ABSTRACT

Most all of the cities in Indonesia are hit by pollution. In fact, human as a life creature needs air to breath. Because of human activity which is not care to the environment, the air pollution increase every year, which cause the decreasing of air quality. For example is the carbon monoxide pollution which is very dangerous for human because this kind of gas can not be smelled and do not have color, but if this gas was smelled and go into the body, this gas will over take the position of oxygen in hemoglobin which circulate in the blood circulation and can kill the body in just a short minute if the gas density is too high. And if the gas density is not too high, the symptom will only be a fever or other viruses which will act in a specific season or in a good weather.

This last project is realized the measurement of carbon monoxide in motor emission. This instrument consists of a carbon monoxide censor, Analog to Digital Converter, microcontroller, and LCD. The carbon monoxide censor detects the gas density in motor emission and the result from this censor will be the input for Op-Amp and the result from Op-Amp will be the input for ADC to transform the analog signal to be the digital signal before this signal is processed in microcontroller. In microcontroller the data is processed and LCD is used as the display for the result.

This instrument can be applied to measure the pollution worthiness of the motor vehicle with range 0 – 13%. So that the pollution which is caused by the motor vehicle can be decreased and give a good effect for the environment.