

INDUSTRIAL ELECTRONICS SERIES

THE

INDUSTRIAL
INFORMATION
TECHNOLOGY

HANDBOOK

Edited by

Richard Zurawski



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TECHNOLOGY**

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The **Industrial Information Technology Handbook** focuses on existing and emerging industrial applications of IT, and on evolving trends that are driven by the needs of companies and by industry-led consortia and organizations. Emphasizing fast growing areas that have major impacts on industrial automation and enterprise integration, the Handbook covers topics such as industrial communication technology, sensors, and embedded systems.

The Handbook presents material in the form of tutorials, surveys, and technology overviews, combining fundamentals and advanced issues, with articles grouped into sections for a cohesive and comprehensive presentation. The text contains 112 contributed reports by industry experts from government, companies at the forefront of development, and some of the most renowned academic and research institutions worldwide. Several of the reports on recent developments, actual deployments, and trends cover subject matter presented to the public for the first time.

Features:

- Introduces software and web fundamentals such as development platforms and frameworks, middleware, .NET, Java, and multidimensional database technology
- Discusses Internet and IP-related issues including core protocols, QoS in IP networks, network security, and *ad hoc* networking
- Analyzes industrial communication systems, focusing on field area networks, Ethernet, mobile networks, security, and more
- Overviews Internet, web and IT technologies in industrial automation and design.
- Explores real-time embedded systems and networked embedded systems
- Describes integration issues including e-Manufacturing, XML applications, network-based integration technologies, agent-based technologies, and applications for energy and power systems

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