UNIVERSITY of HOUSTON | ENGINEERING

Department of Biomedical Engineering

Keya Ghonasgi, Ph.D. Assistant Professor of Mechanical Engineering, Rice University
Director of the Cognitive Human-Robot Partnership (CHRP) Lab

Date Friday, April 17, 2026
Time 12:00 to 1:00 PM CBB
Location 108

Title: *Intelligent Wearable Systems for Synergistic Human-Robot Interactions*

Abstract: Wearable robots offer a transformative path to enhancing human performance, yet current solutions often struggle with real-world practicality and user adoption. To bridge this gap, this talk explores the development of intelligent partnerships that adapt to the user's unique learning and movement patterns.

Dr. Keya Ghonasgi will discuss her research across upper and lower limb systems, including past work with the Harmony exoskeleton to study motor learning and the use of adaptive biofeedback for pediatric gait rehab and stroke assistance. She will also highlight current initiatives at the CHRP Lab, such as adaptive difficulty modulation for human-in-the-loop training and newly funded work on gait forecasting for fall prediction in individuals with Dementia. Together, these projects aim to move wearable devices from rigid tools to intuitive, life-enhancing partners.

Bio: Dr. Keya Ghonasgi is an Assistant Professor of Mechanical Engineering at Rice University and the Director of the Cognitive Human-Robot Partnership (CHRP) Lab. Her work centers on the intersection of human learning and intelligent wearable systems, aiming to develop robots that intelligently assist and rehabilitate human movement. Dr. Ghonasgi holds a Ph.D. from the University of Texas at Austin and an M.S. from Columbia University, and she completed her postdoctoral training at Georgia Tech. Her research has been supported by Rice ENRICH, the NSF, Google Brain, and Meta Reality Labs, and she was honored as a 2023 CalTech Young Investigator Lecturer.