



PacTrans Regional Transportation Seminar

Speaker: David Noyce

Date: Wednesday, January 24, 2018

Time: 2:30 - 3:30pm, PST

Location: UW Seattle Campus

Husky Union Building (HUB) Rm 334



Webinar URL

<https://www.youtube.com/watch?v=7tpw-waoKx0>

Organized by

The Pacific Northwest Transportation Consortium (PacTrans) Region 10 University Transportation Center

Seminar Title

Developing Communication- and Connectivity-Driven Transportation Systems

Abstract

Advances in vehicle detection and adaptive traffic signal systems can predict vehicle arrivals to proactively adjust traffic signal phase and cycle timing. Most systems rely on point-based data produced by inductive loop activations or video detection systems. New technology provides the opportunity to move past these methods and create a transformative change in how traffic data and performance measures are determined, monitored and used at signalized intersections.

Microwave radar-based vehicle detection is one commercially-available technology used as an alternative to loop detectors. The Intersector™ is a radar-based vehicle detection system that is capable of continuously monitoring the trajectory of vehicles within the range of the device. As part of the National Cooperative Highway Research Program's (NCHRP) Innovations Deserving Exploratory Analysis (IDEA) research program, a software-based data collection system capable of monitoring and logging vehicle trajectories was developed. Data collected from the system was used to directly monitor intersection operational and safety performance measures. Creation of the vehicle trajectory data collection system will be discussed, including algorithm and hardware development. Linkage to communication and connectivity systems, including the Internet of Things (IOT), and connected and autonomous vehicle (CAV) implementation, will also be explored.

Speaker



David A. Noyce, Ph.D., P.E., F.ASCE is the Arthur F. Hawnn Professor of Transportation Engineering and Chair of the Department of Civil and Environmental Engineering at the University of Wisconsin – Madison (UW-Madison). He also holds a joint appointment in the Department of Industrial and Systems Engineering at UW-Madison and is an adjunct professor at the University of Massachusetts-Amherst. Dr. Noyce received his B.S. and M.S. degrees in Civil and Environmental Engineering from UW-Madison in 1984 and 1995, respectively, and received his Ph.D. in Civil (Transportation) Engineering at Texas A&M University in 1999. Dr. Noyce has over 33 years of experience in transportation engineering including state government, private consulting, and academia. He has held positions at the University of Massachusetts-Amherst, Texas A&M University, the Illinois Department of Transportation, and several U.S. civil engineering consulting firms. Dr. Noyce currently serves as Director of the Traffic Operations and Safety (TOPS) Laboratory at UW-Madison.

For questions, please contact Cole Kopca, Assistant Director for PacTrans, at pactrans@uw.edu | 206.685.6648 | www.pactrans.org
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