Lampe Joint Department of Biomedical Engineering

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Coulter Seminar Series Presents

Rehabilitation Engineering

Digital Monitoring of Gait for Parkinson's Disease: integrating wearables, cortical signals, and rehabilitation

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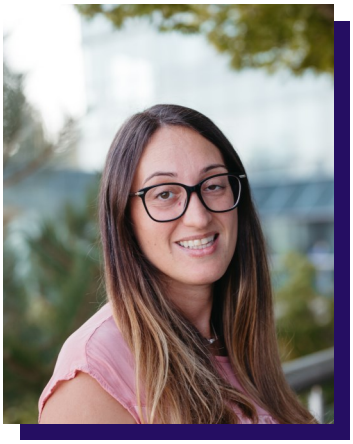

Dr. Martina Mancini is Co-Director of the Balance Disorders Laboratory and Associate Professor of Neurology at Oregon Health & Science University (OHSU), with an adjunct appointment in Biomedical Engineering. A bioengineer by training, her work focuses on using technology to assess and improve mobility in people with Parkinson's disease, particularly issues like freezing of gait.

ABSTRACT

Digital technologies offer powerful tools to objectively measure gait and balance impairments in Parkinson's disease, with the potential to enhance diagnosis, monitor disease progression, and personalize interventions. In this talk, Dr. Mancini will discuss the use of wearable sensors to capture clinically relevant markers of gait impairments in Parkinson, highlighting recent findings from both laboratory and real-world settings. She will highlight how digital measures could be of help to enhance diagnosis, their potential in monitoring disease progression, predicting falls and freezing, as well as their use in outcome measures for rehabilitation trials. Lastly, she will address key challenges such as data interpretation, variability, and clinical integration between digital measurements and meaningful clinical outcomes.

CLEAR Core
Closed Loop Engineering for Advanced Rehabilitation
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Presented from: MacNider Hall, Room 321 —UNC
Video conferenced to
4142 EB3 (NCSU)