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ISIS AND ITS IMPLICATIONS ON ENERGY SECURITY

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Journal of Energy and Management

Vol 1 No 1

EDITORIAL

We are happy to bring you the first issue of the much awaited research journal, Journal of Energy and Management.

This issue of the journal has papers representing energy technology and energy management. Prof. Arshdeep Bahga, et al., Georgia Institute of Technology, Atlanta, USA, explored important factors affecting permeability of Tight Gas Sandstones reservoirs. The authors proposed two approaches for prediction of permeability in in-situ conditions. The proposed approaches capture the key parameters that affect permeability in reservoir conditions, such as, microstructure (which is characterized by parameters such as porosity, pore throat diameter and grain size), diagenetic processes (which is characterized by the degree of cementation), bedding architecture (which is characterized by primary sedimentary structure) and in-situ conditions (such as saturation and confining pressure). Further, two empirical models have been proposed based on multivariate regression analysis and artificial neural networks. Validation of the approach has been made using tight gas sandstone data from six western US basins.

In the second article of the Journal, Naitik Trivedi et al., discussed the effect of dynamic loading on different types of distance relays characteristics and the relay load ability limits at a different power factor angle. The paper emphasised that modern distance relays are designed with different characteristics in order to demonstrate that they can provide better protection and at the same time results in significant improvement of the performance of distance relays during wide area disturbances by preventing the operation of distance relays under dynamic load conditions. However, blocking the operation of the distance elements if a fault occurs at this time may result in a further degradation of the system conditions. The study used simulation and the results shows the impact of different MTA on a relay load ability limit. The comparison of MHO characteristics and lens characteristics are carried out in PSCAD/EMTDC software. The network used in this paper is 230 kV, 300 km radial Transmission line systems.

The journal has interesting studies on energy management side too. The third article by Professor Siddharth Varma has analysed the Indian petroleum industry by applying Porter's Five Forces Model. The paper can help the reader to understand the competitive environment of the Indian petroleum industry and its implications on supply chain performance. As compared to discrete manufacturing supply chains, process industry supply chains are relatively less researched. Though Porter's Five Forces Model is an old concept its application to the petroleum industry especially with reference to India is new. The insights provided by this paper could be valuable to industry as well as policy makers.

In the fourth paper, Amandeep Kaur and Amandeep Singh Rattol studied commodity hedging through zero-cost collar and its financial impact. Focusing on the popularity of option derivatives and hedging and risk management, the authors studied the zero cost collar option contracts for commodity hedging and its fair valuation and accounting. The paper underlines the main advances in hedge accounting proposed by IASB & IFRS 9 and tests the effectiveness of zero cost collar option strategy on NYMEX WTI crude oil in the backdrop of falling commodity prices. While the study result can have a great significance from an economic viewpoint, they may also be utilized for hedge accounting purposes & accounting for time value of zero cost collar strategy.

The last article of the journal focused on Islamic State of Iraq and Syria (ISIS) and its implications on energy security. In this paper, Dr. Sanjay kumar Pradhan has analysed the mechanisms through which ISIS carries out its oil market, ISIS and its adverse impact on energy market and infrastructure in Iraq and Syria, implications of energy market, intricacies or nexus in black market, outcomes of armed operation by external powers such as Russia and coalition forces with specific reference to United States. While agreeing that eliminating ISIS and restoring oil market stable in Syria and Iraq is a challenging task to all the stake holders of war, the author opined that to make the operations a successful one suggested steps

includes keeping the ISIS deprived from getting oil fields, starve it of revenues and block it from the maritime connectivity; Turkey and Syria are also required to show their sincere commitment to stop oil black marketing across their border regions; United States should put pressure on its coalition partners in the Middle East to take tough measures against oil black marketing with the ISIS. Implementing the United Nations Security Council resolution related to trade in oil and refined oil products, modular refineries, and related materials etc would be another important step.

The journal also feature a Book review by Mr. Saumyaranjan Sahoo. Mr. Sahoo has reviewed a book titled '*Achieving Universal Energy Access in India: Challenges and the Way Forward*', authored by P.C. Maithani, and Deepak Gupta (Sage Publications India Pvt. Ltd). The book takes a critical look at the present energy policy and addresses ways to improve energy penetration. In doing so it encourages the use of renewable energy as an alternate medium, challenging the traditional power proponents.

With best wishes to all of you.

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