Call for Papers on ICCMIT2021

Special Session on:

"Advanced Intelligent Control Methods in Robotics and Mechatronics"

Organized by:

Prof. Luige Vladareanu

Director of Robotics and Mechatronics Department

Romanian Academy, Institute of Solid Mechanics

Corresponding Member of the American-Romanian Academy

Member of the International Institute of Acoustics and Vibration, Auburn University, USA

Email: luige.vladareanu@vipro.edu.ro; luigiv2007@gmail.com; luigiv@arexim.ro

Prof. Hongbo Wang

Parallel Robot and Mechatronic System Laboratory of Hebei Province

Key Laboratory of Advanced Forging &

Stamping Technology and Science of Ministry of Education

Yanshan University, Qinhuangdao, China,

Email: hongbo w@ysu.edu.cn

and

Prof. Ibrahiem El Emary,
Professor of Computer Science and Systems
King Abdulaziz Universitry Jeddah, Saudi Arabia
Email: omary57@hotmail.com

Objectives and Motivation

Advanced Intelligent Control is an inter-disciplinary field which combines and extends theories and methods from control theory, computer science, and operations research areas with the aim of developing controllers which are highly adaptable to significant unanticipated changes.

Intelligent control is the control method which imitates human intelligence in learning, decision-making, and problem solving. The human characteristic consists of experience, learning, adapting, and changing their methods of approach and solving problems. Intelligent control techniques allow the development of an environment which leads to recreating the advantages of natural intelligence with artificial intelligence. Advances in sensors, actuators, computation technology and communication networks help provide the necessary tools for the implementation of intelligent control hardware. Practical applications for this control method are aimed toward a variety of relevant scientific research fields that include robotics and automation, with applications such as human aid mechatronics HAM (Human Adaptive Mechatronics), transporting nuclear weights (TSN), moving in unstructured and uneven environments for military applications (DAM).

Scope and Interests (not limited to)

The scope of this special session is to present and discuss new trends in the design, control and applications of real time control of robots and mechatronic systems using advanced intelligent control methods and techniques.

Submissions for this special session should address, but are not limited to, the following or related topics:

- Robotics and Mechatronics
- Intelligent Control Systems
- Intelligent Learning Control
- Intelligent Control Architecture
- Hierarchical Intelligent Controllers
- Hybrid Control Systems
- Intelligent Information Fusion

- Learning and Adaptive Sensor Fusion
- Neural Networks and Applications
- Neural and Fuzzy Techniques
- Intelligent User Interface
- Fuzzy Logic and Learning
- Genetic Algorithms
- Biologically Inspired Systems

Paper Submission

We invite authors to submit original and high quality articles on the abovementioned topics (which are not limited to) at under mentioned email ids to Prof. Luige Vladareanu (session chair) luige.vladareanu@vipro.edu.ro.

All instructions and templates for submission can be found in the ICCMIT2021 website: http://usarconferences.org/#schedule . The accepted papers will be published in ISI-WOS /SCOPUS/WILEY journals.

Important Dates

Paper abstract submission: Will be announced Notification of acceptance: Will be announced

Final paper submission and author's camera ready: Will be announced

Conference Dates: September 20-22, 2021, Athens, Greece