ABSTRACT

Meat is one of the various sources of protein that the human body needs. Until now, meat consumption always increases from year to year due to various factors, including having high nutrition, as a source of protein, to its distribution which can be found almost everywhere. In the process of selecting meat, many buyers do not know about the quality of the meat offered by the seller, both the duration of the shelf life, and the preservatives used by the seller in marketing the meat. In overcoming these problems, in determining the quality of the meat needed the right method in checking. The use of electronic nose by applying the Support Vector Machine method can work in a structured manner on every component needed in the process of determining the quality of meat. The programming language used is Python as a machine learning model development. Meanwhile, the operating system uses a Raspberry Pi with several other supporting components. Program testing is carried out using Black Box Testing to ensure that the program's functionality can be used properly. From the experimental results, the relevant value is obtained by getting an accuracy score of 0.94% in the SVM classification and in the regression getting the results of R^2 0.977, RMSE 0.026.

Keywords: *Meat, Electronic nose, Machine learning, Support Vector Machine*