

Independent study title	FORECASTING SET INDEX RETURNS USING ARIMA, SVR, RNN AND RANDOM FOREST MODELS
Author	Yong Wang
Degree	Master of Science (Finance)
Major field/Faculty/University	Master of Science Program in Finance (International Program) Faculty of Commerce and Accountancy Thammasat University
Independent study advisor	Bin Zhao, Ph.D.
Academic year	2021

ABSTRACT

Nowadays, quantitative models based on artificial intelligence and machine learning have been widely used. Compared with traditional statistical or econometric models, machine learning can quickly process and analyze massive data, and has better generalization ability. This paper attempts to apply machine learning algorithms such as LSTM, RF, and SVR to the analysis of time series to predict the return of the SET index and verify which model has a better prediction effect.

Keywords: ARIMA, LSTM, random forest, support vector regression, machine learning, Thai stock index, forecasting.