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Improved production system design: Reconfigurable system approach

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The dynamic nature of the manufacturing environment and sporadic customers need for customized products has given rise to a blustery production system. Production systems have to swing from different paradigms in order to meet the drivers of change affecting it. The goal of all production systems is to attend to all these drivers. However the challenge has always been which drivers of change should be considered in order to save cost and meet up with the global market or environment. Furthermore recent activities in the field of manufacturing span into design for reconfigurability, easy assembly and disassembly, multi-functionality, future change in design for adaptability, ergonomics, environmental sustainability, effective cost enhancement and lots more. In essence production systems undergo vibrant shifts in equipment and processes in order to meet up with the demand and diversified product design. The drivers of change affecting production systems are considered alongside with a review of different paradigms of production systems. Also, an insight into the concept of changeability in reconfigurable systems is considered together with the perspectives and approaches for process plan in reconfiguration as well as production planning.

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Enabling technologies for engineering asset lifecycle management

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The physical or engineering assets within modern industries have consistently been considered as the core elements of significant value that constitute the backbone for success and overall growth. Ensuring the optimal performance of an asset is a crucial and challenging task, since any breakdown or downtime may have a large impact on product quality, cost of production, operation effectiveness, or even cause health, safety and environmental issues. With the move of many companies into the smart, serviceable product space, it has come to light that traditional PLM is no longer cutting it when it comes to data collection and management of Engineering Assets. For the connected product world to work, a Closed Loop Lifecycle Management (CL2M) approach is required, enabled by the industrial internet. This session will give you a detailed insight into the benefits of adopting a Closed Loop Lifecycle Management (CL2M) of Engineering Assets approach including concepts, standards, examples of use cases and running projects.

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