

6<sup>th</sup> International Conference

# ISO 26262

**Improving safety of advanced mobility**

**21-24 March 2016** Palace Hotel Berlin, Germany

**21 March 2016** Masterclass and Workshop A

**22-23 March 2016** Main Conference Days

**24 March 2016** Interactive Workshop Day

- Hear the **results** of one year work from the **ISO 26262 working group members** and their **revision** progress
- Follow case studies of **advancing confidence** of functional safety at **system, hardware** and **software level**
- Learn about **model-based engineering** and applying ISO 26262 to **level 3** and **autonomous driving applications**

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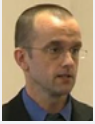


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## Speakers 2016

## Meet experts from leading companies:



Dave Higham,  
Head of Functional Safety,  
**Delphi Powertrains**, UK

Chairman



Dr.-Ing Jacques Kamga,  
Development Engineer & Test Manager,  
**Daimler AG**, Germany



Andrew Raftry,  
Technical Specialist for Powertrain Functional Safety,  
**Jaguar Land Rover**, UK



Dr. David Ward,  
Head of Functional Safety,  
**Horiba MIRA Ltd.**, UK



Fulvio Tagliabò,  
Global Functional Safety Manager,  
**Magneti Marelli SpA.**, Italy



Inken Eid,  
Team Leader Functional Safety Management,  
**FEV GmbH**, Germany



Adam Sherer,  
Group Director Automotive Product  
Management Verification,  
**Cadence Design Systems, Inc.**, USA



Dr.-Ing. Kai Höfig,  
Senior Key Expert for Model-based Safety  
and Reliability,  
**Siemens Corporate Technology**, Germany



Adam Sherer,  
Group Director Automotive Product  
Management Verification,  
**Cadence Design Systems, Inc.**, USA



Michael Wild,  
Principal Engineer /  
Functional Safety Manager (Ret.),  
**JCB Ltd.**, United Kingdom



Bernd Spanfelner,  
Project Functional Safety Manager,  
**Autoliv Electronics**, Germany



Dr. Michael Brasse,  
Safety Manager,  
**HELLA KGaA Hueck & Co.**, Germany



Chad Kymal,  
CTO,  
**Omnex**, USA



Dr. Ekkehard Helmig,  
Senior Partner,  
**Helmig and Regula Attorneys-at-Law**, Germany



Dr. Ibrahim Habli,  
Research and Teaching Fellow in  
Safety-Critical Systems,  
**Computer Science, York University**, UK



Helen Monkhouse,  
Global Product Safety Manager,  
**Engineering, Protean Electric Ltd.**,  
**MISRA Steering Committee**, UK



Dipl. Ing. Andreas Platzkoester,  
Manager Training & Senior Safety Expert,  
**TÜV SÜD GmbH**, Germany



Bernard Mysliwicz,  
Senior Safety Expert,  
**Siemens AG**, Germany

## Advisory Board

Meet on site our Advisory Board:



**Prof. Dr. Stefan Leue,**  
Chair of Software Engineering  
Computer Information Science,  
**University of Konstanz,**  
Germany

Prof. Dr. Leue has been appointed Full Professor and holder of the Chair for Applied Computer Science / Software Engineering at the University of Konstanz in 2004. His research interests are in developing methods for Complex Systems Engineering, with special focus on embedded, automotive and biological systems.



**Dr.-Ing Rafał Dorociak,**  
Head of Safety Platform,  
**HELLA KGaA Hueck & Co.,**  
Germany

Dr.-Ing Dorociak is heading the Safety Platform group at HELLA. He is responsible for all safety topics to the platform development approach in all product areas within the HELLA Business Division Electronics. His expertise lies in the product areas of Body Controller Modules and Driver Assistance Systems.



