

Introduction To Airborne Radar Second Edition

Polarimetric Radar Imaging
Stimson's Introduction to Airborne Radar
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Phased Array Antenna Handbook, Third Edition
Tactics and Techniques of Electronic Warfare
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Introduction to Modern EW Systems, Second Edition

Polarimetric Radar Imaging

Volcanic eruptions are common, with more than 50 volcanic eruptions in the United States alone in the past 31 years. These eruptions can have devastating economic and social consequences, even at great distances from the volcano. Fortunately many eruptions are preceded by unrest that can be detected using ground, airborne, and spaceborne instruments. Data from these instruments, combined with basic understanding of how volcanoes work, form the basis for forecasting eruptions—where, when, how big, how long, and the consequences. Accurate forecasts of the likelihood and magnitude of an eruption in a specified timeframe are rooted in a scientific understanding of the processes that govern the storage, ascent, and eruption of magma. Yet our understanding of volcanic systems is incomplete and biased by the limited number of volcanoes and eruption styles observed with advanced instrumentation. Volcanic Eruptions and Their Repose, Unrest, Precursors, and Timing identifies key science questions, research and observation priorities, and approaches for building a volcano science community capable of tackling them. This report presents goals for making major advances in volcano science.

Stimson's Introduction to Airborne Radar

Developed by recognized experts in the field, this first-of-its-kind resource introduces the basic principles of passive radar

technology and provides an overview of recent developments in this field and existing real passive radar systems. This book explains how passive radar works, how it differs from the active type, and demonstrates the benefits and drawbacks of this novel technology. Properties of illuminators, including ambiguity functions, digital vs. analog, digitally-coded waveforms, vertical-plane coverage, and satellite-borne and radar illuminators are explored. Readers find practical guidance on direct signal suppression, passive radar performance prediction, and detection and tracking. This book provides concrete examples of systems and results, including analog TV, FM radio, cell phone base stations, DVB-T and DAB, HF skywave transmissions, indoor WiFi, satellite-borne illuminators, and low-cost scientific remote sensing. Future developments and applications of passive radar are also presented.

Radar Meteorology

As we all know, weather radar came into existence during the Second World War when aircraft detection radars had their vision limited by echoes from rain bearing clouds. What was often considered to be of nuisance value by the air force personnel trying to locate enemy aircraft was seen as an opportunity by the weather men. Thus adversity in one field was converted into an opportunity in another. Since then weather radar has found myriad applications with the increased sophistication of technology and processing systems. It has now become an indispensable tool for the operational forecasters, cloud physicists and atmospheric scientists. The current generation radar is but a distant echo of the radars of the 1940s. As a result, its operation and maintenance have become very complex, like the technology it uses. Therefore, there is a definite requirement of focussing our special attention not only on the science of radar meteorology but also on its operational aspects. The present book, as pointed out by the author, attempts to fill this gap. The author has presented the subject with a balanced blend of science, technology and practice. The canvas is indeed very broad. Starting with the history of weather radar development the book goes on to discuss in a lucid style the physics of the atmosphere related to radar observation, radar technology, echo interpretation, different applications and finally attempts to look into the future to indicate potential new opportunities in this field.

Remote Sensing from Air and Space

An introduction to the subject for non-specialists: engineers, technicians, pilots, and aerospace industry marketing, public relations, and customer support personnel. Also a reference for specialists in the field. The completely rewritten and revised Second Edition updates the original published by the Hughes Aircraft Company.

Radar System Performance Modeling

In answer to great demand, Artech House is proud to bring professionals a newly revised and updated edition of the bestselling book Introduction to Modern EW Systems. The Second Edition has been greatly expanded to include a wealth of new material, from remote piloted airborne systems, directed energy weapons, and non-cooperative air surveillance to EW radar band sensor next generation architectures, real-time data links, and smart jamming. This authoritative resource provides engineers and students with the latest electronic warfare (EW) techniques and technologies related to on-board military platforms. Practitioners gain expert design guidance on technologies and equipment used to detect and identify emitter threats, offering an advantage in the never-ending chess game between sensor guided weapons and EW systems. This unique book provides deeper insight into EW systems principles of operation and their mathematical descriptions, arming professionals with better knowledge for their specific design applications. Moreover, readers get practical information on how to counter modern communications data links which provide connectivity and command flow among the armed forces in the battlefield. Taking a sufficiently broad perspective, this comprehensive volume offers a panoramic view of the various physical domains RF, Infrared, and electronics that are present in modern electronic warfare systems. This in-depth book is supported with over 340 illustrations and more than 450 equations.

