

ABSTRACT

DENGUE FEVER FORECASTING MODEL IN DKI JAKARTA PROVINCE USING LINEAR REGRESSION ALGORITHM TO IDENTIFY TENDENCY OF PREDICTOR VARIABLES TOWARD NUMBER OF CASES

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In Indonesia specifically in DKI Jakarta Province, Dengue fever is still the main public health problem. Although there are already several steps to overcome the spread of Dengue Fever (DHF), there still needs to be an analytical method to forecast the increase dengue cases using, and estimated data values in the future. This study aims to make a forecasting model for increasing the number of cases of Dengue Fever using a linear regression algorithm and analyzing the effect of temperature, humidity and rainfall in the case of Dengue Hemorrhagic Fever in DKI Jakarta Province from a regression model made. The DHF data used is an endemic disease monitoring dataset obtained from the DKI Jakarta Health Office while the weather data is a dataset obtained from the DKI Jakarta Environmental Service.

From the regression model made in DKI Jakarta Province, the value of R^2 is 0.3622, it shows the percentage of the influence of temperature, humidity and rainfall on cases of dengue fever is 36.22%, while 63.78% is influenced by other factors outside the independent variable. After conducting a simultaneous test, it can be concluded that temperature, humidity and rainfall together, influence the increase in the number of dengue cases in DKI Jakarta Province, then the partial test proves that, humidity and rainfall have a significant influence on the increase in dengue cases, whereas for temperature independent variables partially proved to have no significant effect on the increase in cases of dengue hemorrhagic fever in DKI Jakarta Province.

Keywords : *Data Mining, Predictive Mining, Linear , Dengue Fever (DHF)*