embedded world 2019
Exhibition&Conference
... it´s a smarter world

CALL FOR PAPERS

embedded world Conference

-Embedded Intelligence-

IMPRESSIONS 2018

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embedded world – the leading international fair for embedded systems

Be it security for electronic systems, distributed intelligence, the Internet of Things or e-mobility and energy efficiency – the embedded world trade fair in Nuremberg enables you to experience the whole world of embedded systems.

The embedded world Conference is the world's largest event of its kind with 2,176 participants. The audience comprises experienced and knowledge-hungry embedded system developers, project and product managers. The conference has become an integral part of the dynamic environment of the embedded world trade fair. With 32,000 visitors, it has been an international professional meeting place for many years.

DESIGN& ELEKTRONIK
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design-elektronik.de

embedded world Conference is organized by DESIGN&ELEKTRONIK, the leading german speaking magazine for embedded developers

www.embedded-world.eu/call-for-papers.html

embedded world Conference 2019

Embedded Intelligence

The embedded world Exhibition & Conference is the world's leading meeting place for the embedded community. Here experienced developers come together to share their knowledge and help others to turn ideas and innovations into real products. Now in its 17th year, the Conference takes up the title of one of its precursors from the 1990s. Back then "Embedded Intelligence" was rather a vision of the future but now it is increasingly becoming reality and shaping more and more systems: from autonomous vehicles to image recognition and embedded vision systems to preventive and demand-driven maintenance in Industry 4.0 systems, from small edge computers to high-performance cloud servers. These developments not only open up immense possibilities and business opportunities, but are also closely associated with many technical, economic, social and ethical issues.

The Conference covers all aspects of the development and application of embedded systems, from fundamental technologies to development processes and special fields of application:

With over 2,100 participants, the embedded world Conference is the largest event of its kind in the world. The audience are competent, knowledge-hungry embedded system developers, specialists, project and product managers. The conference is very much part of the dynamic environment of the embedded world fair which, with its 30,000 visitors, has over the years become an international meeting place for the professional embedded developer community.

You are invited to present future-oriented technologies and solutions, new ideas and smart concepts for efficient development and life cycle processes. Use your presentation to initiate fruitful discussions and to help other engineers and managers to benefit from your experience.

Present a technical paper, describe practical examples in the form of a hands-on workshop or alternatively outline your experience with implementation projects. Prototypes and examples of applications can also be presented. However, promotional or marketing-oriented presentations or pure product descriptions will not be accepted.

An overall factual treatment of the topic is required, which rules out promotional or marketing-oriented presentations or pure product descriptions. Application-related contributions from research and pre-development are welcome to enrich the program.

In addition to the presentation format, you can also participate in the embedded world Conference as a Lecturer in a "class", asting either half a day or a full day. "Class" topics are dealt with in depth and interactively with the participants.

You can submit your proposal on the website www.embedded-world.eu Here you will also find more detailed information regarding topics and the Conference. The Program Committee looks forward to receiving your submission by 31st August 2018.

Prof. Dr. Axel Sikora
Conference Chairman

Topics of interest include, but are not limited to:

1. Internet of Things – Platforms & Applications	1.1 Application Profiles
	1.2 Edge/Fog/Cloud Computing
	1.3 M2M Communications
	1.4 Embedded Internet Technologies & Web Services
	1.5 Software Platform for IoT
2. Connected Systems	2.1 Wired Technologies
	2.2 Wireless Technologies
	2.3 Narrowband & Long-range IoT
	2.4 Connectivity, e.g. for Industry 4.0, Automotive, …
3. Embedded OS	3.1 RTOS
	3.2 Embedded Linux
	3.3 Android
	3.4. Virtualization and Separation
	3.5 Safety OS
	3.6 Multicore OS
4. Safety & Security	4.1 Functional Safety: Architectures
	4.2 Functional Safety: Application of Standards
	4.3 Security: Architectures
	4.4 Security: Application of Standards
	4.5 Cryptography in Software & Hardware
	4.6 Securing Embedded Communication
	4.7 Securing Embedded Devices
	4.8 Hacking
5. Hardware Engineering	5.1 Single-Core Microcontrollers
	5.2 Multicore Microcontrollers
	5.3 FPGA & ASIC Design
	5.4 Peripherals
	5.5 Sensors & Actuators
	5.6 System On Chip
	5.7 PCB Design, Signal Integrity & Power Supply
	5.8 Low Power & Ultra Low Power
	5.9 Packaging
	5.10 Printed Electronics
6. Software & Systems Engineering	6.1 Programing Languages & Standards
	6.2 Coding Standards (e.g. MISRA)
	6.3 Development Processes & Methods
	6.4 Agile Development
	6.5 Requirements Engineering
	6.6 Design & Modeling
	6.7 HIL, SIL, MIL, Virtual Integration
	6.8 Verification & Validation
	6.9 Static Code Analysis
	6.10 Debugging Techniques
	6.11 Software & System Quailty
	6.12 High Performance Embedded Architectures
	6.13 Parallelization of Algorithms

