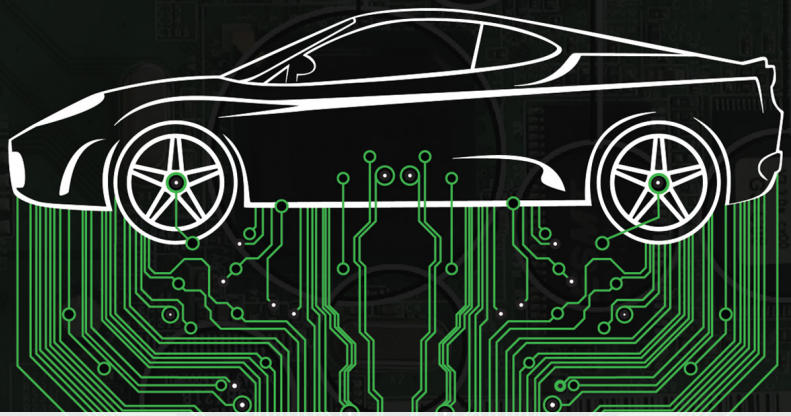
ANNUAL AUTOMOTIVE **EMBEDDED MULTI-CORE SYSTEMS** SUMMIT



STUTTGART, GERMANY | MAY 12 - 13, 2016

Key Practical Learning Points of the Summit:

- Insights on best-practices and solutions on multi-core processors
- Development and continuous improvement of embedded systems
- Using automated testing for improving AUTOSAR integration
- Building security into embedded systems by using a hardware and a software approach
- Integrating the new technology in the development process
- Identify both software and hardware solutions which will support the cost and time efficient adaptation of this new technology
- Preventing external threats to optimize embedded systems' security
- Utilize multi-core technologies for increased power, speed and maximum efficiency
- Explore and evaluate the impact of multi-core technologies on the development process to ensure an optimized migration strategy
- Gaining valuable insights on how to manage new software complexities due to the parallel nature of multi-core systems

Key Speakers:

Bernard Bavoux
Software and Electronics Expert
PSA Peugeot Citroën

Daniel Weyl
Director Software R&D Automotive Microcontrollers and Processors
NXP Semiconductors

Turgay Şahin
Head of CoE Safety Management
Senior Consultant
INVENSITY GmbH

Gregor Matenaer
CEO
CMORE Automotive GmbH

Francesco Gurrieri
Software Designer Specialist
Embedded Developer
Magneti Marelli

Prof. Dr. Tobias Scheffer
Co-founder
Asaphus Vision GmbH
Department of Computer Science
University of Potsdam

Prof. Dr.-Ing. Peter Fromm
Department of Electrical Engineering and Information Technology (EIT)
Hochschule Darmstadt - University of Applied Sciences

Peter Thorngren
Technical Integration/ Verification Leader
Volvo Group Trucks Technology

Dr. Jörn Eichler
Head of Department Secure Software Engineering
Fraunhofer Institute for Applied and Integrated Security (AISEC)

Mark Haller
Executive Technical Advisor
Nexteer Automotive

Attilio Brighenti
President
S.A.T.E. Systems and Advanced Technologie Engineering S.r.l.

Prof. Dr. Wolfgang Pree
Director, Software Systems Center
University of Salzburg

Jacopo Biancat
Innovation Director
Attain IT S.r.l.

Thomas R. Salva
Director – PLM & Embedded Systems Engineering
CSC Deutschland GmbH

