

Harnessing the Power of Artificial Intelligence for Predictive Maintenance of Industrial Plants

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This project is an ICSC Innovation Grant. It aims to demonstrate the applicability of modern AI-based techniques in developing predictive maintenance systems and modeling interdependencies in complex industrial apparatuses. Methods currently utilized in the academic domain, such as anomaly detection in signal processing, log parsing from IT systems, and graph-based analysis, will be adapted and tested on real-world data from Eni's production sites. These data sets include sensor readings from industrial facilities, data from individual apparatuses, and complex relational graphs representing interactions between multiple systems. The goal is to assess the usability and effectiveness of these AI-driven approaches in enhancing operational efficiency and reliability in industrial environments.

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