



The 8th International Conference on Robot Intelligence Technology and Applications

In conjunction with EUREKA Eisteddfod Roboteg, the first Robotics Expo in Wales

December 11 - 13, 2020 • Cardiff, Wales

www.rita2020.org

Virtual Conference

“READY, WILLING AND ABLE FOR ROBOT INTELLIGENCE TECH & APPS?”

WELCOME TO RiTA 2020

Under the theme of this year’s conference in Cardiff, “Ready, willing and able for Robot Intelligence Tech & Apps?”, the 8th International Conference on Robot Intelligence Technology and Applications (RiTA 2020) aims to serve as a platform for academics, researchers, government & policymakers, experts, industrial practitioners and other relevant stakeholders in the dissemination of new knowledge on RiTA fundamental research, design & developing RiTA, working & living with RiTA, and shaping RiTA for ethical and legal governance.

PUBLICATIONS

All accepted and presented papers will be published in the Springer Nature LNME or CCIS proceedings on Scopus. Extended version of conference papers from the RiTA 2020 with at least 50% new content are welcomed to submit to the following possible journals: IEEE Access (impact factor of 4.098 in the 2018 JCR-SCI) and On the Horizon (Scopus & ESCI-indexed).

CONFERENCE FEES

	Registration Fee for Virtual Conference
Student rate	£100
Author rate	£150
Attendee rate	£50

Conference registration fee includes access to RiTA2020 and Virtual Robots Eisteddfod, EUREKA Robotics Lab and CST tour and program booklet. Authors will have access to the conference proceeding and post-conference journal publication(s).

IMPORTANT DATES

- Oct 15:** Deadline of Paper Submission
- Nov 1 - 15:** Notification of Acceptance
- Nov 30:** Final Manuscript Submission

CONTACT US

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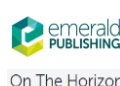
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CONFERENCE SCOPE

Cognitive Intelligence

Machine learning
Cognitive modeling of agent systems
Probabilistic and uncertain reasoning
Multi-criteria decision making
Task scheduling
Memory management
Fuzzy reasoning
Reasoning strategies
Brain models / cognitive science
Other aspect of Cognitive Robotics

Social & Service Intelligence

Intelligent interactive technology
Human-robot interaction
Human-machine interface/integration
Teleoperation/ telerobotics/ haptics
Human biology and biomechanics
Markets and computational societies
Interface design and assessment
Chatbot
Social robotics: model & implementation
Other aspect of Service & Social Robotics

Educational Intelligence

Reinforcement learning
Smart assessment & feedback
Educational theories for robotics
Robotic teaching assistant:
Design thinking for education intelligence
STEM with robotics
STEAM with robotics
Other aspect of Educational Robotics

Behavioral Intelligence

Kinematics/dynamics/control
Task/motion/trajectory planning
Mobile/humanoid/micro/nano robotics
Neuroscience based control
Neurobotics
CPG-based control
Physiologic signals integrated robot control
Ambient Intelligence
Sensor integration/fusion/perception
Multisensor data fusion
Navigation/ SLAM/ localization
Distributed intelligent algorithms and techniques
Ubiquitous computing

Artificial Intelligence

Deep learning
Deep neural networks
Image understanding
Natural language processing
Speech, voice, text recognition
Expert systems
Reasoning & Inference Planning
Video and data transmission
Processing for robots, action & gesture recognition for robots.

Collective Intelligence

Multi-robot systems
Cellular/distributed/ cooperating robotics
Learning and hybrid systems
Human knowledge discovery
Modeling and system
Swarm intelligence
Cooperative Systems and Control

Genetic & Quantum Intelligence

Computational intelligence
Evolutionary algorithm
Evolutionary robotics
Mimetic algorithm
Immune algorithm
Quantum computing
Quantum Support Vector machine
Quantum robotics

Applications

Digital creatures
Intelligent agents
Computer vision
Virtual/Augmented reality
Robotics for tourism or hospitality
Robotics for healthcare and rehab
Robotics for Military
Robotics for Surveillance
Pattern recognition
Face recognition
Finger print recognition

Others

Soft robotics
Bio-inspired robotic design & control
Self-propelled capsule robotic systems
Robotics Control with AR
Aesthetics and Robotics
Ethical, Social, Legal and Policy Implications for RITA
Chatbots

KEYNOTE SPEAKERS



Ingmar Posner

Autonomous Car with Industrial Partnership, Oxford Robotics Institute UK



Hanafiah Yusoff

Robotics Entrepreneurship, CEO, Robo Preneur Ltd. Malaysia



Simon Wang

The World Most Advanced Social and Service Robots China



David Turner

Horses (or Robots) for Courses: Robotics and Education, Beijing Normal University, China

ORGANISING COMMITTEE

Advisory Committee

Holly Yanco, NERVE Center, U. of Massachusetts Lowell, USA
Richard Clement, Cardiff Council, Welsh Government, UK

Honorary General Chairs

Jong-Hwan Kim, KAIST, Korea
Hyun Myung, KAIST, Korea
Jon Platts, Cardiff School of Technologies, UK

General Chairs

Esyin Chew, EUREKA Robotics Lab, UK
Junmo Kim, KAIST, Korea

Program Chair

Fiona Carroll Simon Thorne, EUREKA Robotics Lab, UK

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Juyoun Park, KAIST, Korea
David Hogg, Leeds University, UK
Jongrae Kim, Leeds University, UK
Jens Lambrecht, Technische Universität Berlin, Germany
Anwar A. Majeed, Universiti Malaysia Pahang, Malaysia

Plenary Session Chair: Ales Leonardis

Special Session Chairs: Guangming Xie, Deepti Mishra, Wang Tao, Loo Choo Kiong

Workshop Chairs: Fiona Carroll, Lisa Fenn, Natalie Lambert, Jason Williams, Catherine Tryfona, Zati Hakim Azizul

Publicity Chairs: Fusaomi Nagata, Gyeong-Moon Park, Chan Chee Seng

Publications & Best Research Paper

Award Chairs: Hyun Myung, Pengcheng Liu, Esyin Chew, Anwar A. Majeed

Exhibition, Booth Competition and Social Event Chair: Nigel Jones

PhD Posters & Competition Chair:

Edmond Prakash

Secretary, Finance & Operational Chairs:

Kay Norton, Hyangmi Kim

