

54th CIRP Conference on Manufacturing Systems

Comparison between data maturity and maintenance strategy: A case study

Lucas Peter Høj Brasen^a, Oliver Fuglsang Grooss^a, Torben Tambo^{a,*}

Aarhus University Herning - BTECH, Birk Centerpark 15, Herning 7400, Denmark

* Corresponding author. Tel.: +4540254416. E-mail address: torbento@btech.au.dk

Abstract

With the rise of Industry 4.0, there has been a substantial drive towards sensor networks for enabling predictive maintenance as an essential component of asset management. This study analyses sensor data maturity and asset management strategy. A model is proposed for establishing a best-fit correlation between data maturity and maintenance strategy, both for the current situation and as a guide for future development. The findings are based on the literature and case studies for small and medium-sized enterprises. The research implication is to view enterprise strategy as a balance between the chosen maturity and operational needs. The practical implication is the possibility to sustain or improve and qualify investment planning.

© 2021 The Authors. Published by Elsevier B.V.

This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>)

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

Keywords: manufacturing; asset management; data maturity; sensor networks; predictive maintenance; Internet-of-Things; SME
