Compact Wideband Microstrip Patch Antenna For Wireless

This book gathers selected papers presented at the 4th International Conference on Invasive Communication and Computational Technologies (ICICCT 2020), held on 28-29 May 2020 at Cranfield University of Technology, Tamil Nadu, India. The respective contributions highlight recent research efforts and advances in a novel paradigm called DRA-C (C) T in Social, Mobile, and Analysis of Cloudy Contexts. The topics covered include the latest trends in design, planning, and applications of DRA-C (C) T in various domains such as wireless communications, social networks, mobile communications, big data analytics, and cloud computing. This book is a valuable resource, dealing with both the important core and the specialized issues in the areas of next generation wireless network design, control, and management, as well as in the areas of protection, assurance, and trust in information security.

This book presents selected papers from the 2009 International Conference on Smart Systems and Technologies (SSAT 2009), held in Tunis, Tunisia, from April 21 to 23, 2009. The conference covered a wide range of topics in the field of smart systems and technologies, including smart communities, smart buildings, smart spaces, and smart manufacturing. The book includes contributions from researchers from around the world, and provides a comprehensive overview of the state of the art in this field.

Printed antennas, also known as microstrip antennas, have a variety of beneficial properties including mechanical durability, conformability, compactness and cheap manufacturing costs. As such, they have a range of applications in both the military and commercial sectors, and are often mounted on the exterior of aircraft and spacecraft as well as incorporated into mobile radio communication devices. This book provides an excellent procedure for optimizing a compact size, wideband microstrip patch antennas. The technique described in this book is based on using genetic algorithm to optimize the dimensions of a microstrip patch antenna having a high dielectric constant of the ground plane and using circular polarization. A significant advantage of this method is that it can be easily adapted to a variety of conditions and standards. The book also covers different approaches and techniques for specific applications, such as polarization diversity, beam steering, and multiple antenna arrays. The book will be of great interest to researchers and practitioners in the field of compact microstrip patch antennas for wireless communication, including applications in mobile communications, wireless local area networks, and space communications.

This book presents recent research advances in the field of microstrip antenna design and its applications in various fields such as space communications, mobile communications, wireless communications, medical implants and wearable applications. Scholars as well as researchers in the electronic science engineering and technology field will benefit from this book. The book will provide the necessary knowledge and techniques which will assist students and researchers would design antennas for the above mentioned applications and will ultimately enable users to take new measurements in different environments. It is intended to help scholars and researchers in their studies, by enhancing their knowledge and skills in the latest applications of microstrip antennas in the modern world of communications as well as in the fields of wireless, mobile, satellite and wireless devices, to name a few. The book is divided into five main sections: theory and practice, design and development, analysis and applications, recent advances and future directions, and industrial and academic perspectives. This book will serve as an excellent reference for engineers and researchers interested in the latest developments in the field of microstrip antennas.

This book presents selected papers from the 2010 International Conference on Optical and Wireless Technologies, conducted from 10th to 12th February, 2010 in Tunisia. The book focuses on recent research in wireless and optical techniques and systems, describing practical implementation activities, results and issues. The book also serves as a valuable reference resource for academics and researchers across the globe.

The book comprises selected papers presented at the 9th International Conference on Smart Systems and Technologies (SSATT 2010) held in Tunis, Tunisia, from April 6 to 8, 2010. The conference covered a wide range of topics in the field of smart systems and technologies, including smart communities, smart buildings, smart spaces, and smart manufacturing. The book includes contributions from researchers from around the world, and provides a comprehensive overview of the state of the art in this field.

This book gathers selected papers presented at the 5th International Conference on Reliable Information and Communication Technology (ICRICC 2020) held in Tunis, Tunisia, from April 21 to 23, 2020. The conference covered a wide range of topics in the field of reliable information and communication systems, including network technologies, communication protocols, and security mechanisms. The book includes contributions from researchers from around the world, and provides a comprehensive overview of the state of the art in this field.

This book presents selected papers from the 5th International Conference of Reliable Information and Communication Technology (ICRICC 2020) held in Tunis, Tunisia, from April 21 to 23, 2020. The conference covered a wide range of topics in the field of reliable information and communication systems, including network technologies, communication protocols, and security mechanisms. The book includes contributions from researchers from around the world, and provides a comprehensive overview of the state of the art in this field.

This book presents selected papers from the 6th International Conference of Reliable Information and Communication Technology (ICRICC 2021) held in Tunis, Tunisia, from April 20 to 22, 2021. The conference covered a wide range of topics in the field of reliable information and communication systems, including network technologies, communication protocols, and security mechanisms. The book includes contributions from researchers from around the world, and provides a comprehensive overview of the state of the art in this field.

This book presents selected papers from the 7th International Conference of Reliable Information and Communication Technology (ICRICC 2022) held in Tunis, Tunisia, from April 20 to 22, 2022. The conference covered a wide range of topics in the field of reliable information and communication systems, including network technologies, communication protocols, and security mechanisms. The book includes contributions from researchers from around the world, and provides a comprehensive overview of the state of the art in this field.
Every day, millions of people are unaware of the amazing processes that take place when using their phones, connecting to broadband Internet, watching television, or even the most basic action of flipping on a light switch. Advances are being continually made not only in the transmission of this data but also in the new methods of receiving it. These advancements come from many different sources and from engineers who have engaged in research, design, development, and implementation of new methods in not only the transmission of this data but also in the new methods of receiving it. These advancements come from many different sources and from engineers who have engaged in research, design, development, and implementation of new methods.

