Institute for Machine Tools and Industrial Management (*iwb*)
TUM School of Engineering and Design
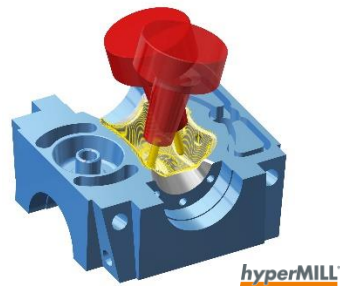Technical University of Munich

TUM

Python-API for Automation of Computer-aided Manufacturing (SA/IDP)

Initial situation

The use of artificial intelligence is becoming increasingly important. There is great potential for the use of artificial intelligence and automation, particularly in the computer-aided manufacturing (CAM) of complex hybrid process chains. The process chain considered here consists of additive manufacturing and its post-processing.

Computer-aided manufacturing

Objective

Within this project, a recently released Python-API within the CAM-Software *hyper*MILL should be investigated. The objective is to analyze the usability of the API regarding the implementation of artificial intelligence (e.g., reinforcement learning) in the software. In addition, the automation of CAM planning with the help of the Python-API is to be investigated.

Requirements

Interest in artificial intelligence methods, self-initiative, reliability, organized way of working, and very good knowledge in programming with Python.

Contact

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