

Abstract—Covid-19 which spread in early 2020, still needs to be observed, considering the high growth rate of the pandemic at that time. The right prediction model is needed, because it can estimate the speed and extent of its spread for some time to come. This study develops a prediction model for the classification of the spread of Covid-19 in the future using SVM with time-based feature expansion and RNN. The scenario developed to determine the effect of time-based feature expansion and kernel function on classification performance using time series and spatial data. The results obtained show that SVM with time-based feature expansion achieves the most optimal performance using a polynomial kernel with an accuracy of 96.23%, a precision of 96.48%, a recall of 96.23%, and an F1-score of 96.21%. The performance of the SVM is superior to RNN which achieves an accuracy of 93.55%, a precision of 87.51%, a recall of 93.55%, and an F1-score of 90.43. Spatial prediction using Kriging interpolation can provide an overview of the spread of COVID-19 in all villages in Bandung City. The contribution of this research can provide much-needed information for policy makers and the community in managing future pandemic predictions and management strategies in the field of public health.