

COLLEGE OF ENGINEERING

Control Seminar



Sponsored by: Bosch, Ford, and Toyota

Real-time Distributed Decision Making in Networked Systems



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Electrical Engineering and Applied Mathematics
Harvard University

April 9, 2021 @ 3:30 pm - 4:30 pm
Event will take place via Zoom

ABSTRACT: Monitoring and control for complex network systems are accelerated by the recent revolutions in sensing, computation, communication, and actuation technologies that boost the development and implementation of data-driven decision making. In this talk, we will focus on real-time distributed decision-making algorithms for networked systems. The first part will be on scalable multiagent reinforcement learning algorithms and the second part will be on the model free control methods for power systems based on continuous time zeroth order optimization methods. We will show that exploiting network structure or underlying physical dynamics will facilitate the design of scalable real-time learning and control methods.

BIO: Na Li is a Gordon McKay professor in Electrical Engineering and Applied Mathematics at Harvard University. She received her Bachelor degree in Mathematics from Zhejiang University in 2007 and PhD degree in Control and Dynamical systems from California Institute of Technology in 2013. She was a postdoctoral associate at Massachusetts Institute of Technology 2013-2014. Her research lies in control, learning, and optimization of networked systems, including theory development, algorithm design, and applications to real-world cyber-physical societal system. She received NSF career award (2016), AFSOR Young Investigator Award (2017), ONR Young Investigator Award (2019), Donald P. Eckman Award (2019), McDonald Mentoring Award (2020), along with some other awards.