



Department of Biomedical Engineering Graducate Seminar IEEE RAS Chapter Seminar

<u>Date</u> Friday, Oct. 25 Location CKB 303 <u>Time</u> 12:00-1PM

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Soft, Strong, and Smart Wearable Robots for Human Mobility and Manipulation Augmentation

This talk presents enabling technologies (e.g. high torque motors) to create the next generation of soft robots for human collaboration. Unlike conventional wearable robots that are rigid and heavy, soft exoskeletons use soft materials to provide a conformal and unobtrusive means to interface to the human body. The talk describes our innovation in new actuation paradigm, soft actuators, soft sensors, and control approaches that deliver biologically-inspired assistance and how this will enable a paradigm shift of wearable robots from lab-bounded rehabilitation tools to ubiquitous personal robots for work injury prevention, impairment recovery, and homecare.