DISCUSSION PUBLISHERS
Research Center · Open Access Edition

Machine learning in manufacturing: advantages, challenges, and applications

Thorsten Wuest, Daniel Weimer, Christopher Irgens, KlausDieter Thoben

Discussion Research ID	DPR-2026-1149
Year	2016
Field	Engineering
DOI	10.1080/21693277.2016.1192517
Author ORCID	0000-0001-7457-7927
Licence	CC-BY
Original source	Production & Manufacturing Research
Permanent link	https://discussionpublishers.com/research/24060054-7c41-4717-b30b-acbcb5888582
Publisher	Discussion Publishers discussionpublishers.com

Republished by Discussion Publishers under the original CC-BY licence. Copyright remains with the original authors; please cite the original work.

Cite as: Thorsten Wuest, Daniel Weimer, Christopher Irgens, KlausDie (2016). Machine learning in manufacturing: advantages, cha. D

Abstract

The nature of manufacturing systems faces ever more complex, dynamic and at times even chaotic behaviors. In order to being able to satisfy the demand for high-quality products in an efficient manner, it is essential to utilize all means available. One area, which saw fast pace developments in terms of not only promising results but also usability, is machine learning. Promising an answer to many of the old and new challenges of manufacturing, machine learning is widely discussed by researchers and practitioners alike. However, the field is very broad and even confusing which presents a challenge and a barrier hindering wide application. Here, this paper contributes in presenting an overview of available machine learning techniques and structuring this rather complicated area. A special focus is laid on the potential benefit, and examples of successful applications in a manufacturing environment.

Keywords: machine learning, manufacturing systems, machine learning methods, manufacturing applications

Full text

The complete text of this work is hosted by its original publisher.
Read it via the Discussion Publishers page:
https://discussionpublishers.com/research/24060054-7c41-4717-b30b-acbcb5888582

Original record: https://doi.org/10.1080/21693277.2016.1192517
DOI: https://doi.org/10.1080/21693277.2016.1192517