Air and Spaceborne Radar Systems

A systematic, in-depth introduction to theories and principles of Light Detection and Ranging (LiDAR) technology is long overdue, as it is the most important geospatial data acquisition technology to be introduced in recent years. An advanced discussion, this text fills the void. Professionals in fields ranging from geology, geography and geoinformatics to physics, transportation, and law enforcement will benefit from this comprehensive discussion of topographic LiDAR principles, systems, data acquisition, and data processing techniques. The book covers ranging and scanning fundamentals, and broad, contemporary analysis of airborne LiDAR systems, as well as those situated on land and in space. The authors present data collection at the signal level in terms of waveforms and their properties; at the system level with regard to calibration and georeferencing; and at the data level to discuss error budget, quality control, and data organization. They devote the bulk of the book to LiDAR data processing and information extraction and elaborate on recent developments in building extraction and reconstruction, highlighting quality and performance evaluations. There is also extensive discussion of the state-of-the-art technological developments used in: filtering algorithms for digital terrain model generation; strip adjustment of data for registration; co-registration of LiDAR data with imagery; forestry inventory; and surveying. Readers get insight into why LiDAR is the effective tool of choice to collect massive volumes of explicit 3-D data with unprecedented accuracy and simplicity. Compiled by leading experts talking about much of their own pioneering work, this book will give researchers, professionals, and senior students novel ideas to supplement their own experience and practices.

Radar Signal Analysis and Processing Using MATLAB

Advances in DSP (digital signal processing) have radically altered the design and usage of radar systems -- making it essential for both working engineers as well as students to master DSP techniques. This text, which evolved from the author's own teaching, offers a rigorous, in-depth introduction to today's complex radar DSP technologies. Contents: Introduction to Radar Systems * Signal Models * Sampling and Quantization of Pulsed Radar Signals * Radar Waveforms * Pulse Compression Waveforms * Doppler Processing * Detection Fundamentals * Constant False Alarm Rate (CFAR) Detection * Introduction to Synthetic Aperture Imaging

Novel Radar Techniques and Applications

This book offers fascinating insights into the key technical and scientific developments in the history of radar, from the first patent, taken out by Hülsmeyer in 1904, through to the present day. Landmark events are highlighted and fascinating insights provided into the exceptional people who made possible the progress in the field, including the scientists and technologists who worked independently and under strict secrecy in various countries across the world in the 1930s and the big businessmen who played an important role after World War II. The book encourages multiple levels of reading. The author is a leading radar researcher who is ideally placed to offer a technical/scientific perspective as well as a historical one. He has taken care to structure and write the book in such a way as to appeal to both non-specialists and experts. The book is not sponsored by any company or body, either formally or informally, and is therefore entirely unbiased. The text is enriched by approximately three hundred images, most of which are original and have been accessed by detailed searches in the archives.

Introduction to Airborne Radar

This completely revised third edition of an Artech House classic, Phased Array Antenna Handbook, Second Edition, offers an up-to-date and comprehensive treatment of array antennas and systems. This edition provides a wealth of new material, including expanded coverage of phased array and multiple beam antennas. New modern machine learning techniques used for analysis are included. Additional material on wideband antennas and wideband coverage in array antennas are incorporated in this book, including new methods, devices, and technologies that have developed since the second edition. A detailed treatment of antenna system noise, sections on antenna pattern synthesis, developments in subarray technology, and in-depth coverage of array architecture and components are additional new features of this book. The book explores design elements that demonstrate how to size an array system with speed and confidence. Moreover, this resource provides expanded coverage of systems aspects of arrays for radar and communications. Supported with numerous equations and illustrations, this practical book helps evaluate basic antenna parameters such as gain, sidelobe levels, and noise. Readers learn how to compute antenna system noise, design subarray geometries for given bandwidth,

scan and sidelobe constraints, and choose array illumination tapers for given sidelobe levels.

100 Years of Radar

Providing a full introduction to remote sensing for all environmental scientists, this wide-ranging and authoritative text assumes no prior knowledge of remote sensing yet covers the field in sufficient depth to be suitable also as a research manual.

Radar Handbook

An advanced treatment of the main concepts of radar. Systematic and organized, it nicely balances readability with mathematical rigor. Many techniques and examples have been chosen from the radar industry (Rayleigh fluctuating targets are used as they yield simple expressions for the probability of detection), and others for their pedagogical value (Costas signals lead the coded radar signals because their ambiguity function can be intuitively deduced). Ordered statistics is covered in more depth than other CFAR techniques because its performance can be obtained analytically without resorting to simulation methods. Contains many exercises. An Instructor's Manual presenting detailed solutions to all the problems in the book is available from the Wiley editorial department.

