

## *Abstract*

*Air pollution is one of the significant factors that affect many human health conditions. The pollution comes from gas disposal vehicles, industrial smoke, or cigarette smoke. To improve the situation, air pollution monitoring will be carried out by utilizing Wireless Sensor Network technology and apply broadcast network. In the application of WSN this air pollution uses MQ-5 sensors, the data will be sent and centered on one receiver that will be connected to the internet network and then shown to Thingspeak Server. Therefore, in this research will analyze the traffic based on the implementation of WSN air pollution using ESP8266 technology for data transmission. In the research will be applied broadcast network as much as 4 node and star topology, result of research got performance of broadcast network resulted less packet loss 0% compared with star topology performance without broadcast mechanism resulting in 6% packet loss.*

*Keywords: Traffic, Wireless Sensor Network, broadcast network.*

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