

Titel:

Shop Floor Management in the Digital Twin Era: A Systematic Literature Review

Aufgabenstellung:

The digital twin, one of the main technologies in manufacturing nowadays, builds a system for production that connects virtuality and reality. Current studies have built many application scenarios for digital twin on the shop floor, such as decision support, real-time optimization and prescribing future operations. However, how can these scenarios help to further promote the existing (digital) shop floor management process. This is still a topic worth investigating.

Kontakt:

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Tasks:

- Systematic literature review on the Web of Science with defined keywords relevant to the topic
- Summarize the potentials and challenges of shop floor management in the digital twin era
- Develop a concept about using digital twin technology to enhance the current shop floor management model
- Document the research results

Related literature:

- Corallo, Angelo, et al. "Shop Floor Digital Twin in Smart Manufacturing: A Systematic Literature Review." *Sustainability* 13.23 (2021): 12987.
- Hertle, Christian, et al. "Das Darmstädter Shopfloor Management-Modell." *Zeitschrift für wirtschaftlichen Fabrikbetrieb* 112.3 (2017): 118-121.

Remark:

- This thesis can be written in English or German

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Aushangdatum:

27.10.2022

