RiTA2020

The 8th International Conference on
Robot Intelligence Technology and Applications
In conjunction with EUREKA Eisteddfod Roboteg, the first Robotics Expo in Wales

Oct 30 - Nov 1, 2020 • Cardiff, Wales
www.rita2020.org

"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

	Online	Early Bird before Sep 20	Regular after Sep 20
Student rate	£100	£150	£200
Author rate	£300	£350	£400
Attendee rate	£150	£200	£250

Conference registration fee includes admission to RiTA2020, Robots Eisteddfod, EUREKA Robotics Lab and CST tour, program booklet; welcome reception, conference dinner, teas & coffees, and lunches (online excluded). There will be an option to join via video conference subject to COVID-19 situation.

IMPORTANT DATES
July 1: Deadline of Paper Submission
Aug 1 - 15: Notification of Acceptance
Aug 31: Final Manuscript due

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JOINTLY ORGANISED BY
CardiffMet EUREKA ROBOTICS LAB

KAIST

CO-ORGANISED BY
CARDIFF SCHOOL OF TECHNOLOGIES
4D Digidol | Data | Dylunio | Dyfodol

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Department of Computer Science

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IEEE Computational Intelligence Society

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RiTA2020

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
Reinforncement 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 Yussof
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

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Liu, Esyin Chew, Anwar A. Majeed
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