

## **Abstract**

**Developing strategic planning to control the spread of Covid-19 remains a challenge nowadays. Nonetheless, constructing models allows forecasting future cases' magnitude due to the public health system planning to prevent deaths. In this context, multivariate time series can be used to predict active and cured cases of Covid-19 in developing an effective time series model. Also, according to WHO, West Java reported 340.455 cumulative cases, holding the second position in Indonesia in the number of Covid-19 total cases. This work demonstrates the parsimonious of Vector Autoregressive (VAR) process for modeling time series data of active and recovery cases in West Java. We show how this differenced- VAR model capable to capture trends and measure the future of Covid-19 active cases based on daily recovery cases with MAPE 4.7%. This model may be able to assist government and public health stakeholders in decision making.**

**Keywords: Autoregressive, Covid-19, Decision-making, Differencing Multivariate, Time Series**