

## **ABSTRACT**

*At this time, many advanced technologies have been created by humans in various fields, one of which is the manufacture of baby incubators. This baby incubator is usually used for newborns or premature babies. Therefore, this baby incubator must get direct supervision from doctors and nurses. The temperature and humidity in the incubator play an important role in the safety of the baby, therefore it needs extra supervision from the nurse and doctor on duty. To maintain the temperature and humidity in this incubator, manual monitoring must be carried out by nurses, this creates a new problem, because doctors and nurses cannot supervise and be in the incubator for 24 hours, due to limited personnel or other tasks. Given this problem, a system is needed that can monitor and control temperature and humidity even remotely in real time, so as to facilitate the supervisory duties of doctors and nurses on duty. This research will be able to monitor and control temperature and humidity according to ideal conditions with an android application via the internet network. After testing the entire system of the baby incubator, it was concluded that this tool can function properly, the control and monitoring system is able to display the temperature and humidity of the baby incubator in real time on the Blynk application. Obtained from the results of testing the tool for the DHT11 sensor with an accuracy value of 98.7% for temperature readings, while the accuracy for humidity readings for the DHT11 sensor is 98.4%.*

*Keyword : Baby Inkubator, Premature, IOT*