Practical ESM Analysis

The subject of this book is theory, principles and methods used in radar algorithm development with a special focus on automotive radar signal processing. In the automotive industry, autonomous driving is currently a hot topic that leads to numerous applications for both safety and driving comfort. It is estimated that full autonomous driving will be realized in the next twenty to thirty years and one of the enabling technologies is radar sensing. This book presents both detection and tracking topics specifically for automotive radar processing. It provides illustrations, figures and tables for the reader to quickly grasp the concepts and start working on practical solutions. The complete and comprehensive coverage of the topic provides both professionals and newcomers with all the essential methods and tools required to successfully implement and evaluate automotive radar processing algorithms.

Radar Meteorology

Monopulse is a type of radar that sends additional information in the signal in order to avoid problems caused by rapid changes in signal strength. Monopulse is resistant to jamming which is one of the main reasons it is used in most radar

systems today. This updated and expanded edition of an Artech House classic offers you a current and comprehensive treatment of monopulse radar principles, techniques, and applications. The Second Edition features two brand new chapters, covering monopulse countermeasures and counter-countermeasures and monopulse for airborne radar and homing seekers. This essential volume categorizes and describes the various forms of monopulse radar, and analyzes their capabilities and limitations. The book also devotes considerable space to monopulse circuits and hardware components, explaining their functions and performance. This practical resource features numerous photographs and illustrations drawn from actual radar systems and components. This book serves as a valuable reference for both experienced radar engineers and those new to the field.

Phased Array Antenna Handbook, Third Edition

Tactics and Techniques of Electronic Warfare

The air campaign mounted against North Vietnam was the first time that an integrated air defense system based around radar-controlled guns and surface-to-air missiles had been encountered. Proponents of surface-to-air missiles had claimed that their lethality would drive manned aircraft from the battlefield. At first, the U.S. Air Force was hard-pressed to neutralize North Vietnam's radar-controlled defenses, but did prevail. Electronic countermeasures support for the air war against North Vietnam included stand-off jamming, Wild Weasel operations, the use of self protection pods, and the employment of chaff. Using all these techniques, Linebacker II saw the B-52s of Strategic Air Command facing the most effective air defense system the Soviet Union could provide. The B-52s won; the much-heralded surface-to-air missiles were scoring a lower kill rate than German defenses in World War Two. This campaign laid the foundations for the technology used by the USAF to neutralize enemy defenses ever since.

Introduction to Remote Sensing, Second Edition

This volume presents the state-of-the-art in advanced radar, with emphasis on ongoing novel research and development and contributions from an international team of leading radar experts.

Space-time Adaptive Processing for Radar

Developed from the author's graduate-level courses, the first edition of this book filled the need for a comprehensive, self-contained, and hands-on treatment of radar systems analysis and design. It quickly became a bestseller and was widely

adopted by many professors. The second edition built on this successful format by rearranging and updating

Radar Signal Processing for Autonomous Driving

Today, air-to-surface vessel (ASV) radars, or more generally airborne maritime surveillance radars, are installed on maritime reconnaissance aircraft for long-range detection, tracking and classification of surface ships (ASuW—anti-surface warfare) and for hunting submarines (ASW—anti-submarine warfare). Such radars were first developed in the UK during WWII as part of the response to the threat to shipping from German U boats. This book describes the ASV radars developed in the UK and used by RAF Coastal Command during WWII for long-range maritime surveillance.

Airborne Maritime Surveillance Radar

The recent launches of three fully polarimetric synthetic aperture radar (PolSAR) satellites have shown that polarimetric radar imaging can provide abundant data on the Earth's environment, such as biomass and forest height estimation, snow cover mapping, glacier monitoring, and damage assessment. Written by two of the most recognized leaders in this field, *Polarimetric Radar Imaging: From Basics to Applications* presents polarimetric radar imaging and processing techniques and shows how to develop remote sensing applications using PolSAR imaging radar. The book provides a substantial and balanced introduction to the basic theory and advanced concepts of polarimetric scattering mechanisms, speckle statistics and speckle filtering, polarimetric information analysis and extraction techniques, and applications typical to radar polarimetric remote sensing. It explains the importance of wave polarization theory and the speckle phenomenon in the information retrieval problem of microwave imaging and inverse scattering. The authors demonstrate how to devise intelligent information extraction algorithms for remote sensing applications. They also describe more advanced polarimetric analysis techniques for polarimetric target decompositions, polarization orientation effects, polarimetric scattering modeling, speckle filtering, terrain and forest classification, manmade target analysis, and PolSAR interferometry. With sample PolSAR data sets and software available for download, this self-contained, hands-on book encourages you to analyze space-borne and airborne PolSAR and polarimetric interferometric SAR (Pol-InSAR) data and then develop applications using this data.

