Special Issue

Soft Robotics in Biomedical Application

Message from the Guest Editors

Despite industrial applications where repeatability, high load capacity, and fast motions are essential features, biomedical applications demand a gentle touch, safe interactions, dexterity, and lightness. Soft robotics is an emerging field of research that has gained significant interest among biomedical researchers due to its unique capabilities and performances. This Special Issue on “Soft Robotics in Biomedical Application” seeks original research articles with novel approaches in soft material designs and fabrications, soft actuation technologies, soft sensors, and control of soft robotic platforms and their applications in the biomedical fields, ranging from macroscale rehabilitations to cell microscale manipulations.

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About the Journal

Message from the Editorial Board

We are just entering the Next Wave of Technology (NWT) where actuators will play the same role as the computer chip did for computers/social media approximately four decades ago. Just in the U.S., production of $1 trillion year of electromechanical systems (vehicles, orthotics, manufacturing cells, freight trains, aircraft, etc.) will be impacted by the NWT, all driven by actuators. Five key trends can be found for the future perspectives: “Performance to Reliability”, “Hard to Soft”, “Macro to Nano”, “Homo to Hetero” and “Single to Multi functional”. We invite papers that primarily impact these economic sectors; those illustrating basic scientific principles are also welcome.

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