
ELECTROMAGNETIC WAVES
PIERC 98

Progress

In

Electromagnetics

Research C

© 2020 EMW Publishing. All rights reserved.

No part of this publication may be reproduced. Request for permission should be addressed to the Publisher.

All inquiries regarding copyrighted material from this publication, manuscript submission instructions, and subscription orders and price information should be directed to: EMW Publishing, P. O. Box 425517, Kendall Square, Cambridge, Massachusetts 02142, USA.

E-ISSN 1937-8718

ELECTROMAGNETIC WAVES
PIERC 98

Progress
In
Electromagnetics
Research C

Chief Editors: Weng Cho Chew and Sailing He

EMW Publishing
Cambridge, Massachusetts, USA

CONTENTS

An Efficient Paradigm for Evaluating the Channel Capacity of Closed-Loop Massive MIMO Systems	
Abbas Al-Wahhamy, Nicholas E. Buris, Hussain Al-Rizzo, and Samer Yahya	1
Direct Suspension Control Based on Second Order Sliding Mode for Bearingless Brushless DC Motor	
Baohua Yue, Ye Yuan, and Tianyue Tao	17
Low-Cost Inkjet-Printed Multiband Frequency-Selective Structures Consisting of U-Shaped Resonators	
Özgür Eriş, Hande İbili, and Özgür Ergül	31
Step-Shaped Cavity-Backed Antenna and Wideband Wide-Angle Impedance Matching in Planar Phased Array	
Yaqing Wen, Guoming Gao, and Wenjun Chen	45
Three-Port Pattern Diversity Antenna Module for 5.2 GHz Ceiling-Mounted WLAN Access Points	
Somanatha Pai Swapna, Gulur Sadananda Karthikeya, Shibhan Kishen Koul, and Ananjan Basu	57
Mask-Constrained Power Synthesis of Large and Arbitrary Arrays as a Few-Samples Global Optimization	
Giada M. Battaglia, Andrea F. Morabito, Gino Sorbello, and Tommaso Isernia	69
Time and Frequency Domain Feature Extraction Method of Doppler Radar for Hand Gesture Based Human to Machine Interface	
Aloysius Adya Pramudita, Lukas, and Edwar	83
Wideband Designs of Sectoral Microstrip Antennas Using Parasitic Arc Shape Patches	
Amit A. Deshmukh and Sanjay B. Deshmukh	97
Retrieval of Tropical Peatland Forest Biomass from Polarimetric Features in Central Kalimantan, Indonesia	
Mirza Muhammad Waqar, Rahmi Sukmawati, Yaqi Ji, Josaphat Tetuko Sri Sumantyo Hendrik Segah and Lilik Budi Prasetyo	109
ANN and FA Based Design of Hybrid Fractal Antenna for ISM Band Applications	
Manpreet Kaur and Jagtar S. Sivia	127
Design and Analysis of a Compact Reconfigurable Dual Band Notched UWB Antenna	
Ponnada Mayuri, Nagumalli Deepika Rani, Nemani Bala Subrahmanyam and Boddapati Taraka Phani Madhav	141
Optimal Design of Electrically-Small Loop Receiving Antenna	
Timothy Bolton and Morris B. Cohen	155

Computation of the Fields and Potentials for Particle Tracing under the Effect of Electromagnetic Forces	
Christos Tsironis	171
Stepped Slot Patch Antenna with Copper Ground Plane and Solar Cell Ground Plane for Future Mobile Communications	
Thandullu Naganathan Suresh Babu and Dhandapani Sivakumar	187
Investigation on Plasmon Induced Transparency and Its Application in an MIM Type Compound Plasmonic Waveguide	
Jinping Tian and Jiejun Li	199
Port Decoupling vs Array Elements Decoupling for Tx/Rx System at 7-Tesla Magnetic Resonance Imaging	
Ashraf Abuelhaija, Sanaa Salama, and Tarik Baldawi	213
Wide-Narrow Switchable Bands Microstrip Antenna for Cognitive Radios	
Ros Marie C. Cleetus and Gnanadhas Josemin Bala	225
Design and Analysis of Millimeter Wave Dielectric Resonator Antenna for 5G Wireless Communication Systems	
Muhammad Anab, Muhammad Irfan Khattak, Syed Muhammad Owais, Abbas Ali Khattak, and Asif Sultan	239
Research on Spaceborne SAR HRWS-GMTI Imaging Method Based on Relax Algorithm	
Jin-Meng Wang, Xu-Dong Wang, Shi-Yu Meng, and Jun-Jie Ma	257
Proposal of a Handy Setup for Discriminating Parasitic Effects for the Measurement of Impulsive Thrust from a Microwave Cavity	
Jérôme Sokoloff, Olivier Pascal, Olivier Pigaglio, Nathalie Raveu, and Hugo Peyre	269