

Basic Methods of Cryptography,

by Jan C. A. van der Lubbe. Cambridge University Press, 1998, 243 pp., £19.95, ISBN 0-521-55559-0 (paperback).

Contents: Introduction to cryptography; Classical cipher systems; The information theoretical approach; The data encryption standard; Shift-registers; Public cipher systems; Authentication and integrity; Key management and network security.

Information Measures for Discrete Random Fields,

by Zhongxing Ye and Toby Berger. Science Press, 1998, 160 pp., ISBN 7-03-006592-1 (Beijing), 1-880132-29-X (New York).

Contents: Information measures of random variables and vectors; Information measures of random processes; Entropic aspects of random fields on trees; Entropy theorem for random fields on trees; Entropic aspects of random fields on \mathcal{Z}^d ; ϵ -Entropy and critical distortion of random fields on lattices.

Multiuser Detection,

by Sergio Verdú. Cambridge University Press, 1998, 464 pp., £30, ISBN 0-521-59373-5.

Contents: Multiaccess communications; Code division multiple access channels; Single-user matched filter; Optimum multiuser detection; Decorrelating detector; Non-decorrelating linear multiuser detection; Decision-driven multiuser detectors.

Graphical Models for Machine Learning and Digital Communication,

by Brendan J. Frey. Bradford Book, 1998, 216 pp., \$32, ISBN 0-262-06202-X.

Contents: Introduction; Probabilistic inference in graphical models; Pattern classification; Unsupervised learning; Data compression; Channel coding; Future research directions.

Digital Transmission Engineering,

by John B. Anderson. IEEE Press, 1998, 400 pp., \$89.95 (List Price), \$77 (Member Price), ISBN 0-7803-3457-4.

Contents: Introduction to digital transmission; Baseband pulse transmission; Carrier transmission; Synchronization; Channels; Error correction coding; Receivers for distributed channels; Appendix A – Least square error equalizers.

Fundamentals of Convolutional Codes,

by Rolf Johannesson and Kamil Sh. Zigangirov. IEEE Press, 1998, 600 pp.,

\$89.95 (List Price), \$77 (Member Price), ISBN 0-7803-3483-3.

Contents: Introduction; Convolutional encoders – Structural properties; Distance properties of convolutional codes; Viterbi decoding; List decoding; Sequential decoding; Iterative decoding; Convolutional codes with good distance properties; Modulation codes; Appendix A: Minimal encoders; Appendix B: Wald’s Identity.

Trellis and Trellis-Based Decoding Algorithms for Linear Block Codes,

by Shu Lin, Tadao Kasami, Toru Fujiwara and Marc Fossorier. Kluwer, 1998, 304 pp., \$86.50, ISBN 0-7923-8151-3.

Contents: Introduction; Linear block codes; Trellis representation of linear block codes; state labeling, Trellis construction procedures and trellis symmetry; Trellis complexity; Trellis sectionalization; Parallel decomposition and low-weight subtrellises; Methods for constructing codes and trellises.

Coding for Channels with Feedback,

by James M. Ooi. Kluwer, 1998, 200 pp., £66.50, ISBN 0-7923-8207-2.

Contents: Introduction; DMCs: An introduction to the framework; Channels with memory; Unknown channels; Multiple-access channels; Channels with partial and noisy feedback; Conclusions.

Asymptotic Combinatorial Coding Theory,

by Volodia Blinovsky. Kluwer, 1997, 128 pp., \$89, ISBN 0-7923-9988-9.

Contents: Coding bounds; List decoding; Covering and packing; Decoding complexity; Channel with defects; Some other problems.

Lectures on the Theory of Stochastic Processes,

by A. V. Skorokhod. VSP, 1996, 184 pp., \$59, ISBN 90-6764-206-1.

Contents: Stochastic processes, Definitions, Examples; The Kolmogorov consistency theorem, Classification of processes; Random Walks, Recurrence, Renewal theorem; Martingales, Inequalities for martingales; Theorems on the limit of a martingale; Stationary sequences, Ergodic theorem; Ergodic theorem, Metric transitivity; Regularization of a process, Continuity; Processes without discontinuities of the second kind; Continuity of processes with independent increments, Martingales with continuous time; Measurable processes; Stopping times, Associated σ -algebras; Completely measurable processes; L_2 -theory; Stochastic integrals; Stationary processes, Spectral representations; Stationary sequences, Regularity and singularity, The prediction of a stationary sequence, Markov processes, Homogeneous Markov processes and associated semigroups; Homogeneous purely discontinuous processes,

Conditions for their regularity; Processes with a denumerable set of states; Simple birth and death processes; Branching processes with particles of only one kind; Homogeneous processes and strongly continuous semigroups, Resolvent operator and generator; The Hille-Iosida theorem; Processes with independent increments, Representation of the discontinuous part; General representation of a stochastically continuous process with independent increments; Diffusion processes; Stochastic integrals; Existence, uniqueness, and properties of solutions of stochastic differential equations; Itô's formula with some corollaries.

