

ABSTRACT

Dry sterilizers in carrying out the function must be able to maintain a stable temperature during the sterilization process and in the distribution of dry hot air should be uniform in the entire working area. Therefore, it is necessary to monitor the sterilization process as a standard quality assessment procedure, one of them with the temperature calibration by using a thermocouple. The research aims to develop a temperature calibrator tool as a pre-built tool with a realtime graphical display on the PC for easy monitoring of the sterilization process. The tool that researchers created uses the type-K thermocouple sensor to read the temperature then the data is processed with a minimum system of ATmega328 to be displayed on the LCD character 4x20 and sent to the PC wirelessly via Bluetooth HC-05. The received data will be integrated into an Excel spreadsheet with the PLX-DAQ application to be processed into graphs in realtime. From the result of comparing the temperature measurement between modules with a temperature-parameter multimeter obtained the smallest error value 0.1% in T4 when the temperature measurement of water vapor (100 °c) and the largest error 4% in T2 and T3 when measuring room temperature (30 ° C).

Keywords: *Sterilization, Temperature, Thermocouple, Wireless, PLX-DAQ.*