

ABSTRACT

Carbon Monoxide (CO) is colorless, odorless, and flavorless gas as result of imperfect combustion of carbon material. Carbon Monoxide is generated from vehicle, factory, and other combustion source emission and is dangerous in large quantity. With the growing number of vehicle and the quantity generated from vehicle, Carbon monoxide could be the cause of air pollution and sickness to human. This explains the importance of discovering the amount of Carbon Monoxide and the goal of this research. Measurement instrument was made in this research to measure the amount of CO from vehicle. Measurement instrument used MQ7 sensor to detect CO, microcontroller as the controller, 16x2 LCD to display data.

The result of measurement with characterization of sensor MQ7 using smart sensor carbon monoxide meter by using two method that is first method that is characterization method of sensor MQ7 measurement range obtained 38-398 ppm and second method is approach between equation characterization sensor MQ7 with sensor characterization MQ7 contained in the datasheet obtained range of measurement 35-395 ppm from the data obtained below by using both methods can be see under the capability of a carbon monoxide content measuring device designed to gain measurement capability from a range of 35-398 ppm

Keyword: Carbon Monoxide, MQ7 Gas Sensor, Microcontroler