09:10 New software based vehicle architectures and its impact on the automotive industry

Dr. Thomas Irawan is President of **ETA**S and Chairman of the Board of Management since October 2022.

Before joining ETAS, Thomas spent 16 years at Robert Bosch GmbH in a number of Manufacturing, Quality, Development, and Engineering leadership positions. He was Technical Plant Manager of Bosch Thailand and served as SVP of Quality Management in the Chassis Systems Control division.

Most recently, he headed the Driver Experience business unit for assisted, automated, and connected driving in the Cross-Domain Computing Solutions division.

In his current role, Thomas is responsible for Corporate Strategy, Engineering, and Global Marketing for ETAS world-wide.

Born in Orsoy, Germany in 1978, Thomas is married and has two children. In 2006, he earned his doctorate in Physics from the University of Dortmund, Germany.

About the presentation:

The exponential growth of automotive software is revolutionizing the entire industry's development landscape. Traditional approaches are no longer viable; a radical shift is imperative. Using concrete examples, this presentation will illustrate how future software feature development will pivot from static E/E architectures to flexible distributions across various computing nodes, extending even into the cloud. This shift necessitates new collaboration models and a focus on hardware-independent software development. We will highlight the crucial role of modular, non-monolithic development toolchains in addressing these challenges through rapid, iterative development cycles.

10:00 Automotive Digitalization and the Need for Flexible, Scalable & Software-Defined Vehicle Architecture

Thomas Dannemann is Senior Director, Product Marketing at **Qualcomm Germany**. He works with key automotive OEMs, Tier 1 suppliers, and other partners from across the ecosystem to support the delivery of excellent automotive solutions using Qualcomm Technologies' highly integrated and feature-rich solutions, focused on Infotainment and ADAS. He has 20 years' experience working on technology solutions, focused in the Automotive industry. Thomas holds a Master of Science in Electrical Engineering and Computer Science, Lawrence, Kansas, USA and Diploma in Electrical Science, Stuttgart Germany.

About the presentation:

Rapid digitalization of modern vehicles has vastly changed the customer engagement model. Consumers expect much more from their cars than simply taking them from point A to point B. The inflection of digital cockpit, autonomy, shared services and faster 4G and 5G connectivity has led to much more data flowing into our cars than ever before.

The growing need for data across these connected systems—which provide consumers with enhanced experiences while driving or commuting—has steered automakers toward a more flexible, more scalable platform architecture for next-gen vehicles. This new architecture will help OEMs provide critical over-the-air safety upgrades, add new features to keep cars current with consumer expectations, and enable multi-tiered services post-sale as well.

At its core, the modern car is an integration of multiple data sources into a large, central computer with a high-performance hardware and software ecosystem; one that supports automakers in providing the in-vehicle experiences and Advanced Driver Assistance Systems (ADAS) today's drivers rely on. To deliver any or all of these new enhancements, applications and services, AI and overall system performance is the key differentiator.

In this session, Thomas Dannemann, Senior Director of Product Marketing, Qualcomm CDMA Technologies GmbH will discuss:

- Why centralized architectures around AI are important for the automotive ecosystem
- How Snapdragon Ride platform with portfolio of ADAS SoCs & Accelerators may be a potential game-changer
- And how Qualcomm is helping drive new EE system architectures to help OEMs stay competitive

11:30 Digital Lighting as key element for future car differentiation

Stephan Berlitz, Head of Development Light/Visibility, Audi / Jörg Kälble, Head of Development Lighting/Viewing, BMW Group / Dr. Wolfgang Huhn, Senior Advisor, DVN

Joerg Kaelble has been head of development for lighting and viewing systems at BMW AG since July 2018. This includes all BMW, Mini and Rolls Royce derivatives. He previously worked in various functions at BMW, such as head of exterior and interior quality management, E/E system integration for bodywork, validation/simulation/function/pre-development for lighting and viewing systems.

