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AUTOMATION SCIENCE AND ENGINEERING

IEEE

**Special Issue on the 2020 IEEE International Conference
on Automation Science and Engineering (CASE2020)**

The 16th annual IEEE International Conference on Automation Science and Engineering (CASE 2020) was held on August 20-21, 2020, virtually, jointly organized by HKU (The University of Hong Kong) and HKUST (Hong Kong University of Science and Technology). IEEE CASE is the flagship automation conference of the IEEE Robotics and Automation Society and constitutes the primary forum for cross-industry and multidisciplinary research in automation. Its goal is to provide a broad coverage and dissemination of foundational research in automation among researchers, academics, and practitioners. It was the first time the CASE conference was held online (through Zoom meetings), due to impacts of the COVID-19 pandemic. The theme of the conference was Automation Analytics. The technical program included 2 keynote speeches, 5 workshops and over 250 presentations split into several parallel sessions. This special issue is by invitation only.

Scope, Description, and More Information

The 2020 Edition of IEEE CASE covered multiple topics, organized in the following tracks:

- Adaptive automation systems
- Agent-based collaborative automation systems
- Automated fault detection, diagnostics, and prognostics
- Automation in life science
- Autonomous systems
- Big data, data mining, and machine learning
- Cloud-based automation
- Cognitive Automation
- Cyber physical production systems and industry 4.0
- Cybersecurity in automation systems
- Human-robot interact machine
- Micro- and nano-scale automation technologies and applications
- Modeling, simulation, and optimization of automation systems
- Networked control systems
- Power and energy system automation
- Sensor-fusion for intelligent automation systems
- Smart factories, smart logistics and supply chains
- Smart products with embedded intelligence
- Smart automation in construction and manufacturing
- Smart home/building automation
- Smart and connected healthcare automation
- Standardization in smart manufacturing/home/building/healthcare etc.
- Sustainability and green automation.

Invitations

Authors of the following categories of CASE2020 manuscripts are invited to this special issue:

1. Best conference paper award finalists

2. Best application paper award finalists
3. Best student paper award finalists
4. Selected papers with excellent review ratings

Please note that all invited authors of the above categories are expected to cite their original CASE2020 papers in their TASE special issue manuscript and clarify the expansion/addition of contents in the Introduction of the TASE submission with respect to the original CASE2020 paper.

Important Dates

- Paper submission deadline: May 8, 2021
- Completion of the first review round: July 31, 2021
- Completion of the second review round: October 31, 2021
- Final submission due: November 15, 2021
- Tentative publication date: January 1, 2022

Guest Editors

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Paper Submission

All papers are to be submitted through the IEEE's Manuscript Central for Transactions on Automation Science and Engineering <http://mc.manuscriptcentral.com/t-ase>. Please select the Manuscript Category "Special Issue of IEEE CASE 2020" under "Type" in Step 1 and this specific Special Issue in Step 6 of your article's submission process. **All manuscripts must be prepared according to the IEEE Transactions on Automation Science and Engineering publication guidelines** (<http://www.ieee-ras.org/publications/t-ase>). Please address inquiries to the lead guest editor mariagrazia.dotoli@poliba.it.