Pulse Doppler Radar

Turn to this expanded second edition of an Artech House bestseller for the most current and comprehensive coverage of radar system performance analysis and system-level modeling. This revised edition features new material on airborne and space-based radar, radar tracking techniques, radar system design, and operational and performance issues. It also

provides new detailed examples, problem sets and solutions, and a comprehensive self-test to evaluate your understanding.

Principles of Modern Radar

This edition is the most comprehensive and informative available on radar systems and technology. Thoroughly revised and updated to reflect the advances made in radar over the past two decades. Charts/graphs.

Volcanic Eruptions and Their Repose, Unrest, Precursors, and Timing

Digital Signal Processing 101: Everything You Need to Know to Get Started provides a basic tutorial on digital signal processing (DSP). Beginning with discussions of numerical representation and complex numbers and exponentials, it goes on to explain difficult concepts such as sampling, aliasing, imaginary numbers, and frequency response. It does so using easy-to-understand examples with minimum mathematics. In addition, there is an overview of the DSP functions and implementation used in several DSP-intensive fields or applications, from error correction to CDMA mobile communication to airborne radar systems. This book has been updated to include the latest developments in Digital Signal Processing, and has eight new chapters on: Automotive Radar Signal Processing Space-Time Adaptive Processing Radar Field Orientated Motor Control Matrix Inversion algorithms GPUs for computing Machine Learning Entropy and Predictive Coding Video compression Features eight new chapters on Automotive Radar Signal Processing, Space-Time Adaptive Processing Radar, Field Orientated Motor Control, Matrix Inversion algorithms, GPUs for computing, Machine Learning, Entropy and Predictive Coding, and Video compression Provides clear examples and a non-mathematical approach to get you up to speed quickly Includes an overview of the DSP functions and implementation used in typical DSP-intensive applications, including error correction, CDMA mobile communication, and radar systems

Introduction to Electronic Defense Systems

Since the publication of the second edition of "Introduction to Radar Systems," there has been continual development of new radar capabilities and continual improvements to the technology and practice of radar. This growth has necessitated the addition and updating of the following topics for the third edition: digital technology, automatic detection and tracking, doppler technology, airborne radar, and target recognition. The topic coverage is one of the great strengths of the text. In addition to a thorough revision of topics, and deletion of obsolete material, the author has added end-of-chapter problems to enhance the "teachability" of this classic book in the classroom, as well as for self-study for practicing engineers.

Digital Signal Processing 101

What is radar? What systems are currently in use? How do they work? Understanding Radar Systems provides engineers and scientists with answers to these critical questions, focusing on actual radar systems in use today. It's the perfect resource for those just entering the field or a quick refresher for experienced practitioners. The book leads readers through the specialized language and calculations that comprise the complex world of modern radar engineering as seen in dozens of state-of-the-art radar systems. The authors stress practical concepts that apply to all radar, keeping math to a minimum. Most of the book is based on real radar systems rather than theoretical studies. The result is a valuable, easy-to-use guide that makes the difficult parts of the field easier and helps readers do performance calculations quickly and easily.

Searching the Skies

This authoritative, leading-edge resource gives you a comprehensive overview of sample rate conversion (SRC) and its applications in software configurable radios. The book helps you understand the limits of feasible systems for sample rate conversion, as well as the limits of interpolation. You get sound advice on selecting the appropriate types of SRC for specific applications, and assistance in handling the trade-off between hardware complexity and the clock rate of a system. From an introduction to software radio and a refresher on the fundamentals of sampling and sample rate conversion, to discussions on block signal processing and well-known and novel structures for sample rate conversion, the book offers you practical guidance that enables you to quickly find solutions for your challenging projects in the field. This first-of-its-kind reference concludes with a list of questions that - when answered - helps to design a system for sample rate conversion. Over 890 equations and 90 illustrations support key topics throughout the book.

