

ABSTRACT

Weather and climate are factors that cannot be determined merely by direct visual observation. By knowing the air humidity, it becomes possible to understand the likely weather and climate conditions. Determining the level of humidity is particularly useful in various fields, especially in agriculture. This study aims to predict air humidity using the Classification and Regression Tree (CART) algorithm. Temperature, air pressure, wind speed, wind direction, rainfall amount, and duration of rainfall are all weather data used in predicting air humidity. Using the CART algorithm for humidity prediction is a good choice, as the algorithm is capable of handling complex data. The air humidity predicted by the CART algorithm is evaluated using several performance metrics, including accuracy to assess how high the accuracy level is. Studying air humidity with the CART algorithm resulted in predictions with an accuracy rate of 89%. From this study, it can be concluded that predicting air humidity using the CART algorithm is a reliable method.

Keywords : Air Humidity, Prediction, Classification and Regression Tree, (CART), Algorithm, Weather Model