

## Aim & Scope

This International Conference on Robotics, Intelligent Automation and Control Technologies (RIACT 2020) provides an opportunity to researchers, scientists, engineers and practitioners throughout the world to publish the most up-to-date accomplishment, upcoming challenges and thrilling applications in the field of Robotics and Automation domains. While automation is ready to evolve in restricted and dedicated areas, automation is still facing difficulties to sense, interpret and decide their actions when facing situations in different environments. Automation is practiced mostly in manufacturing and assembly industries like oil refining, steel mills, plastics, cement plants, pulp and paper mills, automobile and truck assembly, glass manufacturing, food and beverage processing, canning and bottling. Automated Robots are useful in hazardous applications like automobile spray painting, assembling electronic circuit boards, automotive welding. Automation technology based system requires software or artificial intelligence (AI). While automated vehicle are evolving in the fields like underwater exploration, unmanned vehicles (ground and aerial). Whereas, autonomous vehicles are still facing difficulties to sense, interpret and decide their actions when facing situations in different environments. Various environments concern off-road environment, shared environment, crowded and human populated environment, among the difficulties, the system should deal with uncertainty in sensing, interpretation in decision and control, and safe navigation.

Recently, research on unmanned underwater vehicles increased to explore the depths of the sea and ocean floors. Due to its vast area of applications, the underwater vehicles are commercially used in oil and gas industries to make a detailed map of the seafloor. Underwater robots are also used for military applications such as: Intelligence, surveillance, and reconnaissance, Mine countermeasures, Anti-submarine warfare, Inspection, Communication/navigation.

Rehabilitation robotics involves in development of custom-made robotic devices for assisting different sensorimotor functions for arm, hand, leg, ankle, and head/neck therapeutic training for patients. Current area of research in rehabilitation includes exoskeleton for limb or hand movement to enhance the strength, mobility for the patient. Bio-inspired robotic locomotion is an interesting field where the design is inspired from the nature to mimic animal locomotion. Current research in bio-inspired locomotion is taking place in Legged (Bipedal, quadruped, hexapedal), Limbless (snake, worm, and caterpillar), Climbing, Jumping (hares, kangaroo, and grasshopper), Aquatic locomotion. Humanoid robots are robots that look human-like or are inspired by the human form. Originally developed to build better orthosis and prosthesis for human beings.

RIACT 2020 aims to publish most complete and reliable source of information on the discoveries and current developments in the mode of original articles, review articles, and short communications. This conference aims to push the frontier of robotics into a new dimension, in which motion and intelligence play equally important roles.

# **CALL FOR ORIGINAL RESEARCH WORK IN KEY TOPICS (BUT ARE NOT LIMITED TO) RELATED TO RIACT 2020**

• Robot Design, Development & Control	• Intelligent Automation Systems	• AI in Robotics
• Modelling & Simulation	• Intelligent Transportation	• Industrial IoT
• Kinematics & Dynamics	• Intelligent Fault Detection and Diagnosis	• Deep learning in Robotics
• Robotic Perception	• Intelligent Components for Control	• Cognitive Automation
• Mobile & Autonomous Robots	• Industrial Networks and Automation	• Biologically inspired Control systems
• Rehabilitation Robots & Devices	• Control and adaptation Techniques	• SLAM
• Humanoid & Smart Robots	• Automation in Life Sciences	• ROS
• Military Robots	• Robust/Adaptive Control of Robotic System	• Image Processing & Vision Systems
• Service & Medical Robots	• Optimization and Optimal Control	• Human-Machine Interface
• Agricultural Robots	• Motion Planning and Control	• Actuators & Sensors
• Space & Underwater Robots	• Cognitive Control Architectures, Compliance and Impedance Control	• Computer and microprocessor-based control
• Collaborative Robots	• Control and Supervision Systems	• CAD/CAM/CAE
• Micro/Nano Robotics	• Vehicle Control Applications	• Mechatronic Systems

## **DATES TO REMEMBER**

<b>RIACT 2020 CONFERENCE DATE</b>	<b>: OCT 2, 2020</b>
<b>ABSTRACT SUBMISSION DEADLINE</b>	<b>: SEP 10, 2020</b>
<b>FULL LENGTH PAPER SUBMISSION DEADLINE</b>	<b>: SEP 15, 2020</b>
<b>NOTIFICATION OF ACCEPTANCE</b>	<b>: SEP 22, 2020</b>
<b>LAST DATE FOR PAYMENT OF REGISTRATION FEE</b>	<b>: SEP 28, 2020</b>

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BEFORE SUBMISSION OF ABSTRACT**

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LENGTH PAPER**

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