

FLASH FORW-RD WORKSHOP SERIES @ WPI

Enhancing Human-Robot Interaction Through Physiological Measurements

FUNDED BY WPI'S NSF RESEARCH TRAINEESHIP (NRT) PROGRAM:
FUTURE OF ROBOTS IN THE WORKPLACE – RESEARCH & DEVELOPMENT (FORW-RD).

March 18, 2020 | 10:00AM - 4:00PM

Odeum A Hall in Rubin Campus Center
Worcester Polytechnic Institute, 100 Institute Rd, Worcester, MA

LEARN

New approaches for leveraging biomechanics, motor control and perception to improve HRI

Use high-fidelity body-worn sensors and AI to monitor human movement, respond to human intention and enhance decision making capabilities for automated cooperation between human-robot systems

Professional presentation skills and career opportunities

ABSTRACT SUBMISSION

Submit your abstract using the [registration form](#) for an opportunity to present your project/research on HRI during a poster session by **Monday, February 24, 2020**.

TRAVEL FUNDING

Available for eligible students.
Contact us at tmeier@delsys.com

REGISTRATION

Workshop admission is free and lunch will be provided.
Space is limited, register early.

Register [here](#) by **Monday, March 9, 2020**.

NOTABLE SPEAKERS



Prof. Zhi (Jane) Li

Human-inspired Robotics Lab
FORW-RD Program
WPI



Prof. Soussan Djamassbi

User Experience and Decision
Making Research Lab
WPI



Dr. Christopher Nycz

Automation and Interventional
Medicine Lab
WPI PracticePoint



Ms. Jenny Vojtech

Delsys, Inc., Boston University
STEPP Lab for Sensorimotor
Rehabilitation Engineering



Ms. Tess Meier

Delsys, Inc.
Altec, Inc.



Mr. Tsung-Chi (TC) Lin

Human-inspired Robotics Lab
WPI



WPI



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Workshop Agenda

10:00 – 11:30 AM WELCOME

Guest Speaker Presentations

Tele-nursing Robots and Interfaces for the Current and Future Nursing Workers

Dr. Zhi (Jane) Li

Subvocal Speech Recognition & Synthesis of Prosodic Speech towards a Human-Machine Interface

Ms. Jenny Vojtech

Using Biomechanics to Understand the Interaction Between Exoskeleton and User

Dr. Christopher Nycz

11:30 – 11:45 AM BREAK

11:45 – 1:15 PM Guest Speaker Presentations

Neuro Information System (NeuroIS) and User Experience Research

Dr. Soussan Djamasbi

Using Wearable Sensors to Monitor Gait Impairments – Applications in HRI

Ms. Tess Meier

Shared Autonomous Interface for Reducing Physical Effort in Assistive Robot Teleoperation via Whole-body Motion Mapping

Mr. Tsung-Chi (TC) Lin

1:15 – 2:00 PM LUNCH AND POSTER SESSION

2:00 – 2:30 PM DELSYS SEMINAR

Enhancing Human-Robot Interaction Through Physiological Measurements

Mr. Michael Twardowski

2:30 – 4:00 PM INTERACTIVE STATIONS FOR STUDENT TRAINING

4:00 PM WORKSHOP CONCLUSION
