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Digital Transformation in Production Planning and Control: Evaluation of the Organizational Readiness

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Abstract : Cost pressure, competitiveness and the increasing turbulence of globalized saturated markets has been the driver for a variety of research activities in the field of production planning and control (PPC) during the past decades. For some time past an increasing awareness for innovative technologies in terms of Industry 4.0 can be noticed. Although there are many promising approaches a solely installation of those smart solutions will not maximize the PPC performance. To accelerate the successful digital transformation the cooperation between employee and technology also has to be adapted. The existing processes and organizational structures might be not sufficient to maximize the utilization of technological innovations. This paper presents the key results of an extensive study which was conducted by the Laboratory for Machine Tools and Production Engineering (WZL) of the RWTH Aachen University to evaluate the current situation and examine the organizational readiness for this digital transformation.

Keywords: cyber-physical production system, digital transformation, industry 4.0, production planning and control

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