7. Embedded Vision	7.1 Application Case Studies & Business Cases for Embedded Vision
	7.2 Hardware Components & System Integration for Embedded Vision
	7.3 Software Tools (incl. AI) & Toolchains for Embedded Vision
	7.4 IoT Connection & Cloud for Embedded Vision
	7.5 Standardisation (e.g. Camera Interfaces)
	7.6 Migration Paths from PC to Embedded Vision
8. Autonomous & Intelligent Systems	8.1 Sensor Systems & Integration
	8.2 Sensor Fusion
	8.3 Embedded Data Analytics
	8.4 Machine Learning & Deep Learning
	8.5 Artificial Intelligence
	8.6 Algorithmics (Sensor Fusion)
	8.7 ICs for Deep Learning
9. Embedded GUI & HMI	9.1 Usability & HMI Design
	9.2 Embedded GUI Development
	9.3 Embedded GUI Test
	9.4 Graphic Software Libraries
	9.5 Augmented Reality
	9.6 Graphics Accelerators

Proceedings of embedded world Conference:

Full papers of accepted contributions to the embedded world Conference will be published in a dedicated volume of conference proceedings, with full ISBN registration, page numbers, and the possibility of subsequent download.

Novel Ideas:

The above list represents just a selection of the topics covered. You are very welcome to submit further interesting suggestions related to the topic.

Language:

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

Originality:

Submissions to embedded world Conference 2019 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.
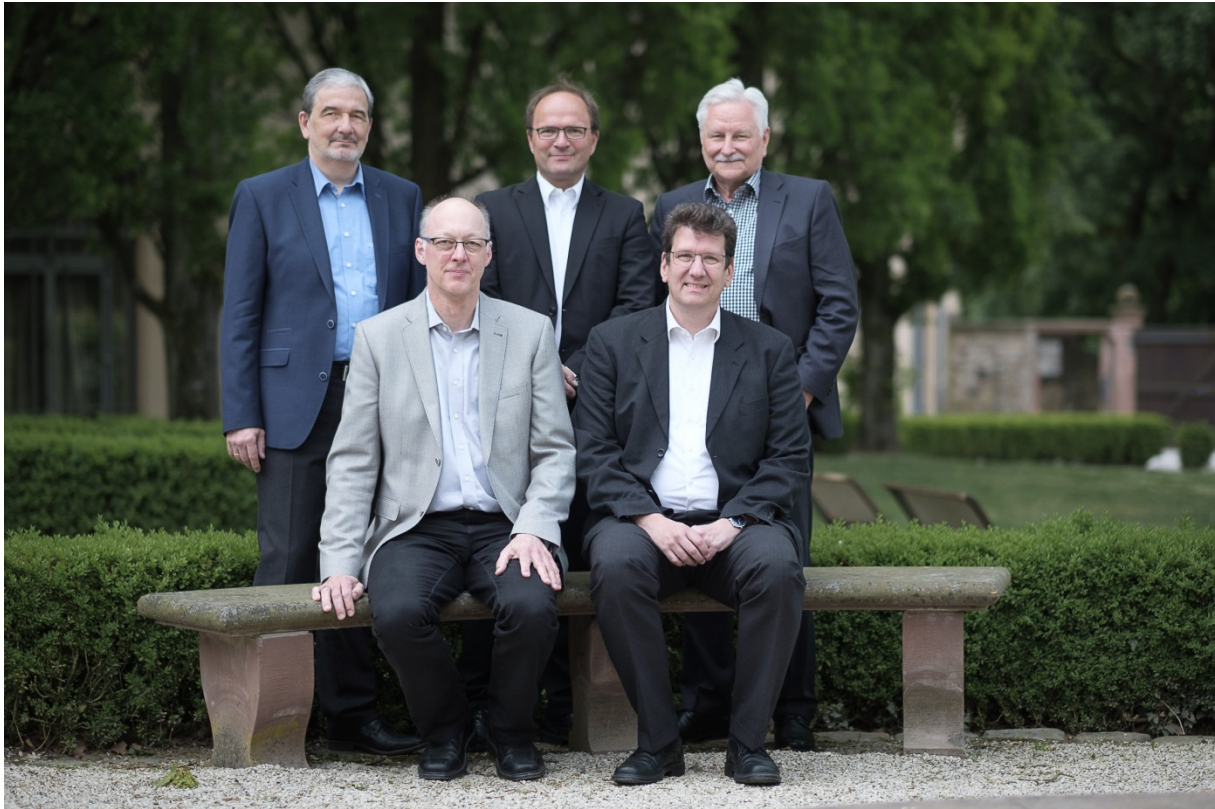
Important Deadlines:

