Monday, October 14

Moderator: Nader Motee, Dept. of Mechanical Engineering & Mechanics, Lehigh University

7:45am  Breakfast & Registration

8:30am  Opening Remarks
Steve DeWeerth, Dean, PC Rossin College of Engineering & Applied Science, Lehigh University
Hector Munoz-Avila, Co-Director, I-DISC, Lehigh University
Nader Motee, Dept. of Mechanical Engineering & Mechanics, Lehigh University

8:45am  Adaptive Learning for Multi-Agent Navigation
Maria Gini, Dept. of Computer Science and Engineering, University of Minnesota

9:30am  Learning Geometry-Aware Representations: 3D Object and Human Pose Inference
Kostas Daniilidis, University of Pennsylvania

10:15am  Break

10:30am  Autonomous Systems in the Intersection of Controls, Learning Theory & Formal Methods
Ufuk Topcu, The University of Texas at Austin

11:15am  Jim Donlon, National Science Foundation (NSF)

12:00  Lunch

1:00pm  Learning Dynamical Systems with Side Information

1:45pm  Deep Learning for Semantic Visual Navigation
Alexander Toshev, Google AI

2:30pm  Short break

2:40pm  Panel Discussion with Kostas Daniilidis, University of Pennsylvania; Ufuk Topcu, The University of Texas at Austin; Yiannis Aloimonos, Dept. of Computer Science, University of Maryland; Alexander Toshev, Google AI

3:20pm  Short break

3:30pm  Kinodynamic Motion Planning with Q-Learning: An Online, Model-Free, and Safe Navigation Framework
Kyriakos Vamvoudakis, The Daniel Guggenheim School of Aerospace Engineering, Georgia Institute of Technology

4:15pm  Leveraging Deep Learning Models to Create a Natural Interface for Quadcopter Photography
Gita Sukthankar, Department of Computer Science, University of Central Florida

5:00pm-6:30pm  Poster Session & Reception  Governor’s Lobby and Suite
Robot Learning Workshop
Lehigh University, Bethlehem, PA | October 14-15, 2019

Tuesday, October 15

Moderators:
Morning: Hector Munoz-Avila, Dept. Computer Science & Engineering and Co-Director I-DISC, Lehigh University
Afternoon: Jeff Trinkle, Dept. Chair, Computer Science & Engineering, Lehigh University

7:45am Breakfast & Registration
8:30am From Optimization Algorithms to Dynamical Systems and Back
   Rene Vidal, Mathematical Institute for Data Science, Johns Hopkins University
9:15am Robust Guarantees for Perception-Based Control
   Nikolai Matni, Dept. of Electrical and Systems Engineering, University of Pennsylvania
10:00am Break
10:15am Perceptual Robot Learning
   David Held, Robotics Institute, Carnegie Mellon University
11:00am Show and Tell: Robots Learning Actions from Vision and Language
   Yiannis Aloimonos, Dept. of Computer Science, University of Maryland
11:45am Lunch
12:45pm Distributed Zero-Order Nonconvex Optimization and Extension to Multi-Agent Reinforcement Learning
   Na Li, John A. Paulson School of Engineering and Applied Sciences, Harvard University
1:30pm Topics in Graph Deep Learning
   Radu Balan, Department of Mathematics, University of Maryland
2:15pm Short Break
2:25pm Image Classification using Deep Reinforcement Learning
   Martin Takac, Dept. of Computer Science & Engineering, Lehigh University
3:10pm Short Break
3:20pm The Many Faces of Learning
   Don Perlis, Computer Science Dept, University of Maryland
4:05pm Learning Stabilizable Nonlinear Dynamics with Contraction-Based Regularization
   Sumeet Singh, Stanford University¹
4:50pm Closing Remarks
5:00pm Session End

¹Now at Google Brain Robotics, NY