WORKSHOP:
HOW TO PREPARE FOR DEPLOYMENT OF L4
AUTOMATED VEHICLES

18 November 2021
9:00 - 18:30 CET
3:00 am US Eastern/3:00 pm China

SPEAKER BIOS

Alexander Kraus

With an MSc in automotive engineering, Alex Kraus has over 17 years of experience in international management and leadership in the field of automotive, e-mobility, automated driving, functional safety, cyber security, homologation, and testing. With international exposure to the Americas, Asia, and Europe he has lived in Germany, Austria, and Singapore and developed an extensive network within the industry and governmental institutions globally.

As CTO at TÜV SÜD Mobility Division, he is a globally responsible executive based in the TÜV SÜD Headquarters Munich. His responsibilities include the technical strategy, investments, partnerships for TÜV SÜDs global operations with large international customers like the automotive and supplier industry, fleet operators, importers, and dealerships worldwide as well as the periodical technical inspection services.
He is co-founder of the International Alliance for Mobility Testing and Standardization (iamts), an international initiative among leading organizations to pave the way towards safe and secure automated and connected driving. Since April 2019 he is the Chairman of the iamts Executive Committee.

Since July 2021 he is a board member of the Mobility Council of EU Tech Chamber.

Alexander Schwab

- 2021   Officially Authorized Expert for Motor Vehicle Traffic

- Since 2019 TÜV SÜD - Technical Affairs worldwide at HAD

- 2019   TU Munich - M.Sc (TUM) Mechanical Engineering

- 2018-2019   *TÜV SÜD - A Method for the Selection of Challenging Driving Scenarios for Automated Vehicles Based on an Objective Characterization of the Driving Behaviour (Master Thesis)*

- 2016-2018   LEAR Corporation Munich

Axel Deicke, Chair IC20-009 Nurturing the Era of end-to-end Mobility as a Service (MaaS): Standards for Connected and Autonomous Transportation

Orchestration iamts Pre-Symposium, Automotive Consultant

Axel Deicke has worked for over 40 years as an electrical engineer in leading positions of the automotive industry, currently as an independent automotive consultant. Axel was employed at BMW in engineering/project management as well as aftersales engineering for over 30 years, working on programs like BMW's first E/E system integration, building up local E/E content in South Africa, and leading an industrial PC manufacturing factory. In 2020, he began to work with iamts on this Pre-Symposium. Axel studied electrics/electronics at Technical University Munich.

Björn Giesler

Björn Giesler is the Senior Director of Autonomous Driving (AD) Development at Luminar, the global leader in automotive LiDAR hardware and software technology. He joined the company in 2020 to oversee Luminar's Munich office and lead the AD platform team's efforts to make Luminar's vision of real-world Proactive Safety a reality. Prior to Luminar, Björn was the Head of ADAS at Elektrobit (acquired by Continental) from 2015 to 2018 and set up Samsung's ADAS Function Development team in Munich from 2018 to 2020. Before that he held several technical leadership roles at Audi from 2005 to 2015, where he led the Traffic Jam Pilot (TJP) team,represented Audi in VDA's Autonomous Driving workgroup, and presented TJP's functionality and safety architecture at numerous conferences and expositions, always driven by the conviction that driving safety (L4 or otherwise) should be a generally accepted state of the art. Björn has been interested in robots and autonomous systems since as long as he can remember. This led him to pursue Computer Science and a PhD centered around environment mapping and computer vision at Karlsruhe Institute of Technology.

Bolin Zhou

Mr. Bolin Zhou, currently working as Senior Technical Supervisor for China Automotive Technology and Research Center Co., Ltd (CATARC), has many years of experience in Autonomous Driving System verification and validation. He is working as the secretary and expert for ISO TC22/SC33 WG9, the workgroup for Test Scenarios of Automated Driving Systems, and had actively contributed to many international and national standardization and homologation activities. He also runs one of the working groups in IAMTS (International Alliance for Mobility Testing and Standardization), specifically seeking solutions in tackling the issue by harmonizing the differences globally.
He held a master's degree from Columbia University and currently is based in Tianjin, one of the major port cities in China.

Christoph Schulze

Since 10/2018: Project manager and technical lead in the context of software development and hardware evaluation for autonomous vehicles at the TTTech Auto AG in Vienna

10/2016-09/2018: Development and calculation engineer at the Dr. Ing. h.c. F. Porsche AG in Weissach, Germany in the department for digital power-train development

12/2013-09/2016: Development and calculation engineer at the Porsche AG in Weissach in the department for alternative power-train development

12/2010-11/2013: PhD student at the Porsche AG (alternative power-train development)

Fahimeh Rafieinia

Fahimeh Rafieinia is the CTO of Uniquesec, a Swedish start-up developing test and verification solutions for self-driving cars. She joined the company as R&D engineer and project manager in 2015, working within radar signal processing and automotive radar testing and validation. Her areas of expertise include system design, software-defined radio (SDR), FPGA and real-time systems, RF systems, business development, etc. Fahimeh is the inventor of the award-winning frequency domain automotive radar target simulator (called ASGARD). She holds a Master's degree in Communications Engineering, has been the reviewer of a few IEEE journals, including IEEE Vehicular Technology and Microwave and Wireless Components. Since 2018, Fahimeh has been active towards initiating the automotive radar standard. She is now serving as the chair of the newly-started IEEE SA working group for automotive radar performance metrics and testing methods for ADAS and ADS applications.

