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Descrizione fisica	1 online resource (xxv, 353 pages) : illustrations (some color)
Collana	Gale eBooks
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Soggetti	Process control Programmable controllers Local area networks (Computer networks)
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	CAN Basic Architectures -- Physical Layer -- Data Link Layer Implementation -- Higher Level Protocols -- Applications -- Testing.
Sommario/riassunto	The controller area network (CAN) microcontroller communication protocol is now ubiquitous in a staggeringly wide range of transportation and industrial control applications. This fully revised and updated new edition addresses the various challenges and open questions relating to CAN communication networks. Opening with a short introduction into the fundamentals of CAN, the book then examines the problems and solutions for the physical layout of networks, including EMC issues and topology layout. Additionally, a discussion of quality issues with a particular focus on test techniques is presented. Each chapter features a collection of illuminating insights and detailed technical information supplied by a selection of internationally-regarded experts from industry and academia. Topics and features: Presents thorough coverage of architectures, implementations and application of CAN transceiver, data link layer and so-called higher layer software Explains CAN EMC characteristics and countermeasures, as well as how to design CAN networks Demonstrates how to practically apply and test CAN systems Includes examples of real networks from diverse applications in automotive engineering, avionics, and home heating technology Includes a glossary of abbreviations, and a useful bibliography This comprehensive text

will be an invaluable guide/reference for electronic engineers working with industrial control systems. Prof. Dr. Wolfhard Lawrenz is the former founder and director of C&S Group GmbH. He has extensive worldwide experience and recognition in working with CAN techniques with companies ranging from automotive manufacturers and suppliers to semiconductor manufacturers, as well as international standardization committees such as ISO and SAE.
