

Machine Learning for Predictive Maintenance in the Manufacturing Sector

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Abstract

Predictive maintenance has increased usage and shows a significant advantage over preventive maintenance. Though, conventional approaches of predictive maintenance have noteworthy restrictions in maintenance optimization and reliability enhancement. In the previous two decades, machine learning (ML) has been successful and overwhelmed many vital defects of conventional maintenance prediction methods. In the meantime, ML exhibitions unique predictive power in maintenance prediction and optimization. In this study, a multiple classifier ML methodology for Predictive Maintenance is presented. This study compares the features of corrective, protective, and predictive maintenance studies to the conventional approaches to predictive maintenance and investigates their problems. This study yields that Neural network (NN) was the best model. Finally, the findings of this study provide future investigations concerning how to utilize ML to enhance maintenance prediction and planning, expand equipment reliability, and achieve the best possible benefit.

Keywords

Machine Learning, Predictive Maintenance, Manufacturing Sector

Biographies

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