ANNUAL AUTOMOTIVE EMBEDDED MULTI-CORE SYSTEMS SUMMIT

STUTTGART, GERMANY

MAY 12 - 13, 2016

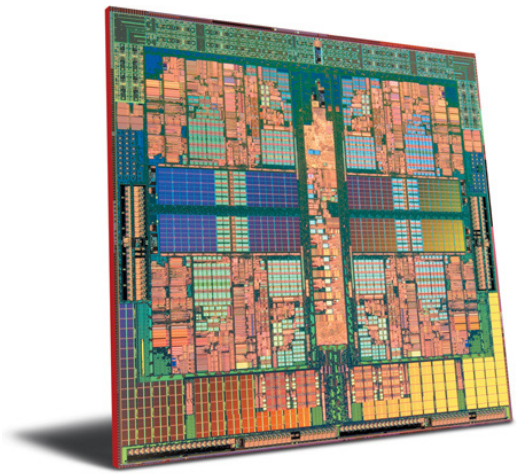
We are pleased to invite you to the "Annual Automotive Embedded Multi-Core Systems Summit" scheduled on May 12-13, 2016 in Stuttgart. The importance of embedded system in the automotive industry arose as a result of the IT complexity in automobiles. Sequel to the rising demand by consumers for high performing ECUs (Electronic Control Unit) and reliable systems, the single-core technology seems to be no longer adequate not only due to its limitations in power calculation and but also due to semiconductor physical and thermal restriction. So, the use of multi-core processors has been recently introduced to replace the single- core technology in order to meet consumer wishes like sophisticated comfort features, increasing safety requirements and zero emission. Multi-core processors are superior to their single-core predecessor in calculation power and energy efficiency. However, the downside of the new technology is a higher complexity of the software and, therefore, an increase of the development costs, time and resources. The must is still to implement AUTOSAR and its compatibility with other software as well as ensuring the security of the system, which is exposed to external attacks. This premier B2B event will bring together experts, OEMs, suppliers, and academia from all levels of the value chain to ensure maximum knowledge transfer and professional exchange; elaborate single-core to multi-core migration methodologies; give information about current trends and show how to exploit the most of next generation embedded multi-core systems , network and enjoy excellent mix of case studies, through interactive panel discussions, speed networking and workshops. It is an honor and privilege to invite you to participate in this Summit. We look forward to welcoming you at the Summit in Stuttgart upcoming May!
Sincerely,

Alexander Hartmann
Director

Who Should Attend:

Directors, VPs, Managers and Heads of:

- Automotive Manufacturing
- Component Supplier;
- Consultant
- Design and Simulation
- Corporate Technologies
- Software Engineering
- Material Supplier
- Research & Development
- Technology
- Automotive Design
- Electronics
- Consultancies
- Semiconductors
- Technical
- Automotive design
- Automotive Archtecture
- Strategic Innovation Management
- Open Innovation
- Research Centre
- Processing
- Product
- OEMs
- Quality Management
- Product Development
- Operations



About Us

Vonlanthen Group offers business facilitation platforms for clients who want to develop in emerging markets and Europe. We conduct exhaustive research, match buyers and sellers and then produce high-profile events, all with a strategic focus on facilitating deals—all in the right place and at the right time.We work in the key sectors, leveraging our expertise to create deal flow, foster networking and train leaders. Vonlanthen Group has the capacity to help you enter new markets, raise capital, secure partners and close sales.

What We Do

Vonlanthen Group produces, promotes and hosts 'deal flow' platforms in the liquid growth markets. We operate across 6 sectors: Automotive, Information technology, Life science, Business management, Cross industry and Sport science.

- Our platforms include business-to-business summits, leadership forums, capital raising meetings and executive training programs.
- Our Business Summits connect pre-screened purchasing decision makers with pre-qualified global solution providers to do business.
- Our focus not only European Market but also Russia & CIS , APAC countries. Our goal is to bring modern decision makers in one meeting point.

