

B306 – ADS Simulation and Testing Part 2: Approaches for Collaboration and Validation



Jace Allen
dSPACE, Inc.

Jace Allen is the Director of ADAS/AD Engineering and Business Development at dSPACE, Inc., where he manages business for Autonomous Technology, Validation and Verification (V&V) Systems, and MBD Data management/processes. He has designed and managed hundreds of simulation/test and hardware-in-the-loop (HIL) system implementations for customers in various industries. Over the past 25 years, he has handled many diverse modeling, controls, and simulation applications in the automotive, commercial vehicle, and aerospace areas. His background includes system engineering and MBD product development for vehicle controls/testing, AV/safety/security, and data management systems. A longstanding member of SAE and IEEE, he is also a member of AIAA and INCOSE. Jace has several patents in advanced sensor technology and has published numerous SAE and AIAA Papers.



Phil Azeredo
U.S.DOT - Volpe Center

Phil Azeredo, Engineer at the U.S. Department of Transportation Volpe Center, leads research in the fields of vehicle automation and cooperation driving automation (CDA). He was part of a team that focused on the testing and evaluation of V2X safety systems and leads in the test and independent evaluation of CDA features for the Federal Highway Administration's CARMA program. He is part of the CARMA 1tenth program which using scaled-down CDA systems for use in both the evaluation of CDA features and for workforce development.



Edward Chow
Jet Propulsion Laboratory

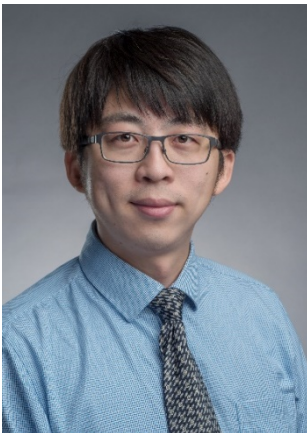
Dr. Edward Chow is the Manager of the Civil Program Office at the NASA Jet Propulsion Laboratory (JPL). He also served as the project manager/principal investigator/investigator for a number Artificial Intelligent (AI), advanced networking, and cybersecurity projects such as the Real-time Automated Insight Engine for Data to Decision (RAID) Project funded by OSD T&E S&T C4T to develop the next generation AI technologies to enable human-like automated data analytics for testing of complex system such as the F-35 Joint Strike Fighter; A cloud-based AI agent called AUDREY for the Department of Homeland Security (DHS) Next Generation First Responder Program where, for each first responder, there is an AI agent constantly monitoring in-situ and body worn Internet of Things sensors and collaborate with other AI agents to protect the safety of first responders; A high performance 5G edge computing project for DHS; and A zero-day exploit detection project. He is also supporting the team that is developing the Trusted and exPLainable Artificial Intelligence for Saving Lives (TruePAL) project for the National Highway Traffic Safety Administration to reduce the traffic accidents for first responder vehicles. Dr. Chow received his Ph.D. in Electrical Engineering from University of Southern California in 1988. Dr. Chow is the recipient of the prestigious NASA Exceptional Engineering Achievement Medal and the JPL Lew Allen Award.



Edward Griffor

NIST

Dr. Griffor is Associate Director for Cyber Physical Systems at the National Institute of Standards and Technology (NIST). He served as Walter P. Chrysler Technical Fellow, and Chair of the Chrysler Technology Council and the MIT Alliance. Dr. Griffor is a NSF/NATO Postdoctoral Fellow and holds a Ph.D. in Mathematics from MIT and a Habilitation from the University of Oslo. He has served on the research faculties of universities in the US, Europe, Asia and South America and on the EU Committee on High Performance Computing. Dr. Griffor is Adjunct Professor at the Center for Molecular Medicine and Genetics at Wayne State University in systems biology and at the University of Grenoble in computation and artificial intelligence. In industry Dr. Griffor led advanced efforts in software assurance and autonomous vehicles. His books include the Handbook of System Safety and Security and Handbook of Computability and the Mathematical Theory of Domains. He has published extensively in journals and has been invited lecturer to the American Mathematical Society, the North American Software Certification Consortium, SAE International, the US Federal Reserve Bank. Dr. Griffor's current research combines methods of physics, mathematics and biology to assurance for cyber-physical systems, including the safety measurement of Automated Driving Systems. At NIST, he leads applications of the NIST Framework for Cyber-Physical Systems to system trustworthiness and simulation. He and the team at NIST strive to meet industry needs in engineering, manufacturing, and assurance, including applications in transportation, energy, infrastructure and medicine.



Jiaqi Ma

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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.



Jacobo Antona-Makoshi

Japan Automobile Research Institute

Jacobo holds a MSc. in Automotive Engineering and a PhD. in brain injury biomechanics from Chalmers University of Technology, Sweden. He has extensive automotive safety related research experience at JARI, including real-world accident data collection and analysis, injury biomechanics experimental and computational research, human behavior and traffic flow simulation modeling, AD safety assurance methodology development, and large scale international strategic research development. Jacobo currently leads the AD Safety Standardization group at JARI, is one of the experts representing the country at the related ISO working group,

and leads the international research cooperation activities of the SAKURA project; the largest ongoing AD safety assurance initiative in Japan comprising the Japan Automobile Manufacturers Association, and supported by the Ministry of Economy, Trade and Industry of Japan.



Scott Schnelle

National Highway Traffic Safety Administration (NHTSA)

Dr. Scott Schnelle is the General Engineer in the Applied Crash Avoidance Division at NHTSA's Research and Test Center. Research interests include simulation, safety metrics, and ADS safety frameworks.



Chris Schwarz

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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.