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# Microstrip Antennas

## Rd Springer

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Handbook of Microstrip Antennas

ICMEET 2016

Select Proceedings of ICIA 2020

Innovations in Electronics and Communication  
Engineering

Proceedings of the 6th ICIECE 2017

Multi-objective Design Of Antennas Using  
Surrogate Models

A Designer's Guide

3rd International Congress on Energy Efficiency  
and Energy Related Materials (ENEFM2015)

10th International Workshop, RFIDSec 2014,  
Oxford, UK, July 21-23, 2014, Revised Selected  
Papers

APPEIC 2015

Emerging Innovations in Microwave and Antenna  
Engineering

Microstrip Antenna

Proceedings of 2nd International Conference on  
Micro-Electronics, Electromagnetics and  
Telecommunications

Emerging Trends

Proceedings, Oludeniz, Turkey, 19-23 October  
2015

Electromagnetic Fields

Advances in Medical Physics and Healthcare  
Engineering

Icccd-2000.

Fundamental and Supportive Technologies for 5G  
Mobile Networks

Selected Revised Papers from the Eleventh  
International Symposium on Natural Language  
Processing (SNLP-2016) and the First Workshop in  
Intelligent Informatics and Smart Technology,  
10-12 February 2016, Phranakhon, Si Ayutthaya,  
Thailand

Proceedings of ICITS 2020

Simulation-based Optimization Of Antenna Arrays  
Theory, Applications, and Design

Smart Trends in Computing and Communications

Microwave and Millimetre-Wave Design for  
Wireless Communications

Interconnection and Intelligence

Enabling Technologies and Architectures for Next-  
Generation Networking Capabilities

Handbook of Research on Advanced Trends in  
Microwave and Communication Engineering

Information Technology and Systems

Advances in Natural Language Processing,

Intelligent Informatics and Smart Technology

Wideband, Multiband, and Smart Reconfigurable

Antennas for Modern Wireless Communications

Data Science and Analytics

Internet of Things and Its Applications

Advanced Information Networking and  
Applications

Advances in Electrical Engineering and Electrical  
Machines

Proceedings of the 36th International Conference

on Advanced Information Networking and Applications (AINA-2022), Volume 2  
Advances in Integrated Design and Production  
Radio Frequency Identification: Security and Privacy Issues  
Handbook of Research on Progressive Trends in Wireless Communications and Networking

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**SIDNEY  
ELLIANA**

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**Handbook of  
Microstrip  
Antennas**

Springer  
Techniques based on the method of modal expansions, the Rayleigh-Stevenson expansion in inverse powers of the wavelength, and also the method of moments solution of

integral equations are essentially restricted to the analysis of electromagnetic radiating structures which are small in terms of the wavelength. It therefore becomes necessary to employ approximations based on "high-frequency techniques" for performing an efficient analysis of

electromagnetic radiating systems that are large in terms of the wavelength. One of the most versatile and useful high-frequency techniques is the geometrical theory of diffraction (GTD), which was developed around 1951 by J. B. Keller [1,2,3]. A class of diffracted rays are

introduced systematically in the GTD via a generalization of the concepts of classical geometrical optics (GO). According to the GTD these diffracted rays exist in addition to the usual incident, reflected, and transmitted rays of GO. The diffracted rays in the GTD originate from certain "localized" regions on the surface of a radiating structure, such as at discontinuities in the geometrical

and electrical properties of a surface, and at points of grazing incidence on a smooth convex surface as illustrated in Fig. 1. In particular, the diffracted rays can enter into the GO shadow as well as the lit regions. Consequently, the diffracted rays entirely account for the fields in the shadow region where the GO rays cannot exist. **ICMEET 2016** Springer Nature Handbook of Microstrip

Antennas IET *Select Proceedings of ICIA 2020* Springer Science & Business Media Algorithms: Advances in Research and Application: 2011 Edition is a Scholarly Editions™ eBook that delivers timely, authoritative, and comprehensive information about Algorithms. The editors have built Algorithms: Advances in Research and Application: 2011 Edition on the vast

information databases of ScholarlyNews™. You can expect the information about Algorithms in this eBook to be deeper than what you can access anywhere else, as well as consistently reliable, authoritative, informed, and relevant. The content of Algorithms: Advances in Research and Application: 2011 Edition has been produced by the world's leading scientists, engineers,

analysts, research institutions, and companies. All of the content is from peer-reviewed sources, and all of it is written, assembled, and edited by the editors at ScholarlyEditions™ and available exclusively from us. You now have a source you can cite with authority, confidence, and credibility. More information is available at <http://www.ScholarlyEditions.com/>.

