Center for Automotive Research at Stanford

Topic: **Algorithmic foundations of large-scale smart-mobility systems**
Date / Time: July 20, 2021 / 12:00 – 1:00 pm PDT
Connection: Zoom Link
Phone Dial-in: +1 650 724 9799 (US Toll) or +1 833 302 1536 (US Toll Free)
Meeting ID: 913 1502 3679, Password: 096537
Attendees: CARS Affiliates (please forward invitation within your organization)
Contact: Adele Tanaka, adelet@stanford.edu, 650-736-4322

12:00   Welcome, Organizational Matters (A. Tanaka & L. Cathey)
         Introduction and CARS Announcements

12:05   Algorithmic foundations of large-scale smart-mobility systems

Abstract: Smart mobility holds promise for transforming our lives with efficient, sustainable, and equitable urban transportation through the incorporation of novel technologies such as the Internet of Things and autonomous vehicles. However, to reap those rewards we must develop control mechanisms capable of tackling massive scenarios, while at the same time accounting for their societal impact in terms of congestion, pollution, and fairness, to mention just a few criteria. In this talk, I will describe some fundamental ideas on the control of large-scale transportation systems, as well as their connection to ongoing research relating to the operation of autonomous vehicle fleets. Finally, I will discuss the broad implications of such systems to society and highlight directions for future research.

Bio: Kiril Solovey is a roboticist specializing in multi-robot systems and their applications to smart mobility. He is currently a Postdoctoral Scholar at the Department of Aeronautics and Astronautics, Stanford University, where he is supported by the Center for Automotive Research (CARS). He obtained a PhD in Computer Science from Tel Aviv University.

Kiril's research focuses on the design of effective control and decision-making mechanisms to allow multi-robot systems to tackle complex problems for the benefit of the society. His work draws upon ideas that span across the disciplines of engineering, computer science, and transportation science, to develop scalable optimization approaches with substantial guarantees regarding quality and robustness of the solution. For his work he received multiple awards, including the Clore Scholars and Fulbright Postdoctoral Fellowships, best paper awards and nominations, and teaching awards.

 1:00 Webinar end