

Resource Structure:

1. Simulation Basics
 - a. What is it
2. When do agencies use it
3. Available simulation options---resolution
 - a. Microscopic
 - i. VISSIM
 - ii. AIMSUM
 - iii. SimTraffic
 - iv. CORSIM
 - v. TransModeler
 - vi. https://ops.fhwa.dot.gov/trafficanalysisitools/tat_vol2/sectapp_e.htm#top
 - b. Mesoscopic
 - i. DynusT
 - ii. AIMSUM
 - iii. Dynameq
 - iv. TransModeler
 - v. https://ops.fhwa.dot.gov/trafficanalysisitools/tat_vol2/sectapp_e.htm#top
 - c. Macroscopic
 - i. Freeval
 - ii. HCS
 - iii. https://ops.fhwa.dot.gov/trafficanalysisitools/tat_vol2/sectapp_e.htm#top
 - d. Multi-resolution
 - e. Resolution choice
4. Choosing Scope
 - a. Temporal
 - b. Spatial
 - c. Modeling resolution
 - d. Dynamic traffic assignment
5. Experiment Design
 - a. No of runs
 - b. No of scenarios
 - c. Data sources
 - d. Performance Measures
 - i. Selection
 - ii. Measurement locations
 - iii. Presentation format
6. Verification, Calibration, and Validation
 - a. Procedures
 - i. Calibration parameters
 - b. Statistics
 - i. Performance Measures
 - ii. Targets
7. Application

- a. Conventional freeways and arterials
 - b. CAVs
 - c. MaaS
 - d. ITS
 - e. Hardware in the loop
 - f. Innovative intersections
8. Case Studies
- a. Consulting reports
 - b. Research reports
 - c. Available Datasets