

PROBLEM STATEMENT:

Crude oil price forecasting has long been a hot topic. To estimate crude oil prices, people employ a variety of tools as well as their intuition. To anticipate crude oil with any degree of accuracy, you need to know a lot about it. Predicting the price of crude oil is crucial in a variety of economic, political, and industrial contexts for both crude oil exporting and importing nations. Crude oil has evolved into a key component of the global economy since it is the most significant strategic resource on the planet. Therefore, predicting crude oil prices has long been seen as a very intriguing and difficult undertaking that has piqued the interest of experts, scholars, and organisations around the world. Additionally, the volatility of crude oil is quite important. Additionally, the macroeconomic indicators of inflation, unemployment, exchange rates, and economic growth of nations whose economies substantially rely on the export or import of crude oil are all significantly impacted by crude oil volatility. On the global environment, our economy, and oil exploration, exploitation, and other activities. Prediction of oil prices has become a necessity; it is a boon to many large and small industries, individuals, and the government. Because of the evaporative nature of crude oil, price prediction becomes extremely difficult and difficult to be precise with. Several factors influence crude oil prices. We propose a modern and innovative method of predicting crude oil prices using an artificial intelligence. There are numerous methods and approaches for predicting crude oil prices, one of which is the one based on intuitions, in which the experiences, knowledge, and opinions of experts and professionals who have worked in this industry for a long time are used to predict the prices for the future. Many economists and analysts forecast crude oil prices using data transformation and regression models such as autoregressive moving average (ARMA) models and vector autoregressive (VAR) models with a different value for the input each time and then plot the graph with their predicted prices taking into account the major economic factors. Forecasting crude oil is an important topic in financial and economic studies. Many studies have been conducted to forecast crude oil prices. Moshiri and Foroutan concluded in 2005, after conducting several tests, that future price time series are stochastic and non-linear. They compared ARMA and GARCH techniques to ANN and discovered that ANN performed better for forecasting crude oil prices. Kulkarni and Haidar presented a model based on a multilayered feedforward neural network for forecasting crude oil spot price direction in the short term, up to three days ahead. They investigated the relationship between crude oil futures and spot prices. They discovered

evidence that future crude oil prices contain new information about detecting oil spot prices.

Therefore, forecasting the price of crude oil can assist governments throughout the world in formulating economic policies and in making rapid and effective economic decisions to protect themselves against any danger in these economic parameters. Therefore, predicting crude oil prices is very useful, which is why this paper's goal is to do so.