**Dr. Tomislav Lovric,**  
Safety Assessor Braking EU and AP,  
**ZFTRW Active & Passive Safety Technology,**  
Germany

Dr. Lovric is responsible for approving Braking Safety Cases in EU and AP. He reports on the overall safety performance, supports and trains employees, and helps improvement of Safety Culture and global Safety Infrastructure. Prior Dr. Lovric headed the Functional Safety Center of TÜV NORD Mobility. He has over 20 years experience of working in the safety area.



**Roger Rivett,**  
Functional Safety Technical Specialist,  
**Jaguar Land Rover & ISO 26262**  
**International Committee Member, UK**

Mr. Rivett has over 30 years of experience in the automotive real-time software for embedded systems. He is currently responsible for embedding functional safety processes and practices within JLR and current chairman of MISRA.



**Johannes Schild,**  
Expert Functional Safety Manager,  
**Bosch Engineering GmbH, Germany**

Mr. Schild is senior expert for safety related systems in the powertrain division of Bosch Engineering GmbH. He is responsible for the development of safety relevant systems for road vehicles according to ISO 26262.



**Dr. Pierre Metz,**  
Organisational Safety Manager,  
**Brose Fahrzeugteile GmbH & Co. KG & ISO**  
**26262 International Committee Member,**  
Germany

Dr. Metz oversees all activities for establishing functional safety in the Brose Group. He is an intacs™-certified ISO/IEC 15504 Principal Assessor, accredited trainer for Provisional and Competent levels, trainer instructor for both, member of Automotive SPICE board of authors and the intacs™ Advisory Board.



**Adam Schnellbach,**  
Functional Safety Group Leader,  
**Magna Powertrain AG & Co. KG &**  
**ISO 26262 Austria Committee Member,**  
Austria

Mr. Schnellbach is the Functional Safety Group Leader at Magna Powertrain since 2010. In this position he is responsible for all safety engineering and safety management related activities, including the definition of safety concepts and analyses, the continuous improvement of processes and safety assessments.



**Dr. Florian Leitner-Fischer,**  
Senior Software Engineer,  
**ZFTRW, Germany**

Dr. Leitner-Fischer has obtained his PhD from the University of Konstanz, with focus in model-based engineering of complex embedded software systems. He has recently joined ZF TRW as Senior Software Engineer after several years of experience in the automotive sector.

## ISO 26262 Masterclass

Monday, 21 March 2016

By completing the masterclass you will get an **all-embracing understanding** of the ISO 26262 document and the responsibilities that come with it. Following the Masterclass will help **ISO experts** as well as **automotive experts new to the topic** to follow the **in-depth sessions** of the two main conference days and the workshop day in detail and benefit from our expert presentations to the fullest!

08:15 Registration and welcome coffee

08:45 Opening remarks and introduction to ISO 26262 by



Dr. - Ing. Rafal Dorociak,  
Head of Safety Platform,  
**HELLA KGaA Hueck & Co.**, Germany

Chairman  
of the day09:15 **Behind the scenes of ISO 26262:**

Get a deeper understanding of the ISO International Committee structure and the responsibilities of national and international subcommittees. Gain insights into drafting the revision and Publicly Available Specifications (PAS). What are the opportunities of getting involved further?



Dr. Pierre Metz,  
Organisational Safety Manager,  
**Brose Fahrzeugteile GmbH & Co. KG**, Germany

09:45 **Designing a hazard analysis and risk assessment landscape:**

Take a closer look at the automotive risk model and consider Severity, Exposure and Controllability for different vehicle operating scenarios. Determine the safety goals for your product using the right methods and tools. How do you specify the goals to achieve safety?



Helen Monkhouse,  
Global Product Safety Manager,  
**Protean Electric Ltd., MISRA Steering Committee**, UK

10:30 Networking coffee break

11:00 **Setting up a time plan:**

The Functional Safety Management Plan requires specifications as to how functional safety will be ensured throughout the project and how the targeted ASIL is to be achieved. Get a closer look into role identification, certification procedures, responsibilities and ensure that you are on the right track from the beginning.