- Abstract Submission: **August 31, 2018**

- Notification of Authors: **October 29, 2018**

- Final Paper (ISBN): **January 18, 2019**

- Final Presentation: **February 8, 2019**

Until **August 31, 2018,** you will have the opportunity to shape the program content. Please find more details about the Call for Papers at: **www.embedded-world.eu**

STEERING BOARD 2019:

Dr. Bernd Hense, Joachim Kroll, Prof. Dr. Axel Sikora, Prof. Dr. Peter Fromm, Dr. Klaus Grimm
(from left to right)

The steering board is the strategic think tank behind the embedded world Conference.
Currently five senior engineers with excellent scientific and business records, with open minds
and lots of ideas, shape the future direction of the embedded world Conference.

Publication Chair:

Frank Riemenschneider
Editor in Chief, DESIGN & ELEKTRONIK

www.embedded-world.eu

CONTACT:

Sponsoring & Promotion embedded world Conference:

Corina Prell
WEKA FACHMEDIEN GmbH
Richard-Reitzner-Allee 2, 85540 Haar, Germany
P +49(0)89/255 56-1393, F +49(0)89/255 56-0393
cprell@weka-fachmedien.de

Project Manager embedded world Conference:

Renate Ester
WEKA FACHMEDIEN GmbH
Richard-Reitzner-Allee 2, 85540 Haar, Germany
P +49(0)89/255 56-1349, F +49(0)89/255 56-0349
rester@weka-fachmedien.de

EMBEDDED WORLD EXHIBITION:

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

Germany:
Brigitte Seipt
NürnbergMesse GmbH
Messezentrum, 90471 Nürnberg, Germany
P +49(0)911/86 06-8900
brigitte.seipt@nuernbergmesse.de

USA, UK, Ireland:
Michelle Eiser
NürnbergMesse GmbH
Messezentrum, 90471 Nürnberg, Germany
P +49(0)911/86 06-8910
michelle.eiser@nuernbergmesse.de

Jessica Kohler
NürnbergMesse GmbH
Messezentrum, 90471 Nürnberg, Germany
P +49(0)911/86 06-8585
jessica.kohler@nuernbergmesse.de

Contact form:

Please send further information:

☐ Call for Papers (including detailed information on abstract submission)

☐ Sponsoring & Promotion

☐ Conference Program

☐ embedded world Exhibition

Company: _____

Name, Last Name: _____

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SmarterWorld
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WEKA FACHMEDIEN GmbH, Richard-Reitzner-Allee 2, 85540 Haar, Germany
info@embedded-world.eu