VONLANTHEN GROUP
GLOBAL CONFERENCES & SUMMITS

Day One - May 12, 2016

Annual Automotive Embedded Multi-Core Systems Summit

8:30 Registration and Welcome Coffee
9:00 Opening Address from the Chairman

TECHNOLOGICAL CHANGE TOWARDS MULTI-CORE

9:10 **Case Study**

Multi-Core systems on their way to autonomous driving

- Existing systems
- Challenges in validation
- Control your multi-core systems by gaining system knowledge and providing ways to explore full potential

Gregor Matenaer
CEO
CMORE Automotive GmbH

9:50 **Speed Networking**
Innovative approach to maximize networking capabilities through two minute periods, where delegates can meet their peers and exchange business cards before rotating to the next company representative

10:30 **Morning Coffee and Networking Break**

11:00 **Case Study**

Trend towards multicore processing in automotive

- The car manufacturer expectation
- Evolution of the automotive functions
- Requirement for more processing power, safety and security
- Challenges to benefit from the multicore opportunity
- From serial to parallel processing need for new methods

Bernard Bavoux
Software and Electronics Expert
PSA Peugeot Citroën

11:40 **Case Study**

Overview of trends in onboard diagnostics with respect to multicore systems computing performances

- Optimising development tools to more efficiently utilise multi-core and many-core hardware
- Creating portable and scalable solutions for multicore Systems
- From threshold based, to model based, to data based diagnostics ending with knowledge extraction from data flows

Attilio Brighenti
President
S.A.T.E. Systems and Advanced Technologie Engineering S.r.l.

12:20 **Case Study**

Embedded Face Recognition for Driver Monitoring and Identification

- Real-time embedded tracking of facial landmarks
- Embedded gaze estimation and eye-lid monitoring
- Embedded facial identification
- Dual-core and stereo-camera processing

Prof. Dr. Tobias Scheffer
Co-founder
Asaphus Vision GmbH
Department of Computer Science
University of Potsdam

13:00 **Business Lunch**

OVERCOMING MULTI-CORE CHALLENGES

14:30 **Case Study**

Embedded systems software development & maintenance for a premium German OEM

- C++ and ASCET based development, maintenance and trouble-shooting/bug fixing
- AUTOSAR and non-AUTOSAR components, including a subset with ISO26262 (FUSI) requirements
- Innovative onsite + offshore delivery model with stringent quality processes which are SPICE Level 3 certified, at lower cost
- Benefits derived for the client

Thomas R. Salva
Director – PLM & Embedded Systems Engineering
CSC Deutschland GmbH

15:10 **Case Study**

Multi-core hardware: Overview of technologies from a software point of view

- Requirements: How to quantitatively describe fitness of a system
- Constrains: how to define new software architecture design restrictions
- Multi-core scheduling: basics and overviews of validated approaches

Mark Haller
Executive Technical Advisor
Nexteer Automotive

15:50 **Afternoon Coffee and Networking Break**

16:20 **Case Study**

Multicore operating systems and runtime environments

- Overview of challenges, risks and opportunities
- Mastering complexity:
  The job of a multicore operating system
- Application development:
  Concept of a multicore runtime environment

Prof. Dr.-Ing. Peter Fromm
Department of Electrical Engineering and Information Technology (EIT)
Hochschule Darmstadt - University of Applied Sciences

17:00 Chairman's Closing Remarks and End of Day One

19:00 **Cocktail Reception**

DAY TWO - MAY 13, 2016

ANNUAL AUTOMOTIVE EMBEDDED MULTI-CORE SYSTEMS SUMMIT

9:00 Welcome Coffee
9:30 Opening Address from the Chairman

SAFETY AND BENEFITS OF MULTI-CORE SYSTEMS

9:40 Case Study

Engineering Secure Automotive Systems

- Current trends and developments and their impact on security
- Security engineering activities in the automotive development process
- Managing and aligning security engineering efforts & approaches
- Feedback & synergies instead of hardwired coupling: safety and security untangled

Dr. Jörn Eichler
Secure Software Engineering
Fraunhofer Institute for Applied and Integrated Security (AISEC)

10:20 Case Study

Safety and Security of Automotive Systems

- Light weight virtualization as a technique for improving both the safety and security of automotive systems
- Reducing overall cost
- Improving updatability

Francesco Gurrieri
Software Designer Specialist; Embedded Developer
Magneti Marelli

