SEMINAR SERIES

Supported by The Department of Biomechanics and
The Center for Research in Human Movement Variability (MOVCENTR)

LOCOMOTION ENERGETICS OF THE HUMAN FOOT AND ANKLE: FROM MUSCLE MECHANICS, THERMAL REGULATION TO WEARABLE DEVICES

Featuring Dr. Kota Takahashi

University of Nebraska at Omaha

January 24, 2020 | 12:00 - 1:15 pm | BRB 167

Parking Available in Lot T

PRESENTATION ABSTRACT

Our research aims to uncover the fundamental structure-function relationships that govern the way humans walk and run. In particular, we study how biological limbs produce and utilize various forms of energy (i.e., mechanical, metabolic and thermal) during locomotor tasks. Past studies by our research team have identified salient features of human foot and ankle function related to in-vivo muscle mechanics and thermoregulation. This talk will present an overview of our current research, and will discuss the potential of wearable devices to restore and/or augment human performance.

ABOUT DR. TAKAHASHI

Dr. Kota Takahashi is an assistant professor in the Department of Biomechanics at the University of Nebraska at Omaha. Dr. Takahashi received his PhD from the Biomechanics and Movement Science Interdisciplinary Program at the University of Delaware. He completed postdoctoral training from the Joint Department of Biomedical Engineering at the University of North Carolina at Chapel Hill and North Carolina State University. His research focuses on the role of human foot and ankle structures on regulating energetic demands during locomotion, and the influence of wearable devices (e.g., prosthetics, exoskeletons, footwear) on mobility and rehabilitation.

more info at **cobre.unomaha.edu**

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