ABSTRAK

The growth and development of a city are factors causing air pollution because the air quality is combined with various compound components, according to IQ Air 2020 Prov. DKI Jakarta, as the capital city of Indonesia, has an orange color label that indicates unhealthy. To bring the air together every day, the Environmental Service of the DKI Jakarta Provincial Government operates Air Quality Monitoring Stations (SPKU), which are placed at five points that match DKI1, DKI2, DKI3, DKI4, and DKI5. The use of data mining is a suitable method to find out air information in DKI Jakarta Province. The data mining method is used because this method can make ISPU data parameters into information that activates the daily air quality level. This research has data quality and tested with Decision Tree algorithm and Support Vector Machine (SVM). The results of a data mining application for air quality classification in DKI Jakarta, namely the Decision Tree algorithm, have better performance than the SVM algorithm for classifying air quality in DKI Jakarta, both in terms of Precision, Recall, and F1-Measure values and accuracy. The results obtained that the best ratio for organizing air quality in DKI Jakarta in the Decision Tree algorithm uses a ratio of 90:10 and the SVM algorithm uses a percentage of 60:40 because it produces the highest level of accuracy from the ratios used such as 60:40, 70:30, 80:20, and 90:10. The Decision Tree algorithm gets a Precision value of 99.02%, Recall 99.73%, F1-Measure 99.37%, Accuracy 99.40%, and the SVM algorithm gets a Precision value of 95.82%, Recall 88.89%, F1-Measure 92.22%, and Accuracy 94.93%.

***Keywords* : *Classification, Air Quality, Decision Tree,* SVM**