

Artificial Intelligence in Predictive Maintenance of Electronic Systems

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Abstract. This paper investigates the role of artificial intelligence (AI) in predictive maintenance of electronic systems. It highlights the use of machine learning algorithms to predict failures and optimize maintenance schedules. The study provides a comprehensive overview of AI techniques applied in various electronic systems, demonstrating their effectiveness in reducing downtime and maintenance costs.

Keywords: Artificial Intelligence, Predictive Maintenance, Machine Learning, Electronic Systems, Maintenance Optimization

Introduction

The integration of artificial intelligence (AI) in predictive maintenance is transforming the way electronic systems are monitored and maintained. This paper investigates the role of AI in predicting failures and optimizing maintenance schedules, focusing on the application of machine learning algorithms in various electronic systems. It highlights the effectiveness of AI techniques in reducing downtime and maintenance costs, providing a comprehensive overview of current practices and future prospects. By analyzing case studies and recent advancements, the research underscores the potential of AI to enhance the reliability and efficiency of electronic systems maintenance.

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