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Special Session on

"Advanced Motion Control Techniques for Precision Mechatronic Systems"

Organized by

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Call for Papers

Theme:

Varieties of mechatronic applications require advanced motion control techniques, realized by integrating smart control strategies, high precision sensing, and innovative actuators. Advanced motion control methodologies and/or techniques for fast and precise control of motion (position, velocity, and force) in various industrial mechatronic systems will bring innovative solutions and high quality of life.

The scope of this special session is to bring together prominent researchers in the field of motion control, and to create an atmosphere that attracts, triggers discussion between, and encourages future collaborations between contributors and attendants from both academia and industry in the fields of modeling and control of precision motion systems and the wider control community.

Topics of interest include, but are not limited to:

- High precision actuators and sensors in motion control systems
- High precision positioning techniques in industrial mechatronic systems
- Nanoscale servo systems in industrial applications
- Mass storage control systems
- Innovative control strategies in advanced motion control
- Modeling and compensation techniques for nonlinearities in industrial mechatronic systems
- Robust and/or adaptive controller algorithms, sensor fusion, and novel mechanical design