

5 New Books from the IEEE PRESS

Each Selected Reprint book is available in clothbound and low-cost, durable, IEEE members' paperbound editions.

1 SELECTED PAPERS IN DIGITAL SIGNAL PROCESSING, II

Edited by the Digital Signal Processing Committee, IEEE Acoustics, Speech, and Signal Processing Society. 1976. 592 pages. ISBN—Clothbound 0-87942-059-6; Paperbound 0-87942-060-X. A Book of Selected Reprints.

Progress in the field of digital signal processing has been rapid, and the literature has increased apace with the expanding activity in research and applications. Because of the interdisciplinary interest in the subject, important papers appear in any of a number of journals and other publications. Making these key papers readily accessible is the purpose of this book (and of its 1972 companion volume, DIGITAL SIGNAL PROCESSING).

The papers reprinted in this volume were carefully selected from the large number of candidates. Those with the best combination of comprehensiveness, treatment, and length were chosen, with preference given to tutorial and review papers. No articles included in the 1972 companion volume were selected.

CONTENTS: Preface, General Considerations, One-Dimensional Digital Filtering, Two-Dimensional Signal Processing, Finite Word Length Effects, Network Structures, Hardware, Terminology, Subject and Author Indexes. A total of 63 reprinted papers.

	Order No.	Nonmember	Member
Clothbound	PC00562	\$17.95	\$13.45
Paperbound	PP00570	—	\$ 8.95

2 COMMUNICATIONS CHANNELS: Characterization and Behavior

Edited by Bernard Goldberg, U.S. Army Electronics Command. 1976. 776 pages.

ISBN—Clothbound 0-87942-057-X; Paperbound 0-87942-058-8. A Book of Selected Reprints.

The behavior of actual communications channels—both wire and radio—including the effect of such channels on information-bearing signals, is a subject of great interest and practical importance in communications. Yet most texts limit their treatment to specialized idealized channels, failing to take into account real-world channel conditions that may not be amenable to exact analytic representation.

This book was organized to fill a void by providing a comprehensive single source of tutorial and expository information on the behavioral characteristics of practical communications channels "across the spectrum." Covered are the time-variant transfer-function properties, analytic modeling, simulation, error-rate behavior, and actual system performance. An extensive bibliography is included for each subject category as listed in the contents below.

CONTENTS: Introduction; Broadly Applicable Concepts; Wire and Cable Communication Channels; VLF, LF, MF; HF Ionosphere; VHF Line of Sight, Diffraction; UHF, SHF Line of Sight; UHF, SHF Troposcatter; Satellite Communications; Millimeter Wave; Laser; Subsurface and Ocean Channels; Subject and Author Indexes. A total of 65 reprinted papers.

	Order No.	Nonmember	Member
Clothbound	PC00620	\$22.95	\$17.20
Paperbound	PP00638	—	\$11.45

3 OPTICAL FIBER TECHNOLOGY

Edited by Detlef Gloge, Bell Laboratories. 1976. 440 pages. ISBN—Clothbound 0-87942-061-8; Paperbound 0-87942-062-6. A Book of Selected Reprints.

One of the most promising developments in the communications field is the use of optical fibers for the transmission of signals. Because progress in optical fiber technology has been rapid, it is necessary to consult the recent journal literature to obtain a current picture of the state of the art. This can be a formidable assignment, since there are hundreds of scattered papers on the subject. This time-consuming task is dramatically simplified by this book, which contains papers carefully selected with the objective of providing a comprehensive survey of the latest concepts, advances, and trends.

The book begins with a comprehensive two-part tutorial-review paper that introduces the reader to the background and current state of optical fiber technology.

CONTENTS: Introduction, Introductory Survey; Fiber Preparation; Materials and Loss Evaluation; Propagation Theory; Signal Distortion; Fiber Strength and Stability; Connection and Splicing; Transmitter, Receiver, and Peripheral Electronics; Applications and Systems Considerations; Subject and Author Indexes. A total of 49 reprinted papers.

	Order No.	Nonmember	Member
Clothbound	PC00588	\$19.95	\$14.95
Paperbound	PP00596	—	\$ 9.95

4 LARGE-SCALE NETWORKS: Theory and Design

Edited by Francis T. Boesch, Bell Laboratories. 1976. 496 pages. ISBN—Clothbound 0-87942-063-4; Paperbound 0-87942-064-2. A Book of Selected Reprints.

Telephone networks, gas pipelines, computer nets, transportation systems—all are designed by using large-scale network models. The methods used to analyze such models form an important body of knowledge that has widespread application, although results are often reported in various specialized journals.

This book collects, from scattered sources, the most significant material on recent advances in large-scale networks, and it illustrates how the techniques developed can be applied to a variety of systems. Besides the reprinted papers, it contains two introductory papers, one on the theory of large-scale networks and the other on optimum path problems, that were specially written to give the background necessary for understanding the more advanced material that follows them.

CONTENTS: Preface, An Introduction to the Theory of Large-Scale Networks, Optimum Path Problems, Basic Theory, Applications, Subject and Author Indexes. A total of 31 reprinted papers.

	Order No.	Nonmember	Member
Clothbound	PC00604	\$19.95	\$14.95
Paperbound	PP00612	—	\$ 9.95

5 A GUIDE FOR BETTER TECHNICAL PRESENTATIONS

Edited by Robert M. Woelfle, E-Systems, Inc. 1975. 240 pages.

ISBN—Clothbound 0-87942-055-3, Paperbound 0-87942-056-1.

This book is basically a "how to" guide to help professional people communicate their ideas to others on a real-time basis. It contains articles that describe various techniques for planning, preparing, and executing presentations using virtually all types of media, including multimedia. The articles were carefully selected from the large body of literature in this area because they have a tutorial approach and address subjects that are of practical value in solving the problems normally encountered in preparing and implementing a presentation. Included in the articles are checklists for selecting the best medium and equipment for various applications.

CONTENTS: Introduction, General Considerations, Planning and Preparation, Visual Aids, Delivery Techniques, Multimedia Presentations, Motion Pictures, Subject and Author Indexes. A total of 35 reprinted articles

	Order No.	Nonmember	Member
Clothbound	PC00547	\$14.95	\$11.20
Paperbound	PP00554	—	\$ 7.45



To order, use this handy coupon.
IEEE Service Center, 445 Hoes Lane,
Piscataway, N.J. 08854

Please send me the IEEE PRESS books whose
ORDER NUMBERS I have entered below. My
check, made payable to IEEE, is enclosed.
(Residents of New Jersey please add 5% state
sales tax.)

Order No.	Units	Price		
			Print Name	IEEE No.
			Address	
			City	State/Country
			Zip	PR-T
Amount				