FORUM SAFETY & SECURITY

Forum Safety & Security
July 5-6, 2017
Ramada Hotel München Messe
www.safety-security-forum.de

Call for Papers

Functional safety plays a vital role in industrial and automobile engineering to avoid risks for machine operators and car drivers. Safety-critical systems need to be developed abiding by standards that range from the umbrella IEC 61508 through to more specific norms like ISO 13849, ISO 26262 or IEC 61511. In Industry 4.0 we subsequently see the networking of machines, production plant, ERP systems, etc, which calls for security in the form of extensive safeguards against sabotage, hacker assaults or espionage. And automobiles too, already the most complex nodes in the IoT, have to be secure against data manipulation.

True to that in July 2017 we are once again staging our interdisciplinary *Safety & Security Forum*. Here experts will look into each of both topics as well as into their interaction from the standpoint of industry and the automotive sector, and propose answers to major questions. Papers will range from subjects like hardware and software components through tools and certification to the practical use of secure and safe systems in manufacturing and the automobile. This way the presentations will provide clearly structured information both for developers of hardware and software components plus integrators and end-users of functionally safe systems in machine and plant engineering for instance.

And for the automotive industries questions discussed will be safety and security in the scenario of in-vehicle networking and car2x communication, and in this framework examination of network architectures, bus systems and multimedia, protocols, system architectures, etc.

Take part in the event with technical papers, practical examples, hands-on workshops, and reports of experience from design projects. Send us your proposed contribution on subjects like these:

Fundamentals
- The various standards and their differences
- SIL- and ASIL-classification
- Further standards development – what's new?
- Implementing functional safety – experiences with safety processes
- Cyber security
- Best practice from other industries
- Safety and security mechanisms
- Certification and assessment
- Legal Aspects

Hardware and Software, Tools
- Confidence in Use of Software Tools
- Qualifying software tools
- HIPS (Host Intrusion Prevention Systems), BOPS (Buffer Overflow Prevention Systems)
- Attack-proof Software
- Secure software development supported by tools
- ISO-Standard 27034
- Verification of functional requirements – strategies and tools
- Hazard and risk analysis
- Application-SW, code generators, operating systems, compilers
- Tools for simulation and visualization
- "SOUP" and functional safety
- Model-based development and test
- Tool qualification, SW test and documentation
- Measures of diagnosis in hard- and software
- Hardware security concepts & calculation methods
- Security mechanisms in hardware

Security
- Typical attack vectors in industrial applications
- Infrastructure components for secure data communication
- IT security concepts
- Mobile end devices in industrial applications
- Encryption methods
- How to identify cyber attacks?
- Identifying security leaks
- Cybersecurity management systems
- Industrial IT security vs. classic IT security
- Remote Maintenance: What are the important issues?

Automotive
- Robustness validation
- ISO 26262 – practical examples and real projects
- AUTOSAR and ISO 26262
- Automotive SPICE and ISO 26262
- Certifying and Testing to ISO 26262
- Safety analytics, methods of analysis
- ASIL-classification
- Solution concepts (HW/SW) for functional safety applications in the car
- Automotive security – Status quo of standardization
- Safety and Security in a collective context
- Safety & Automotive Ethernet: On the way to autonomous driving

Industry
- Industrie 4.0/Industrial Internet: Safe and secure allocation, transmission (wireless/wired) of data, safe and secure cloud solutions and big data analytics
- Safety in "dynamic" production environments
- Safety & Security for single-board computers (Raspberry Pi et al.) in professional applications.
- Systems for developing and programming safe automation components
- What to consider when interlinking several safety controls resp. sensors
- Safe Ethernet communication
- Safety on an international comparison
- Safe human roboter interaction
- Practical examples – implemented functional safety projects in industry
- Safety and standard automation in a mix
- SIL-certification in practice
- Safety on PC platforms – is that possible?

Please submit a résumé of your paper online by February 20, 2017. To find out more visit

www.safety-security-forum.de

We look forward to hearing from you.

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