Future-Proofing Vehicle Safety Communications

Inaugural Webinar

Date	May 11, 2021
Time	12:00 – 13:00 (U.S. Eastern Time)
Location	**Online via WebEx**

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Speaker/Panelists:
Yaser Fallah, with Ralph Gholmieh, and John Thai as discussants

Moderator:
Jim Misener, Qualcomm, Member of IEEE ITSS Board of Governors

Brief Abstract

Recent advances in vehicular communication technologies, along with better perception and sensing, promise significant performance improvement and cost reduction for active safety systems. Yet, the mass adoption and deployment of communication-based safety systems has not progressed at the same rate as the technology itself. In this inaugural webinar, challenges related to standardization, application development and the role of infrastructure of these technologies as well as their recent advances such as CV2X will be discussed. We argue that vehicular safety communications should be made future-proof and decoupled from applications. The objective is to allow for advances in vehicular communications, safety applications and sensing technologies to be decoupled and to happen without disrupting the design and deployment processes. Emphasizing the role of cooperative perception, we discuss how an information-centric application and communication design could be an ideal choice for a future-proof vehicle safety ecosystem.

Speaker Bio

Dr. Yaser Fallah is an Associate Professor of Electrical and Computer Engineering and the director of Connected and Autonomous Vehicle Research Lab (CAVREL) at the University of Central Florida. His recent research has focused on connectivity and cooperative AI for automated driving and safety systems. His research interests include wireless vehicular communications, stochastic modeling and machine learning, perception/sensing, and decision-making topics as they apply to cyber-physical networked systems such as connected and autonomous vehicles. Dr. Fallah is a recipient of the NSF CAREER award in 2015. He received his Ph.D. from the University of British Columbia, Canada, in 2007. He was a research scientist at the University of California, Berkeley from 2008 to 2011. Dr. Fallah serves as an editor of IEEE Transactions on Vehicular Technology, and co-chairs the IEEE Connected and Automated Vehicles symposium.

Panelists:

- **Dr. Ralph Gholmieh** [Senior Staff Engineer at Qualcomm]

  Bio: Ralph Gholmieh is a senior staff engineer at Qualcomm working in the protocol systems group. For the last 4 years, he has been working on the development of Qualcomm's CV2X product. He has worked extensively on system level modeling of CV2X scenarios with special emphasis on congestion control. He has a PhD in Electrical Engineering from the University of California at San Diego, and a Master's degree in Electrical Engineering from Texas A&M University, College Station.

- **Mr. John Thai** [Principal Traffic Engineer for the City of Anaheim California]

  Bio: John Thai is a Principal Traffic Engineer working in the Traffic Management Center for the City of Anaheim since 1997. He is registered as Electrical Engineer and Traffic Engineer in the State of California. He is active with ITS, NTCIP and ATC standards committees serving as Chair of the NTCIP Joint Committee, and co-Chair of the Connected Intersections (CI) Committee.