

## SCENARIO

The prices of crude oil varies in different parts of the world.  
These prices can be predicted based on certain factors.

## EXPECTATIONS

- considering factors
- observing highs and lows
- displaying graphically

## PROPOSITIONS

Crude oil price fluctuations have a far reaching impact on global economies

Price forecasting can assist in minimising the risks

Very important to various stakeholders: governments, public and private

Several different factors that affect crude oil prices

## UNDERTAKE

Series are predicted using SVM, ELM, and LSTM models

Prediction results of the above three single models are first reconstructed using FR

The XGBoost method is used to make a secondary prediction of the series

Factors like demand, supply and speculation influence price prediction

## EXECUTIONS

Data from monthly WTI price are first being classified into classes

Retrieval information from stock market and used text mining to mine the news

The process of extracting the features from the news was done manually

The key factors to crude oil market are discovered, verified and presented graphically

## COMPLETION

It proves and validates the selection of variables chosen for the training

This provides the accurateness not only implies to the trend but also to its discrete price

A parallel and positive movement existed between the actual price and the predicted price

Validates the effectiveness of key factors selected in HC model