



54th CIRP Conference on Manufacturing Systems

FlexARobOS: A modern approach for flexible automation of machine tools

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Abstract

The current level of automation in machine tool feeding in SMEs is very low. Reason for this is the low number of parts with a simultaneously high number of variants. As a result, there is a high demand for flexible solution, which can be used with different machine tools depending on the current workload. In this paper a concept is presented which shows how an intelligent integration of CAD files can simplify the commissioning and programming processes of a robot and enable SMEs to automate the machine loading process. The developed concept was subsequently evaluated using a real use case scenario.

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

Keywords: Automation; Robotics; Machine Tool; CAD-CAM Tool Chain; Web Technologies; ROS