Dipl. Ing. Andreas Platzkoester,  
Manager Training & Senior Safety Expert,  
**TÜV SÜD GmbH**, Germany

11:45 **Assessing safety at the software level:**

What are the most common weaknesses and risks that occur at the software level and how do you assure your software from a safety perspective? All these will be discussed in a module dedicated to software safety and minimization of unreasonable risk.



Dr. Ibrahim Habli,  
Research and Teaching Fellow in Safety-Critical Systems, Computer Science,  
**York University**, UK

12:30 Networking luncheon

13:30 **Assessing vulnerabilities at the hardware and system level:**

How do you plan around risks arising from random faults as well as systematic faults in system design? This module focuses on detecting and controlling hardware failures and mitigating their effects at a system level.



Dr. Tomislav Lovric,  
Safety Assessor Braking EU and AP,  
**ZFTRW Active & Passive Safety Technology**, Germany

14:15 **Looking into your toolset:**

This module will look deeper into qualifying tools according to ISO 26262. Are the tools you are using a threat to your safety activities? Find out opportunities from stand-alone tools up to an effective toolchain qualification process.

*Speaker to be announced soon*

15:00 Summary of the day proceedings from Dr.-Ing Rafal Dorociak

19:00 **Masterclass evening get-together!**

Join us in this informal get together. Glass in hand, make new business contacts and relax after an intensive day by paving the way to the main conference.



Don't forget to join **Workshop A** on  
**Legal requirement to justify the argument:**  
**"Compliance with ISO 26262"**  
from 16:00 to 18:30 with  
Dr. Ekkehard Helmig!

# Conference Day One

## Tuesday, 22 March 2016

08:00 Registration and welcome coffee



### Who is Who

Discover who else is participating in the conference. The matchmaking picture wall will help you identify who you want to meet at the conference. In cooperation with **FUJIFILM**

08:40 Opening remarks and welcome letter by



Dave Higham,  
Head of Functional Safety,  
**Delphi Powertrains**, UK

## Concept phase & safety management

08:50 **Key insights and the latest developments from the ISO 26262 working group members**

- Key changes planned for ISO 26262 including updates from semiconductors, motorcycles and heavy vehicles
  - Addressing current and future challenges with ISO 26262
  - Interfaces between ISO 26262 and cyber security e.g. SAE J3061
  - Relation to MISRA activities
- Dr. David Ward, Head of Functional Safety,  
**Horiba MIRA Ltd.**, UK



09:30 **Panel Discussion**



How is the ISO 26262 2<sup>nd</sup> edition increase **confidence** to functional safety? Address your questions and concerns to the **ISO 26262 international work group members** and hear what is about to change.

10:00 **Speed Networking** – Part 1



Break the ice and get to know your industry peers in these fast-paced one-to-one meetings. Greet each participant in this series of brief exchanges and share your professional background.

10:30 Morning coffee break and networking

11:00 **Critical view on, and revision of, the Confirmation Measures in ISO 26262:2011**

- It is demonstrated why confirmation reviews in their current form are an irrelevant concept.
- References to improvement suggestions of the German national body on ISO 26262 (NA052-32-08-01, -02) to the international ISO 26262 committee are made
- Based on these, further improvements to strengthen the concepts of safety audit and safety assessments are presented



Dr. Pierre Metz, Organisational Safety Manager,  
**Brose Fahrzeugteile GmbH & Co. KG**, Germany

11:30 **Overcoming challenges of ISO 26262 in distributed development**

- Safety engineering for complex system architectures
- Managing ASIL decomposition
- Best-practices for distributing activities, tools and methodologies



Inken Eid, Team Leader Functional Safety Management,  
**FEV GmbH**, Germany

12:00 **Integrating ISO 26262 and Advance Product Quality Planning**

- Approaching and managing ISO 26262 within the overall product development effort
- Effectively integrating ISO 26262 activities into APQP and ISO/TS 16949
- Benefits of integrated workproducts



