

Blockchain in Petroleum Industry

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Abstract: *Blockchain technology has been developed for more than ten years and has become a trend in various industries. As the oil and gas industry is gradually shifting toward intelligence and digitalization, many large oil and gas companies were working on blockchain technology in the past two years because of it can significantly improve the management level, efficiency, and data security of the oil and gas industry. This paper aims to let more people in the oil and gas industry understand the blockchain and lead more thinking about how to apply the blockchain technology. To the best of our knowledge, this is one of the earliest papers on the review of the blockchain system in the oil and gas industry. This paper first presents the relevant theories and core technologies of the blockchain, and then describes how the blockchain is applied to the oil & gas industry from four aspects: trading, management and decision making, supervision, and cyber security. Finally, the application status, the understanding level of the blockchain in the oil and gas industry, opportunities, challenges, and risks and development trends are analysed.*

Keywords: Blockchain technology.

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