IEEE/ASME TRANSACTIONS ON MECHATRONICS

Call for Papers

Focused Section on

Soft Actuators, Sensors, and Components (SASC)

Highly deformable and soft actuators, sensors, and components (SASC) are crucial in the design and development of soft mechatronic/robotic systems that safely interact with humans and delicately handle products in an assembly line. The key advantages of mechatronic systems comprised of SASC are their ability to deform and take on shapes for increased adaptability and better control of forces for enhanced safety. The development of many SASC are often inspired by the form and motion of biological organisms, and often strive to achieve inherently compliant and safe interfaces. Applications of SASC include biomedical devices, warehouse and distribution systems, manufacturing lines, and assistive devices. The development of SASC for mechatronic and robotic systems presents a number of challenges in material development, mathematical modeling, mechanism design and fabrication, and control, and has attracted increasing attention from researchers in recent years. This Focused Section will compile recent efforts contributing to soft actuators, sensors, and components in the context of mechatronic systems. Contributions addressing state-of-the-art developments and methodologies, and the perspectives on the future of SASC are also welcomed. Manuscripts should contain both theoretical and practical/experimental results. The topics of interest include but not limited to:

- Design, modeling, and manufacturing of SASC;
- Advanced control of soft actuators and components;
- Wearable and implantable soft mechatronic devices;
- Modular soft mechatronic/robotic systems;
- Soft actuation and locomotion;
- Mechatronic/robotic applications and experimental validation of SASC.

Manuscript preparation

Papers must contain original contributions and be prepared in accordance with the journal standards. Instructions for authors are available online at: http://www.ieee-asme-mechatronics.org/

Manuscript submission

Manuscripts should be submitted online at: https://mc.manuscriptcentral.com/tmech-ieee. The cover letter should report the following statement: "*This paper is submitted for possible publication in the Focused Section on Soft Actuators, Sensors, and Components (SASC)*". All manuscripts will be subjected to the regular TMECH peer review process. If you have any questions relating to this focused section, please email one of the Guest Editors.

Important dates

Paper submission:	January 8, 2018
Completion of first review:	April 9, 2018
Submission of revised papers:	May 21, 2018
Completion of final review:	August 20, 2018
Submission of final manuscripts and copyright forms:	September 9, 2018
Scheduled Publication:	December 2018

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