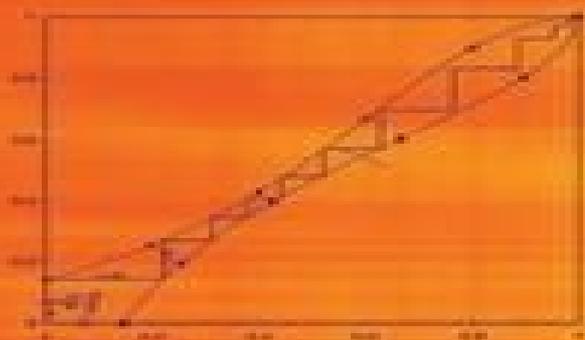


John G. Proakis  
Masoud Salehi



Fifth Edition



# Digital Communications



# Digital Communication Proakis 5th Edition

**Massoud Salehi, Professor, John  
Proakis**



## **Digital Communication Proakis 5th Edition:**

*Digital Communications* John G. Proakis, 1995 This text provides an introduction to the analysis and design of digital communication systems The third edition has been updated with a discussion of modern technological advances providing coverage of such topics as digital modulation and demodulation techniques source coding channel coding and decoding spread spectrum signals channel equalization multiuser communications and modulation and coding for fading multipath channels In addition the book has been reorganized so that each chapter builds on previous material begins with an introduction to the history and classification of channel models and reviews important topics in probability and stochastic processes

Digital Communications Massoud Salehi, Professor, John Proakis, 2007-11-06 Digital Communications is a classic book in the area that is designed to be used as a senior or graduate level text The text is flexible and can easily be used in a one semester course or there is enough depth to cover two semesters Its comprehensive nature makes it a great book for students to keep for reference in their professional careers This all inclusive guide delivers an outstanding introduction to the analysis and design of digital communication systems Includes expert coverage of new topics Turbo codes Turboequalization Antenna Arrays Digital Cellular Systems and Iterative Detection Convenient sequential organization begins with a look at the history and classification of channel models and builds from there

*Theory and Design of Digital Communication Systems* Tri T. Ha, 2010-10-28 Providing the underlying principles of digital communication and the design techniques of real world systems this textbook prepares senior undergraduate and graduate students for the engineering practices required in industry Covering the core concepts including modulation demodulation equalization and channel coding it provides step by step mathematical derivations to aid understanding of background material In addition to describing the basic theory the principles of system and subsystem design are introduced enabling students to visualize the intricate connections between subsystems and understand how each aspect of the design supports the overall goal of achieving reliable communications Throughout the book theories are linked to practical applications with over 250 real world examples whilst 370 varied homework problems in three levels of difficulty enhance and extend the text material With this textbook students can understand how digital communication systems operate in the real world learn how to design subsystems and evaluate end to end performance with ease and confidence

**Digital Communication Systems Engineering with Software-defined Radio** Di Pu, Alexander M. Wyglinski, 2013 For a senior level undergraduate course on digital communications this unique resource provides you with a practical approach to quickly learning the software defined radio concepts you need to know for your work in the field

Digital Communication C Palanisamy, 2012-03-07 All marketing is digital and everyone should have a digital strategy Everything is going mobile The world has never been more social is the recent talk in the community Digital Communication is the key enabler of that Digital information tends to be far more resistant to transmit and interpret errors than information symbolized in an analog medium This accounts for the

clarity of digitally encoded telephone connections compact audio disks and much of the enthusiasm in the engineering community for digital communications technology A contemporary and comprehensive coverage of the field of digital communication this book explores modern digital communication techniques The purpose of this book is to extend and update the knowledge of the reader in the dynamically changing field of digital communication Standard Handbook of Electronic Engineering, 5th Edition Donald Christiansen, Charles Alexander, Ronald K. Jurgen, 2005 The Standard Handbook of Electronics Engineering has defined its field for over thirty years Spun off in the 1960 s from Fink s Standard Handbook of Electrical Engineering the Christiansen book has seen its markets grow rapidly as electronic engineering and microelectronics became the growth engine of digital computing The EE market has now undergone another seismic shift away from computing and into communications and media The Handbook will retain much of its evergreen basic material but the key applications sections will now focus upon communications networked media and medicine the eventual destination of the majority of graduating EEs these days *MATLAB/Simulink for Digital Communication* Won Y. Yang, 2018-03-02

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### **Target Acquisition in Communication**

**Electronic Warfare Systems** Richard Poisel, 2003-12-01 Radio communications plays an increasingly critical and growing  
 role in today's electronic battlefield. Because more and more radio signals are deployed in electronic warfare EW situations  
 determining which ones are friendly and which are enemy has become more difficult and crucial. This book arms defense

systems designers and operators with the full array of traditional search mechanisms and advanced high resolution techniques for targeting radio signals deployed in electronic warfare An invaluable technical reference the book helps professionals fully understand the tradeoffs involved in designing EW target acquisition systems with less time and effort Moreover practitioners learn how to establish optimum methods for acquiring communication targets for exploitation or countermeasures The book also serves as an excellent text for graduate courses in electronic warfare

