



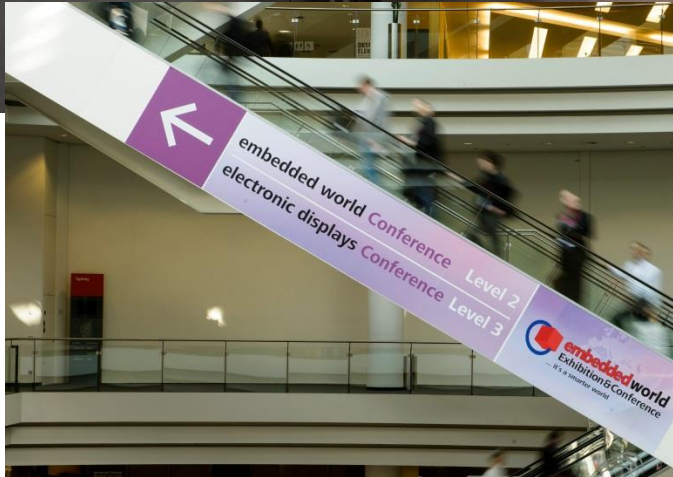
# Call for Papers



Source: Nürnberg Convention Center

[www.embedded-world.eu](http://www.embedded-world.eu)

February 24-26, 2015  
Nuremberg, Germany



### Attendees' quotes:

- » perfect organization, good talks, nice atmosphere«
- » Excellent. I really enjoyed seeing the exhibits after the technical sessions. You can get a real live demo of what was presented.«
- » Great combination of intro to this topic and advanced design patterns.«
- » Very interesting session. The presenter gave some useful tips for developing efficient C code, tips that I would not have read in a manual.«
- » Excellent presentations & venue«
- » It was a great presentation with many real world examples.«
- » I learned about static analysis in the sessions about software quality. I found it to be very useful.«
- » I'm fully satisfied!«



We are the Internet of Things – that's the leitmotif of the embedded world Conference 2015 in Nuremberg. Self-assured and responsible is how you'll experience this, the 13th staging of the event, which like no other is the meeting point of the embedded systems community. This is where engineers from the fields of embedded hardware and software rub shoulders to realize the next milestones of IoT. Being there means joining the avant-garde, the pioneers of a new technology that's set to revolutionize life on this planet.

But it's a long and onerous path before we get that far, with much still to do.

The backbone of IoT are embedded systems, networked and energy-efficient, secure and reliable. On this basis countless applications will constitute the Internet of Things. And we, the embedded community, are called upon for our involvement and cooperation in turning this technical revolution into reality.

Within this scenario the embedded world Conference 2015 consequently invites innovative embedded systems developers to the Nuremberg event, plus creating forums – User Summits – in two new formats focusing on IoT/M2M and Security & Safety directed at users, service providers, managers and decision-makers.

The idea behind the User Summits is that while the traditional embedded world Conference gets down to the fundamental technologies and concrete devices of IoT/M2M and security & safety solutions at embedded systems level, the User Summits will turn to application-related aspects. In the case of the IoT/M2M User Summit for example, that means purchasable M2M hardware and software, M2M solution platforms, cloud-based business models and solutions. While the Security & Safety User Summit will focus on data protection, risk analysis, specifications and standards.

Now it's your turn. Apply with an informative résumé of a suggested paper for the target group development engineers. Or support users and decision-makers in tackling important processes with a proposed paper for the User Summit IoT/M2M or Security & Safety.

This is an opportunity of speaking at the world's biggest embedded systems showcase and conference. Nowhere else will your paper draw so much attention, nowhere else are those attending the conference more competent and eager to listen and learn, and nowhere else do so many developers and decision-makers profit from a collective transfer of knowledge as at the embedded world Conference. Become part of this community that, with a most positive sense of responsibility and creativity, will alter this world. Because: We are the Internet of Things.

The international program committee looks forward to receiving your abstract. We encourage all relevant submissions in response to this call for papers, so please do not feel restricted to the topics stated as examples.

**Prof. Dr. Matthias Sturm**

**HTWK Leipzig  
Conference Chairman**

# Call for Papers

Topics of interest include, but are not limited to:

## 1. Systems

- 1.1 Devices
  - 1.1.1 Microprocessor Architectures and Cores
  - 1.1.2 Multicore Processors
  - 1.1.3 Systems on Chip
- 1.2 Architecture
  - 1.2.1 Functional Safety Systems
  - 1.2.2 Security & Cryptography
  - 1.2.3 Embedded System Architecture
  - 1.2.4 Embedded PC & Industrial Computing
- 1.3 Systems Design
  - 1.3.1 Ultra Low Energy Design
  - 1.3.2 Energy Harvesting
  - 1.3.3 FPGA & ASIC Design
  - 1.3.4 System Level Design
  - 1.3.5 Hardware & Software Co-Design
  - 1.3.6 PCB & Board Level Design
  - 1.3.7 EMC Aspects
  - 1.3.8 Signal & Power Integrity

