B405-Safety Assurance of Automated Driving, Part 2: Safety Argumentation and Scenario Selection for Safety Assurance Test Cases

Emmanuele Arnoux
Renault

Emmanuel Arnoux, PhD and engineer from Ecole Centrale de Lyon. Since 2019, he integrated Renault Vehicle Testing Division as Chassis and ADS Validation and Testing Expert. Emmanuel Arnoux is also Pilot of a working group on ADS Validation for the PFA (French Automotive Platform).

Andrea Bill
University of Wisconsin- Madison

Ms. Andrea Bill is currently the Traffic Safety Engineering Research Program Manager with the Traffic Operations and Safety Laboratory and Program Director with Engineering Professional Development at the University of Wisconsin-Madison. Her current research incorporates aspects from traffic operations and traffic safety, with a specific emphasis on discovering new and innovative ways to address traffic crashes.

Anne Collin
Motional

Anne Collin holds an Engineering Diploma from Ecole Nationale des Ponts et Chaussees, and a M.Sc. in Technology and Policy and a Ph.D. in Aeronautics and Astronautics, both from the Massachusetts Institute of Technology. She is a Senior Research Scientist at Motional in the Rulebooks team, which is in charge of autonomous vehicle behavior specification. Her research interests include complex systems modeling and architecture, optimization, and performance quantification of Artificial Intelligence Systems.

Kevin Gay
Aurora

Kevin Gay leads emerging industry safety standards at Aurora, the company delivering the benefits of self-driving technology safely, quickly, and broadly. In his role, he heads up Aurora's technical engagements with industry standards development organizations including the IEEE, the Automated Vehicle Safety Consortium, and the SAE On-Road Automated Driving Committee. He also serves as the Secretary of the IEEE P2846 Working Group. Prior to joining the private sector, Kevin served for 16 years in the U.S. Department of Transportation where he led major initiatives on automated vehicles and Vehicle-to-Everything (V2X) communications technology.

TRB

Sebastien Glaser
Queensland University of Technology

Sebastien Glaser is a Professor at CARRS-Q, Queensland University of Technology, in Intelligent Transport System. After a PhD in Automation in 2004, his research focused on building Automated Driving System in cooperation with the driver. He was involved in several large French and EU projects on sharing the task between the driver and the automation. He moved to Australia in 2018, where he started to manage the Cooperative and Highly Automated Driving Safety Study project, a partnership between the iMOVE Australia, and the Queensland Department of Transport and Main Roads. He delivered several first demonstrations around Brisbane (2019 and 2020), where the Automated Vehicle was driving on an open road with real traffic, facing several challenges.

Stéphane Geronimi
Stellantis

PhD and engineer in Physics and Optronics, I joined the PSA group in 2000. I have since worked in the domain of the ADAS starting with studies with the driving simulators and then piloting various innovation projects. My activities have focused on functional safety issues, particularly for ADAS and ADS. I also participated at various European and French projects (Adaptive, aspecss, CATS, L3Pilot, Automate, SVA, Moove) in the field of ADAS. I am currently a functional safety expert for ADAS and ADS.

Shengbo Li
Tsinghua University

Dr. Li received his M.S. and Ph.D. degrees from Tsinghua University in 2006 and 2009. Before joining Tsinghua University, he has worked at Stanford University, University of Michigan, and UC Berkeley. He is now leading Intelligent Driving Lab (iDLab) at Tsinghua University. His active research interests include intelligent vehicles and driver assistance, reinforcement learning and optimal control, distributed control and estimation, etc. He is the author of over 120 peer-reviewed journal/conference papers, and the co-inventor of over 30 patents. Dr. Li was the recipient of Best Paper Awards in IEEE ITSC 2020, ICCAS 2020, IEEE ICUS 2020, CCCC 2018/2019, ITSAPF 2015, IEEE ITSC 2014, etc. His important awards include National Award for Technological Invention of China (2013), Excellent Young Scholar of NSF China (2016), National Award for Progress in Sci & Tech of China (2018), Distinguished Young Scholar of Beijing NSF (2018), Youth Sci & Tech Innovation Leader from MOST (2020), etc. He also serves as Board of Governor of IEEE ITS Society, AEs of IEEE ITSM, IEEE Trans ITS, Automotive Innovation, etc.

Claus Pastor
BASt

Claus Pastor studied physics in Düsseldorf, before he started working at BASt in 2002. He worked for multiple EU projects in the area of passive safety, dealing with dummy development, virtual testing and crash compatibility. He has been in charge of the GIDAS In-Depth investigation and analysis at BASt until 2018, also chairing the GIDAS board. He has been chair of the IGLAD consortium, dealing with international harmonization of In-Depth accident data. In 2018, he took a different position at BASt, now dealing with the scenario based safety assessment of automated vehicles.

Satoshi Taniguch
Toyota

Mr. Satoshi Taniguchi chairs JAMA AD safety assurance WG since 2018 and was appointed as a lead of SIP-adus safety assurance project supported by Japanese Cabinet Office and SAKURA project supported by Japanese Ministry of Economy, Trade and Industry since 2019. He is active in UN WP29 activity as an expert in JASIC and in international standard activity as a project leader of ISO 34502. Since 2006 he has been employed at Toyota Motor Corporation and is currently the manager of system design and safety group in AD/ADAS development division. He studied control system engineering as an undergraduate and received his Ph. M. in human factor engineering at Osaka University. In 2018 he earned an MBA from Globis Graduate School of Management.

Dee Williams
National Highway Traffic Safety Administration (NHTSA)

Dee Williams is currently the Deputy Associate Administrator for NHTSA's Office of Vehicle Safety Research. In this role, she leads the development and implementation of vehicle safety research initiatives, including policy, strategic and program planning, and program assessments, to advance national highway traffic safety programs and motor vehicle safety standards related to the integration of innovative technologies and emerging roadway safety issues, including the United States Department of Transportation's (USDOT) and NHTSA's vehicle automation initiatives. Prior to rejoining NHTSA in October 2016, from January 2014 to October 2016, she served as the Chief of the Compliance Division for the Federal Motor Carrier Safety Administration (FMCSA), a sister agency to NHTSA, where she was responsible for a portfolio of programs including Compliance, Safety, Accountability (CSA), New Entrant Safety Assurance, and Drugs and Alcohol. Also, while at FMCSA, from August 2010 to January 2014, she held the position of Division Chief for Strategic Planning and Program Evaluation. Preceding her time at FMCSA, she held a variety of positions back at NHTSA, serving nearly a decade, including as their Acting Director for the Office of Government Affairs, Policy, and Strategic Planning, a direct arm to the NHTSA Administrator. Before joining USDOT, Dee served as the program manager and spokesperson for the Cellular Telecommunications & Internet Association's (CTIA), distracted driving educational campaign, "Safety – Your Most Important Call." She holds a Bachelor of Arts degree in Political Science (cum laude) from Susquehanna University, located in Central Pennsylvania, with minor emphasis areas in legal studies and sociology.