

Hidden Stones When Implementing Artificial Intelligence Solutions in the Engineering, Procurement, and Construction Industry

Authors : Rimma Dzhusupova, Jan Bosch, Helena Holmström Olsson

Abstract : Artificial Intelligence (AI) in the Engineering, Procurement, and Construction (EPC) industry has not yet a proven track record in large-scale projects. Since AI solutions for industrial applications became available only recently, deployment experience and lessons learned are still to be built up. Nevertheless, AI has become an attractive technology for organizations looking to automate repetitive tasks to reduce manual work. Meanwhile, the current AI market has started offering various solutions and services. The contribution of this research is that we explore in detail the challenges and obstacles faced in developing and deploying AI in a large-scale project in the EPC industry based on real-life use cases performed in an EPC company. Those identified challenges are not linked to a specific technology or a company's know-how and, therefore, are universal. The findings in this paper aim to provide feedback to academia to reduce the gap between research and practice experience. They also help reveal the hidden stones when implementing AI solutions in the industry.

Keywords : artificial intelligence, machine learning, deep learning, innovation, engineering, procurement and construction industry, AI in the EPC industry

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