Innovations in Electronics and Communication Engineering  
IGI Global  
Fast advances in information technology have led to a smarter world vision with ubiquitous interconnection and intelligence. Smart Manufacturing Innovation and Transformation: Interconnection and Intelligence covers both theoretical perspectives and practical approaches to smart manufacturing

research and development triggered by ubiquitous interconnection and intelligence. This reference work discusses the transformation of manufacturing, the latest developments in smart manufacturing innovation, current and emerging technology opportunities, and market imperatives that enable manufacturing innovation and transformation, useful tools for readers in industry,

academia, and government. **Proceedings of the 6th ICIECE 2017** Inst of Engineering & Technology Mobile wireless communication systems have affected every aspect of life. By providing seamless connectivity, these systems enable almost all the smart devices in the world to communicate with high speed throughput and extremely low latency. The next generation of cellular mobile

communications, 5G, aims to support the tremendous growth of interconnected things/devices (i.e., internet of things [IoT]) using the current technologies and extending them to be used in higher frequencies to cope with the huge number of different devices. In addition, 5G will provide massive capacity, high throughput, lower end-to-end delay, green communication, cost reduction, and

extended coverage area. Fundamental and Supportive Technologies for 5G Mobile Networks provides detailed research on technologies used in 5G, their benefits, practical designs, and recent challenges and focuses on future applications that could exploit 5G network benefits. The content within this publication examines cellular communicatio

n, data transmission, and high-speed communication. It is designed for network analysts, IT specialists, industry professionals, software engineers, researchers, academicians, students, and scientists. Multi-objective Design Of Antennas Using Surrogate Models Springer Science & Business Media This book comprises the proceedings of 1st

International Conference on Computational Advancement in Communication Circuits and Systems (ICCACCS 2014) organized by Narula Institute of Technology under the patronage of JIS group, affiliated to West Bengal University of Technology. The conference was supported by Technical Education Quality Improvement Program (TEQIP), New Delhi, India and had

technical collaboration with IEEE Kolkata Section, along with publication partner by Springer. The book contains 62 refereed papers that aim to highlight new theoretical and experimental findings in the field of Electronics and communication engineering including interdisciplinary fields like Advanced Computing, Pattern Recognition and Analysis, Signal and

Image Processing. The proceedings cover the principles, techniques and applications in microwave & devices, communication & networking, signal & image processing, and computations & mathematics & control. The proceedings reflect the conference's emphasis on strong methodological approaches and focus on applications within the

domain of Computational Advancement in Communication Circuits and Systems. The content also emphasizes the emerging technologies in the Electronics and Communication field together in close examinations of practices, problems and trends.

**A Designer's Guide** John Wiley & Sons  
This book reports on innovative concepts and practical solutions at the



intersection between engineering design, engineering production and industrial management. It covers cutting-edge design, modeling and control of dynamic and multiphysics systems, knowledge management systems in industry 4.0, cyber-physical production systems, additive and sustainable manufacturing and many other related topics. The original, carefully selected,

peer-reviewed chapters highlight collaborative works between different countries and between industry and universities, thus offering a timely snapshot for the research and industrial communities alike, as well as a bridge to facilitate communication and collaboration.

**3rd International Congress on Energy Efficiency and Energy Related Materials (ENEFM2015**

) IGI Global  
This book constitutes the thoroughly refereed proceedings of the Eleventh International Symposium on Natural Language Processing (SNLP-2016), held in Phranakhon Si Ayutthaya, Thailand on February 10–12, 2016. The SNLP promotes research in natural language processing and related fields, and provides a unique opportunity for researchers,

professionals and practitioners to discuss various current and advanced issues of interest in NLP. The 2016 symposium was expanded to include the First Workshop in Intelligent Informatics and Smart Technology. Of the 66 high-quality papers accepted, this book presents twelve from the Symposium on Natural Language Processing track and ten from the

Workshop in Intelligent Informatics and Smart Technology track (SSAI: Special Session on Artificial Intelligence). 10th International Workshop, RFIDSec 2014, Oxford, UK, July 21-23, 2014, Revised Selected Papers Springer  
Employ the latest satellite positioning tech with this extensive guide  
e GPS Satellite Surveying is the classic text on the subject, providing the most

comprehensive coverage of global navigation satellite systems applications for surveying. Fully updated and expanded to reflect the field's latest developments, this new edition contains new information on GNSS antennas, PrecisePoint Positioning, Real-time Relative Positioning, Lattice Reduction, and much more. New contributors offer additional insight that greatly expands the

book's reach, providing readers with complete, in-depth coverage of geodetic surveying using satellite technologies. The newest, most cutting-edge tools, technologies, and applications are explored in-depth to help readers stay up to date on best practices and preferred methods, giving them the understanding they need to consistently produce more reliable measurement.

