**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.

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**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

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**Agenda**

Moderator: Amar Pillai, NCDOT

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- **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
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).*