11:00 Morning Coffee and Networking Break

11:30 Case Study

Supporting creativity new business solutions with improved testing and integration capabilities

- Continuous Integration and Delivery using virtualizations and models linked to real trucks
- Technology shifts from other industries like multi-core and virtualizations using centralized computational nodes
- Advanced technical products with internet integrated functions
- Trucks and the integrated autonomous transport solutions

Peter Thorngren
Technical Integration/Verification Leader
Volvo Group Trucks Technology

12:20 Case Study

Right Balancing of HW and SW in ADAS Multi-Core Environments

- Automotive multicore evolution from a semiconductor manufacturer perspective
- Semiconductor MultiCore SW enablement and support
- ADAS driven MultiCore solutions for Low-Power, Safety and Security

Daniel Weyl
Director Software R&D
Automotive Microcontrollers and Processors
NXP Semiconductors

13:00 Business Lunch

MAKING MULTI CORE SYSTEMS EFFICIENT, CONTROLLABLE AND SUSTAINABLE

14:00 Case Study

Efficient multi-core usage – how AUTOSAR may learn from JAVA

- Current state of AUTOSAR's multi-core support
- Scenarios that draw the attention to multi-core specific questions and challenges in the particular context
- Possible future directions in improving the AUTOSAR standard

Turgay Şahin
Head of CoE Safety Management; Senior Consultant
INVENSITY GmbH

14:40 Case Study

Solutions transfer from space to automotive systems

- Comprehensive exchange process of system models
- Evaluation of the system modules as well as the overall system
- Knowledge extraction from large data flows, such as space craft's telemetries.
- Possibilities open by onboard multicore systems

Jacopo Biancat
Innovation Director
Attain IT S.r.l.

15:20 Afternoon Coffee and Networking Break

15:40 Case Study

System design platform, tools, models and interoperability

- Architectures and platforms for embedded (cyber-physical) systems - Application Models and Design Tools for Mixed-Critical, Multi-Core CPS - Dynamic runtime environments and services - Multi-core hardware architectures and concepts
- Execution architectures: How to connect the dots (.. bringing application to hardware and fulfill all requirements and constraints)

Prof. Dr. Wolfgang Pree
Director, Software Systems Center
University of Salzburg

16:20 Panel Discussion

The Present and Future of Developing Embedded Multicore Systems

With speakers of the day
Moderated by the Chairman

17:00 Chairman's Closing Remarks and End of Summit

ATTILIO BRIGHENTI

President
S.A.T.E. Systems and Advanced Technologies Engineering S.r.l.

Attilio Brighenti was born in Ferrara (Italy) in 1952, graduated with honours in Mechanical Engineering at the University of Bologna (Italy, December 1976). After one year at the Research & Testing Facilities of E. WEBER Carburetors S.p.A. (now Marelli Controllo Motori S.p.A., FIAT Group) he joined TECNOMARE S.p.A. in 1979, where he was R&D Manager for Marine Systems Development. Independent consultant after 1991, he founded SATE S.r.l. in 1998, participating in many dynamic simulation projects in close cooperation, among others, with the Innovation Department of FERRARI S.p.A., e.g. in vehicle and power train dynamics, thermal and fluid systems dynamics, clutch mechanics, onboard diagnostics and human-machine interface. He was consultant of the EC in the evaluation of energy related programmes and projects. He has also extensive experience in managing and participating in national and international research projects including EU Framework projects. In 2011 he founded the spin-off company Attain IT, an IT company specialized in developing products and services for the real-time acquisition and processing of data from mobile systems (such as vehicles) and with mobile devices (such as smartphones, embedded systems). In S.A.T.E. and Attain IT he is president and technical director. In particular in S.A.T.E. he also leads the R&D group Thermodynamics and machines. He published more than 70 technical papers and has filed 25 patents in various technological fields.

