

## ABSTRACT

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*Indonesia is a country with high consumption and production of rice because rice is the main food commodity for the Indonesian people. Good quality rice is very important to maintain the resilience and sustainability of food ecology in Indonesia. Then a Machine Learning application system was developed which is expected to be able to classify the quality and predict the shelf life of rice using an electronic nose rice monitoring dataset. This Machine Learning application uses the Linear Models algorithm method which aims to fit a line through the distribution that is closest to most points in the training set. In machine learning electronic nose rice monitoring using the Linear Models algorithm, the best value is (0.9835) and the regression results are R2 score 0.7191 with RMSE 3.7364.*

*Keywords: Rice, Machine Learning, Prediction, Quality, Linear Models*