

SPECIAL SESSION

INTEGRATIVE

Reasoning and Intelligence for Digital Twins in Advanced Manufacturing

CALL FOR PAPERS

Digital twins have become essential in the digital transformation of the industry. It is rapidly becoming the technology of choice for virtualizing the physical world. However, major issues still exist that are related to the availability of data, the intuitiveness and efficiency of interfaces and interactions paradigms for their representation. To unleash the full power of digital twins, the integration of user-centered intelligence through AI methods provides strong insights.

This Special Session on Reasoning and Intelligence for Digital Twins in Advanced Manufacturing (INTEGRATIVE), hosted by the 3rd IEEE International Conference on Artificial Intelligence and Virtual Reality (AIVR 2020), aims at putting to the front the latest cutting-edge research but also exploring research perspectives on enhancing digital twins in the whole product development process and lifecycle through human-centered intelligence.

This Special Session invites researchers to submit original, high-quality research papers related to enhancing digital twins. Relevant topics include, but are not limited to:

- Model semantics of digital twins
- Embedded analytics
- Reasoning
- AI for digital twins
- User-adapted VR/AR representation of digital twins
- Adaptive VR/AR interaction paradigms
- Intelligent concurrent engineering
- Extending model lifespans as a matter of unifying the virtual and real worlds
- Digital twin model use cases
- Data processing for digital twins
- Optimizing data workflows towards an automated virtualization of machinery
- Interactive simulation models and algorithms for interactive virtual machinery
- Interactive reasoning for intelligent user interaction feedback in VR/AR
- Industrial use-cases of VR/AR usage with CAD and PLM

Important dates

Sep 4, 2020 - Submission deadline
Oct 11, 2020 - Acceptance notification
Oct 30, 2020 - Camera ready deadline
Dec 14-18, 2020 - Conference date

Invited speaker



Prof. Elias CUETO
University of Zaragoza
Spain



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Arts et Métiers Inst. of Technology
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Organizers

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