



Program

Monday Pre-Workshop Day (optional, yet strongly recommended for refreshing)

13:00 Welcome & Reception Snack

14:00 Crash-Course: *Fundamental concepts and methods of ISO 26262*

Learning objectives: To understand the ...

- Content structure of the standard
- Concepts of Item Definition, Hazard & Risk Analysis, ASIL, Safety Goal
- Safe State, Fault Tolerant Time Interval, Freedom of Interference
- V-Model as a guide for state-of-the-art Software Development
- Character of the standard as an engineering guideline, not a recipe

Trainer: Stephen Norton, Quint Safety GmbH, Managing Director

19:00 End of Pre-Workshop Day

Tuesday Day 1



*Moderator: Dr. Rolf Jung, University of Applied Sciences Kempten,
Professor for Functional Safety, formerly STW Sensortechnik*

08:30 Registration & Reception Snack

09:00 Opening

*Wolfgang Mickisch, FSQ Functional Safety & Quality GmbH, Managing
Director, formerly TÜV NORD Mobility, IFM, Head of Electronics & IT*

09:30 Workshop: *Item Definition for an Intersection Pilot*



Learning objectives: To understand and be able to define ...

- vehicle-level use cases and
- activity diagrams
- vehicle-level system boundaries and context

Stephen Norton, Quint Safety GmbH, Managing Director

11:00 Coffee Break

11:15 Workshop: *System Design I*

Learning objectives: To be able to ...

- define Safety Goals
- derive Top-Level Requirements

Stephen Norton

FUNCTIONAL
SAFETY MEETS
ADAS



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Tuesday | **Day 1 - continued**

12:15 **Lunch Break**

13:00 **Workshop: *System Design II***

Learning objectives: To be able to derive and design...

- ... ASIL Decomposition and Functional Architecture
- ... System level requirements

Stephen Norton

14:00 **Coffee Break**

14:15 **Workshop: *System Design II***

Continued

15:45 **Coffee Break**

16:00 **Workshop: *System-Element Design***

Learning objectives: To be able to ...

- ... assign system-level requirements correctly to the elements.
- ... derive requirements for the elements.

Stephen Norton

18:30 **Evening Break**

19:30 **Dinner Downtown**



Wednesday Day 2



Moderator: Wolfgang Mickisch, FSQ Functional Safety & Quality Experts GmbH, formerly TÜV NORD Mobility, IFM, Head of Electronics & IT

08:30 **Talk & Workshop: FMEA for System Element from a Quality perspective**

Learning objectives: To be able to ...

- ... identify the Quality requirements according to ASPICE
- ... apply a structural approach for performing a FMEA accordingly

Stephen Norton

10:15 **Coffee Break**

10:30 **Workshop: FMEA for System Element from a Safety Perspective I**

Learning objectives: To be able to ...

- ... assign failure modes in the FMEA
- ... create a failure net in the FMEA
- ... define technical safety requirements

Stephen Norton

12:15 **Lunch Break**

13:00 **Workshop: FMEA for System Element from a Safety Perspective II**

Learning objectives: To be able to ...

- ... design and implement technical safety measures

Stephen Norton

14:30 **Coffee Break**

14:45 **Workshop: State-of-the-Art Failure Mode Analysis (FTA) I**

Learning objectives: To be able to ...

- ... adapt the FTA scope and level of details to project needs.
- ... prepare the FTA appropriately to increase efficiency.
- ... set up a well-structured analysis process.

Stephen Norton

16:15 **Coffee Break**



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Wednesday Day 2 - continued

16:30 **Talk and Workshop: *Testing complex software for ADAS and AD – typical Pitfalls and Best Practices***



Pitfalls and common mistakes collected from several years of cross-sector (Automotive, Aerospace, Defence) system and software validation and verification. ISO 26262 compliant solutions presented and discussed.

Andreas Engstler, CEO, Konzept Informationssysteme AG



Armin Bolz, Automotive Site Director, Konzept Informationssysteme GmbH

18:30 **Evening Break**

19:00 **Private Consulting**

Throughout the 4 days, participants have the chance to get consulted privately and confidentially for up to 60 minutes by experienced and renowned experts...

