“Windows to the Mind: Multi-Modal Biometric Analysis as a Translation from the Internal Mind to the External World”

Open to the public, free of charge

Monday, November 18, 2019

Refreshments: 3:30-3:50 p.m., Bradley Commons, 2202 Everett Tower
Talk: 4 p.m., 1110 Rood Hall

Abstract: There are many avenues we can take to try to understand one of the “last” frontiers of humankind—the human brain. From animal models to clinical research, the complex machinery that governs our day-to-day life often leaves us with more questions than answers. Biometric analysis, or the study of unique biophysical signatures, provides an opportunity to link physiology and behavior to neural mechanisms so that we may begin to unravel these mysteries.

In this talk, I will present several applications of biometric analyses as a means to relate internal neural processes and external events. I will focus specifically on reaching movements in the context of motor control, motor recovery after stroke, and social motivation in young children. These applications will be discussed in the context of a toolkit that consists of EEG and single unit neural recording, EMG, eye-tracking, automated analysis of “big data,” machine learning techniques, and more. Taken together, we will peel back the proverbial curtains and take a look into some of the windows to the mind.

Parking: Metered parking is available in Parking Structure #2, near Miller Auditorium.

More information: (269) 387-4940   Department of Physics email        Campus map