Gil Amid

A former Intel Vice President, Gil has over 30 years of experience in the verification world, from system level H/W and S/W verification, to VLSI/microprocessors validation and verification. Today, he is serving as Chief Regulatory Affairs Officer at Foretellix, which he also co-founded. Foretellix is developing a Scenario Based Coverage Driven Verification Environment for ADS (Automated Driving Systems).

As part of his role he is actively involved in various autonomous vehicles safety standardization and regulation setting activities. Gil is the standardization project leader for OpenSCENARIO 2.0 with ASAM, where he is also a member of ASAM's technical steering committee. As a special advisor to SAFE (Secure America Future Energy) AV initiative, Gil is representing SAFE in the UNECE/GRVA and its sub work groups.

Gil is a contributing member and reviewer of various standardization groups such as ISO 21448/SOTIF, ISO 3450{1,2,3,4}/Test Scenarios standards, SAE On Road Automated Driving (ORAD) task forces, IEEE P2851, UL4600 and more.

Hermann Brand

Hermann Brand joined IEEE as European Standards Affairs Director in June 2017. His responsibilities include European standardisation policy, technology policy, co-operations and standards related activities with industry, research organizations, and academia. Hermann Brand worked for ETSI (European Telecommunications Standards Institute) as Director Innovation and Vice President 'New Initiatives and Market Development'. He was responsible for various institutional services of ETSI, including new initiatives, partnership management, membership care, and meeting support. He worked closely with members and other stakeholders to setup new standardization committees/groups covering e.g. machine communication, network function virtualisation and edge computing.

Hermann Brand has held many different positions in the industry, as SW developer and system designer in telecommunication, as researcher in the semiconductor business. He managed several international R&D teams in mobile communications including researchers, system engineers and a group of delegates to different standards developing organizations. Moreover, Dr Brand worked as technology manager, innovation manager and business developer.

Huan Sun

Huan Sun is General Manager of Momenta Europe. Previously she served as head of marketing and business development. She has led the efforts in commercializing the autonomous driving technology with the mission of Momenta — Better AI, Better Life. Her work experiences started as new media research roles at the New York Times and MIT Media Lab. Then she moved to business side looking at new technologies in a venture capital firm, ESO Fund, in Silicon Valley. Then she returned to China in 2016 to start entrepreneurial endeavors at Momenta. Huan has master's degree from Massachusetts Institute of Technology and bachelor's degree from Tsinghua University. She has unique insights into the impact of new technologies and her passion lies in empowering a better society through technology

Huei Peng

Huei Peng, Roger L. McCarthy Professor of Mechanical Engineering Huei Peng received his Ph.D. in Mechanical Engineering from the University of California, Berkeley in 1992. He is now a Professor at the Department of Mechanical Engineering at the University of Michigan. He currently serves as the Director of Mcity, which studies connected and autonomous vehicle technologies and promotes their deployment. His research interests include adaptive control and optimal control, with emphasis on their applications to vehicular and transportation systems. His current research focuses include design and control of electrified vehicles, and connected/automated vehicles. In the last 10 years, he was involved in the design of several military and civilian concept vehicles, including FTTS, FMTV, Eaton/Fedex, and Super-HUMMWV—for both electric and hydraulic hybrid concepts. He served as the US Director of the DOE sponsored Clean Energy Research Center—Clean Vehicle Consortium, which supports more than 30 research projects related to the development of clean vehicles. He has served as the PI or co-PI of more than 60 research projects, with a total funding of more than 60 million dollars. He has more than 300 technical publications, including 150 in referred journals and transactions and four books. His h-index is 84 according to the Google scholar analysis. The total number of citations to his work is more than 27,000. He believes in setting high expectation and helping students to exceed it by selecting innovative research topics with high impact. One of his proudest achievements is that more than half of his Ph.D. students have each published at least one paper cited more than 100 times. Huei Peng has been an active member of the Society of Automotive Engineers (SAE) and the American Society of Mechanical Engineers (ASME). He is both an SAE fellow and an ASME Fellow.

