

## **ABSTRACT**

*Today's air pollution is increasingly showing very concerning conditions. Sources of air pollution can come from a variety of activities among other industries, transportation, offices, and housing. The impact of such air pollution is to cause a decrease in air quality, which negatively impacts human health. And in the present era, cars were a much-needed means of transportation. The final project under the title "Design of Oxygen Level Monitoring System In The Arduino-Based Car Cabin", has a problem formulation of how to create a good system groove on the car for oxygen-level monitoring tools in an arduino-based car, and hoew to create oxygen-level monitoring tools in an arduino-based car cabin. The purpose of the design of oxygen-level monitoring systems on cars is that tools are capable of detecting and monitoring oxygen levels, for the driver to know in case of a decrease in oxygen levels in the car cabin.*

*The study uses the study of literature. At this stage conducted data collection for learning and searching literature of a wide variety of sources relating to this final project. Design and manufacture of hardware and software, by applying theory and learning from literature studies then undertaken system design and manufacture of hardware and software to be used to monitor oxygen levels. Testing and implementation, performing data retrieval by means of testing the appliance and analyzing the results of such testing. System repairs made if obtained such systems have not gone according to expected.*

*Based on the data analysis done, the result was obtained that on this finla project would produce a device that could monitor oxygen levels in the cabin of the car using arduino uno, MQ-135 gas sensors that will detect carbon dioxide and ppm levels from carbon dioxide will be converted to oxygen ppm, sim800l gateway sms module, 5 volt buzzer as an alarm if the oxygen levels inside the car cabin were poor, and LCD Nextion would only feature ppm and percentage of carbon dioxide and oxygen.*

**Keyword : Arduino UNO, SIM800L Gateway SMS Module, Gas Sensor MQ-135, Buzzer 5V, LCD Nextion.**