



Committee on Traffic Flow Theory and Characteristics
(TRB ACP50)

ACC Webinar Series



We are proud to announce our 11st webinar in the ACC Webinar Series:



“Detecting ACC-Driven Vehicles in Vehicle Trajectory Data”

Dr. Alireza Talebpour,
Assistant Professor, UIUC

Friday, Feb 18th, 2022 --- 10:00 AM (EDT)

(3 PM for London; 4 PM for Zurich, Paris, Rome, Amsterdam...; 11 PM for Beijing)

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ABSTRACT

The traffic dynamics are expected to change with the widespread utilization of advanced driver assistant systems (ADAS). Currently, simulation tools are adopted to capture the impacts of ADAS technologies on traffic dynamics. Real-world data collection of different ADAS technologies is required to support realistic modeling of these technologies in simulation tools. Vehicle trajectories are one of the cornerstones of modern traffic flow theory with applications in driver behavior studies and automated vehicle (AV) research. Unfortunately, the existing trajectory datasets fail to provide any information on the utilization of ADAS technologies. This presentation proposes collecting and using a new trajectory dataset that contains multiple instances of probe vehicles using adaptive cruise control (ACC) to identify ACC-type behavior across the entire trajectory dataset.

BIOGRAPHY

Bio: Alireza Talebpour received his B.S. and M.S. degrees in Civil Engineering from Sharif University of Technology, Tehran, Iran, in 2007 and 2009, respectively. He received his Ph.D. in Civil and Environmental Engineering from Northwestern University, Evanston, IL, USA, in 2015. He is currently an Assistant Professor in the Department of Civil and Environmental Engineering at the University of Illinois at Urbana-Champaign. His current research focuses on theoretical and experimental studies of human-automated vehicle interactions and he is the vehicle development lead in one of the USDOT Automated Driving Demonstration (ADS) grants, AVA: Automated Vehicles for All.