

Article 4 : « The application of Artificial Intelligence technology in the Safety monitoring System of Oil and Gas Ground »

This article called « The application of Artificial Intelligence technology in the safety monitoring System of Oil and Gas Ground », has been written by Jie Ma for the Science direct Journal.

This text provide an overview of how artificial intelligence can be used to enhance the safety of monitoring systems regarding the oil and gas engineering sector. Indeed, due to the enormous technological advances of recent years, AI is becoming more and more utilized in various sectors and specifically in safety supervision of the oil and gas industry.

Indeed, severals challenges of this sectors are highlighted by the authors such as the various amount of safety incidents, a safety issue regarding databases, frequent naturals problems causing some problems in the developments of pipelines and the location of the current oil and gas fields which is mostly in challenging geographical environments.

It also point out how can AI be used to help in the different sector of the oil and gas, such as, exploration of oil and gas technology, it would also enhanced video surveillance at the productions sites. Also, regarding data collection, AI can be used improving the transmission of logging data or improving efficiency in data collection process. Even more, it can optimize human ressources to an extent never seen before, for examples, drones and robots can be deployed to inspects pipelines to improve the efficiency of the operations and to be less reliant on manual labors, which could also contribute to delete a lot of human jobs.

But the authors remind us that its still in the work, and that for now, its impossible for computers to fully replace the work of scientific as we need more advanced technologies.

To conclude, the authors demands for a cooperations between both sides, business personnel, IT technicians and AI technicians to form groups that would create a way faster and efficient way of working using the artificial intelligence. The authors recommend an holistic thinking which can be defined as «a way of thinking about the world that considers the parts as being inseparable from the whole, and not existing independently »

For him, the cooperation will be the key to succeed.

In summary, this article give an in depth explanation of how AI technology is enhancing safety of Oil and Gas engineering. It discuss the various challenges and the possible solutions that could provide the artificial intelligence in the near future.

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