ABSTRACT

Air, as one of the components of the environment, is the ultimate need to sustain life. Metabolism in the body of living things is unlikely to occur in oxygen derived from air. Other substances in the air include carbon monoxide, carbon dioxide, formaldehyde, fungi, viruses, and so on. These substances if they are within certain limits can still be neutralized, but if they have exceeded the threshold, the neutralization process will be disrupted. Increased concentration of substances in the air can be caused by human activity. In 2019 Indonesia reached the worst air pollution point that has reached the red point which indicates the unhealthy air in DKI Jakarta. One of the things that can be done is using the classification method for air quality information monitoring. In this research, classification was conducted using the data set of the DKI Jakarta Province air pollution ISPU from 2019 to 2022. Accurate classification results are helpful to governments in makingpolicies. This policy is aimed at trying to control pollution to be on air quality standards that can best benefit the survival of living things. In this study the classification model used was random forest, using 5 attributes, namely PM10, SO2, NO, O3, and CO2 and the category as the target labels in this research. he results from the study showed Random Forest algorithma Getting the highest data at the initial test with a 90:10 ratio with a value of 92% and on the performance evaluation a report with a detailed data of 1 precision (78%), recall (80%), and f1-score (79%), data of 2 precision (100%), recall (100%), recall (100%), recall), recall). and f1-score (100%), 3 precision data (94%), recall (95%), and f1-score data (94%) and 4 precision data (89%), recall (80%), and f1-score (85%).

Keywords **- Air, DKI Jakarta, ISPU, Classification, *Random Forest***