## Simulation and Capacity Analysis User Group: Louisiana



## **EDUCATIONAL MEETING #7**

Wednesday, December  $8^{th}$ ,  $2020 \mid 12:00 \text{ am} - 1:30 \text{ pm}$  [CST] Registration link

## 1. General Information

- This educational meeting will be held virtually. Please register for the meeting beforehand, using the <u>following link</u>.
- A certificate for one (1) professional development hour (PDH) will be e-mailed to attendees shortly after the meeting.
- Let's keep SimCap Louisiana active and engaged!

## 2. Agenda

Time	Item/Description
12:00 – 12:10 PM	Welcome and SimCap Updates
	Christopher Melson   Program Manager   <u>LTRC</u>
	Mr. Melson will provide general updates—which may include updates from the Chapter, SimCap Subcommittee of the <u>ITE Traffic Engineering Council</u> , and/or the <u>TRB Standing Committee on Traffic Simulation</u> .
12:10 - 12:35 PM	Traffic Modeling and Big Data: Scaling, Synergy, and Success
	Jim Hubbell, AICP   Solution Engineer   Streetlight Data
	Traffic models have always been hungry for data, and that voracious appetite only continues to increase as models become more sophisticated, transportation rapidly evolves, and uncertainty demands more frequent updates. At the same time, traditional data sources like travel surveys are becoming more expensive and less reliable. More and more, the modeling community is turning to Big Data to fill in gaps and obtain metrics previously unavailable from traditional sources. Jim Hubbell, AICP, with StreetLight Data will share an overview of how Big Data is being used to inform and improve models across a variety of scales and purposes. This presentation will touch on the wide variety of metrics derived from Big Data to build, validate and calibrate models. Additionally, we'll dive into nuances of Big Data and the questions every modeler should be asking when considering this source. Come prepared to ask questions and share your own experiences!
12:35 - 1:00 PM	Connected and Automated Vehicles: Role of Computer and Human-in-the-Loop Simulation in Advancing the Technology
	Osama Osman   Assistant Professor   University of Tennessee at Chattanooga
	Connected and Autonomous Vehicle (CV and AV) technologies are revolutionizing the way people travel. These emerging transformational technologies are anticipated to generate unprecedented amounts of enterprise data that are expected to help improve freeway traffic control and operation, intersection control and management, travelers' safety, and fuel consumption. Realizing such promising benefits requires preparedness through research that involves modeling, algorithmic design, and experimental work. Testbeds for transportation research can leverage testing the integration and interoperability of these technologies, as well as testing their real time data exchange and management systems. Along with physical platforms, simulation-based (computer and human-inthe-loop) simulation testbeds can also be utilized to achieve similar goals. This talk will provide research results on how simulation-based testbeds can help advance the algorithmic development and design of CV and AV technologies. Dr. Osman will present his work on application of computer

Time	Item/Description
	simulation and human-in-the-loop simulation to understand, analyze, and advance algorithmic design of vehicle connectivity and automation with the objectives of improving safety, mobility, and the environment.
1:00 – 1:25 PM	DOTD's DSRC Pilot for Connected Vehicles
	Clarke Chauvin   Project Engineer   ITS, LLC
	This presentation will summarize the deployment of Louisiana's first pilot of connected vehicle technology. It will discuss the potential benefits of CAV technology with respect to roadway capacity, among others, and it will also show first hand functionality of the implemented system.
1:25 - 1:30 PM	Wrap-Up Stephen Mensah   Traffic Engineer   Stantec