

ABSTRACT

APPLICATION OF K-MEANS FOR CLUSTERING DATA INDEX OF AIR POLLUTION STANDARD (ISPU) PROVINCE DKI JAKARTA

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Air pollution is one of the most worrying problems known to the world for hundreds of years. According to the Ministry of Environment and Forestry (KLHK), the main source of air pollution in big cities including DKI Jakarta is the excessive use of motorized vehicles. To monitor air pollution every day, the Environmental Service of the DKI Jakarta Provincial Government operates an Air Quality Monitoring Station (SPKU). The equipment is placed at five points which are named DKI1, DKI2, DKI3, DKI4 and DKI5.

Data mining is a suitable method to find out information on air pollution in DKI Jakarta Province. The data mining method used is clustering because this method can process parameter data of the Air Pollution Standard Index (ISPU) into information that informs areas consisting of several levels of air pollution. This study took the Air Pollution Standard Index (ISPU) data and tested it with the K-Means algorithm.

The data will be grouped into 3 clusters with the results obtained from the K-Means algorithm validation 0, 360945628; 0, 400584302; 0, 401451793. After the air pollution groups from 3 clusters were sorted by area and the effect of air pollution was highest on parameter O3. After conducting this research, the results will be used as a suggestion for a transformation to use a vehicle that is more environmentally friendly to reduce levels of air pollution.

Keywords: Clustering, ISPU, K-Means