

IMECE® International Mechanical Engineering Congress & Exposition®

Oregon Convention Center, Portland, Oregon Committee Meetings & Special Events: November 13 – 19, 2020 Conference: November 16 – 19, 2020 Exhibition: November 15 – 18, 2020

Design, Systems and Complexity Submit an abstract by March 16, 2020

The digital factory paradigm is transforming design and manufacturing together with the workforce and the work environment. Technologies are no longer only a support for product development processes, but are integrated into components, machines, management systems, and environments that become more and more complex. Moreover, products, technologies, and processes must be designed, developed and implemented to be at the service of human beings, whether they are workers, managers, or consumers, in order to improve the quality of their life and work and operate in safe environment during their interaction with complex systems, products and data. In such a context, the topics of the track covers a broad spectrum of themes including theoretical issues, methods, tools, processes, and applications. They span from more traditional tools and methodologies for product/system development to methods and tools for product optimization, design for additive manufacturing, design for sustainability, bio-inspired design, human modelling, design of human robot collaboration and design of cyber physical systems.

- Topic 6-1: Product and Process Design
- Topic 6-2: CAD, CAE and CAM
- Topic 6-3: Optimization
- Topic 6-4: Design for Additive Manufacturing
- Topic 6-5: Design for Sustainability
- Topic 6-6: Social Context Aware Design

- Topic 6-7: Big Data and Artificial Intelligence in Design
- Topic 6-8: Bio-inspired Design
- Topic 6-9: Human Modelling for Product Design and Manufacturing
- Topic 6-10: Design of Human Robot Collaboration
- Topic 6-11: Smart Cyber-Physical Systems
 Design

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