

Call for Papers

Track 7 - Industrial digitalisation, digital twins in industrial applications

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❖ **FOCUS.** The track will focus on research for novel solutions, methodologies, and technologies used in the digitisation of company processes and workflows, as well as the introduction and use of digital twins in simulations, control, verification and testing. Reports on results and insights gained during the practical application and use of digital twins, as well as efforts to increase company digitisation, are also welcome.

❖ TOPICS

- ❖ Technologies and Standards for Digitalisation and Digital Twins
- ❖ Digital Twin Applications and Technologies
- ❖ Simulations and Digital Twins
- ❖ Verification and Testing with the help of Digital Twins
- ❖ Digital Twins in the context of Virtual and Augmented Reality
- ❖ Cloud/Edge Industrial Data Analytics
- ❖ Migration of Technologies and Industry Systems
- ❖ Digitalisation Tools and Technologies
- ❖ Empirical Use-Cases
- ❖ Challenges, visions and roadmaps for Industrial Digitalisation
- ❖ Digital Transformation Strategies, Change Management & Education
- ❖ IoT Infrastructures and technologies for Digital Twin applications
- ❖ Use of Machine Learning in the context of Digital Twins and Industrial Digitalisation
- ❖ Big data in Industrial Digitalisation
- ❖ Application and definition of ontologies for industrial digitalisation
- ❖ Digital twins for brownfield plants and retrofits

❖ **AIM.** IEEE INDIN is a flagship conference of IEEE Industrial Electronics Society providing a forum for presentation and discussion of the state-of-art and future perspectives of industrial information technologies, where industry experts, researchers, and academics share ideas and report on recent developments, deployments, technology trends and research results, as well as initiatives related to industrial informatics and their application.

❖ **CONFERENCE FORMAT.** The conference will include multitrack sessions, for both Regular and Special Session papers, to present significant and novel research results with a prospect for a tangible impact on the research area and potential implementations; Industry Forum sessions, in which invited speakers will present use cases, changes, and challenges faced by industry associated with the technical areas of IES; and Tutorials sessions, in which selected speakers will explain state-of-the-art and ongoing hot research techniques and tools, together with hands-on experiments, aimed at solving problems faced by industrial informatics engineers and researchers.

❖ AUTHOR'S SCHEDULE (2020)

❖ Regular and Special Session (SS) papers

SS proposals deadline January 24
Papers submission deadline March 31
Acceptance notification June 11
Deadline for final manuscripts June 30

❖ Tutorials

Tutorial proposals deadline April 23

Track Programme Committee

- ❖ Jose Barbosa, Instituto Politecnico de Bragança, Portugal
- ❖ Stefan Biffl, TU Vienna, Austria
- ❖ Pauria Bigvand, Aucotec, Germany
- ❖ Luis Camarinha-Matos, Universidade Nova de Lisboa, Portugal
- ❖ Filipa Ferrada, Universidade Nova de Lisboa, Portugal
- ❖ Sten Gruener, ABB Corporate Research, Germany
- ❖ Jianping He, Shanghai Jiao Tong University, China
- ❖ Eemeli Hytönen, VTT Technical Research Centre of Finland, Finland
- ❖ Petri Kannisto, Tampere University of Technology, Finland
- ❖ Paulo Leitao, Instituto Politecnico de Bragança, Portugal
- ❖ Oliver Niehörster, Fraunhofer IOSB-INA, Germany
- ❖ Nikolaos Papakonstantinou, VTT technical research centre of Finland, Finland
- ❖ Jenni Rekola, Sandvik Mining and Rock Technology, Finland
- ❖ Stefan Runde, Siemens, Germany
- ❖ Sebastian Schroeck, Bosch, Germany
- ❖ Henning Trsek, TH OWL, Lemgo, Germany
- ❖ Dietmar Winkler, TU Vienna, Austria
- ❖ Martin Wollschläger, Technische Universität Dresden, Germany
- ❖ Chen-Wei Yang, Luleå University of Technology, Sweden