



Assessment of Egocentric Spatial Orientation using Virtual Reality for Diagnosis and Monitoring Alzheimer's Disease

When:

24th May 2019, 12:15 – 1:15 pm

Where:

**TRI-UC, Basement Lecture theatre
550 University Ave., Toronto, M5G 2A2**

GoToMeeting:

<https://global.gotomeeting.com/join/543203653>



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Abstract:

Memory and cognitive declines are associated with normal brain aging but are also precursors to dementia, in particular the so called the pandemic of the century, Alzheimer's disease. While currently there is no cure or "vaccine" against dementia, based on brain's plasticity, there are hopes to delay the onset or to slow the progression of disease.

Alzheimer's disease is multi-facet condition; thus, the key to its management is in multi-disciplinary approaches. The clinical diagnosis of neurodegenerative disorders, in general, is based on an extensive evaluation of cognition and behavioral performance along with functional status, which provides a variable grade of accuracy especially at early stages of the disease. In this talk, I will review diagnostic objective methods that can assist Alzheimer's diagnosis. In particular, I will elaborate on the application and research outcomes of virtual reality egocentric spatial assessment for and its potentials for a differential diagnosis of Alzheimer's versus other types of dementia.

Biography: Zahra Moussavi is a professor, a Canada Research Chair, and the founder and director of Biomedical Engineering Graduate Program at University of Manitoba. Her current research focuses are on medical devices instrumentation and signal analysis for sleep apnea management and Alzheimer's diagnosis and treatment using virtual reality, rTMS and EVestG technologies. She is the recipient of several awards including the "Canada's Most Powerful Women (Top 100)" and "Manitoba Distinguished Women" in 2014 and IEEE EMBS Distinguished Lecturer, 2014 and 2019. She has published more than 259 peer-reviewed papers in journals and conferences, and has given 94 invited talks/seminars including 2 Tedx Talks and 9 keynote speaker seminars at national and international conferences. Aside from academic work, on her spare time, she writes science articles for public; also has developed and offered memory fitness programs for aging population.