Introduction to Broadband Communication Systems, Cajetan M. Akujuobi and Matthew N.O. Sadiku. Presenting the latest advances in technology, this book emphasizes the importance of broadband networks in modern-day telecommunications. It also considers key areas of broadband communications, including X.25 and frame relay, synchronous optical networks, virtual private networks, digital subscriber lines, integrated service digital networks, and broadband ISDN.

The text provides complete coverage of passive optical, Internet-based, access, and wireless networks. It also addresses networking technologies, such as next-generation SONET and fault-tolerant VPNs, as well as network management and security, including the wireline broadband technology testbed.


Secure Computer and Network Systems: Modeling, Analysis, and Design, Nong Ye. This book presents a wide range of modeling, analysis, and assurance techniques that address computer network dependability, security, and quality of service (QoS). In-depth coverage of technical material is supported with experimental data and numerical examples to illustrate why and how the technologies work, making the book useful as a text for graduate students.

Since the next generation of computer network systems and information infrastructure relies on scientific and engineering approaches to provide security, QoS, and ultimately system dependability, this book might help people in academia and industry working to achieve this goal.


The Art of Digital Video, John Watkinson. For generations, this book has served as a reference guide for those working with digital video. Now it has been revised and rewritten to include important technical updates on this ever-evolving topic.

The book’s format has been improved to include optional sections that provide additional information spanning a wide range of interests and comfort levels with the subject. As the worlds of film, digital imaging, and computing have converged, this volume has evolved to remain current and relevant, while still providing the classic text experts in the field have trusted for years.

This book should appeal to professionals in video, electrical, and broadcast and communications engineering.


Pervasive Information Systems, Panos E. Kourouthanassis and George M. Giaglis, eds. Today’s ubiquitous computing technology is embedded in everyday objects from cars to clothes to shipping containers, for which location, context, and state can be monitored, instantly processed, and acted upon. This book provides an in-depth review of these state-of-the-art practices and research opportunities in a new era where information technology resides in physical space.

Written for both scholars and practitioners, this book is organized into three sections, each investigating a distinct perspective of the subject. Part I focuses on the design challenges of pervasive information systems (PS) and discusses issues relating to the coordination of PS through middleware structures as well as issues related to PS’s efficient deployment. Part II discusses the challenges and limitations of deploying pervasive technologies to support domestic, corporate, and public systems. Part III presents two emerging research fields of PS—design for aesthetics and PS evaluation.


Systems Engineering with SysML/UML: Modeling, Analysis, Design, Tim Weilkiens. Systems engineering has long recognized that as technologies evolve, the boundaries between different disciplines blur. The interplay between hardware, software, and firmware can be extremely complex and hard to control, making it essential that all elements of a system are envisioned as a working whole from the outset of development. This holistic vision demands new, robust tools and models.

The Unified Modeling Language (UML) has established itself as a worldwide standard for software engineering through its focus on overarching requirements and process. Systems engineering has suffered the lack of a similar standardized modeling language—until now. The Object Management Group’s Systems Modeling Language is based on UML and supported by leading organizations from the systems engineering industry, including the International Council on Systems Engineering.

Readers not yet familiar with UML will find that this book provides an approachable, quick introduction. For those familiar with UML and who understand the importance of adding SysML to their skill set, this book eases the transition, providing a roadmap to moving from UML to SysML.

Morgan Kaufmann; www.mkp.com; 978-0-12-374274-2; 320 pp.

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