Crude Oil Price Prediction

Team ID - PNT2022TMID42203

Literature Survey:

Year	Author & Title	Objective	Techniques	Results
2010	Author & Title 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.	Techniques Machine learning and computational intelligence approach through combination of historical quantitative data with qualitative data from experts.	Results 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	1. Structural and Time-Series methods	Due to high volatility nature of oil price, it is

		time series model 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)	found that 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 voltatility. 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

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

Using TCU rule both more	nthly
with regression to and annu	ıal oil
forecast the crude price.	
oil price from	
1987 to 2017 with	
the data	