

**NCMUG Vision:** to provide a forum for sharing knowledge and experiences of using state-of-practice transportation modeling tools, techniques and innovations appropriate to answer transportation planning and policy questions for the State of North Carolina, and promote its implementation across the State.

# 2019 Fall NCMUG Meeting

1 – 5 PM, Tuesday, November 5, 2019

Room 2600, ITRE/NCSU

909 Capability Drive, Research Building IV, Centennial Campus, NCSU, Raleigh, North Carolina 27606

## Agenda

Moderator: Amar Pillai, NCDOT

- **INTRODUCTION**

- **MODEL DEVELOPMENT**

1:00-1:40 PM (40 minutes)

**How Sensitive Are Model Calibration Reports to Input Data Error**

Craig Gresham, Clearbox Forecast Group

*Learning Objectives*

- Impacts of model input errors on model calibration
- Strategies for prioritizing QA/QC of input data
- Discussion on improvement of model calibration reports

- **MODEL DEVELOPMENT WITH BIG DATA**

1:40-2:20 PM (40 minutes)

**Passive Data for the NCSTM and Applications for Charlotte**

Vince Bernardin, PhD, RSG

*Learning Objectives*

- Learn about the passive data that NCDOT purchased to support the NCSTM update and how it's also being used by Charlotte to study I-77, NC49, and other applications
- Learn how the passive data is processed to go from GPS and WiFi sightings to origin-destination (OD) matrices
- Learn how the OD matrices were expanded to represent all autos and all trucks for the NCSTM
- Learn how the NCSTM incorporated these datasets
- Learn how these datasets were also processed for Charlotte and projects in its planning area

2:20–3:00 PM (40 minutes)

**Implementation of a Multi Resolution Network Database for Statewide Models**

Jonathan Avner, and Roberto Miquel, Whitman, Requardt & Associates, LLP

*Learning Objectives*

- Creation of Travel Demand Model networks from GIS datasets
- Benefit to the use of consistent data sources for model network building
- Development of travel demand models and different resolutions to aid in model applications
- Innovative ways to store and maintain multimodal and multi year networks in a user friendly environment

● **PERFORMANCE MEASUREMENT**

3:00-3:40 PM (40 minutes)

**Model Performance Output Online Dashboard Visualization Tool**

Li Jin, Ph.D, AICP, Kittelson & Associates, Inc.

*Learning Objectives:*

- Develop Historical and Future Performance Measures
- Online Performance Measure Visualization Tool
- Using Models for Future Performance Measures Analysis

3:40-4:20 PM (40 minutes)

**NCDOT Project ATLAS**

Michelle Warf, Environmental Analysis Unit NCDOT

*Learning Objectives*

- To learn about the 3 ATLAS Tools
- To understand how ATLAS helps planners
- To understand how ATLAS helps project managers

4:20 – 5:00 PM (40 minutes)

**Transit Project Ranking**

Jason Schronce, Sarah Lee, NCDOT Strategic Prioritization Office

*Learning Objectives*

- Learn how regional model output is used in the NCDOT Project Prioritization process.
- Discuss challenges experienced in the P5.0 scoring working with multiple regional models.
- Provide feedback to the SPOT staff on a smoother transition and use in P6.0 scoring.

Note: Four (4) PDHs can be earned at the meeting (roster sheet & forms will be provided).