Introduction to Electronic Defense Systems

This book is a practitioner's guide to all aspects of pulse Doppler radar. It concentrates on airborne military radar systems since they are the most used, most complex, and most interesting of the pulse Doppler radars; however, ground-based and non-military systems are also included.

Understanding Radar Systems

This is an account of the evolution of naval fighters for fleet air defense and the parallel evolution of the ships operating and controlling them, concentrating on the three main exponents of carrier warfare, the Royal Navy, the US Navy, and the Imperial Japanese Navy. It describes the earliest efforts from the 1920s but it was not until radar allowed the direction of

fighters that organized air defense became possible. Thus major naval-air battles of the Second World War like Midway, the Pedestal convoy, the Philippine Sea and Okinawa are portrayed as tests of the new technology. This was ultimately found wanting by the Kamikaze campaigns, which led to postwar moves towards computer control and new kinds of fighters. After 1945 the novel threats of nuclear weapons and standoff missiles compounded the difficulties of naval air defense and the second half of the book covers RN and USN attempts to solve these problems, looking at US experience in Vietnam and British operations in the Falklands War. It concludes with the ultimate US development of techniques and technology to fight the Outer Air Battle in the 1980s, which in turn point to the current state of carrier fighters and the supporting technology. Based largely on documentary sources, some previously unused, this book will appeal to both the naval and aviation communities.

Topographic Laser Ranging and Scanning

Written by a prominent expert in the field, this authoritative resource considers radar parameters and how they affect ESM systems. It describes the ESM environment, including types of radar, pulse density, the latest radar developments and how they will be seen by ESM systems. Different types of ESM systems are described, with methods of calculation of Direction of Arrival (DOA) of pulses. Conventional wisdom about RF scan strategies for narrow-band receivers will be challenged and new methods (proven to be effective in trials) will be proposed. The book describes ESM Antenna separation, which plays a significant part in the generation of DOA errors, with examples of the effects for different situations. The book will explain the common phenomena seen in ESM systems with many examples of how to recognize issues in the ESM data and solutions for their mitigation. Techniques for visualizing ESM data and how to set up ESM trials will be given, including the simulation of the electromagnetic environment. The book also presents detailed calculations for generating emitter beam-shapes for use in simulations of pulse trains and the calculation of detection range will be useful for data analysts, trials engineers and system assessors, which are not published elsewhere. The identification of radars by ESM systems is considered in detail with ideas presented on how to generate an effective radar library.

Radar Systems Analysis and Design Using MATLAB

Comprehensive overview of the spectroscopic, mineralogical, and geochemical techniques used in planetary remote sensing.

Introduction to Radar Systems

The rapid development of electronics and its engineering applications ensures that new topics are always competing for a

place in university and polytechnic courses. But it is often difficult for lecturers to find suitable books for recommendation to students, particularly when a topic is covered by a short lecture module, or as an 'option'. Macmillan New Electronics offers introductions to advanced topics. The level is generally that of second and subsequent years of undergraduate courses in electronic and electrical engineering, computer science and physics. Some of the authors will paint with a broad brush; others will concentrate on a narrower topic, and cover it in greater detail. But in all cases the titles in the Series will provide a sound basis for further reading of the specialist literature, and an up-to-date appreciation of practical applications and likely trends. The level, scope and approach of the Series should also appeal to practising engineers and scientists encountering an area of electronics for the first time, or needing a rapid and authoritative update. vii Preface The basic principles of radar do not change, but the design and technology of practical radar systems have developed rapidly in recent years. Advances in digital electronics and computing are having a major impact, especially in radar signal processing and display. I hope that this book will prove a useful introduction to such developments, as well as to the underlying principles of radar detection.

Remote Compositional Analysis

A comprehensive and accessible introduction to electronic warfare and defense systems. Description of electronic defense systems and weapons systems. Explains vulnerable parts of radar and the limitations of weapons systems. Details effectiveness of defense systems.

Introduction to Radar Systems

Simulation is integral to the successful design of modern radar systems, and there is arguably no better software for this purpose than MATLAB. But software and the ability to use it does not guarantee success. One must also: Understand radar operations and design philosophy Know how to select the radar parameters to meet the design req

Radar Principles

A comprehensive and accessible introduction to electronic warfare and defense systems. Description of electronic defense systems and weapons systems. Explains vulnerable parts of radar and the limitations of weapons systems. Details effectiveness of defense systems.

