The NCMUG’s vision is 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.

2016 Fall NCMUG Meeting

Wednesday, November 16, 2016
1:00 p.m. – 5:00 p.m.
Room 2600, ITRE/NCSU
909 Capability Drive, Research Building IV, Raleigh, North Carolina 27606

Agenda

Moderator: Joe Schirripa, Transportation Planning Branch, NCDOT

- **INTRODUCTION**

- **SUB-AREA ANALYSIS/CORRIDOR ANALYSIS**
  Sub-Area and Corridor Analysis – Guidelines and Tool for TRM v6 (40 minutes)
  Amar Sarvepalli, Parsons Brinckerhoff

  **Learning Objectives:**
  - Subarea: Need for one and what does it include (highway / transit?)
  - Brief overview of popular subarea modeling approaches in the US
  - Typical subarea modeling design and steps
  - Subarea guidelines and things to consider
  - Overview of TRM-v6 subarea Tool

- **SIMULATION MODEL**
  Construction Traffic Analysis: To be or Not to be: A Case Study for NC-107 Widening, Sylva, NC (40 minutes)
  Taruna Tayal, VHB and Donald Bryson, PE, VHB

  **Learning Objectives:**
  - Improving Construction Management planning.
  - Realizing opportunities to revise interim or final designs based on construction analysis.
  - Recognizing and effectively exploiting linkages between regional travel demand models and micro-simulation models.
  - Applying benefit cost analyses to construction phasing and traffic maintenance.
  - Identifying the advantages and disadvantages of performing construction traffic analysis.

  VISSIM Microsimulation Modeling for South Carolina Freeway Projects (40 minutes)
  Kellie Reep, PE, Stantec

  **Learning Objectives:**
  - Introduction to VISSIM and its features/limitations
  - Summary of start-to-finish modeling process
  - Explanation of vehicle assignment in VISSIM
  - Overview of corridor studies performed in South Carolina
Utilizing Macro- and Micro-Simulation Tools for the Completion of I-485 HOV/HOT Analysis in the Charlotte area (40 minutes)
Vivek Hariharan, RS&H; Craig Gresham, Clearbox Forecast Group; Brian Wert, NCDOT

Learning Objectives:
- Working between Macrosimulation and Microsimulation Models
- Utilizing ODME Matrix Manipulation for Transmodeler analysis
- Limitations of regional models for microsimulation analysis

Piedmont Triad Freight and Commercial Vehicle Model (40 minutes)
Colin Smith, RSG; Craig Gresham, Clearbox Forecast Group

Learning Objectives:
- Introduction to truck touring models for simulating freight delivery and commercial vehicle movements
- Freight truck touring model: structure and sensitivity
- Commercial vehicle touring model: structure and sensitivity
- Piedmont Triad case study
- rFreight, an R (open source statistical programming platform) package that supports implementation of freight simulation models.

- SURVEY – STATE OF PRACTICE
Web-Based with GPS Samples: 2016 Triangle Household Travel Survey (40 minutes)
Joe Huegy, Project Manager, Triangle Regional Model Service Bureau/ITRE/NCSU

Learning Objectives:
- Web-Based/Self-administered survey, purpose, cost, sample strategy, instrument design and QAQC, data process, and lessons learnt
- GPS data collection, purpose, cost, sample strategy, instrument design and lessons learnt

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