



第36届中国控制与决策会议

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www.ccdc.neu.edu.cn

Future Robotics

CALL FOR PAPERS

Robots are revolutionizing manufacturing, healthcare, logistics, agriculture, or even home. The rise of robots has created huge demands and opportunities for robotics talent, and has stimulated great interests in robotics research from both academia and industries. With the accumulation of practical experience, technology advances, and the wide spread applications, robots of the future will be more intelligent, connected, collaborative, and mobile.

The objective of this session is to provide a forum for researchers to discuss and disseminate research work related to emerging technologies that are defining the future of robotics. Original innovative research papers addressing the following four technology areas and their potential applications are invited:

*Robotic intelligence: research focused on enhancing the intelligence of future robots, such as deep learning, 3D vision, autonomous decision-making, learning for demonstration, cloud AI for robots, inference

*Robot-human collaboration: research focused on increasing the collaborative capabilities of future robots, such as natural language processing, haptic technology, safety assurance, mixed reality for robotics

*Robotic digital connectivity: research focused on increasing the digital connectivity and interoperability of future robots, such as ROS2, robot

middleware, Wi-Fi 6, LTE, 5G, Internet of things, edge computing

* Robotic mobility: research focused on increasing the mobility of future robots, such as natural navigation, ambience sensing and information fusion, V-SLAM, collision detection and avoidance

Research papers with proper consideration for practical applications, e.g., in the form of simulation models, prototypes, and/or with industrial collaboration partnership will be considered favorably for acceptance.

Special Session Organizers:

Dr. Jingbing Zhang, Advanced Remanufacturing and Technology Centre, A*STAR, Singapore

Dr Zhengguo Li, Institute for Infocomm Research, A*STAR, Singapore