Abstract

Corona virus or Covid-19 is a virus that infects the respiratory tract in humans, some areas in Indonesia have a fairly high rate of spread in a short time. DKI Jakarta is one of the regions in Indonesia that has a high distribution rate. Predictions are made to find out the number of new cases that will appear to avoid a significant spike. In this final project, the prediction of the upper limit of Covid-19 cases was carried out using the Vector Error Correction (VEC) method to predict active cases involving the number of new Covid-19 cases in DKI Jakarta. VEC is a multivariant time series model that has a cointegration and stationary relationship. The data used is data on the number of new cases and total active cases of Covid-19 every day from May to December 2020 in DKI Jakarta. The results of the upper limit prediction and MAPE calculation are obtained, in VECM(7) 90:10 the MAPE value is 1.87 which means it is more accurate than VECM(3) 80:20 and VECM(3) 95:5 which gets 2.25 and 2.17.

Keywords: *Covid-19, upper limit prediction, VEC, DKI Jakarta, multivariant time series*