Chad Kymal, CTO,  
**Omnex**, USA

## System level safety

12:30

**Testing and validating ISO 26262 at system level**

- Test phase on the top-level system safety validation
- Verification and validation in system integration
- Software testing



Dr.-Ing. Jacques Kamga, Development Engineer & Test Manager,  
**Daimler AG**, Germany

13:00

Networking luncheon

## Fail-operational: Experiences from the OEM and supplier prospective

14:30

**Fail-operational in the 2nd edition of ISO 26262**

- What is about to change on fail-operational with the coming 2<sup>nd</sup> edition
- Reliability analysis
- Fail-operational aspects

*Speaker name to be announced soon*

15:00

**Necessity of redundancy in fail-operational systems**

- Which types of faults need to be tolerated by fail-operational systems, hardware and software?
- Typical redundant hardware architectures – from the viewpoint of the ISO 26262-5:2011
- Typical fault tolerant software architectures – can these be applied in an automotive environment?

Adam Schnellbach, Functional Safety Group Leader,  
**Magna Powertrain AG & KG**, Austria



15:30

Q&A on the topic of fail-operational

15:45

**Speed Networking** – Part 2

Get to know your peers in this second interactive speed networking session.



16:15

Afternoon coffee break and networking

## SEooC: Experiences from the OEM and supplier prospective

16:45

**The pitfalls of SEooC from an OEM's point of view:**

- Risk assessment for a whole system consideration often yields a different result to element analysis.
- Whole system risk assessment can be OEM and application dependent
- The functional safety concept applied must consider the whole system and not only the element

Andrew Raffry, Technical Specialist for Powertrain Functional Safety,  
**Jaguar Land Rover**, UK



17:15

**Challenges in modeling and analysis of safety for distributed SEooC-oriented platform developments**

- Introduction to different kinds of SEooC engineering tasks
- Introduction to distributed SEooC platform development
- Challenges by modeling and safety analysis in distributed SEooC platform development

Dr. - Ing. Rafal Dorociak, Head of Safety Platform,  
**HELLA KGaA Hueck & Co.**, Germany



17:45

Q&A on the topic of SEooC

18:00

Closing remarks by Dave Higham

18:30

**Evening get-together**

Join us for an informal evening get-together! This is an excellent opportunity for you to meet the other attendees and make new business contacts.





## Conference Day Two

Wednesday, 23 March 2016

07:00 **Berlin special Sightseeing Jogging**  
Get to know Berlin on the move! Explore the attractions of Germany's capital city from a new perspective with our exclusive running tour.

08:50 Opening remarks by  
Dave Higham,  
Head of Functional Safety,  
**Delphi Powertrains**, UK

## Hardware Level Safety

09:00 **Absolute hardware metrics: The illusion of objectivity**

- PMHF - Absolute metrics and their vulnerability
- Intrinsic uncertainties: raw failure rates, diagnostic coverage and failure mode distribution
- Ambiguity of the result – what is it (still) good for?

Johannes Schild, Expert Functional Safety Manager,  
**Bosch Engineering GmbH**, Germany

09:30 **metaFMEA – A framework for reusable ISO 26262 compliant FMEDAs**

- A manual list is hard to maintain and consistency is an issue
- Using the tool supported model-based approach metaFMEDA overcomes the drawbacks of an excel-based analysis
- In a case study, we could measure a reduction over 90% of effort for some important use cases

Dr.-Ing. Kai Höfig, Senior Key Expert for Model-based Safety and Reliability, **Siemens Corporate Technology**, Germany

10:00 Morning coffee break and networking

10:30 **Quantified ISO 26262 hardware verification**

- Examine common techniques safety verification focusing on computational order
- Identify methodology and techniques to achieve faster safety verification closure
- Case study showing the time and resource savings associated with these techniques

