

## Contact

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(LinkedIn)

[www.ece.ualberta.ca/~mtavakol](http://www.ece.ualberta.ca/~mtavakol)  
(Personal)

[www.ece.ualberta.ca/~tbs](http://www.ece.ualberta.ca/~tbs) (Other)

## Top Skills

Robotics  
Science  
Matlab

## Publications

Identification and Robust  $H_\infty$  Control  
of the Rotational/Translational  
Actuator System

Adaptive Inverse Dynamics 4-  
Channel Control of Uncertain  
Nonlinear Teleoperation Systems

Bilateral Control of a Nonlinear  
Pneumatic Teleoperation System  
with Solenoid Valves

Stability and Performance in Delayed  
Bilateral Teleoperation: Theory and  
Experiments

Performance Analysis of a Haptic  
Telemanipulation Task under Time  
Delay

# Mahdi Tavakoli

Professor (Robotics) at the University of Alberta

## Summary

Mahdi Tavakoli is a professor in the Department of Electrical and Computer Engineering at the University of Alberta, Canada. He received his BSc and MSc degrees in Electrical Engineering from Ferdowsi University and K.N. Toosi University, Iran, in 1996 and 1999, respectively. He then received his PhD degree in Electrical and Computer Engineering from the University of Western Ontario, London, ON, Canada, in 2005. In 2006, he was a post-doctoral research associate at Canadian Surgical Technologies and Advanced Robotics (CSTAR), London, ON, Canada. In 2007-2008, and prior to joining the Department of Electrical and Computer Engineering at the University of Alberta, Dr. Tavakoli was an NSERC Post-Doctoral Fellow with the BioRobotics Laboratory of the School of Engineering and Applied Sciences at Harvard University, Cambridge, MA, USA. He is an Associate Editor for IEEE/ASME Transactions on Mechatronics, Journal of Medical Robotics Research, Control Engineering Practice, and Mechatronics.

Specialties: Mahdi Tavakoli's research interests broadly involve the areas of robotics and systems control. Specifically, his research focuses on haptics and teleoperation control, medical robotics, and image-guided surgery. Dr. Tavakoli is the first author of the book "Haptics for Teleoperated Surgical Robotic Systems" (World Scientific, 2008). See his lab website for more information: <http://www.ece.ualberta.ca/~tbs>.

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## Experience

University of Alberta

5 years 6 months

Professor

July 2017 - Present

Associate Professor

July 2014 - June 2017 (3 years)

Edmonton, Canada Area

University of Alberta  
Director of Electrical Engineering  
July 2013 - June 2017 (4 years)  
Edmonton, Canada Area

University of Alberta  
Assistant Professor  
September 2008 - June 2014 (5 years 10 months)

Glenrose Rehabilitation Hospital, Edmonton  
Research Affiliate  
March 2010 - February 2013 (3 years)

Harvard University  
NSERC Postdoctoral Fellow  
January 2007 - August 2008 (1 year 8 months)

Canadian Surgical Technologies and Advanced Robotics (CSTAR)  
Postdoctoral Research Associate  
January 2006 - December 2006 (1 year)

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## Education

The University of Western Ontario  
PhD, Electrical and Computer Engineering · (2001 - 2005)

K.N. Toosi University  
MSc, Electrical Engineering · (1996 - 1999)

Ferdowsi University of Mashhad  
BSc, Electrical Engineering · (1992 - 1996)