Institut für Werkzeugmaschinen und Betriebswissenschaften (*iwb*)
TUM School of Engineering and Design
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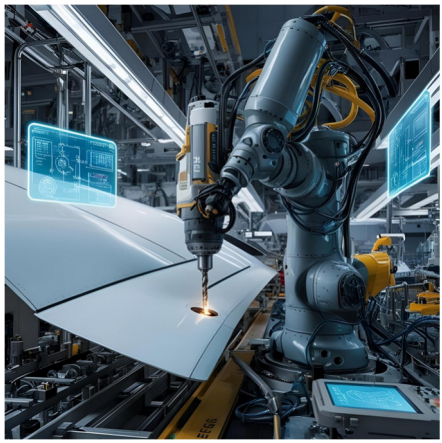
IDP: Data analysis of drilling process data

Background
In aircraft production, rivets are mainly used for the assembly of structural components. For this purpose, drill holes must first be drilled through multi-layer material packages, usually using industrial robots. Due to the different material properties, vibration-assisted drilling is used for this drilling process. During such drilling process various sensor signals and quality metrices were recorded.



Objective
This work aims to evaluate the potentials of recognizing quality defects based on in-process sensor data. Therefore, the aim is to create valuable quality labels and do first evaluations regarding their correlation to the timeseries sensor data. This allows for the implementation of own ideas.

Requirements
Programming skills ideally in Python, but other languages are possible too. Experience with timeseries data would be valuable, but is not necessary. Initiative and a structured way of working, reliability and commitment.

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