Adam Sherer, Group Director Automotive Product Management Verification, **Cadence Design Systems, Inc.**, USA

## Software level safety

11:00 **Achieving freedom from interference in software**

- Introduction to freedom from interference
- Strategies to achieve freedom from interference
- Best practices and lessons learned

Dr. Florian Leitner-Fischer, Senior Software Engineer,  
**ZF TRW**, Germany

## Deploying ISO 26262 to advanced technologies

11:30 **ISO 26262 and the next generation of AutoSAR**

- AutoSAR goes multi-core
- Dealing with the complexity of ISO 26262
- Adherence between ISO 26262 and AutoSAR

*Speaker to be announced soon*

12:00 **Model-based functional safety for complex embedded and cyber-physical systems**

- Model-based Safety Engineering
- SysML/UML
- Automated FTA

Prof. Dr. Stefan Leue, hair of Software Engineering, Computer Information Science, **University of Konstanz**, Germany

12:30 Networking Luncheon

13:30 **Applying functional safety to advanced complexity of future vehicles and Level 3 applications**

- Overcoming the challenges of developing ADAS level 3
- Identifying systematic faults in the context of "safety of the intended function"
- Analyzing the needs of advanced models

Bernd Spanfelner, Project Functional Safety Manager,  
**Autoliv Electronics**, Germany

14:00 **Assessing safety in smart sensors development**

- Case study on sensor measurements
- System engineering approach and safety analysis flow for advanced sensors
- Opportunities of hardware compliance

Felix Mederer, Group Leader Functional Safety Management,  
**Division Chassis & Safety Continental**, Germany

14:30 **Open Mic**  
Address your current challenges or questions to the audience and discuss collectively possible approaches and solutions on the topic of system, hardware and software level safety

15:00 Afternoon coffee break and networking

## Safety vs Security

15:30 **Combining functional safety and cyber security activities**

- Where are the interfaces between Security and Functional Safety?
- When does a cyber threat become a functional safety issue?
- How can Security be integrated into the Functional Safety lifecycle to decrease effort?

Dr. Michael Brasse, Safety Manager,  
**HELLA KGaA Hueck & Co.**, Germany

16:00 **The necessity of mitigating the effects of cyber-attacks away from safety**

- There is a safety impact, with high level of risk, caused by Cyber-attacks
- It is necessary to prevent the cyber-attack
- It is not sufficient to prevent the cyber-attack that can violate "Safety Requirements"

Fulvio Tagliabò, Global Functional Safety Manager,  
**Magneti Marelli SpA.**, Italy

16:30 **Panel Discussion**  
**Cyber Security meets Functional Safety:** Deepen your knowledge in close dialogue with experts regarding best-practice examples for an **efficient co-existence of cyber security and functional safety**. How do you overcome contradictions in the development and integration of automotive safety and security?

With following experts  
Dave Higham,  
David Ward,  
Fulvio Tagliabò and Michael Brasse

17:00 Summary of the conference proceedings by Dave Higham. End of the main conference.

17:30 **Cheese & wine evening session: Implementation of ISO 26262 to motorcycles**  
This workshop will focus exclusive on the deployment of 26262 to **motorcycles** and the opportunities that come with it. What are the current progresses with the **PAS 19695**? Enjoy an evening cheese and wine session and learn how the new 2-wheel vehicle market is about to change.  
**Limited availability for this session and by confirming invitation.**

## Interactive Workshops

Join our **interactive workshops** and benefit from **in-depth sessions**, hosted by selected industry experts. In our unique workshops, industry experts will share their expertise with a limited group of peers. Our workshop leaders provide in-depth knowledge and will actively foster **open exchange and discussion** to help **you face challenges, discover solutions**, and **make decisions** crucial to business excellence.

