CALL FOR PAPERS - SPECIAL SESSION
"Robust and Intelligent Control Schemes for Rehabilitation Devices"
for CODIT 2024
July 01-04, 2023 · Valletta, Malta

Session Chairs:

Prof. Anoop Kumar Dhingra, University of Wisconsin Milwaukee, USA
(email: anoop.dhingra@gmail.com)

Dr. SK Khairul Hasan, Miami University, USA
(email: hasansk@miamioh.edu)

Dr. Jyotindra Narayan, Imperial College London, UK and Universität Bayreuth, Germany
(email: jnarayan@ic.ac.uk)

Session Description :

Over the past decades, there has been a significant rise in the number of individuals affected by stroke. Hemiplegia is a common cause of stroke which hampers motor skills on one side of the body. Robot-assisted physical therapy is a proven technique in treating hemiparesis. This special session addresses the urgent need for advanced control techniques in rehabilitation exoskeleton robots to enhance adaptability, robustness, and performance. Adaptive control adjusts parameters in real time and removes the discrepancies between the model and the physical plant. The robust control ensures reliability, stability, safety, and minimizing uncertainties. The use of artificial intelligence in control makes the system energy efficient, robust, and enables learning and adaptation. The goal of this session is to facilitate knowledge exchange, exploration of cutting-edge control methodologies, and contribute to the development of more personalized and effective rehabilitation solutions, ultimately improving the lifestyle of the population with upper or lower extremity impairments.

The topics of interest include, but are not limited to:

- Adaptive Control
- Intelligent Control
- Sliding Mode Control
- Human-Exoskeleton Robot Interaction
- Upper and Lower Limb Rehabilitation Devices

SUBMISSION
Papers must be submitted electronically for peer review through PaperCept by **February 03, 2024:**
http://controls.papercept.net/conferences/scripts/start.pl. In PaperCept, click on the **CoDIT 2024 link "Submit a Contribution to CoDIT 2024" and follow the steps.**
IMPORTANT: All papers must be written in English and should describe the original work. The length of the paper is limited to a maximum of 6 pages (in the standard IEEE conference double-column format).
DEADLINES
- February 03, 2024: deadline for paper submission
- April 14, 2024: notification of acceptance/reject
- May 10, 2024: deadline for final paper and registration