

## Identification of Rice Quality Using Gas Sensors and Neural Networks

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**Abstract :** The public's response to quality rice is very high. So it is necessary to set minimum standards in checking the quality of rice. Most rice quality measurements still use manual methods, which are prone to errors due to limited human vision and the subjectivity of testers. So, a gas detection system can be a solution that has high effectiveness and subjectivity for solving current problems. The use of gas sensors in testing rice quality must pay attention to several parameters. The parameters measured in this research are the percentage of rice water content, gas concentration, output voltage, and measurement time. Therefore, this research was carried out to identify carbon dioxide (CO<sub>2</sub>), nitrous oxide (N<sub>2</sub>O) and methane (CH<sub>4</sub>) gases in rice quality using a series of gas sensors using the Neural Network method.

**Keywords :** carbon dioxide, dinitrogen oxide, methane, semiconductor gas sensor, neural network

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