Interactive Workshop  
Monday, 21 March 2016

16:00 – 18:30 **Workshop A:**  
**Legal requirements to justify the argument: “Compliance with ISO 26262”**

What does Functional Safety mean in legal terms in Europe and in the USA? And what are the responsibilities and liabilities of individuals signing ISO 26262 compliance? With these questions in mind, Dr. Helmig will focus on explaining:

- Product Safety in the **jurisdiction** of the **European Court of Justice**
- Functional Safety in the context of **Type Approval** and **self-certification, experiences from scandals**
- Functional Safety versus autonomous driving, **greetings from the hackers**
- Experiences from the **increasing number of recalls**
- **Seooc**: No proven-in-use-credit available.
- Lessons learned from **NHTSA’s Consent Orders**



Dr. Ekkehard Helmig,  
Senior Partner,  
**Helmig and Regula Attorneys-at-Law**, Germany

A

Interactive Workshop  
Thursday, 24 March 2016

09:00 – 12:00 **Workshop B:**  
**Functional Safety and Variant Management for product lines**

Product variants during product development can cause unexpected complexity and rising of production costs, especially when trying to fulfill different EE safety requirements. During this workshop you will explore practical operations of handling product variety. Topics to be discussed include:

- Simplifying **variant management without overlooking ISO 26262** compliance and safety traceability
- Fulfilling **different clients’ safety requirements**
- Dealing with **complex product lines**

*Speaker to be announced soon*

B

12:00 – 13:00 Networking luncheon

13:00 – 17:00 **Workshop C:**  
**Autonomous road vehicles: Hazard analysis and risk assessment of driverless cars**

The workshop will explore the technical, social and ethical challenges associated with highly automated driving and vehicle autonomy. In particular, it will

- examine the impact of **increased automation** and uncertainty on the hazard analysis and risk assessment process
- contrast **fully autonomous driving** and **collaborative driving**
- reflect on the steps required to **assure the safety of such systems**



Dr. Ibrahim Habli,  
Research and Teaching Fellow in  
Safety-Critical Systems, Computer Science,  
**York University**, UK



Helen Monkhouse,  
Global Product Safety Manager,  
**Engineering, Protean Electric Ltd.**,  
**MISRA Steering Committee**, UK

C

## Interactive Workshops

Take the opportunity to participate to the workshops of the co-located event **Functional Safety for Non-Road Vehicles**.

Co-located with:



Interactive Workshop  
Thursday, 24 March 2016

09:00 – 12:00 **Workshop D:**  
**Pros and cons of generic safety standards for non-road vehicles and mobile machinery**



We all use one or more safety standards – do they help, hinder or confuse? Can we select the good points and the bad points and provide a message to future standards committees about what principles and processes to retain, discard, avoid or improve? Hear and talk about:

- Discussion of **standards** and opinions
- **Identification of consensus and disagreement**
- Consolidation and the **need for communication**



Michael Wild,  
Principal Engineer / Functional Safety Manager (Ret.),  
**JCB Ltd.**, United Kingdom

D

12:00 – 13:00 Networking luncheon

09:00 – 12:00 **Workshop E:**  
**Relationship between safety and security in the machinery**



Safety of machinery is defined through specific Essential Health and Safety requirements and can be achieved by the use of harmonised standards and presumption of conformity (e.g. IEC 61508, ISO 13849). Cyber security is described in the specific IEC 62443 series. Because of their potential for conflict the IEC TC 44 introduced and defends a clear separation in risk evaluations. The workshop shows a pragmatic approach based on real examples of small and large applications and combination of functions. The results from discussions will be passed on as input for the related IEC Committees.

Debate and discuss about:

- Basic definitions and methods about functional safety (IEC 61508, ISO 13849) and cyber security (IEC 62443)
- Aspects for conflict between safety and security norms from the point of view of the concerned stakeholder
- Separation of risk evaluations: pros and cons



Bernard Mysliwicz,  
Senior Safety Expert,  
**Siemens AG**, Germany

E

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## 2016 overview

Read what our speaker has to say on their presentation topic and what to expect from the 2016 edition.

