



54th CIRP Conference on Manufacturing Systems

Methodology for the assessment of potentials, selection and design of Predictive Maintenance solutions

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Abstract

PM solutions are able to predict and thus minimize production downtimes. Concerning high implementation costs of PM solutions, it is not always clear, when potentials outweigh additional investment. This paper presents a methodology to systematically assess potentials and benefits of specific PM solutions in production processes. The methodology includes an identification of critical machines and machine components in production processes and the quantification of their downtime costs, which are compared to simulation-, experience- and literature-based target costs enabling an evaluation of failure consequences, thus the component's criticality, and a goal-oriented selection and designing of PM models.

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Peer-review under responsibility of the scientific committee of the 54th CIRP Conference on Manufacturing System

Keywords: potential assessment; critical component detection; production downtime; maintenance costs; predictive maintenance; smart factory; enabling AI
