

## Crude Oil Price Prediction

### Literature Survey:

Year	Author & Title	Objective	Techniques	Results
2010	Abdullaah, S.N.Zeng  Machine learning approach for crude oil price prediction with Artificial Neural Networks- Quantitative (ANN) model.	The development of hierarchical conceptual model and the development of artificial neural networks- Quantitative (ANN-Q) model.	Machine learning and computational intelligence approach through combination of historical quantitative data with qualitative data from experts.	The result obtained from simulation study validates the effectiveness of data selection process by HC model. This model successfully extracts a comprehensive list of key factors that cause the crude oil price market to volatile.
2017	Halleh Bostanchi  WTI oil price prediction modeling and forecasting	Built the multivariate linear regression model and Univariate time series model	1. Structural and Time-Series methods	Due to high volatility nature of oil price, it is found that

		using ARIMA models, followed by ARCH & GARCH models to know incapability of each variable to oil price.	2. Multivariate Linear regression model  3. Box Jenkins Approach (ARIMA)  4. Non-Linear Time Series Models(GARCH)	non-linear Time series based forecasting provide the best forecasting
2018	Varun Gupta,Ankit pandey  Crude Oil Price Prediction using LSTM Networks	Crude oil market is an immensely complex and dynamic environment and thus the task of predicting changes in such an environment becomes challenging with regards to it's accurate.In this paper,We have tried to predict crude oil prices using Long-Short term Memory (	LSTM (Long Short Term Memory)LSTM is one of the most successful RNN Architecture.  They compared ARMA and GRACH techniques to ANN and found that ANN performed better for Crude oil price forecasting.  RNN(Recurrent Neural Network) different from	Before deciding the final architecture of the network,a number of different configuration of the network were tested.The results obtained from the work are quite encouraging.

		LSTM) based recurrent neural networks.	feedforward networks.They use their internal memory to predict things.	
2019	Yuhang zhang,Ziging DD  Systematic review in crude oil markets: Embarking on the oil price.	We systematically collated the literature on the crude oil price.  The economic effects of crude oil prices are characterized by complex non linear features	Neural network model is used to measure crude oil price volatility.  Using big data technology and Artificial Intelligence to study the crude oil market.	It helps to review the forecast on volatility and risk management of crude oil price along with the emergence of text mining technology and artificial intelligence technology .
2020	Nalini Gupta, Shobhit Nigam  Crude oil price prediction using artificial neural network	Variation of lag in a period of time has been done for the most optimum and close results, we then have validated our results by	1. ANN - Artificial Neural Network( Sigmoid Function with the learning Algorithm)  2. Back-Propagation	This work indicates that the ANN model is an effective tool for crude oil price prediction and

		evaluating the root mean square error and the results obtained using the proposed model have significantly outperformed.	learning Algorithm	can be efficiently used for short term price forecasting by determining the optimal lags. Advantage of this research is in capturing the changing pattern of these prices.
2021	Ramesh Bollapragada,Akash Mankude,V.Udhaya Banu  Forecasting the price of crude oil	To develop a forecasting model to predict the crude oil. To reduce the operational costs increase profit and enhance competitive advantage	Analyze the primary theories related to the forecast of oil prices  Using two main streams of forecasting theory  1) Target Capacity Utilisation  2) Exhaustion Resource Theory	The forecast model is a good prediction of oil price. The data required are readily available. The number of variables is small. Easy to follow and the cost is very low. This model forecast

			Using TCU rule with regression to forecast the crude oil price from 1987 to 2017 with the data	both monthly and annual oil price.
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