

ABSTRACT

COMPARISSON OF LINEAR REGRESSION ALGORITHM AND NEURAL NETWORK TO PREDICT DENGUE FEVER CASES IN DKI JAKARTA PROVINCE

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Dengue fever is still on of the most considered health problem in DKI Jakarta. In 2016 alone there are 22.697 cases of dengue fever in DKI Jakarta. To address this problem Jakarta Health Agency need to work efficiently to keep dengue cases low. In order to do so Jakarta Health Agency need a acurate prediction of dengue cases that will happen in next month or year so that Jakarta Health Agency can do preventive act to keep dengue fever cases as low as possible. This research will compare two algorithms to predict dengue fever cases. The two algorithms are linear regression and neural network. MAE (mean absolute error), MAPE (mean absolute percentage error) and RMSE (root mean square error) will be used to evalute the prediction result from both algorithms. The lower result of MAE, MAPE and RMSE means the algorithms have more accuracy than the other one. From model validation process neural network models peform better than linear regression in Jakarta Province, North Jakarta, East Jakarta, South Jakarta, and Central Jakarta

Keywords: linear regression, neural network, dengue fever, data mining, jakarta