12:20 60 GHz in-cabin monitoring and sensing solution to enable child presence detection (CPD) systems

Dr. Raffaele Soloperto got his PhD in Telecommunication and Electronic Engineering on 2011, by University of Bologna (Italy). During the doctorate journey, he was a visiting PhD student of the German Aerospace Center (DLR, Bayern) for about a year, with deep focus on modulation scheme and channel coding (LDPC) of satellite systems. From 2011 until 2013 he specialized himself in point to point high frequency transmission systems, working on high density M-QAM modulations. From 2013 until 2019 was with Intel Mobile GmbH, leading several teams of the connectivity unity, as well as 4G and 5G modem. From 2019 is with **Infineon Technologies AG** working as Technical Project Director and Head of System Team for the development of 24GHz and 60GHz radar systems, with primary focus on automotive short-range applications (e.g. In-Cabin Monitoring).

About the presentation:

In 2022, at least 33 children died of hyperthermia or heatstroke in the U.S., either because they were left unattended in a vehicle or because they independently gained access to an unoccupied vehicle. To prevent these tragic outcomes, the U.S. Federal Communications Commission (FCC) and New Car Assessment Program (NCAP) have drafted regulations requiring OEMs to install child presence detection (CPD) systems in new cars. From 2025 onwards, classification will be mandatory to achieve the highest safety star rating. A child or baby alone in a car must be detected within 10 seconds based on FCC regulations and a warning must then be issued to the vehicle user or outsiders. Car manufacturers will achieve a five-star NCAP rating by utilizing a CPD system based on radar technology. Raffaele Soloperto will discuss the contribution of semiconductor companies to enable such systems.

14:00 Catena-X is live - End-to-End Scenario from Traceability to Carbon Data Exchange

Nadine Kanja serves as Solution Head of SAP Industry Network for Automotive and Catena-X at SAP SE. In her role she holds the responsibility for the Automotive Industry Network initiative as well as the Catena-X program. Together with her team of solution managers and industry experts, she helps customers in the automotive industry by achieving the joint goal of creating more transparency, efficiency, and quality improvements along the value chain with the the Catena-X program and the Industry Network for Automotive use cases. Nadine Kanja joined SAP beginning of 2022. Prior to her current role, she has a strong business development and digital marketing & sales background and started her career at a leading global supplier of technology and services in 2004. Nadine Kanja holds a master's degree in business consulting and digital management from the FOM University of Applied Sciences for Economics and Management.

Hagen Heubach serves as Global Head of the Industry Business Unit Automotive at SAP SE. In his role he holds the end to end responsibility on SAPs automotive solution portfolio as well as SAPs strategy on future mobility & new business models. Together with his team, he helps automotive customers to transform their business into a digitized world, leveraging SAPs edge technology & future innovations for the mobility ecosystem. Since May 2021 Hagen Heubach is part of the executive board of Catena-X Automotive Network. Hagen Heubach joined SAP in 2007 and has held numerous leadership positions. Prior to his current role, he was living in Japan, leading the automotive business as a Global Account Director for multiple years. Hagen Heubach holds a master's degree in economics from the University of Mannheim.

14:40 The impact of generative AI on Software Development

David Losert is a Principal Solutions Engineer at **GitHub**, the world's leading AI-powered developer platform used by over 90% of the fortune 100 companies. He helps Enterprise Customers from the automotive- and finance-sector establish and optimize their usage of GitHub. For this, he uses his 10+ Years of experience in Software-Development, Operations, Architecture and Cloud to consult on a deep technical level and propose solutions to unique challenges.

About the presentation:

Generative AI has taken center stage in this year's tech discussions and anticipations. While its full potential in many sectors remains untapped, its monumental impact on software development is already paramount. GitHub Copilot, the world's first at-scale AI pair programmer, showcases GitHub's leadership in this AI (r)evolution. With over 37,000 businesses onboard, GitHub has already gathered invaluable insights. In this talk, David will unpack how AI is reshaping the software development landscape, and shed light on its implications for developers, productivity, and the expansive future of software and global progression.