Jianbo Tao

12.2018 – until now:

> **AVL List GmbH, Graz, Austria**
>
> Senior Simulation Engineer ADAS/AD, Department for Reliability Engineering and Risk Management, Engineering and Technology Powertrain Systems
>
> - Verification and validation methods of highly autonomous driving system
> - Quality assurance methodologies for cyber-physical systems

02.2013 – 12.2018:

> **AVL List GmbH, Graz, Austria**
>
> Analysis Engineer, Vehicle Thermal Management, Engineering and Technology Powertrain Systems


Dr. Jürgen Neises is Senior Consultant and manages the Fujitsu Europe R&I Subsidies Program. Since 1990, he has led a number of research and innovation projects on infrastructure, mobile and security solutions in research and at Fujitsu. Jürgen's track record includes high-performance computing, carrier-grade availability, and a wide range of security and IoT/AI related solutions. Currently, Jürgen leads Fujitsu's participation of the Horizon 2020 projects SecureIoT (Grant No. 779899), FINSEC (Grant No. 786727) and INFINITECH (Grant No. 856632). Jürgen is Fujitsu Distinguished Engineer.
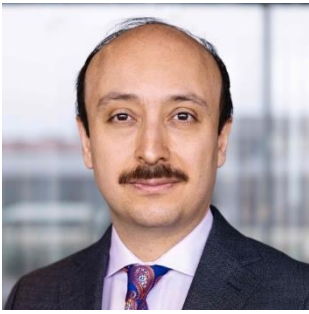
Kasra Haghighi

Dr. Kasra Haghighi is CEO and co-founder of UniqueSec AB. He has received his PhD in Communication Systems from Chalmers University of Technology in 2013. Kasra started UniqueSec with focusing on radar development for industrial applications. He is the co-inventor of ASGARD technology for over-the-air (OTA) testing of automotive radars. Kasra has a lot of knowledge and experience within radar, signal processing, embedded hardware, and software development. He has a long experience of entrepreneurship and management.
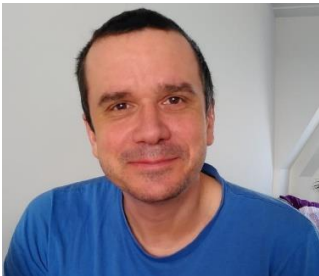
Max Turner

Max Turner (geb. Kicherer) received his Dipl. Phys. from the University of Ulm, Germany in 1999. He joined BMW late in 2002 where he initially contributed to MOST and FlexRay. During a stay in the USA he worked on V2x wireless systems and the DSRC standardization (IEEE802.11p). Returning to Munich in 2008 Max started the introduction of Ethernet into Autosar with the first Socket-Adaptor concept and became part of the group creating the ISO 13400 'Diagnostics over IP' standard based on BMW's predecessor. Around the same time Max stated working in IEEE on AVB and IEEE 1722, which lead to the introduction of theses systems in BMW vehicles as well as the automotive profile in AVnu. He drove the re-use of PTP time-synchronization for multiple applications also on CAN and FlexRay. For the following 10 years Max was a member of the team introducing Ethernet as a system-bus (including SOME/IP, XCP, DLT, AVB and other protocols) into all BMW vehicle generations. In early 2018 he left BMW to join Jaguar Land Rover in in the UK for not quite two years, where he gathered experience in the overall E/E architecture for automated (L3/4) vehicles as the lead architect. Since Dec. 2019 Max serves as the automotive network architect for Ethernovia. He is and has been an active contributor to the AVB and/or TSN working groups of IEEE, Autosar, ASA, OpenAlliance and AVnu for most of his career and is now also the Editor of the IEEE P802.1DG automotive TSN profile."

Michael Woon

Michael is a co-founder of Retrospect, an autonomous vehicle safety validation company based in Ann Arbor, Michigan. Since its founding, three years ago, Michael has helped lead Retrospect's core safety argumentation and safety architecture necessary for AV developers to ensure their path planning and optimization algorithms in autonomous vehicles are free from excessive risk. Michael has helped propose standard requirements of perception systems for consortia such as IAMTS and UN ECE, and has been invited to present methods for measuring and assuring functional safety of AVs at conferences and workshops in Europe and the US. Prior to founding Retrospect, Michael was a functional safety consultant for one of North America's leading functional safety companies, and prior to that worked as an algorithm design engineer in GM's hybrid powertrain group.

Nik Dimitrakopoulos

Dr. Niki Dimitrakopoulos is Manager for E/E & Infotainment. His work is primarily focused on next generation In-Vehicle Network Architectures and 5G Broadcast for Automotive. Nik is an active member of the OPEN Alliance group and the Automotive SerDes Alliance (ASA)

Shuai Zhao

The director of the ICV data department of China Automotive Data Co., Ltd. （CATARC-ADC）, the Coordination Expert of international standards and regulations of China Automotive Standards Committee （CASC）, Member of C-ASAM Steering Committee, Vice Chair representitive of IAMTS. He is mainly engaged in the related work of ICV scenario database and simulation testing, and participated in the formulation of standards and policies for intelligent vehicle simulation at home and abroad.

Wang Cheng

- Start the research project DFG "cognitive automobile " 2006-2010 in TU-Munich (Chair of the vehicle technology)
- Joined the Urban Challenge from team KIIT/TUM in the year 2007
- Responsible for the ADAS and L3 TJP Safety (from the advanced engineering to the series product release) at AUDI Ingolstadt between 2010-2018
- Now, Responsible for ADAS research and series project in GEELY for the brands GEELY, LYNK-GO