Global navigation satellite systems have an array of uses in military, civilian, and commercial applications. In surveying, GNSS receivers are used to position survey markers, buildings, and road construction as accurately as possible with less room for human error. GPS Satellite Surveying provides complete guidance toward the practical aspects of the field, helping readers to:

Get up to speed on the latest GPS/GNSS developments Understand how satellite technology is applied to surveying Examine in-depth information on adjustments and geodesy Learn the fundamentals of positioning, lattice adjustment, antennas, and more The surveying field has seen quite an evolution of technology in the decade since the last edition's publication. This new edition covers

it all, bringing the reader deep inside the latest tools and techniques being used on the job. Surveyors, engineers, geologists, and anyone looking to employ satellite positioning will find GPS Satellite Surveying to be of significant assistance. *APPEIC 2015* Springer This useful tool provides the reader with a current overview of where microstrip patch antenna

technology is at, and useful information on how to design this form of radiator for their given application and scenario. Practical design cases are provided for each goal. **Emerging Innovations in Microwave and Antenna Engineering** IGI Global Reviews the fundamental concepts behind the theory and computation of electromagnetic fields The book is divided in two parts. The first part covers

both fundamental theories (such as vector analysis, Maxwell's equations, boundary condition, and transmission line theory) and advanced topics (such as wave transformation, addition theorems, and fields in layered media) in order to benefit students at all levels. The second part of the book covers the major computational methods for numerical analysis of

<p>electromagnetic fields for engineering applications. These methods include the three fundamental approaches for numerical analysis of electromagnetic fields: the finite difference method (the finite difference time-domain method in particular), the finite element method, and the integral equation-based moment method. The second part also examines</p>	<p>fast algorithms for solving integral equations and hybrid techniques that combine different numerical methods to seek more efficient solutions of complicated electromagnetic problems. Theory and Computation of Electromagnetic Fields, Second Edition: Provides the foundation necessary for graduate students to learn and understand more</p>	<p>advanced topics Discusses electromagnetic analysis in rectangular, cylindrical and spherical coordinates Covers computational electromagnetics in both frequency and time domains Includes new and updated homework problems and examples Theory and Computation of Electromagnetic Fields, Second Edition is written for advanced undergraduate and graduate level</p>
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electrical engineering students. This book can also be used as a reference for professional engineers interested in learning about analysis and computation skills.

*Microstrip*

*Antenna* John Wiley & Sons  
Continuing advancements in electronics creates the possibility of communicating with more people at greater distances. Such an evolution calls for more efficient techniques and designs in

radio communications. Emerging Innovations in Microwave and Antenna Engineering provides innovative insights into theoretical studies on propagation and microwave design of passive and active devices. The content within this publication is separated into three sections: the design of antennas, the design of the antennas for the RFID system, and the design of a new

structure of microwave amplifier. Highlighting topics including additive manufacturing technology, design application, and performance characteristics, it is designed for engineers, electricians, researchers, students, and professionals, and covers topics centered on modern antenna and microwave circuits design and theory.  
*Proceedings of 2nd International Conference on*

*Micro-Electronics, Electromagnetics and Telecommunications* Springer Nature Modern society thrives on communication that is instant and available at all times, a constant exchange of information that encompasses everything from video streaming to GPS navigation. Experts even suggest that in the near future everything from our cars to our kitchen appliances will be connected to the internet, a feat that would not be possible without advanced wireless technology. Wideband, Multiband, and Smart Reconfigurable Antennas for Modern Wireless Communications showcases current trends and novel approaches in the design and analysis of the antennas that make wireless applications possible, while also identifying unique integration opportunities for antennas and wireless applications to work together. By featuring both theoretical and experimental approaches to integration, this book highlights specific design issues to assist a wide-range of readers including students, researchers, academics, and industry practitioners. This publication features chapters on a

broad scope of topics including algorithms and antenna optimization, wireless infrastructure development, wireless applications of intelligent algorithms, antenna architecture, and antenna reconfiguration techniques.

