Abstract

Abstract—Nowadays, there are many methods to predict the future value of several things. In this paper, the Holt-Winters Exponential Smoothings applied to forecast the tidal level in Cilacap. Then the Holt-Winters forecasting performance compared with the ARIMA (Autoregressive Integrated Moving Average), and SARIMA (Seasonal-Autoregressive Integrated Moving Average), in order to see which one that can produce the best forecast. The method performance measured by using root mean square error (RMSE) and R-Square. The Holt-Winters Exponential smoothing produces RMSE and R-Square that are better than ARIMA and SARIMA. The choice of seasonal period significantly affects the forecasting result produced by the Holt-Winters method.