

University of Houston - Biomedical Engineering Seminar

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Via Zoom:

<https://uh-edu-cougarnet.zoom.us/j/97219977403?pwd=V0IRTGhJMTdDQ1dwUDRJcGhYNTVFZz09>

Paradigm Shift in Treatment Design for Movement Disorders Using Personalized Neuromusculoskeletal Models



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Abstract

Osteoarthritis, stroke, spinal cord injury, cerebral palsy, Parkinson's disease, and amputation significantly impair human movement. These conditions result in an increased risk of health consequences such as heart disease and diabetes, in addition to societal costs. Nonetheless, treatment design for movement impairments has not progressed considerably. In order to regain patients' maximum function, a paradigm shift from subjective clinical judgment toward personalized treatments taking advantage of objective methods is needed.

Biosketch

Dr. Shourijeh received Ph.D. in Systems Design Engineering at the University of Waterloo in Canada. After working for two years in Rehabilitation Sciences at the University of Ottawa, he moved to Denmark to work at the AnyBody Technology, an industry leader in musculoskeletal modeling. He then moved to the US to work at Rice University as a postdoctoral research associate. Dr. Shourijeh's research applies neuromusculoskeletal modeling to design treatments for neuromechanical movement disorders. He is a co-Investigator on a recently awarded NIH-R01 grant. Dr. Shourijeh is also a Rice Future Faculty Fellow and served as a guest editor for the journal of Frontiers in Neurorobotics.