ABSTRACT

Technological developments in the manufacture of measuring instruments is now widely

done quickly. Various designs can be applied to a measuring instrument which aims at to shorten

measurement time. In this research, microcontroller based measuring instrument was developed

to measure the voltage and current of voltage sensor and ACS712 current sensor.

This final project realizes a measuring instrument that can be used to calculate the

incoming voltages and currents and display them on a 16 x 2 LCD. To manage the change

process using Arduinouno microcontroller.

The results of this research are designed to be able to make measurements to shorten the

measurement time of voltage and current. This research is designed with 4 stages consisting of

theoretical calculation phase, the stage of stringing the components to be measured, the

measurement stage and the comparison stage. On the measurement of voltage values obtained

voltage value 9 V and current value of 0.75mA If the resource is less than 9 volts, it will use the

control of resources from laptop or pc.

Keywords: Microcontroller, voltage, current, measurement