Monopulse Principles and Techniques

Where To Download Introduction To Airborne Radar Second Edition

A comprehensive introduction to the current technology and application of radar in meteorology and atmospheric sciences. Written by leading experts in the field, *Radar Meteorology, A first Course* offers an introduction to meteorological radar systems and applications, with emphasis on observation and interpretation of physical processes in clouds and weather systems. This comprehensive introduction to the subject offers an overview of the quantities essential to radar meteorology including the radar reflectivity factor, and Doppler, dual-polarization, and multi-wavelength radar variables. The authors highlight wind retrieval from single and multiple Doppler radars, precipitation estimation and hydrometeorological applications, with chapters dedicated to interpretation of radar data from warm season mid-latitude severe weather, winter storms, tropical cyclones and more. In addition, *Radar Meteorology* highlights research applications of this burgeoning technology, exploring dynamic applications such as space-borne and ground-based vertically pointing radar systems, and cloud, airborne and mobile radars. As meteorological radars are increasingly used professionally for weather observation, forecasting and warning, this much-needed text:

- Presents an introduction to the technical aspects and current application of radar as used in the meteorology and atmospheric sciences
- Contains full-colour illustrations that enhance the understanding of the material presented
- Examines the wide-range of meteorological applications of radar
- Includes problems at the end of each chapter as a helpful review of the contents
- Provides full instructor support with all illustrations and answers to problems available via the book's instructor website.

Radar Meteorology offers a much-needed introductory text to the study of radar as applied to meteorology. The text was designed for a one semester course based on the authors' own course in Radar Meteorology at the University of Illinois at Urbana-Champaign.

Fighters Over the Fleet

This book will guide you in the use of remote sensing for military and intelligence gathering applications. It is a must read for students working on systems acquisition or for anyone interested in the products derived from remote sensing systems.

An Introduction to Passive Radar

Principles of Modern Radar: Radar Applications is the third of the three-volume series of what was originally designed to be accomplished in one volume. As the final volume of the set, it finishes the original vision of a complete yet bounded reference for radar technology. This volume describes fifteen different system applications or class of applications in more detail than can be found in Volumes I or II. As different as the applications described, there is a difference in how these topics are treated by the authors. Whereas in Volumes I and II there is strict adherence to chapter format and level.

Fundamentals of Radar Signal Processing

Where To Download Introduction To Airborne Radar Second Edition

The book focuses on the history, main principles, functions, modes, properties and specific nature of modern airborne radar. It provides a practical tool that will be of major help to engineers and technicians working in industry and in radar research and development.

Radar Systems

Offering radar-related software for the analysis and design of radar waveform and signal processing, Radar Signal Analysis and Processing Using MATLAB® provides a comprehensive source of theoretical and practical information on radar signals, signal analysis, and radar signal processing with companion MATLAB® code. After an overview of radar systems operation and design, the book reviews elements of signal theory relevant to radar detection and radar signal processing, along with random variables and processes. The author then presents the unique characteristic of the matched filter and develops a general formula for the output of the matched filter that is valid for any waveform. He analyzes several analog waveforms, including the linear frequency modulation pulse and stepped frequency waveforms, as well as unmodulated pulse-train, binary, polyphase, and frequency codes. The book explores radar target detection and pulse integration, emphasizing the constant false alarm rate. It also covers the stretch processor, the moving target indicator, radar Doppler processing, beamforming, and adaptive array processing. Using configurable MATLAB code, this book demonstrates how to apply signal processing to radar applications. It includes many examples and problems to illustrate the practical application of the theory.

MATLAB Simulations for Radar Systems Design

This text has fully modernized coverage and maintained the unique original look and feel. Even the timeless principles and core fundamentals of general radar have been updated in wording and new graphics, while the more advanced concepts and applications in airborne radar have been brought into the digital age of radar signal processing and solid state electronics. This text is written specifically as an overview without going overboard on the math. Virtually anybody with a knowledge of high school algebra, trigonometry, and physics will be able to read and absorb the vast majority of the material. Living up to its moniker of Introduction, this book contains extensive fundamental materials and practical applications, using visual system exemplars to aid explanations. The full colour layout is enhanced with an immense number of illustrations, figures, tables, and photographs.

Introduction to Modern EW Systems, Second Edition

Originally published in 1997, this hitherto hard-to-find study examines the impact that construction of radar stations and

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command facilities had on the American landscape. With accompanying black and white photographs throughout, the author explores patterns, themes, and trends that created, influenced, and formed the backdrop to the Cold War defense radar program. This study provides an in-depth look at the radar systems, a state by state listing of the infrastructure that supported the systems, and an extensive bibliography. This historic content can be used to understand and evaluate properties associated with America's detection and command and control system.

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