

TRANSPORTATION SEMINAR

A Comprehensive Look at Pedestrian Service at Signalized Intersections

Friday, January 27, 2017
3:00pm to 4:30pm

Please join us in Schwada Building (SCOB) room 101 

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Signalized intersections are locations where various users meet within time and space and are required to share this space to effect efficient and safe movement of goods and vehicles. The operational objectives held by the managing agency of any individual intersection guide the principles of operations for that intersection: Which users are most important and hence deserve priority? Which users can wait a little bit longer than the others? In transportation engineering, there is a well-known tradeoff between Safety and Efficiency, in that the two concepts are effectively at odds with each other.

Typical user groups of signalized intersections include private autos, bicycles, pedestrians, transit, and freight. Each of these groups requires various amounts of time and space to safely pass through the intersection. Historically, service for private automobiles has been heavily favored by providing long green durations for vehicles on the main street. This is done at the expense of other users, such as those on the side streets as well as pedestrians and bicyclists. Recently, there has been a movement towards increased use of active modes of transportation, sparking interest in strategies that may not favor private automobiles as much as in days past. This presentation will discuss several strategies that focus on improving pedestrian operations at signalized intersections, including the results of a recent research project that developed and implemented a pedestrian priority algorithm in a traffic signal controller.

Dr. Edward J. Smaglik, P.E., is an Associate Professor of Civil Engineering at Northern Arizona University (NAU), Flagstaff, AZ with over 9 years of academic research and teaching experience, preceded by 2 years of experience as a post-doctoral research associate. He currently serves as a member of multiple national committees on traffic signals and operations and has taught courses in the area of traffic signals and studies, urban transportation planning, and Intelligent Transportation Systems (ITS). In addition to his teaching duties, Dr. Smaglik has served as the Principal Investigator on transportation related projects on a wide range of topics, including the development and application of performance measures at signalized intersections, an evaluation of countermeasures for bicycle – motor vehicle conflict zones, the analysis of travel time data related to special events, the development of a sustainable traffic sensor, and the evaluation of various vehicle detection technologies at signalized intersections.



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