

HOW SMALL CAN HEADWAYS BE IN PLATOONS OF CONNECTED AUTONOMOUS VEHICLES?

Friday, September 21, 2018 2:30 - 3:45 PM (US Arizona)

[College Avenue Commons \(CAVC\) Room 559](#) (Parking)



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About the Talk

Connected and autonomous vehicle (CAV) technologies are currently being developed and road-tested at an unprecedented rate. The technologies have been applied to various transportation safety and mobility applications, and are expected to continue driving innovations in transportation. Platooning is one of many CAV mobility applications. While the concept of platooning is at least two decades old, CAV technologies have brought forth new optimism that inter-vehicle headways can be virtually infinitesimal due to a virtually nonexistent reaction time. This might be the case under stationary condition, or for a group of vehicles whose trajectories are planned ahead. However, it may not be achievable when vehicles with different initial states (position, speed, and acceleration) merge into a single platoon. This research aims to explore the limit of vehicle headways in CAV platoons as a function of the initial states of a pair of leading and following vehicles.

About the Speaker

Dr. Yingyan Lou is an Associate Professor of Civil, Environmental and Sustainable Engineering at Arizona State University. She holds a B.S. and a B.A. Econ degree from Beijing University, and received her M.S. and Ph.D. degrees in Civil and Coastal Engineering from the University of Florida. Dr. Lou's primary areas of expertise include intelligent transportation systems and transportation systems modeling and optimization. She has served as a PI/Co-PI on 26 projects funded by multiple agencies, including National Science Foundation, national and regional university transportation centers, United States Environmental Protection Agency, and Alabama Department of Transportation. Her research has led to 27 journal publications, 1 book chapter, and 23 peer-reviewed conference articles. Dr. Lou currently serves as a member of two Transportation Research Board committees (Transportation Network Modeling and User Information Systems).

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Light refreshments will be served. Event is open to the public.



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