### **Emerging Trends IET**

This book (CCIS 839) constitutes the refereed proceedings of the First International Conference on Communication, Networks and Computings,

CNC 2018, held in Gwalior, India, in March 2018. The 70 full papers were carefully reviewed and selected from 182 submissions.

The papers are organized in topical sections on wired and wireless communication systems, high dimensional data representation and processing, networks and information security, computing techniques for efficient networks

design, electronic circuits for communication system.

### **Proceedings, Oludeniz, Turkey, 19-23 October 2015**

IGI Global This book constitutes the refereed proceedings of the 4th International Conference on Recent Developments in Science, Engineering and Technology, REDSET 2017, held in Gurgaon, India, in October 2017. The 66 revised full papers



presented were carefully reviewed and selected from 329 submissions. The papers are organized in topical sections on big data analysis, data centric programming, next generation computing, social and web analytics, security in data science analytics.

### **Electromagnetic Fields**

Newnes  
In this book, experts from academia and industry present the latest advances in

scientific theory relating to applied electromagnetics and examine current and emerging applications particularly within the fields of electronics, communications, and computer technology. The book is based on presentations delivered at APPEIC 2015, the 2nd Applied Electromagnetic International Conference, held in Krabi, Thailand in December 2015. The

conference provided an ideal platform for researchers and specialists to deliver both theoretically and practically oriented contributions on a wide range of topics relevant to the theme of nurturing applied electromagnetics for human technology. Many novel aspects were addressed, and the contributions selected for this book highlight the relevance of advances in applied

electromagnetics to a variety of industrial engineering problems and identify exciting future directions for research.

**Advances in Medical Physics and Healthcare Engineering**

Springer

Nature

With the rise of mobile and wireless technologies, more sustainable networks are necessary to support communication. These next-generation networks can now be utilized to extend the

growing era of the Internet of Things.

Enabling Technologies and Architectures for Next-Generation Networking Capabilities is an essential reference source that explores the latest research and trends in large-scale 5G technologies deployment, software-defined networking, and other emerging network technologies. Featuring research on topics such as data

management, heterogeneous networks, and spectrum sensing, this book is ideally designed for computer engineers, technology developers, network administrators and researchers, professionals, and graduate-level students seeking coverage on current and future network technologies. [lcccd-2000](#). IGI Global Comprehensive Biomedical Physics is a new reference work that provides the first point of

entry to the literature for all scientists interested in biomedical physics. It is of particularly use for graduate and postgraduate students in the areas of medical biophysics. This Work is indispensable to all serious readers in this interdisciplinary area where physics is applied in medicine and biology. Written by leading scientists who have evaluated and summarized the most important

methods, principles, technologies and data within the field, Comprehensive Biomedical Physics is a vital addition to the reference libraries of those working within the areas of medical imaging, radiation sources, detectors, biology, safety and therapy, physiology, and pharmacology as well as in the treatment of different clinical conditions and bioinformatics

. This Work will be valuable to students working in all aspect of medical biophysics, including medical imaging and biomedical radiation science and therapy, physiology, pharmacology and treatment of clinical conditions and bioinformatics . The most comprehensive work on biomedical physics ever published Covers one of the fastest growing areas in the physical sciences,

including interdisciplinary areas ranging from advanced nuclear physics and quantum mechanics through mathematics to molecular biology and medicine. Contains 1800 illustrations, all in full color. *Fundamental and Supportive Technologies for 5G Mobile Networks* Springer. Wireless communications have become invaluable in the modern world. The market is

going through a revolutionary transformation as new technologies and standards endeavor to keep up with demand for integrated and low-cost mobile and wireless devices. Due to their ubiquity, there is also a need for a simplification of the design of wireless systems and networks. The Handbook of Research on Advanced Trends in Microwave and Communication Engineering

showcases the current trends and approaches in the design and analysis of reconfigurable microwave devices, antennas for wireless applications, and wireless communication technologies. Outlining both theoretical and experimental approaches, this publication brings to light the unique design issues of this emerging research, making it an ideal

reference source for engineers, researchers, graduate students, and IT professionals.

**Selected Revised Papers from the Eleventh International Symposium on Natural Language Processing (SNLP-2016) and the First**

**Workshop in Intelligent Informatics and Smart Technology, 10-12 February 2016, Phranakhon, Si Ayutthaya, Thailand** IGI Global  
"This book brings together advanced research on diverse topics

in wireless communications and networking, including the latest developments in broadband technologies, mobile communications, wireless sensor networks, network security, and cognitive radio networks"--