Digital Signal Processing: A Computer-Based Approach,

by Sanjit K. Mitra. McGraw-Hill, 1998, 672 pp., ISBN 0-07-042953-7.

Contents: Signals and signal processing; Time-domain representation of signals and systems; Transform-domain representation of discrete-time sequences; Transform-domain representation of LTI systems; Digital processing of continuous-time signals; Digital filter structure; Digital filter design; DSP algorithm implementation considerations; Analysis of finite word-length effects; Multi-rate digital signal processing; Applications of digital signal processing.

Communication Networks, 2nd Ed.,

by Jean Walrand. McGraw-Hill, 1998, 512 pp., ISBN 0-256-17404-0.

Contents: Introduction; Operating and design principles; Computers, switches, networks, applications; Physical layer; Data link layer and error control; Local area networks; Network layer; Transport and connections; ATM and SONET; Performance evaluation.

Hands-On Digital Signal Processing,

by Fred Taylor and the Athena Group, Inc. McGraw-Hill, 1998, 650 pp., ISBN 0-07-912965-X.

Advances in Matrix-Analytic Methods for Stochastic Methods,

Edited by Attahiru S. Alfa and Srinivas R. Chakravarthy. Notable Publications, Inc., 1998, 444 pp., \$95, ISBN 0-9665-8470-8.

CDMA Systems Engineering Handbook,

by Jhong Sam Lee and Leonard E. Miller. Artech House, 1998, 1200 pp., \$142, ISBN 0-89006-990-5.

Wideband CDMA for Third Generation Mobile Communications,

by Tero Ojanperä and Ramjee Prasad. Artech House, 1998, 452 pp., \$102, ISBN 0-89006-735-X.

Personal Wireless Communication with DECT and PWT,

by John A. Phillips and Gerard Mac Namee. Artech House, 1998, 376 pp., \$95, ISBN 0-89006-872-0.

Mobile Telecommunications: Standards, Regulations and Applications,

by Rudi Bekkers and Jan Smits. Artech House, 1998, 420 pp., \$114, ISBN 0-89006-806-2.

Advances in Mobile Information Systems,

Edited by John Walker. Artech House, 1998, 400 pp., \$102, ISBN 0-89006-951-4.

Introduction to Telecommunication Network Engineering,

by Tarmo Anttalainen. Artech House, 1998, 376 pp., \$78, ISBN 0-89006-984-0.

Guide to ATM Systems and Technology,

by Mohammad A. Rahman. Artech House, 1998, 404 pp., \$76, ISBN 0-89006-306-0.

Understanding Token Ring Protocols and Standards,

by James T. Carlo, Robert D. Love, Michael Siegel and Kenneth T. Wilson. Artech House, 1998, 450 pp., \$107, ISBN 0-89006-458-X.

Desktop Encyclopedia of the Internet,

by Nathan J. Muller. Artech House, 1998, 600 pp., \$78, ISBN 0-89006-729-5.

Regulation of Telecommunication Carriers,

by Evan T. Leo and Henk J. Brands. Artech House, 1998, 352 pp., \$90, ISBN 0-89006-714-7.

Advances in Stochastic Models for Reliability, Quality and Safety,

by W. Kahle, E. V. Collain and J. Franz. Birkhäuser, 1998, 400 pp., ISBN 3-7643-4049-5.

Broadband Wireless Communications,

by M. Luise and S. Pupolin. Springer-Verlag, 1998, 432 pp., ISBN 3-540-76237-X.

Chaos for Engineers: Theory, Applications, and Control,

by T. Kapitaniak. Springer-Verlag, 1998, 150 pp., ISBN 3-540-63515-7.

The Digital Signal Processing Handbook,

by Vijay K. Madisetti and Douglas B. Williams. CRC Press, 1997, \$166, ISBN 0-8493-8572-5.

ATM Technology for Broadband Telecom Networks,

by A. S. Pandya and E. Sen. CRC Press, 1997, 416 pp., \$89, ISBN 0-8493-3139-0.

