

RESEARCH FACULTY POSITION IN NEUROMECHANICS

The Department of Mechanical and Aerospace Engineering at Case Western Reserve University is pleased to invite applications for a part-time non-tenure-track research faculty position in the area of neuromechanics, with a starting date as soon as possible. The position will be at the Assistant Professor level.

Founded in 1826, Case Western Reserve University (CWRU) is a private research university located in Cleveland, Ohio. With an exceptional record of research achievements, CWRU is associated with 17 Nobel laureates, including the very first Nobel prize winner of the United States in 1907 on the famous Michelson-Morley interferometer experiment for measurement of the speed of light. CWRU actively promotes interdisciplinary research collaboration. The CWRU Biorobotics research group pioneered the field and has been prominent on campus for more than 3 decades spanning engineering, biology and neuroscience.

Case Western Reserve University leads the NSF NeuroNex Network for Communication, Coordination and Control of Neuromechanical Systems (C3NS), which was initiated in August 2020. C3NS interdisciplinary research groups (IRGs) consist of modelers, engineers, and experimentalists addressing the foundational question: How do biological nervous systems control and execute interactions with the environment? Animals of all sizes and speeds must solve this problem, whether during walking, grasping, feeding, or other behaviors. Our NeuroNex Network is focused on *Communication, Coordination, and Control in Neuromechanical Systems* (C3NS) to develop comprehensive models of sensorimotor control with relationships to the environment, both within individual species, and across the phyla Arthropoda, Mollusca, and Chordata. Our Network seeks to create a conceptual modeling framework that can predict control for organisms of different size and speed scales. Through our inter-phylum experimental study of sensorimotor control, we will identify convergent or conserved principles to refine and inform this framework. Such a framework will have a tremendous effect on the ability to interpret, and extend the impact of, experimental results across biology and robotics, with future applications to prosthetics.

We seek an outstanding scholar with an excellent track record of research in biorobotics and, in particular, neuromechanics and with academic management skills. A doctorate in engineering or biology is required. The successful candidate is expected to actively contribute to the research and management of the NeuroNex research program in concert with Prof. Roger Quinn. This will include typical research faculty activities such as designing and conducting experiments, advising students, organizing program activities and meetings, designing and maintaining software and websites, writing reports, papers and proposals, etc.

Applicants should submit a cover letter, curriculum vitae with a full list of publications, copies of selected publications, and the names and contact information of at least three professional referees. Please send these documents electronically in one PDF file to rdq@case.edu, Chair of the Search Committee. Evaluation of applications will begin immediately and continue until the position is filled.

Case Western Reserve University is an equal opportunity, affirmative action employer, and is committed to providing employment opportunities to all qualified applicants without regards to race, color, religion, age, gender, sexual orientation, national origin, disability, or protected veteran status.