

CALL FOR PRESENTATIONS

VDA Automotive SYS Conference 2019

Quality, Safety and Security for Automotive Software-Based Systems

June 26 - 28, 2019 in Potsdam, Germany

From Industry to Industry

In June 2019, the 9. VDA Automotive SYS Conference hosted by the Association of the German Automotive Industry takes place in Berlin. Top-rated keynote speakers, experts and managers from various mechatronic development areas and leading service providers are going to share experience and knowledge.

Up to date with the changes in the development of embedded systems in the connected vehicle, the conference focuses on **Quality, Safety and Security** of modern vehicle electronics and their software. The conference will deal both with technical methods/solutions and management practices with respect to current and future, national and international automotive standards.

The conference is accepted by the international assessor certification scheme (intacs™) as active or passive experience evidence (EE-EP, EE-AC) for certification as Automotive SPICE Lead Assessor.

Call for Workshops and Presentations

The VDA Automotive SYS Program Committee appreciates your contribution either as a dedicated 3-hour workshop or a 35 minutes presentation.

To give you an indication of possible presentation subjects, a preliminary program structure with dedicated session topics is provided in the following section on page 2. Please note, that beside these proposals, any presentation addressing current or future challenges with respect to quality, safety or security for automotive software-based systems is welcome.

Alternately, a proposal for a workshop may be submitted for corresponding topics.

To enable the program committee to refine the preliminary program structure and session topics, we kindly ask you to pre-register your submission by providing author information and a short abstract.

For further information, please refer to the submission details on page 3.

Please provide any material to our conference program website:

<https://www.openconf.org/AutomotiveSYS2019/openconf.php>

The submission website is available from October 17, 2018.

Important Deadlines

- Preregistration of presentations: **November 19, 2018**
- **Submission of draft presentation or paper: January 13, 2019***
- Notification of acceptance: **March 15, 2019**
- Submission of tutorial and presentation slides: **June 12, 2019**

*** No submissions can be accepted after this deadline.**

Session and Topic overview for the 2019 conference:

Session A1: Software/System quality assurance for future automotive systems	Session B1 Standards and compliance in Automotive applications	Session C1 Open source and cloud services
Assure software/system quality with respect to: <ul style="list-style-type: none"> • Distributed developments • Addressing DevOps • Covering highly networked systems • Agile developments • Over-the-air updates • End to End QA strategies with respect to connected systems • Characteristics of and data used in networked vehicles • Using of cloud services • Self-learning systems • Control or avoid systematic errors 	Widening the vehicle centric view of standardization with respect to: <ul style="list-style-type: none"> • Updates in standardization activities • Handling of compliance in terms of current and future vehicles • Comparison, mapping and integration of standards not specific to Automotive • Challenges in achieving legal compliance With respect to standards such as <i>ISO 26262, Automotive SPICE, IATF 16949, SAE J 3061, ISO/SAE CD 21434, ISO/PAS 21448 (SOTIF), SS7740, ISO 27001</i> or other related standards	Qualification of open-source and cloud services: <ul style="list-style-type: none"> • Open Source Software in automotive embedded and/or safety/security relevant systems • Combining a service life-cycle with standards such as Automotive SPICE • Applicability and interoperability of in-vehicle and cloud / IT security standards • Ensuring quality for open-source based systems • Need for conformity activities
Session A2 Verification and validation	Session B2 Automated driving	Session C2 Artificial intelligence and machine learning in automotive applications
Verification and validation with respect to: <ul style="list-style-type: none"> • Machine learning systems / AI • Highly automated driving • Behavior based testing • Field-data based and model-based verification or validation • Highly configurable systems • Other related current and future topics 	Development of automated driving with respect to: <ul style="list-style-type: none"> • Safety release of systems providing automated driving functions • Share of responsibilities between OEM, infrastructure or data providers, and/or suppliers etc. • Changes in legal frameworks - global differences and trends. • Global differences in ethics and perception of safety by the society • Contribution of HMI to safety concepts • Integrity of vehicle external data (Cloud, V2V etc ...) 	Development, release and operation of AI based systems with respect to: <ul style="list-style-type: none"> • Acceptance of such systems by users include use of case studies • Current state and possible phases for introduction and end customer usage • Possible additional challenges for road vehicle solutions compared to e.g. solutions for aerospace industry • Legal frameworks, ethical aspects, global market differences • New possible business cases and implication for automotive industry • Safety argumentation for systems using machine learning / AI
Session A3 Safety in automotive applications	Session B3 Security in automotive applications	Session C3 Process assessment and improvements using Automotive SPICE or other models
Safety management / engineering with respect to: <ul style="list-style-type: none"> • Safety release of systems used for automated driving • Changes in legal frameworks. • Global differences and trends regarding public perception of safety. • Safety of over-the-air updates • Safety Architectures (EGAS, ASICS etc.), multicore architectures 	Security management / engineering with respect to: <ul style="list-style-type: none"> • Assets/threats for the connected vehicle • Security mechanisms in embedded operating systems / AUTOSAR • Ethernet networks in the vehicle • Secure model-based development • Secure architectures • System/hardware security measures • Technical security assessments • Security threat and risk analysis • Remote control of vehicles • Multi-Layer security concepts • Cloud Based Monitoring • Security assurance levels – concepts and significance 	Application of automotive process assessments with respect to: <ul style="list-style-type: none"> • The VDA Automotive SPICE guidelines • Highly distributed developments • Agile developments • Model based developments • Calibration • Developments of system of systems • Handling and coverage of safety and/or security processes • Applicability for future developments • Efficiency in assessments • Experiences with other models such as Mechanical Engineering SPICE • Safety Process for operational safety • Process assessments for very small and medium enterprises

Submission Details

Contributions must be original work which means that they must report previously unpublished work and not be submitted concurrently to another conference with refereed proceedings.

