

## ABSTRACT

Conventional measurement systems in the health field such as in some clinics, general practitioners, or hospitals still record blood pressure measurements and heart rate manually in this case is less efficient so that made technology to help the nurses. This technology aims to improve service efficiency in measuring blood pressure and heart rate.

In this final project made a tool that has been equipped with Arduino, NodeMcu, web interface, blood pressure sensor and heartbeat. This tool can measure the patient's heartbeat as well as blood pressure (systole & dystole). Doctors use web interface provided to view measurement results.

From the results of tests conducted on the system that has been made. with the result of measurement blood pressure sensor (systole/dystole) which have difference is  $\pm 0.46/0.17$  mmHg. While the heartbeat sensor results have a difference of  $\pm 43.3$  BPM. Data accuracy from sensor to web interface, 100% data is appropriate.

**Keywords :** *Arduino, NodeMcu, Web Interface, Systole, Dystole, and Heart Beat*