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Ottawa Section

IEEE 125th EMBS Seminar Series



Robotics and Rehabilitation

co-sponsored with GOLD and EIT

Dr. Mojtaba Ahmadi

***Department of Mechanical and Aerospace Engineering,
Carleton University***

The seminar will have three parts starting by a general overview of the field of robotics, a few of the state-of-the-art applications and their associated challenges. A short summary of all the robotic research projects currently under work at Carleton's Advanced Biomechatronics and Locomotion (ABL) laboratory will be provided. These activities range from robotics for aerospace, security, and simulation applications where advanced kinematics, dynamics, controls, and optimization tools are used to address the challenges. The talk will be then followed by a more in-depth look into the more recent rehabilitation robotic research at ABL. The talk will be suited for all engineering graduate students (bioomedical engineering students in particular).



Mojtaba Ahmadi received his Bachelors in Mechanical Engineering from Sharif University in 1989, Master's degree from Tehran University in 1992, and Ph.D. degree from McGill University (Montreal, Canada) in the area of walking robotics from the Centre for Intelligent Machines and Mechanical Engineering Department in 1998. He worked as a postdoctoral fellow at the Perception and Robotics Lab, Electrical and Computer Engineering Department, Ecole Polytechnique (Montreal) from 1998 to 2000. His postdoctoral research was focused on Telerobotics. He worked with Opal-RT Technologies Inc. (Montreal) as the manager of the Advanced Robotics and Controls Group from 2000 to 2001. In 2001 he worked as a Senior Servo Engineer at Quantum and Maxtor Corporations in San Jose, California, developing control systems for advanced hard disk drives. From 2002 to 2005 he joined the Institute for Aerospace Research of the National Research Council Canada in Ottawa to lead the robotic design of a new robotic platform as part of a unique national research facility called Captive Trajectory Simulation System. Dr. Ahmadi has been with the Department of Mechanical and Aerospace Engineering at Carleton University from 2005 where he has established the Advanced Biomechatronics and Locomotion (ABL) lab. His expertise are in robot design and control, rehabilitation robotics, walking robots and bipedal walking balance, human robot interaction and haptics, robot manipulator designs, optimization and optimal control, and general areas of mechatronics. He is a member of IEEE, cofounder of GaitTronics, member of the advisory board for READ Initiative at Carleton, and a member of the planning committee for the IDeA (Innovative Designs for Accessibility) competition in Ontario.

Wednesday
Nov 21, 2012
admission is free
16:30 – 17:30
ME-3356
Carleton University



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