Dr. David Ward,  
**Horiba MIRA Ltd.,**

During this introductory session you will have the opportunity to listen to latest developments from the revision of ISO 26262 now that the working group has been active for over a year revising the standard. We will also consider what areas may be reserved for future development.



Dr. Pierre Metz,  
**Brose Fahrzeugteile GmbH & Co. KG**

A detailed analysis of gaps, inconsistencies, and vagueness surrounding the notions of safety audits, safety assessments, and confirmation reviews is presented. Precise improvements are suggested.



### Berlin special Sightseeing Jogging



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Andrew Raftry,  
**Jaguar Land Rover**

Tier one suppliers have in recent years been very active in developing safety cases for their functions using a SEoC approach to verify safe function. Its often tempting for the OEM to take that at face value in applying a "platform" solution but caution needs to be applied. Not all vehicles are the same and not all applications of a function carry the same risk.

Dr. - Ing. Rafal Dorociak, **HELLA KGaA Hueck & Co.**

The SEoC approach can be applied for different kind of engineering tasks such as the classical ECU development, the development of SW solutions and SW modules as well as development of HW parts such as Microcontrollers and Power Management ICs. The focus of the contribution lays on distributed SEoC platform development, where the aforementioned different types of SEoC developments occur in combination. The concrete use case is the development of different ECUs which use reusable SW solutions consisting of SW modules which all have been developed in accordance with the SEoC approach. The corresponding challenges and solution approaches are explained.



Johannes Schild,  
**Bosch Engineering GmbH**

This presentation discusses the shortcomings of absolute hardware metrics, and how to interpret those metrics when evaluating safety designs.



Prof. Dr. Stefan Leue,  
**University of Konstanz**

Ensuring the functional safety of and compiling safety cases for complex embedded and cyber-physical systems is a prime engineering challenge and will, with ever increasing system complexity, not be feasible without the use of models and automated analysis tools. I will introduce into automated model analysis using causality checking and present the QuantUM methodology for automated safety analysis of UML, SysML and Stateflow models that we have developed.

Dr. Florian Leitner-Fischer,  
**ZF TRW**

In this talk it will be given an introduction in the topic freedom from interference and explain different strategies how freedom from interference can be achieved in software. In addition best practices and lessons learned from various projects will be reported.



### Evening receptions in the heart of Berlin:



Join us for 2 informal evening get-together with dinner and drinks! This is an excellent opportunity for you to meet the other attendees and make new business contacts while at the same time enjoying what Berlin has to offer.

Kai Höfig,  
**Siemens Corporate Technology**

A FMEDA analysis separates failure rates of electronic parts into classes to find out which are relevant. Excel or similar tools maintaining manual tables are widely used in industry to calculate these failure rates and to guide the analysis process.

Adam Sherer,  
**Cadence Design Systems**

Safety verification for large semiconductor hardware has the potential to become computationally impossible. In this presentation, we will discuss automation techniques that help to address this issue by reducing the effort while maintaining the quantified data needed to achieve ISO 26262 compliance.



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High overhead costs and the large scope of the safety process in parallel with the development process are two main challenges for organizations to comply with the ISO 26262 standard. Many OEMs and suppliers manage their development information in files or other silos, which increases inconsistencies and costs, while decreasing reuse and quality of the information refinement and thereby affecting the quality and cost of the product negatively. Systemite provides a customizable integrated information management solution, SystemWeaver, which has been refined and improved by 15 years of experience in managing automotive E/E information at large OEM and supplier organizations. SystemWeaver has an integrated ISO 26262 solution.

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Express Logic Inc. is located in San Diego with offices in Germany. The company develops real-time software for the embedded market. All products are optimized for highest performance and a small foot print, delivered in well documented source code. The Royalty-free RTOS is ISO26262 pre-certified by German TÜV.

