the distribution of 20kV electric power. One way to improve the efficiency and quality of substation equipment is to carry out regular maintenance, but with current technological advances it has shown a significant increase, especially in the field of data communication which can help problems that often occur in cubicles, namely rust due to monitoring on uncontrolled temperature and humidity.

In the final project to make a device to control the temperature of humidity in a 20kV cubicle, using a BME280 sensor as one of the measuring tools used to assist the process of measuring the water vapor content contained in a 20kV cubicle. In the final project, the quality of the BME280 sensor was tested by examining the humidity, room temperature of the transmitter. The data transmitted from this final project is the result of the two sensors, namely the temperature sensor and the humidity sensor

From the results of the tests carried out, it can produce parameter values such as the percentage error on the MLX90614 sensor with an error percentage value of 9.92% and 12.5%, the data is obtained from the calibration results of the MLX90614 sensor with a conventional thermometer, for the percentage value in the conventional thermometer is 8, 35% and 8.22%.

Keywords: *20kV cubicles, Humidity, Sensor,Android,Firebase, BME280*