Abstract

Gold, apart from being used as jewelry, is also an important commodity used for investment by investors. Gold is used as an investment because of the nature of gold that can maintain its value from inflation. Furthermore, gold price prediction is essential because it can reduce investment risk, thus assisting in determining investment policy. Gold price data has high fluctuation characteristics. Therefore the Conv-LSTM algorithm has been used to predict gold prices within daily and weekly time frames. Conv-LSTM will be tested using four parameters with a testing ratio of 20% and 40%. Performance measurement generated by the model is carried out using Root Mean Squared Error (RMSE) and Mean Absolute Error (MAE). The results obtained for daily data with a ratio of 20% are 9.658063 MAE and 14,83934 RMSE, and for a 40% ratio are 8.680931 MAE and 12,92464 RMSE. The results obtained for weekly data with a ratio of 20% are 21.86957 MAE and 31.49406 RMSE, and for a ratio of 40% are 21.05697 MAE and 28.2758 RMSE. The results show that Conv-LSTM can study trends in the data to predict gold prices.

Keywords: Gold price, Time-series, Conv-LSTM