- how to apply the skills acquired during the conference in his own work.
- how to approach and possibly resolve project specific challenges.

NOTE: Registration required (see registration process), but no additional fees!



Thursday Day 3

Moderator: Wolfgang Mickisch, FSC.automotive - Functional Safety Consulting

08:30 Workshop: State-of-the-Art Failure Mode Analysis (FTA) II

Learning objectives: To be able to ...

- ... define the scope of an efficient FTA
- ... design and implement technical safety measures

Stephen Norton

09:30 Talk & Workshop: EchoScrum® – Efficiency through Agile Development



Learning objectives: to perform ...

- ... the development model EchoScrum® designed specifically to closely connect the efficiency of agile working processes with state-of-the-art functional safety engineering: each function sprint is echoed by a safety sprint.

Matthias Größler, FSQ Functional Safety & Quality GmbH, Managing Director

11:00 Coffee Break

11:15 Panel Discussion: Experiences at OEMs and Suppliers with various SCRUM Models for ADAS/AD Development

On the panel a representative of an OEM (requested), Dr. Bernhard Bauer (Samsung, München), Matthias Größler (FSQ Experts, München), Stephan Neumann (BERNS Engineers).

12:15 Lunch Break

13:00 Presentation: PRODUCT SAFETY combining Functional Safety, SOTIF, Security



Learning objectives: to understand ...

- ... the domains of product safety,
- ... their specifics and interdependences

Dr. Bernhard Bauer, Senior Functional Safety Expert, SAMSUNG AG, München

13:45 Coffee Break

14:00 Presentation & Workshop: SOTIF – a new Key Standard for AD Development



Learning objectives: to know ...

- ... what is the present status of the ISO/PAS 21448
- ... what are its concepts, methods and limitations?
- ... how is compliance to be achieved and assessed?

Stephan Neumann, CEO of Berns Engineers GmbH, München



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15:45 Coffee Break

Thursday Day 3 - continued

16:00

Presentation & Workshop: *How to implement SECURITY Measures*

Learning objective: To become versed in ...

- ... defining safe-state and secure-state, FTTI, warning concepts etc.
- ... selecting appropriate security measures.
- ... complete the technical safety and security concept.



Dr. Hasan Akram, Matrickz GmbH, CEO

18:00 Coffee Break

18:30 Keynote:

The Road to Autonomous Driving – Its History and Future Challenges

*Dr. Stefan Schneider, University of Applied Sciences Kempten,
Professor for Driver Assistance Systems, formerly BMW*



19:00 Evening Break

19:30 Social Get-Together and Dinner



Friday

Day 4

Moderator: Prof. Dr. Rolf Jung, University of Applied Sciences Kempten

08:30 **Presentation: *The Functional Safety Path to enable MULTI-CORE PROCESSORS for Intersection Pilot applications***



Learning objectives: To deepen the understanding of ...

- ...semiconductor solutions for ADAS functions, their concepts, challenges by further exploring the case study Intersection Pilot.

Thorsten Lorenzen, Texas Instruments

10:15 **Coffee Break**

10:30 **Presentation: *RADAR for environmental sensing in automotive ADAS & AD applications***



Challenges and pitfalls in the application of ISO 26262:2018 – a semiconductor perspective

- OEM-, Tier-1 and Tier-2 development teams are well-advised to become familiar with this perspective and topic if they want to leverage their own deployment of silicon components. ISO 26262:2018, 2nd edition will be the reference document.

Bernhard Gstöttenbauer, Infineon Technologies AG, Linz

12:30 **Lunch Break**

13:00 **Talk: *SOTIF – What are its IMPLICATIONS for Semiconductor Manufacturers?***



Learning objectives: To get an understanding of ...

- ... the challenges posed, if opportunities for accelerating the introduction of AD are to be realised.

Kenneth Freeman, Systems & Functional Safety LLC, Ann Arbor (USA)

14:45 **Summing up: *Quo Vadis Functional Safety for ADAS and AD?***

Prof. Rolf Jung, UAS Kempten, Chair for Functional Safety

15:00 **End of Conference**