



IEEE

IEEE Control Systems Society, and  
HKN Epsilon Alpha Chapter at  
Cleveland State University Jointly  
present

Cleveland Section

## Flexible Control of Paralyzed Human Arms with Machine Learning

Dr. Eric Schearer

### Date and time

Friday, Nov. 13, 2015.  
3:00pm-5:00pm

### Location

Fenn Hall 103  
College of Engineering  
Cleveland State University  
2121 Euclid Ave.  
Cleveland, OH 44115

### Agenda

3:00-3:30: social hour  
3:30-4:30: seminar  
4:30-5:00: Q&A

### Who is invited?

Anyone interested in attending  
Priority will be given to  
members of IEEE.

### CPD

One credit available  
Bring your flyer for credit.



**Dr. Eric Schearer** is an Assistant Professor of Mechanical Engineering (ME) at Cleveland State University (CSU). He earned a B.S. in ME from the University of Notre Dame, an M.S. in Robotics from Carnegie Mellon University, and a Ph.D. in ME from Northwestern University. He served as an Air Force officer and worked as a consultant before he joined CSU.

**Abstract of the seminar:** Functional Electrical Stimulation (FES) is a promising technology for restoring lost function to people with high spinal cord injuries. Controlling a paralyzed human arm with FES is a daunting task because the neuromuscular system is complex and constantly changing, and the tasks performed by the arm are varied and performed in a dynamic environment. Machine learning has begun to show promise in solving some of these flexible control problems for robots. This presentation focuses on the use of machine learning for flexible control of paralyzed human arms.

***Refreshment and soft drink will be provided!***

**RSVP: Dr. Lili Dong • L.Dong34@csuohio.edu • 216-687-5312**

This is to certify that \_\_\_\_\_ attended this seminar.  
Certified by \_\_\_\_\_. Certificates of attendance and  
other evidence of CPD activity should be retained by the attendee for  
auditing purposes.