SEMINAR SERIES

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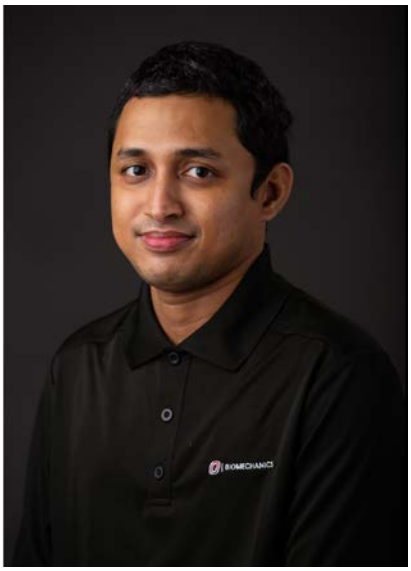

MODELING AND SIMULATION: PROVIDING INSIGHTS INTO THE BIOMECHANICS OF PERIPHERAL ARTERY DISEASE

Featuring Dr. Hafizur Rahman

University of Nebraska at Omaha

Friday, Oct. 15 | 12:00 - 1:15 pm | Via Zoom

https://unomaha.zoom.us/s/92012305734

PRESENTATION ABSTRACT

Peripheral artery disease (PAD) is a manifestation of systemic atherosclerosis producing blockages in the leg arteries, resulting in insufficient blood flow to the lower extremities. Patients with PAD walk slower, have reduced quality of life, and lose independence in performing activities of daily living. Our research utilizes advanced biomechanics tools to study the disease and to identify the mechanisms contributing to the impaired walking performance in patients with PAD. We use musculoskeletal modeling and simulation tools to better understand how muscle mechanics alter due to PAD and how muscle mechanics restore following interventions. Based on this new understanding, we are developing new interventions that will increase the amount of walking possible for patients with PAD.

ABOUT DR. RAHMAN

Dr. Hafizur Rahman is currently working as a Research Associate in the Department of Biomechanics at the University of Nebraska at Omaha. He earned his Ph.D. degree from the Department of Mechanical Science and Engineering at University of Illinois at Urbana-Champaign in 2018 and MS degree in Ocean and Mechanical engineering from the Florida Atlantic University in 2013. His current research primarily focuses on using modeling and simulation to improve the quality of life and functional outcomes in patients with PAD. He is currently the Principal Investigator for two research projects funded by the Department of Veterans' Affairs and by the University of Nebraska Research Collaboration Initiative. Previously, he was also awarded a NASA Nebraska Space Mini grant and University Committee on Research and Creative Activity grant.

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

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