## 2. Software

- 2.1 Software Components
  - 2.1.1 RTOS
  - 2.1.2 Android
  - 2.1.3 Embedded Linux
  - 2.1.4 Java
  - 2.1.5 Open Source Projects
  - 2.1.6 OPC UA
  - 2.1.7 Embedded GUI Development
- 2.2 Software Design Methods
  - 2.2.1 Software Development in High Level Languages
  - 2.2.2 Software Quality
  - 2.2.3 Verification & Simulation Methods
  - 2.2.4 Debugging & Test Methods
  - 2.2.5 Model-based Design
- 2.3 Tools & Design Flow
  - 2.3.1 Embedded System Design Automation
  - 2.3.2 Development Tools
  - 2.3.3 Rapid & Virtual Prototyping

## 3. Connections

- 3.1 Bus Systems & Network
  - 3.1.1 Bus Systems
  - 3.1.2 Network Technologies
- 3.2 Wired & Wireless
  - 3.2.1 Embedded Internet Technologies & Web Services
  - 3.2.2 Embedded Cloud Computing
  - 3.2.3 M2M Communication
  - 3.2.4 Wireless Technologies
- 3.3 Social Connections &
  - 3.3.1 Management of Embedded System Design
  - 3.3.2 Project Management: Methods and Tools
  - 3.3.3 Collaborative System Engineering & Software
  - 3.3.4 Product & Development Life Cycle Management

#### **4. Internet of Things / M2M – The Developer’s View**

- 4.1 Systems
  - 4.1.1 Devices and Modules for the IoT
  - 4.1.2 Best-Practice Sharing (Boards, Code Blocks)
- 4.2 Software
  - 4.2.1 IoT-Firmware & Middleware
  - 4.2.2 IoT SW Platforms
  - 4.2.3 Development Environment (e.g. Developer Kits)
  - 4.2.4 Methods for remote Device Configuration &
- 4.3 Connections
  - 4.3.1 M2M Communications
  - 4.3.2 Embedded Cloud Computing
  - 4.3.3 Embedded Internet Technologies & Cloud

#### **5. Internet of Things / M2M - User Summit**

- 5.1 Hardware: Devices and Modules for IoT/M2M
- 5.2 Software: Software-Platforms/Runtime-Software for M2M-Solutions
- 5.3. Communication Technologies: Wired and wireless Solutions (NFC,Bluetooth, WLAN,3G, LTE, Satellite)
- 5.4 Development Environments for M2M-Products and -Solutions
- 5.5 M2M System Integration
- 5.6 M2M-Enabler: Remote Device Management Platform
- 5.7 M2M-Carrier and Provider: Rates, SIM-Provisioning, SIM-Management, Value-Added-Services, Service
- 5.8 M2M Management: Communication-Management, Cost-Control, SIM-Activation, Integration over API
- 5.9 M2M-Communities: Online Support and Best-Practice Sharing
- 5.10 M2M-Shops: Online Shops for Distribution of M2M-Products and Solutions
- 5.11 IoT/M2M Business Models
- 5.12 Cloud-Computing: Middleware, Technologies and Business Processes for M2M
- 5.13 Security Aspects
- 5.14 Standards and Regulations

#### **6. Security & Safety - The Developer's View**

- 6.1 Systems
  - 6.1.1 Hardware-based Solutions for safe and secure
  - 6.1.2 Functional Safety Systems
- 6.2 Software
  - 6.2.2 Cryptography
  - 6.2.3 Safety/Security Libraries
  - 6.2.4 Software Development Methods for safe and
- 6.3 Connections
  - 6.3.1 Secure Protocols
  - 6.3.2 Securing connected Devices

#### **7. Security & Safety - User Summit**

- 7.1 Structures of safe / secure Systems
- 7.2 Data Protection and Data Security
- 7.3 Formalities & Guidelines - Specifications & Standards
- 7.4 Risk Analysis
- 7.5 Test & Certification
- 7.6 Impending Scenarios

Until September 2, 2014 you will have the opportunity to shape the program content. Please find more details about the Call for Papers at [www.embedded-world.eu](http://www.embedded-world.eu).

**Language:**

The conference language is English. All submissions must therefore be in English.

**Originality:**

Submissions to embedded world Conference 2015 should not have been published previously in a journal or conference proceedings, nor presented at another conference, nor currently under review or consideration for publication or presentation elsewhere.

**Important deadlines:**

- Abstract Submission: September 2, 2014
- Notification of authors: October 21, 2014
- Final Paper (ISBN): January 19, 2015
- Final Presentation: February 13, 2015

**Conference Committee**

Prof. Dr. Helmut Beikirch  
University Rostock



Prof. Dr. Axel Sikora  
University of Applied Sciences  
Offenburg



Prof. Dr. Matthias Sturm  
HTWK Leipzig (Chair)



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## embedded world Exhibition



**Exhibitors** interested in presenting their products at **embedded world Exhibition**, please contact

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# Contact form

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In parallel to the **embedded world Exhibition & Conference** (24.-26.2.2015)

the **electronic displays Conference** (25.-26.2.2015) takes place.



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[www.electronic-displays.de](http://www.electronic-displays.de)