Trellis Decoding of Block Codes,

by Bahram Honary and Garil Markarian. Kluwer, 1997, 288 pp., \$88.50, ISBN 0-7923-9860-2.

Wavelet Image and Video Compression,

Edited by Pankaj N. Topiwala. Kluwer, 1998, 452 pp., £78.25, ISBN 0-7923-8182-3.

3-D Audio Using Loudspeakers,

by Wiliam G. Gardner. Kluwer, 1998, 168 pp., £66.50, ISBN 0-7923-8156-4.

Automated Highway Systems,

Edited by Petros A. Ioannou. Plenum, 1997, 376 pp., \$79.95, ISBN 0-306-45469-6.

Multimedia Communications and Video Coding,

Edited by Yao Wang, Shivendra Panwar, Seung-Pil Kim and Henry L. Bertoni. Plenum, 1996, 580 pp., \$135, ISBN 0-306-45367-3.

Wireless Applications of Spread Spectrum Systems: Selected Readings,

Edited by Sawasd Tantaratana and Kazi M. Ahmed. IEEE Press, 1998, 500 pp., \$69.95 (List Price), \$49.95 (Member Price), ISBN 0-7803-2340-8.

Engineering Networks for Synchronization, CCS7, and ISDN: Standards, Protocols, Planning, and Testing,

by P. K. Bhatnagar. IEEE Press, 1998, 528 pp., \$89.95 (List Price), \$77 (Member Price), ISBN 0-7803-1158-2.

Trellis Coding,

by Christian Schlegel. IEEE Press, 1998, 304 pp., \$79.95 (List Price), \$68 (Member Price), ISBN 0-7803-1052-7.

ATM Volume II: Signaling in Broadband Networks,

by Uyles Black. IEEE Press/Prentice Hall, 1998, 224 pp., \$65 (List Price), \$59 (Member Price), ISBN 0-7803-3488-4.

ATM Volume III: Interworking,

by Uyles Black. IEEE Press/Prentice Hall, 1998, 256 pp., \$54 (List Price), \$49 (Member Price), ISBN 0-7803-3489-2.

Development and Applications of ATM: Selected Readings,

Edited by Mehmet Toy. IEEE Press, 1997, 550 pp., \$69.95 (List Price), \$49.95 (Member Price), ISBN 0-7803-2310-6.

Direct Digital Frequency Synthesizers,

Edited by Venceslav F. Kroupa. IEEE Press, 1998, 384 pp., \$69.95 (List Price), \$59.95 (Member Price), ISBN 0-7803-3438-8.

Telecommunications Transmission Handbook, 4th Ed.,
by Roger Freeman. Wiley, 1998, 1204 pp., \$175, ISBN 0-471-24018-4.

Radio System Design for Telecommunications,
by Roger L. Freeman. Wiley, 1997, 750 pp., \$94.95, ISBN 0-471-16260-4.

CTI in Action,
by Rob Walters. Wiley, 1997, 346 pp., \$59.90, ISBN 0-471-96824-2.

ISDN Explained: Worldwide Network and Applications Technology, 3rd Ed.,
by John Griffiths. Wiley, 1998, 528 pp., \$74.95, ISBN 0-471-97905-8.

Elements of Network Protocol Design,
by Mohamad Gouda. Wiley, 1998, 424 pp., \$74.95, ISBN 0-471-19744-0.

Signaling in Telecommunication Networks,
by John G. Van Boose. Wiley, 1998, 438 pp., \$84.95, ISBN 0-471-57377-9.

Switching Theory: Architecture and Performance in Broadband ATM Networks,
by Achille Pattavina. Wiley, 1998, 400 pp., \$120, ISBN 0-471-96338-0.

Tracking and Kalman Filtering Made Easy,
by Eli Brookner. Wiley, 1998, 504 pp., \$74.95, ISBN 0-471-18407-1.

Introductory Digital Signal Processing with Computer Applications, 2nd Ed.,
by Paul A. Lynn and Wolfgang Fuerst. Wiley, 1998, 416 pp., \$54.95, ISBN 0-471-97631-8.

Digital Communication Receivers: Synchronization, Channel Estimation, and Signal Processing, Volume 2,
by Heinrich Meyr, Marc Moeneclaey and Stefan Fechtel. Wiley, 1998, 864 pp., \$84.95, ISBN 0-471-50275-8.

Dictionary of Communications Technology: Terms, Definitions and Abbreviations, 3rd Ed.,
by Gilbert Held. Wiley, 1998, 720 pp., \$69.95, ISBN 0-471-97517-6 (paperback).