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# Embedded Systems Handbook

Edited by

**Richard Zurawski**

ISA Corporation, South San Francisco, California, USA

A volume in the *Industrial Information Technology* series

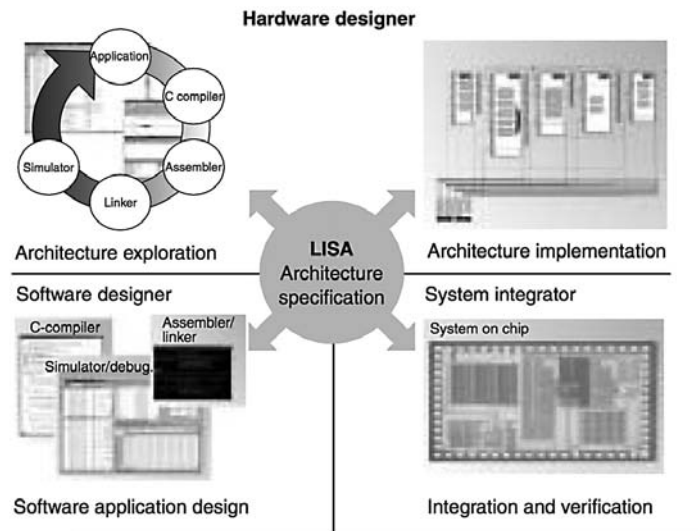
## *Finally! A Comprehensive Treatment of Embedded Systems Technology*

Embedded systems are nearly ubiquitous, and books on individual topics or components of embedded systems are equally abundant. Unfortunately, for those designers who thirst for knowledge of the *big picture* of embedded systems there is not a drop to drink. Until now. The **Embedded Systems Handbook** is an oasis of information, offering a mix of basic and advanced topics, new solutions and technologies arising from the most recent research efforts, and emerging trends to help you stay current in this ever-changing field.

With preeminent contributors from leading industrial and academic institutions around the globe, this authoritative handbook presents timely tutorials, surveys, and technological overviews spanning the range of issues and technologies involved in embedded systems. Many of the technology developments, deployments, and trends are made available in this book for the first time. Six sections provide coherence to the presentation, detailing:

- A broad introduction to embedded systems
- System- and network-on-chip (SoC/NoC) design
- Testing of embedded core-based integrated circuits
- Networked embedded systems
- Sensor networks, and
- Automotive, industrial automation, and intelligent sensor applications

With concise yet comprehensive coverage of the latest developments, solutions, tools, products, and research results, the **Embedded Systems Handbook** is ideal for both novice and seasoned engineers looking to enhance and expand embedded systems capabilities.

**LISA processor design environment.**

## Features

- Discusses real-time issues, methods, and trends along with design, modeling, software, and power-aware embedded computing
- Provides broad coverage of IC technologies, embedded security, and networked embedded systems
- Explores safety-critical embedded systems, synchronous languages and software, and fault-tolerance
- Delves extensively into sensor networks
- Anchors the discussion with several practical, real-world embedded system applications

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