

B206 – ADS Simulation and Testing Part 1: “What’s New?”



David Florence

Texas A&M Transportation Institute

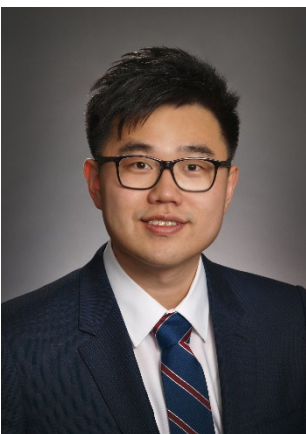
Mr. Florence has over six years of experience working at TTI. His expertise includes traffic signal systems and control, microsimulation, macro-simulation, Intelligent Traffic Systems (ITS), freeway operations, weather responsive traffic management, and traveler information systems. Mr. Florence has experience developing concept of operations and prototype systems for connected vehicle systems for wrong-way driver countermeasure systems and signal approach and departure vehicle systems. He is a skilled programmer who has scripted applications to simulate vehicle behavior using VISSIM to model connected and automated vehicles. His VISSIM expertise has enabled him to work on projects that continue to broaden his depth of experience in traffic operations, such as the simulation of transit signal priority in downtown Dallas.



Ben Hager

dSPACE Inc

Currently, I am a Project Manager and Team Leader at dSPACE, Inc with the Autonomous Driving and Software Engineering group. Before joining dSPACE, I worked for over seven years as the Real-Time Control Design and Simulation Engineer at Honda Aircraft Company. I was primarily responsible for developing and maintaining the HIL system software and hardware used in the Advanced Systems Integration Test Facility (ASITF). I also worked for two years as a Flight Test and Instrumentation Engineer at Cirrus Aircraft on the Vision SF50 Personal Jet program. I have a Master’s degree and a Bachelor of Science degree in Aerospace Engineering from Embry-Riddle Aeronautical University.



Jia Hu

Tongji University

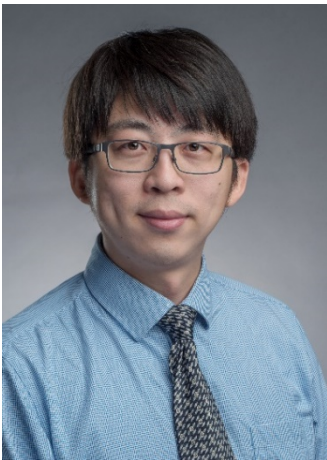
Jia Hu works as a ZhongTe Distinguished Chair in Cooperative Automation in the College of Transportation Engineering at Tongji University. Before joining Tongji, he was a research associate at the Federal Highway Administration, USA (FHWA). He is an Associate Editor of the American Society of Civil Engineers Journal of Transportation Engineering, IEEE Open Journal in Intelligent Transportation Systems, an assistant editor of the Journal of Intelligent Transportation Systems, an advisory editorial board member for the Transportation Research Part C, an associate editor for IEEE Intelligent Vehicles Symposium since 2018, and an associate editor for IEEE Intelligent Transportation Systems Conference since 2019. Furthermore, he is a member of TRB (a division of the National Academies) Vehicle Highway Automation Committee, Freeway Operation Committee and Simulation subcommittee of Traffic Signal Systems Committee, and a member of CAV Impact Committee and Artificial Intelligence Committee of ASCE Transportation and Development Institute.



Zhitong Huang

Leidos Inc.

Huang has 15 years of research experience and conducted over 30 research projects in the field of transportation engineering. His main focus is on transportation simulation and modeling, connected and automated vehicle (CAV) systems, and traffic operation and management. Dr. Huang is leading several CAV research projects at the Federal Highway Administration Saxton Transportation Operations Laboratory, Turner Fairbank Highway Research Center. He is currently leading the CARMA everything-in-the-loop simulation project.



Jiaqi Ma

University of California, Los Angeles

Dr. Jiaqi Ma is an Associate Professor at the UCLA Samueli School of Engineering and faculty lead in New Mobility at UCLA Institute of Transportation Studies. He has led and managed many research projects funded by U.S. DOT, NSF, state DOTs, and other federal/state/local programs covering areas of smart transportation systems, such as vehicle-highway automation, Intelligent Transportation Systems (ITS), connected vehicles, shared mobility, and large-scale smart system modeling and simulation, and artificial intelligence and advanced computing applications in transportation. He is an Associate Editor of the IEEE Open Journal of Intelligent Transportation Systems and Journal of Intelligent Transportation Systems. He is Member of the Transportation Research Board (TRB) Standing Committee on Vehicle-Highway Automation, Member of TRB Standing Committee

on Artificial Intelligence and Advanced Computing Applications, Member of American Society of Civil Engineers (ASCE) Connected & Autonomous Vehicles Impacts Committee, Co-Chair of the IEEE ITS Society Technical Committee on Smart Mobility and Transportation 5.0. He is also committee member of SAE J3216 Cooperative Driving Automation for On-Road Motor Vehicles.



Dan Negrut

University of Wisconsin-Madison

Dan Negrut received his Mechanical Engineering Ph.D. in 1998 from the University of Iowa under the supervision of Professor Edward J. Haug. He spent six years working for Mechanical Dynamics, Inc., a software company in Ann Arbor, Michigan. In 2004 he served as an Adjunct Assistant Professor in the Department of Mathematics at the University of Michigan, Ann Arbor. He spent 2005 as a Visiting Scientist at Argonne National Laboratory in the Mathematics and Computer Science Division. At the end of 2005 Dan joined the Mechanical Engineering faculty at the University of Wisconsin-Madison. His interests are in Computational Science, and he leads the Simulation-Based Engineering Lab (<http://sbel.wisc.edu>). Lab sponsors include NASA, U.S. Army ERDC, Army Research Office,

and National Science Foundation. The lab's projects focus on high performance computing, computational dynamics, terra-mechanics, robotics, and simulation of automation. Dr. Negrut received in 2009 a National Science Foundation Career Award. Since 2010 he is an NVIDIA CUDA Fellow. He is one of the technical leads of Project Chrono, an open source physics-based simulation engine (<http://www.projectchrono.org/>).



Chris Schwarz

The University of Iowa

Chris Schwarz received the B.S. degree from the University of Illinois at Urbana-Champaign in 1990 and the Ph.D. degree from the University of Iowa in 1998, both in electrical and computer engineering. From 1998 to present day, he has been a research engineer at the National Advanced Driving Simulator at the University of Iowa and is currently the Director of Engineering & Modeling Research. His research has involved all types of advanced driver assistance systems, connected vehicles, warning systems, automated vehicles, and driver impairment modeling. Dr. Schwarz' current research interests include vehicle automation and distributed simulation. Dr. Schwarz is a member of SAE and a senior member of IEEE.

He serves on the SAE on-road autonomous driving (ORAD) simulation task force as well as the TRB committee on vehicle-highway automation.



Runsheng Xu

UCLA

Runsheng Xu is currently a PhD student in UCLA working on Autonomous Driving topics. Before he joined UCLA, he was a senior deep learning engineer in Mercedes-Benz R&D North America. His major interests are computer vision, deep learning, machine learning, autonomous driving and cooperative driving automation.