

FORECASTING OF CRUDE OIL PRICE

PROBLEM STATEMENT

We call crude oil and petroleum as Fossil fuels because they are mixtures of hydrocarbons that formed from the remains of animals and plants (diatoms) that lived millions of years ago in a marine environment before the existence of dinosaurs. Over millions of years, the remains of these animals and plants were covered by layers of sand, silt, and rock. Heat and pressure from these layers turned the remains into what we now call crude oil. Oil is the 3rd largest exported product and is 3.82% of the global trade in the world. The modern oil industry can trace its origins to Baku in 1837, where the first commercial oil refinery was established to distil oil into paraffin (used as lamp and heating oil). This was followed by the first modern oil well in 1846, which reached a depth of 21 meters. It is believed that global oil reserves (1.67 trillion barrels of oil globally) will be exhausted sometime between 2050 and 2060.

Crude-oil prices have impact on the world economy. Zaytsev (2010) examined the impact of changes in international oil prices on the GDP of Ukraine. The results showed a time lag between the moments of oil price rise and its impact on GDP. This is because of the time for the transmission of the change in oil price to economy through downward demand and cost. Indian economy is the 5th largest economy in the world with a nominal GDP of \$3.535 trillion in 2022. In this 2.4% belongs to crude oil. India ranks among the top 10 largest oil-consuming countries in the world. Sudden Crude Oil prices raise/fall will leads to inflation, Business loss, ambiguity in exports and imports of country and uncertain demands & supply which collapse economy of country.

So, to maintain proper economy knowing crude oil price earlier became indispensable. In this project we will forecast the future crude oil price using Artificial Neural Network models and analyse the impact of production, consumption, exports and imports of crude oil. In this we will understand the similarity in the extent of impact of crude-oil prices on the economy. Crude oil price fluctuations have a far reaching impact on global economies and thus price forecasting can assist in minimizing the risks associated with volatility in oil prices. Price forecasts are very important to various stakeholders: governments, public and private enterprises, policymakers, and investors. Trading will be taken in efficient and cautiously way. Demand and supply will be functioned without any hindrances. Hence, Country Economy will gradually rise.