

Affective Production Systems: Foundations, Reference Model and Roadmap for Implementation and Validation

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Abstract

Affective Production Systems approaches the future socio-technical systems inspired by the new technology, Affective Computing. The Affective Production concept and the Reference Model innovates through two continuously integrated Core and Factory Affective Loops, which enable the human-driven system self-configuration based on required embodied intelligence at two levels: the first loop at workplace (human-machine) level and the second at all factory scales, from micro to production network. The paper presents the Affective Production foundations, a motivation scenario, envisioned demonstrator and the Roadmap for the development and validation of the innovative concept, bringing forward the production systems state-of-the-art.

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

Keywords: Socio-technical systems; Affective Computing; Intelligence Embodiment.
