

Health and Performances Machine Tool Monitoring Architecture

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Abstract

In order to face the high market competitiveness, the Power-OM project (<http://power-om.eu/>) aims at implementing a proactive approach for improving the machine tool performances. For implementing a proactive approach that helps monitoring machine tool performances, this paper presents a technical architecture with two levels: the local and the remote one. In the local level, condition based maintenance strategy is implemented and real time data is used for monitoring the local health of a machine. A first originality is to use the current analysis for assessing the health status of the machine. In the remote level, offline data is stored in an eMaintenance platform which allows providing a fleet dimension. This dimension allows to benefit of more data and information allowing to make performances comparison across the fleet and along the time.

The added-value of this architecture is, on one hand, the possibility to track performances to detect drifts locally and realtime based on the current analysis, and on the other hand, to follow-up short and mid-term performances for deeper analysis of the fleet performances in order to bring relevant information for decision makers.

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