Please provide any submission including a title, target description and agenda of the presentation, the name(s) of the author(s) and a contact address of the author(s).

Preregistering an abstract of the presentation

The abstract must be in English language and uploaded through the conference program website. It is intended for first registration of the presentation.

Paper or Presentation draft

Please notice that the abstract is not sufficient for the programme committee to make an acceptance decision!

To enable the programme committee to judge which presentation will best meet the aims of the conference, you shall either submit a **paper** which

- shall at least have three pages in size excluding abstract, acknowledgements, and references
- shall describe all relevant topics and experiences in sufficient detail
- shall clearly describe the proposed solution / conclusion
- shall address the benefits from the solutions / conclusions to the community
- shall be free from tool / company advertisements

or

submit a **complete draft of your presentation** addressing the forenamed aspects.

Presentation

The presentation must be in English language and submitted in MS PowerPoint (ppt) or pdf format. It should be appropriate in length to fill a 35 minutes talk. You are requested to use your own presentation template for the conference.

Workshops

On Wednesday, the 26th of June there will be an additional workshop day prior to the main conference. When submitting, please mark whether your abstract is meant for a normal session presentation or for a workshop. Workshops should be a type of interactive training where participants carry out several training activities rather than passively listen to a lecture or presentation.

Benefits of submission acceptance:

- The main speaker and workshop speakers will get a full ticket for the conference free of charge.
- You will get a speaker certificate as active or passive experience evidence for certification as intacs™ competent or principal assessor.
- The best presentation will be awarded based on the conference participant votes.

Acceptance decision by the programme committee

After review by the members of the programme committee, you will receive a notification, whether your submission has been accepted, accepted with modification or rejected. It is strongly recommended to consider the feedback given by the reviewers for your submission. The feedback is available as specific review comments in the conference system. In case a modification is requested, an updated proposal is necessary for a final acceptance statement.

Program Committee

- Fabio Bella, Kugler Maag Cie
Managing Consultant, Member Management Board Automotive SPIN Italy, Member of intacs™ Advisory Board
- Martin Becker, Volkswagen AG
Group Quality Assurance, Member of VDA WG 13 (Automotive SPICE)
- Alec Dorling, Volvo Bus Corporation
Embedded Software Process Manager, Electrical and Electronics, Convener ISO/IEC JTC1/SC7 WG10
- Sabir Idrees, Bosch GmbH
Member of DIN AK WG “Cybersecurity” & ISO TC22/SC32/WG11 - ISO 21434 Road vehicles - Cybersecurity Engineering
- Frank Kirschke-Biller, Ford-Werke GmbH
Manager Global Core Software Processes, Member of VDA WG “Automotive Security”
- Albert Kreitmeyr, Audi AG
- Peter Lascych, Continental AG
Principal Technical Expert (Functional Safety Management), Member of VDA NAA AK 32-08 (ISO 26262)
- Matthias Maihöfer, Schaeffler Technologies AG & Co. KG
Head of Functional Safety, Head of German delegation to ISO TC22/SCG32/WG8 (ISO 26262) and NAA AK 32-08-01/-02
- Pierre Metz, Brose Fahrzeugteile GmbH
Head of Functional Safety, Member of VDA WG 13, German delegate to ISO TC22/SG3/WG8 and intacs™ Advisory board
- Alexander Much, Elektrobit Automotive GmbH
Head of Centre of Competence Software Systems Engineering
- Hans-Leo Ross, Bosch Engineering GmbH
Senior Consultant Development and Safety
- Adam Schnellbach, AVL List GmbH
Functional Safety Expert, Austrian delegate to ISO TC22/SG3/WG8 (ISO 26262)
- Bernhard Sechser, Process Fellows GmbH
Principal Consultant SPICE & Safety, Member of intacs™ advisory board, Head of intacs™ Internationalization
- David Ward, HORIBA MIRA Ltd
Senior Technical Manager, Functional Safety, Head of UK delegation ISO TC22/SG3/WG8
- Jörg Zimmer, Daimler AG
Powertrain Inhouse SW Process Owner, Automotive SPICE Expert
- Jan Morenzin, VDA QMC
Organizing chair

Registration

If you want to attend the conference as a participant, sponsor or exhibitor you can register by fax or mail using the registration forms available soon on <http://www.automotivesys.org>.

Please address any inquiry directly to the VDA QMC conference team by mail to events@vda-qmc.de.