

2021 IEEE International Conference on Intelligence and Safety for Robotics (Online)

March 4-6, 2021, Nagoya, Japan

Organized by IEEE Robotics and Automation Society, Technical Committee on Energy, Environment, and Safety Issues in Robotics and Automation

Call for Papers

SCOPE: Discuss a way forward in robotics for the future of safety and security with intelligence

CALL FOR PAPERS :

Humans and Robots coexist with each other in various domains. Robots assist humans in industry, public and private spaces for transportation, power-assist and servant purposes where the environments including humans need to be recognized again for autonomous and safe operations. Workers perform collaborative operations with industrial robots in factories where autonomy are major concerns for manpower saving under workers' safety. These examples show that intelligence and safety are indispensable for human – robot coexistence and they need to be elaborately integrated. The IEEE ISR2021 brings together an international community of experts to discuss a way forward in robotics for the future of safety and security with intelligence by provisions of new research results and perspectives of future developments as well as achievements of social implementation.

The sponsors and organizers of IEEE ISR2021 invite submissions of research papers of high originality and quality whose topics include but are not limited to:

- Component technology of sensing and control for robot safety
- Intelligent systems of human-robot coexistence and cooperation
- Safety and productivity compatibility through robotics
- Contact/Non-contact safety criteria on human-robot coexistence
- Safety of mobile robots in such fields as agriculture, construction
- Robot learning and teaching with machine intelligence
- Safety of wearable robots/ physical assistant robotic devices
- Interaction/human-in-loop control of assistive robots
- Robot vision and environment/human recognition for autonomous robots
- Navigation and planning for autonomous motion of robots
- Human motion sensing, understanding and their intention inference/estimation
- Verbal/Non-verbal communication with humans through intelligence
- Safe human-robot collaboration with IoT and Artificial Intelligence
- Security and “Anshin” for autonomous systems with IT and 5G
- Multi-agent coordination for intelligent/safe robot behavior
- Safety standards for intelligent robots and autonomous systems
- Legal issues and ethics in robotics

Contributed Papers:

Papers must be submitted in PDF format prepared strictly following the IEEE PDF requirements. The number of pages shall be two to four (2~4). The Papers will be archived in the IEEE Xplore. Please visit the conference website: <http://www.mech.nagoya-u.ac.jp/asi/isr2021/>

Important Dates: (all at 23:59, PST)

- Paper Submission Deadline – 17 October 2020
- Notification of Acceptance – 4 January 2021
- Final Submission Deadline – 4 February 2021
- Early Registration Deadline – 5 February 2021

More Events :

- Plenary talks from intelligence and safety in Robotics
- Keynote speeches for specific fields of intelligence/safety research
- A keynote lecture for current safety of machinery regulations



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