

CALL FOR PAPERS

The **embedded world Exhibition & Conference** is the world's premier event on the embedded systems topic and has continued this path recently using hybrid and online formats. It brings together researchers and developers, industry and academia from all disciplines of embedded system development.

Now in its 20th edition, the **embedded world Exhibition & Conference 2022** (<https://www.embedded-world.eu>) will be staged from 15 to 17 March 2022 in Nuremberg. The embedded world Conference in collaboration with RISC-V International is calling for proposals for a special **RISC-V** session.

RISC-V is the Free and Open RISC Instruction Set Architecture (ISA) driven through open collaboration, enabling freedom of design, and cementing the strategic foundation of semiconductors. With the RISC-V track at the embedded world Conference, we are bringing together the embedded community and their broad variety of hardware, software and system solutions, architectures, and requirements of embedded and IoT development.

The special topics of the RISC-V session will include:

- **Beyond RISC-V ISA:** Content includes technical attributes related to the RISC-V ISA including security, performance and optimization, and RASD – reliability, availability, scalability, and diagnosability. Potential topics include:
 - Secure-Boot & Trusted Execution Environments
 - Crypto-Accelerators
 - Accelerators
 - Custom ISA extensions for performance
 - Power-optimized execution
 - Functional Safety
 - Self-healing systems and lock-step execution
 - End-to-end data integrity
- **Software Stack and Development Tools:** Novel techniques, solutions, and research that is expanding the RISC-V software stack and providing development tools to support the RISC-V ecosystem.

- Compilers (e.g., GCC, LLVM), virtual machines (e.g., V8, OpenJDK), and runtime systems
 - Compilation techniques optimized for RISC-V
 - Libraries and applications that have been customized, optimized, or specifically targeted to RISC-V, especially for graphics, machine learning, and HPC
 - Simulation and performance analysis tools
- Industry Targeted Solutions: RISC-V use in end-user products is growing exponentially every year. For this track, we are looking for solutions, research, or product-specific implementations with RISC-V within an industry. We are also interested in trends and future technologies in the targeted RISC-V industries.

Please submit your proposal at <https://www.embedded-world.eu/special-cfps> by **29th Sep 2021**, selecting the topic “**11.1: RISC-V**”.

Authors will be notified by 22nd Nov 2021. Presentations shall be submitted by 18th Feb 2022. Optionally, papers can be submitted for publication in the conference proceedings, which will be made available soon after the event.