

Call for Papers

Track 2 - Artificial Intelligence in Industrial Applications

Daswin De Silva¹, Muhammad Khan², Evgeny Osipov³, Yudong Zhang⁴

¹La Trobe University, Australia, d.desilva@latrobe.edu.au

²Sejong University, Korea, khan@sejong.ac.kr

³Luleå University of Technology, Sweden, evgeny.osipov@ltu.se

⁴University of Leicester, United Kingdom, yudongzhang@ieee.org

❖ **FOCUS.** This technical track focuses on current and emerging topics of artificial intelligence that are relevant and important for industrial applications and industrial information technologies. It is aligned to the transformation of industrial informatics from model-based solutions to generative, data-driven solutions that address the challenges of dynamic and non-deterministic digital environments.

❖ TOPICS

- Deep Learning in industrial applications
- Hyperdimensional computing for energy efficient machine learning on the Edge
- Automated machine learning
- Online learning from data stream
- Unsupervised machine learning
- Adversarial machine learning
- Scalable machine learning
- Machine learning for multimodal information fusion
- Interpretability and traceable machine learning
- Text, image, audio, video and social media analysis in industrial applications
- Semantic models for industrial applications
- Probabilistic reasoning on IoT data
- Combined reasoning and machine learning in digital twins
- Context and semantic learning for industrial domain expertise
- Digital thread models
- Intelligent human behavior monitoring in industrial scenarios
- Optimization and Control
- Reinforced learning in control
- Fuzzy based control

❖ **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

- ❖ Jamil Ahmad, Islamia College Peshawar, Pakistan
- ❖ Daminda Alahakoon, La Trobe University, Australia
- ❖ Sung Wook Baik, Sejong University, South Korea
- ❖ Wenbin Dai, Shanghai Jiao Tong University, China
- ❖ Miguel Martinez Garcia, Loughborough University, UK
- ❖ Victor Hugo, University of Fortaleza, Brazil
- ❖ Zhuqing Jiao, Changzhou University, China
- ❖ Stamatios Karnouskos, SAP, Germany
- ❖ Zahid Khan, Prince Sultan University, Saudi Arabia
- ❖ Attique Khan, COMSATS University, Pakistan
- ❖ Denis Kleyko, University of California, Berkeley, USA
- ❖ Anis Koubaa, Prince Sultan University, Saudi Arabia
- ❖ Shuaiqi Liu, Hebei University, China
- ❖ Shuai Liu, Hunan Normal University, China
- ❖ Siyuan Lu, University of Leicester, UK
- ❖ Milos Manic, VCU, USA
- ❖ Gerardo Maria Mauro, University of Sannio, Italy
- ❖ Irfan Mehmood, University of Bradford, UK
- ❖ Rashmika Nawaratne, La Trobe University, Australia
- ❖ Sandeep Patil, Lulea University of Technology, Sweden
- ❖ Hamza Rafik, NICT, Japan
- ❖ Muhammad Sajjad, Islamia College Peshawar, Pakistan
- ❖ Javier Del Ser, TECNALIA, Spain
- ❖ Roopak Sinha, Auckland University of Technology, NZ
- ❖ Gautam Srivastava, Braddon University, Canada
- ❖ Jianyong Su, Harbin Institute of Technology, China
- ❖ Damien Trentesaux, Polytechnic University Hauts-de-France, France
- ❖ Amin Ullah, Sejong University, South Korea
- ❖ Shuihua Wang, Glenfield Hospital, UK
- ❖ Chen-Wei Yang, Lulea University of Technology, Sweden
- ❖ Xiang Yu, University of Leicester, UK
- ❖ Yu Zhang, Loughborough University, UK