In this paper, a novel compact designs of rectangular shaped antenna are proposed. The proposed antenna consists of rectangular shaped patch of Lxp=11.86 mm by Lyp=9.06 mm. The antenna consists of four circled concave on four corners of rectangular patch. All simulation was done by using Rogers RT/duroid 5880 substrate material having dielectric constant ?_r= 2.2 and dielectric loss tangent tan ?=0.0009. The designs were analyzed by Frinfeld Elements (FEM) based HFSS. Electromagnetic simulator software. Return loss, VSWR plot, smith chart and radiation pattern plots were observed and plotted for all designed antennas. The proposed antenna operates on X and (8-12 GHz) frequencies.

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This conference proceedings summarizes invited papers from the two IDES (Institute of Doctors Engineers and Scientists) International conferences, both held in Bangalore, India.

A guide to broadband microstrip antenna, offering information to help you choose and design the optimum broadband microstrip antenna configurations for your applications, without sacrificing other antenna parameters. The best book you can have to advantage of the right weight, low volume and other benefits of these antennas, by providing explanations of the various configurations and simple design equations that help you analyze and design microstrip antennas with speed and confidence. This practical resource presents an understanding of the radiation mechanism and characteristics of microstrip antennas, and provides guidance on designing new types of planar monopole antennas with multi-octave bandwidth. The authors explore how to select and design proper broadband microstrip antenna configurations for compact, tunable, dual-band and circular polarisation applications. Moreover, the book compares all the broadband techniques and suggests the most effective configuration.

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This book is focused on wireless infrastructure deployment in modern transportation markets, where the wireless infrastructure co-exists with the existing structure. It details the challenges this deployment may face and explores the mitigation measures to overcome the challenges. The book proposes a smart antenna structure to overcome airspace congestion, which improves the overall wireless performance and deployment cost. This book presents selected contributions of the Ultra-Wideband Short-Pulse Electromagnetics I conference, including electromagnetic theory, scattering, Ultra-wideband (UWB) antennas, UWB systems, ground penetrating radar, UWB communications, pulse-pow from the 1922 submissions. The papers are organized in topical sections on computing methodologies, hardware; information systems, networks; security and privacy; computing methodologies.

The book review developments in the following fields microstrip antenna; circular polarization and bandwidth; microstrip dipoles; multilayer and parasitic configurations; wideband full dipole and short-circuit microstrip patch elements and arrays; numerical analysis; multiprocessor network approach; transmission-line model; rectangular microstrip antenna; low-cost printed antennas; printed phased-array antennas; circularly polarised antenna arrays; microstrip antenna feeds; substrate technology; computer-aided design of microstrip and planar circuits; resonant microstrip antenna-elements and arrays for aerospace applications; mobile and satellite systems; conformal conformal microstrip tracking antenna; and microstrip field diodes.

The conference is financially sponsored by the Antenna and Propagation Society. It brings together researchers and practitioners for sharing their latest advances in numerical algorithms, modeling methods, optimization and animation tools, and computing platforms for applications across the whole electromagnetic spectrum.
The book focuses on new techniques, analysis, applications, and future trends in microstrip and printed antenna technologies, with particular emphasis on recent advances from the last decade. It is a comprehensive resource for engineers and scientists working in the field of antennas and wireless communications. It provides a reference for R&D researchers, professors, practicing engineers, and scientists working in these fields. Graduate students studying and working on related subjects will find this book as a useful reference to understand the principles of planar and small antennas and their practical applications and the future scope of developments. Several topics, essayed as individual chapters include reconfigurable antennas, ultra-wideband (UWB) antennas, reflectarrays, antennas for RFID systems, and advanced antennas for body area networks. Also included are antennas using metamaterials and defected ground structures (DGS). Essential aspects including advanced design, analysis, and optimization techniques based on recent developments have also been addressed. Key features include:
- In-depth information on a variety of the latest developments in modern printed-circuit antennas written by several prominent authors in the field.
- This book consists of nine chapters covering a wide range of recent research topics.
- The topics covered include low-profile metamaterial-based adaptive beamforming techniques, high-performance meta-surface antennas, fractal antennas, reconfigurable antennas for 5G systems operating at 60 GHz, radiation pattern synthesis of planar arrays using parasitic patches fed by a small number of active elements, decoupled and de-scattered monopole MIMO antenna arrays with orthogonal radiation patterns, ultra-wideband antennas with defected ground planes and microstrip line fed for Wi-Fi/WiMax/DCS/5G/satellite communications, and design, fabrication, and characterization of wearable textile antennas with high body-antenna isolation.
- This two-volume set constitutes reviewed and selected papers from the 10th International Advanced Computing Conference, IACC 2020, held in December 2020. The 65 full papers and 2 short papers presented in two volumes were thoroughly reviewed and selected from 286 submissions. The papers are organized in the following topical sections: Application of Artificial Intelligence and Machine Learning in Healthcare; Using Natural Language Processing for Solving Text and Language related Applications; Applications of Blockchain and IoT; Use of Data Science for Building Intelligence Applications; Innovations in Advanced Network Systems; Advanced Algorithms for Miscellaneous Domains; New Approaches in Software Engineering; Wireless Communications and Terminal Deals with compact microwave antennas and more specifically, with the planar version of these antennas. Planar antennas are the most appropriate type of antenna in modern communication systems and are generally in all applications requiring miniaturization, integration, and conformalization such as in mobile phones. The book is suitable for students, engineers, and scientists who understand the principles of planar and small antennas, their design and fabrication issues, and modern aspects such as 5G antennas, reconfigurable antennas, and diversity issues.