



York eHealth Alliance Lecture Series

Faculty of Health



Wireless accelerometers to monitor walking activity and behaviour

Thursday, October 20, 2011

Time: 3:00pm – 4:00pm

Location: HNES 402

Abstract: Measurement of walking behaviour has traditionally been limited to the laboratory environment. Recent advancements in sensory technology have provided new opportunities to gather information related to walking as individuals interact and behave in their natural environment, throughout their normal day. We will discuss the importance of understanding walking behaviour free-living environment, and why these measurements are changing how we understand the activity levels of healthy individuals, and importantly, how illness and injury alter activity levels. We will describe the development our sensor system and contrast this development with other sensor systems in the literature; we will focus the application of our measurement system with healthy individuals, patients with stroke, and patients with knee replacement.

Biography: Dr. William Gage is the Associate Dean of Research and Innovation in the Faculty of Health at York University. He is also an Associate Professor in the School of Kinesiology and Health Science, where he teaches a graduate level course in biomechanics and neuromuscular control of posture and gait. Dr. Gage holds scientific appointments as an Associate Scientist in the Centre for Stroke Recovery at Sunnybrook Health Science Centre, and as a Scientist at Toronto Rehabilitation Institute. He is particularly interested in how balance and walking are affected by age, joint disease (arthritis), and stroke.

Biography: Dr. Andrew Eckford is an Associate Professor in the Department of Computer Science and Engineering in the Faculty of Science and Engineering. A graduate of the Royal Military College of Canada and the University of Toronto, Dr. Eckford has written numerous papers on wireless networking, and has research interests in wearable wireless networks, as well as signal processing for biomechanics. He also holds an adjunct professorship at the University of Toronto.