

Special Session 5 (SS05)

Soft robots for engineering applications

Organizers:

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Description:

Soft robots, made of soft/smart materials or structures, have enhanced adaptability, increased flexibility, and are more suitable for safe and comfort interactions with external environments and humans, compared to conventional rigid robots. They have been thus extensively used in shape-adaptive, delicate gripping and manipulation, inherently safe wearables and implants, and detection tasks in unstructured and unknown conditions. This special session is focused on using soft smart robots for: 1) grasping, 2) locomotion such as crawling, climbing, swimming, and flying, 3) medical devices such as exoskeletons and smart stents, and 4) aerospace uses such as morphing and deployable structures.