ELECTRA IC to Showcase Pioneering Technologies at Embedded World 2025

(Istanbul-TURKIYE / 20.Jan.2025) – ELECTRA IC, a leading provider of design services and solutions in ASIC/FPGA, embedded software/systems, electronic circuit design, and functional safety, is thrilled to announce its participation in **Embedded World 2025**, the premier global exhibition and conference for embedded technologies.

The event will be held at the **Exhibition Centre Nuremberg, Germany**, from **March 11 to 13, 2025**. Visitors can meet the ELECTRA IC team at **Stand 4-665**, where the company will exhibit under the **TICA** (Turkish Integrated Circuit Alliance) umbrella.

ELECTRA IC will present its cutting-edge expertise and services at Embedded World 2025, including:

- **IC Design and Verification Services** for advanced electronic systems.
- **Embedded Software Solutions** tailored for critical applications.
- **Functional Safety Consultancy**, adhering to standards such as DO-254, DO-178, ARP-4754, EN-50129, and ISO-26262.
- **Electronic Circuit Design and Prototyping** for diverse industries, including defense, healthcare, and transportation.

As a **Doulos Certified Training Partner**, ELECTRA IC also delivers an extensive portfolio of professional training programs, offering over 200 courses that empower engineers globally in domains such as AMD Xilinx, Embedded Linux, and Deep Learning.

Founded in 2014 at Teknopark Istanbul, ELECTRA IC has steadily expanded its reach with offices in Ankara, the Netherlands, and soon Belgium. The company remains committed to driving innovation and delivering world-class solutions that redefine industry standards.

ELECTRA IC invites attendees to visit its booth, meet with its expert team, and learn about its innovative offerings.

For more information, visit **www.electraic.com/products** or contact **info@electraic.com**.

Join us at Embedded World 2025 and shape the future of embedded technology together!

ELECTRA IC Unveils Advanced Design IP Core Portfolio for Next-Generation Applications

ELECTRA IC, a leading provider of innovative semiconductor solutions, proudly presents its comprehensive Design IP Core portfolio, tailored to meet the evolving needs of the avionics, telecommunications, cryptography, and advanced verification industries.

Avionic IP Cores
ELECTRA IC's avionic IP Cores ensure reliable and efficient communication for aerospace applications. The portfolio includes:

- **MIL-STD-1553 IP Core**: Implements the MIL-STD-1553B standard for seamless host processor communication.
- **ARINC664 END SYSTEM and SWITCH IP Cores**: Enable robust networking within ARINC664 Part 7 environments.
- **ARINC429 IP Core**: Provides RX and TX processing blocks and interfaces for avionics communication.

Telecom IP Cores
Optimized for 5G, the **PRACH IP Suite** accelerates O-RAN Split 7.2X design and verification, offering a comprehensive toolkit including MATLAB models, RTL implementations, and robust verification environments.

Cryptographic IP Cores
Designed for secure and reliable encryption, signature, and random number generation, ELECTRA IC's cryptographic IP cores comply with global standards such as FIPS and NIST:

- **AES and AES GCM IP Cores**: Advanced encryption for secure data communication.
- **DRBG, TRNG, and SHA3 IP Cores**: Provide deterministic and true random number generation, as well as cryptographic hashing.
- **RSA, RSA Keygen, and ECDSA IP Cores**: Deliver robust digital signature capabilities.

Advanced Verification
The **EAVS (ELECTRA IC Advanced Verification Suite)** offers a plug-and-play environment for SystemVerilog and UVM-based verification, supporting RISC-V, ARM, and other complex architectures in sectors such as automotive and defense.

ELECTRA IC's Design IP Cores empower developers with cutting-edge solutions that drive innovation, reduce time-to-market, and ensure compliance with industry standards. These cores are ideal for a wide range of mission-critical applications.

For more information, visit www.electraic.com

ELECTRA IC FPGA Modules

ELECTRA IC offers a comprehensive range of FPGA-based modules, delivering advanced solutions for diverse applications in aerospace, defense, automotive, and industrial sectors. Our product portfolio combines cutting-edge technology with robust design, ensuring reliability and performance in the most demanding environments.

The **BitFlex-SPB-A7** and **BitFlex-VPX Series** modules are designed for high-performance applications, leveraging the power of Xilinx Artix-7 and Zynq UltraScale+ FPGAs. These platforms feature extensive I/O options, high-speed interfaces, and advanced diagnostic capabilities, making them ideal for signal and image processing tasks.

Our **MIL-STD-1553** and **ARINC664 Boards** provide compact, rugged interfaces for critical communication standards, with dual-redundant channels and wide operating temperature ranges. These boards are built to withstand harsh conditions while ensuring reliable performance.

The **EIC Charge Controller** is a key solution for the electric vehicle ecosystem, offering support for global charging standards, flexible communication options, and robust hardware design for EVSE applications.

For flexible and customizable designs, the **Flexy FPGA Board** and **FPGA-Based RF Control Board** deliver powerful performance in compact, open-source platforms. They provide extensive control options and re-programmable structures, catering to a wide range of applications.

ELECTRA IC's FPGA Modules represent the pinnacle of innovation and reliability, offering scalable, high-performance solutions tailored to meet the evolving needs of embedded systems and complex applications.

For more information, visit www.electraic.com

ELECTRA IC's ARINC-664 Product for Aerospace Applications

ELECTRA IC has developed an **ARINC-664-compliant End System and Network Switch Equipment** that enables fault-tolerant high-speed data communication between electronic units in an aerospace application.

This product, which consists of an ARINC-664 End System and Network Switch compliant with the ARINC-664 standard, **facilitates communication among devices.** In other words, **the hardware** developed by ELECTRA IC **enables communication between components such as telemetry units, navigation units, cameras, and other electronic equipment**.

ELECTRA IC designed this product from scratch. The R&D team developed the IP core embedded in the FPGA and carried out the complete FPGA design of the system, board, and electromechanical design. Subsequently, the components were enclosed in a custom case and subjected to all necessary environmental tests.

Both the ARINC-664 End System and Switch use the same physical case but can also be modified according to different customer requirements, thanks to Electra IC's strong competence in understanding customer needs and quickly tailoring the existing design according to new customer requirements.

With its commitment to innovation and quality, ELECTRA IC continues to shape the future of avionics technology, ensuring safety and excellence in every solution.

To explore ELECTRA IC's cutting-edge avionics solutions, visit www.electraic.com or contact info@electraic.com .