**Digital Communication over Fading Channels** Marvin K. Simon, Mohamed-Slim Alouini, 2004-12-06 The four short years since Digital Communication over Fading Channels became an instant classic have seen a virtual explosion of significant new work on the subject both by the authors and by numerous researchers around the world Foremost among these is a great deal of progress in the area of transmit diversity and space time coding and the associated multiple input multiple output MIMO channel This new edition gathers these and other results previously scattered throughout numerous publications into a single convenient and informative volume Like its predecessor this Second Edition discusses in detail coherent and noncoherent communication systems as well as a large variety of fading channel models typical of communication links found in the real world Coverage includes single and multichannel reception and in the case of the latter a large variety of diversity types The moment generating function MGF based approach for performance analysis introduced by the authors in the first edition and referred to in literally hundreds of publications still represents the backbone of the book's presentation Important features of this new edition include An all new comprehensive chapter on transmit diversity space time coding and the MIMO channel focusing on performance evaluation Coverage of new and improved diversity schemes Performance analyses of previously known schemes in new and different fading scenarios A new chapter on the outage probability of cellular mobile radio systems A new chapter on the capacity of fading channels And much more Digital Communication over Fading Channels Second Edition is an indispensable resource for graduate students researchers investigating these systems and practicing engineers responsible for evaluating their performance

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**An Improved Outphasing Power Amplifier System for Wireless Communications**  
Xuejun Zhang,2001 *Principles of Communications* Rodger E. Ziemer,W. H. Tranter,2002 Sections on important areas such as spread spectrum cellular communications and orthogonal frequency division multiplexing are provided Computational examples are included illustrating how to use the computer as a simulation tool thereby allowing waveforms spectra and performance curves to be generated Overviews of the necessary background in signal system probability and random process theory required for the analog and digital communications topics covered in the book [Archives of Acoustics Quarterly](#) ,2019 *A Baseband, Impulse Ultra-wideband Transceiver Front-end for Low Power Applications* Ian David O'Donnell,2006 Interest in indoor wireless communications has been increasing In addition to high throughput WLAN systems such as 802 11a b g n attention is also being focused on lower rate short distance systems such as Bluetooth and Zigbee These low rate radios are being proposed for a variety of applications including automation security smart toys remote sensing control asset tracking and as a replacement for computer peripheral wires While not demanding aggressive throughput these radios do require low cost power efficient operation and optionally the ability to perform ranging Unfortunately currently reported radios are up to an order of magnitude away from these power and cost targets or do not support ranging However a recent ruling from the FCC has opened up nearly 8GHz of unlicensed spectrum from dc to 960MHz and from 3 1GHz to 10 6GHz for ultra wideband UWB deployment One attractive method of UWB signaling that seems suited to a low power highly integrated implementation communicates with short pulses on the order of a nanosecond that spread energy over at least 500MHz of bandwidth Termed impulse UWB the baseband nature of this signaling promises low cost and low power consumption through design simplicity pulsed or duty cycled operation and a mostly digital

implementation The benefits of this approach are balanced by the risk of jamming from in band interference of stricter sampling and gain constraints and of increased digital complexity This dissertation presents the system exploration specification design and demonstration of a low power highly integrated flexible baseband impulse ultra wideband transceiver front end

**McGraw-Hill Concise Encyclopedia of Science & Technology**, 2005 The most widely used science reference of its kind More than 7 000 concise articles covering more than 90 disciplines of science and technology all in one volume

[Annales des télécommunications](#), 2003-12

**The British National Bibliography** Arthur James Wells, 2009

**Statistical and Adaptive Signal Processing** Dimitris G. Manolakis, Vinay K. Ingle, Stephen M. Kogon, 2005 This authoritative volume on statistical and adaptive signal processing offers you a unified comprehensive and practical treatment of spectral estimation signal modeling adaptive filtering and array processing Packed with over 3 000 equations and more than 300 illustrations this unique resource provides you with balanced coverage of implementation issues applications and theory making it a smart choice for professional engineers and students alike

*Principles of Communication Systems Simulation with Wireless Applications* William H. Tranter, 2004 This volume presents an overview of computer based simulation models and methodologies for communication systems Topics covered include probability random process and estimation theory and roles in the design of computer based simulations

*Wireless Communications and Networks* Jiann-An Tsai, Hequan Wu, Society of Photo-optical Instrumentation Engineers, 2004 Proceedings of SPIE present the original research papers presented at SPIE conferences and other high quality conferences in the broad ranging fields of optics and photonics These books provide prompt access to the latest innovations in research and technology in their respective fields Proceedings of SPIE are among the most cited references in patent literature

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