DANIEL WEYL

Director Software R&D
Automotive Microcontrollers and Processors
NXP Semiconductors

Daniel Weyl is director of the global Software R&D of the Automotive Microcontroller product portfolio in the NXP Automotive organization led by Kurt Sievers. Before Daniel spent nearly 10 years in BMW R&D. Here he could introduce and shape industry wide the technology landscape around Consumer Electronics & Smart Phone integration into cars. In NXP Daniel's team develops all kind of driver and application specific embedded and production level Software in the areas of ADAS, Vehicle Dynamic Systems, Powertrain, Body Controller, Connectivity, Security and Gateway. MCU's / MPU's, which NXP currently develops since years, are MultiCore SoC's and so they are faced with all kind of MultiCore challenges by their customers needed to be captured in their HW and SW offerings. With this knowledge base and experience they would like to give an outlook on the upcoming multicore solutions around the ADAS segment.

DR. JÖRN EICHLER

Secure Software Engineering
Fraunhofer Institute for Applied and Integrated Security (AISEC)

Dr. Jörn Eichler is heading the research department Secure Software Engineering at Fraunhofer AISEC. He is currently focusing on the optimization of the software life cycle in order to develop and operate secure software solutions. He was research assistant in the Security Test Lab of Fraunhofer SIT from 2008 to 2013. Prior to his engagement in software security research he executed many international software assessment and development projects for major companies.

JACOPO BIANCAT

Innovation Director
Attain IT S.r.l.

Jacopo Biancat was born in Venice (Italy) in 1982 and graduated in Control System Engineering at the University of Padua (Italy, February 2007). After a 6 months stage in FERRERO Ingegneria (Alba, Italy) for the development of his MSC degree thesis, in March 2007 he started working in the field of industrial automation, developing software for the control and supervision of automatic machines and plants. He afterwards joined S.A.T.E., in March 2008, being involved since then in the EU-funded project METABO (FP7-ICT-2007.5.1, 2008-2012) and other internal R&D activities in the field of automotive embedded systems, car automation and modelling systems. In S.A.T.E. he led the Research and Development group focused to complex systems diagnostics. In 2013 he moved in the spin-off company Attain IT, an IT company specialized in developing products and services for the real-time acquisition and processing of data from mobile systems (such as vehicles) and with mobile devices (such as smartphones, embedded systems). In Attain IT he covers the position of Innovation Manager, providing also support to S.A.T.E. in several projects in the field of diagnostics thanks to his experience in technical coordination of research projects, data analysis, knowledge extraction, system identification and diagnostics and software development. He published 7 technical papers and has filed 14 patents in the automotive field.

PROF. DR. WOLFGANG PREE

Director, Softwarea Systems Center
University of Salzburg

Wolfgang Pree is a Professor of Computer Science at the Univ. Salzburg, Austria since 2002. He studied computer science at the Johannes Kepler University of Linz, was a Visiting Assistant Professor at Washington University in St. Louis (1992–93), a guest scientist at Siemens AG Munich (1994–95), a Professor of Computer Science at the University of Konstanz, Germany (1996–2001), and spent sabbaticals at the University of California, Berkeley and the University of California, San Diego. His research focuses on software construction, in particular methods and tools for automating the development of real-time embedded software and for component-based embedded software systems.

PROF. DR. TOBIAS SCHEFFER

Co-founder
Asaphus Vision GmbH
Department of Computer Science
University of Potsdam

Tobias Scheffer is a Professor of Computer Science at the University of Potsdam and a co-founder of Asaphus Vision GmbH, a technology leader in embedded face recognition software for automotive applications. His research focuses on machine learning--the science of automatically building predictive models from data. From 2007 to 2008 he served as Head of the Machine Learning Group at the Max Planck Institute of Computer Science in Saarbrücken. Between 2003 and 2006, he was Assistant Professor at Humboldt-Universität zu Berlin. He received a Master's Degree in Computer Science (Diplominformatiker) in 1995 and a Ph.D. (Dr. rer nat.) in 1999 from Technische Universität Berlin.

