

# Transportation Engineering and Safety Conference

## 2A: SimCap

The Simulation and Capacity Analysis User Group (SimCap) of the Mid-Atlantic Section of the Institute of Transportation Engineers (MASITE) is pleased to present this session focusing on recent project examples and advances in microscopic simulation modeling.

**Moderator:** David A. Petrucci, Jr., P.E., PTOE, Traffic Discipline Leader, Borton-Lawson

- **Self-Calibration and Sensitivity Analysis in TSIS / CORSIM** – David Hale, Ph.D., Assistant in Engineering, McTrans Center, University of Florida
- **Benefits of Integrated Corridor Management (ICM) and Nuclear Plant Evacuation Modeling** – Matthew Juckes, Senior Project Manager, Transportation Simulation Systems, Inc.
- **VISSIM Modeling of the Route 10 Superstreet Project, ChesterField County, VA** – Emily Scholl, E.I., Traffic Engineer, McCormick Taylor, Inc.

### Speaker Biographies:

David K. Hale, Ph.D. is a research and development faculty member within the University of Florida's Transportation Institute, containing the Transportation Research Center and the McTrans Center. His job responsibilities include participation in funded research projects, development of McTrans software, and technology transfer to the industry. His service includes contributions to the TRB Joint Simulation Subcommittee, TRB Highway Capacity and Quality of Service Committee, ITE Intelligent Traffic Signal Operations Committee, ITE Simulation and Capacity User Group, and the UF Parking and Transportation Committee.

Matthew Juckes is a Senior Project Manager with Transportation Simulation Systems, Inc. with 17 years of experience in transportation simulation, travel demand modeling, traffic engineering, and traffic impact analysis. He received his B.Eng from McGill University in Montreal Canada. Prior to working for TSS, Inc., Mr. Juckes has held the position of Senior Transportation Engineer at AECOM, and Stump/Hausman Partnership, and has work on projects across the country and in Canada. Mr. Juckes is the TSS Project Manager for the San Diego Integrated Corridor Management Pilot Project; one of two United States Department Of Transportation (USDOT) and Federal Highway Association (FHWA) funded pilot projects. This project represents a first of its kind application and has recently been selected as a finalist as ITS America 2013 Best of ITS Awards. Mr. Juckes has been the lead modeler on several key simulation projects in the Tri-State area including the Tappan Zee Bridge Widening and EIS, the Cross Bronx Expressway Redevelopment, the Lower Manhattan Simulation and Analysis Tool, as well as the I-405 and I-405/SR 22 CSMP projects in California.

Ms. Emily Scholl, E.I. joined the Traffic Department of McCormick Taylor in August 2007 with a Bachelor's Degree in Civil Engineering from the University of Delaware. As a member of the Traffic Group, Emily has been involved in a number of projects which have gained her experience ranging from traffic studies and traffic operations to the preparation of design plans. Her design experience includes the development of temporary and permanent signal plans, signing and pavement marking plans and traffic control plans. She has also worked on traffic studies which have involved Traffic Impact Study review, crash data analysis, data collection programs, Pedestrian Studies, trip distribution, traffic control warrant analysis, and detailed capacity analysis. She has extensive microsimulation experience using Vissim including a variety of different traffic networks such as freeways, roundabouts, toll plazas and signals on projects in New Jersey, Pennsylvania and Virginia. Emily is an active volunteer in the profession. She is member of the DVRPC VISSIM Study Advisory Committee; participates annually in the Futures Cities Competition and led the Engineers Club of Philadelphia Science Day activities and serves as the Outreach Chair for MASITE.