PETER THORNGREN
Technical Integration/Verification Leader
Volvo Group Trucks Technology

Peter Thorngren has a background in a number of different business areas (Bank, Internet, Smartphone and Automotive) as developer, project/technical leader and as an entrepreneur. The red thread being embedded and Internet related areas. He has been working with trucks at Volvo since 2007 and was the assigned global verification leader for electrical systems in all the major Truck launches during 2012-13. Peter works today as technical leader/specialist with a focus on integration and verification in SIL, MIL, HIL and BIL environments focusing automation and virtualization. Peter regularly presents at different international conferences related to embedded, verification, integration and automotive.

PROF. DR.-ING. PETER FROMM
Department of Electrical Engineering and Information Technology (EIT)
Hochschule Darmstadt - University of Applied Sciences

Peter Fromm studied Electrical Engineering at the RWTH Aachen. After finishing his PhD at the European Center for Mechatronics, he started his industrial career at Continental Automotive, where he managed the department of System and Software Engineering. In 2008 he became professor for microcontroller and information technology at the University of Applied Science in Darmstadt. Current research areas include innovate software engineering methods and advanced embedded architectures on multicore controllers, in particular the development of safety architectures for industrial and automotive applications.

BERNARD BAVOUX
Software and Electronics Expert
PSA Peugeot Citroën

Bernard BAVOUX is a French 1984 Supélec graduate engineer. He began his career developing embedded microcontrollers for satellites. Then he moved to the aeronautic domain where he was in charge of the electronic design office for digital audio intercommunication systems. Since 16 years he has been working in the automotive industry: First at Valeo, where he managed an electric and electronic architecture innovation team and an electronic control unit research team. Currently at PSA Peugeot Citroën, he has been leading research and giving expertise for software development.

THOMAS R. SALVA
Director – PLM &
Embedded Systems Engineering
CSC Deutschland GmbH

Thomas Salva is a German/American with over 35 years of experience in PLM & Engineering on both sides of the Atlantic. For the first 10 years of his career Thomas worked in NC programming, engineering and production operations for manufacturing firms in the automotive, aerospace and oil field equipment industries. For the past 25 years Thomas has continued his career in Engineering IT in sales and delivery roles, supporting clients in diverse manufacturing markets. Thomas has engaged in the full range of services from CAD/CAM hardware, engineering COTS software, PLM & Embedded SW development + maintenance, consulting, systems integration & applications management. Thomas currently holds the position of Delivery Director – PLM & Embedded Systems Engineering at CSC Deutschland GmbH where he is responsible for 2 practices who deliver PLM & Embedded Systems Engineering services to customers throughout Germany. Thomas holds associates degrees in Mechanical Engineering and Numerical Control and a Bachelors of Science in Industrial Technology.

TURGAY ŞAHIN
Head of CoE Safety Management
Senior Consultant
INVENSITY GmbH

Turgay Şahin obtained his diploma in business informatics at the Technische Universität Darmstadt in 2010. In his task as technology consultant he accompanied and supported complex development projects for customers in the automotive and aerospace industry. Some of his customers were ZF TRW, Continental, Peiker and Diehl Aerospace. His focuses in the projects were project and safety management and software engineering, as well as process analysis and improvements. Along with his project business he is in charge of the cooperation with the Technische Universität Darmstadt. In this function he is organizing a yearly practical oriented project for the students. Since 2013 Turgay Şahin is the head of the INVENSITY center of excellence safety management to increase the performance of safety critical systems.

Sponsorship

Conventional advertising practices have been thrown out the window. Every day we hear more about:

- Using conferences to make direct contact with new customers and strengthen relationships with the existing ones
- Sponsoring events to provide live support for branding initiatives
- Maximizing qualified lead generation via usage of carefully constructed webinars, podcasts, virtual conferences, short video & more
- Developing and using customer feedback from dedicated social media portals to improve product/service offerings