

2013 21st International Conference on Applied Electromagnetics and Communications

(ICECom 2013)

**Dubrovnik, Croatia
14-16 October 2013**



IEEE Catalog Number: CFP13810-POD
ISBN: 978-1-4799-2105-8

TABLE OF CONTENTS

Some Considerations On Wearable Antennas	1
<i>A. Skrivervik, J. Trajkovikj</i>	
Leaky Wave Antennas Designed On A Substrate Integrated Waveguide	4
<i>J. Machac</i>	
Development Of A Tunable Antenna Using RF-MEMS Based CRLH-Transmission Lines.....	10
<i>T. Kim, J. Kang, W. Che, L. Vietzorreck</i>	
Bessel Beam Generation With A RLSA Antenna	13
<i>A. Mazzinghi, A. Freni, M. Balma, D. Devona, G. Guarnieri, G. Mauriello, M. Albani</i>	
Spiral Antenna For Millimeter Wave Applications	17
<i>I. Ivanchenko, M. Khruslov, N. Popenko</i>	
A Simple Resonant Cavity Antenna With Improved Directivity-Bandwidth Performance For High-Capacity Wireless Data Links	21
<i>R. Hashmi, B. Zeb, K. Esselle, S. Hay</i>	
GRASS-RaPlaT - Radio Planning Tool For GRASS GIS System	25
<i>A. Hrovat, A. Vilhar, I. Ozimek, T. Javornik, E. Kocan</i>	
Analysis And Modeling Of The Polarization Characteristics Of Diffuse Scattering In Indoor And Outdoor Radio Propagation	30
<i>E. Vitucci, F. Mani, C. Oestges, V. Degli-Esposti</i>	
Effect Of Mobile Velocity On The System Capacity In LTE DL.....	35
<i>A. Oborina</i>	
Broadband Photonic Microwave Phase Shifters With Amplitude And Phase Controls.....	39
<i>E. Chan, X. Wang, R. Minasian</i>	
Improved Coupling Efficiency In Photonic Crystal Tapered Cylindrical Hollow Waveguides.....	43
<i>F. Diaz-Otero, O. Guillan-Lorenzo, F. Fraile-Pelaez</i>	
A New Bioinspired Pit Texture To Enhance The Light-Coupling Efficiency Of Silicon Solar Cells.....	46
<i>F. Chiadini, A. Scaglione, V. Fiumara, A. Lakhtakia</i>	
Design Of Microstrip Non-Foster Leaky-Wave Antenna	50
<i>D. Muha, S. Hrabar, I. Krois, I. Bonic, A. Kirichenko, D. Zaluski</i>	
Superdirective Nanoantennas: Theory And Experiment	53
<i>A. Krasnok, D. Filonov, A. Slobozhanyuk, C. Simovski, P. Belov, Y. Kivshar</i>	
Enhancement Of Evanescent Waves Inside A Wire Metamaterial Endoscope	56
<i>A. Slobozhanyuk, I. Melchakova, A. Kozachenko, C. Simovski, P. Belov</i>	
Slot Antennas For On-Body Communication.....	60
<i>V. Hebelka, J. Lacik, K. Pitra, Z. Raida</i>	
Bio-Electromagnetic Activity In The Field Of Plasmonic Nanoparticles At Roma Tre University	66
<i>R. Tarparelli, R. Iovine, L. Vegni</i>	
Detection Of DNA Alterations Using Gold Nanoparticles Exploiting The LSP Phenomenon	72
<i>R. Iovine, R. Tarparelli, A. Vegni</i>	
An Implantable PIFA Antenna With A J-Shaped Proximity Feed For RFID Telemetry	77
<i>S. Islam, K. Esselle, D. Bull</i>	
Performance Of Wearable Antenna Exposed To Adverse Environmental Conditions	81
<i>B. Ivsic, G. Golemac, D. Bonefacic</i>	
Wireless Link Measurement At UWB In A Tire Sensor System	85
<i>J. Hidalgo, F. Zurbruggen, M. Orefice, G. Vietti</i>	
Permittivity Measurement Using Coaxial Resonators.....	90
<i>Z. Szalay, I. Ther, L. Nagy</i>	
Multilayer Resonators With Fractal Morphology For Microwave Heating	95
<i>F. Chiadini, B. Bisceglia, A. Scaglione, V. Fiumara</i>	
75/85 GHz Experimental Wireless Link	100
<i>T. Urbanec, T. Mikulasek, J. Puskely, D. Wolansky, P. Vsetula, Z. Raida, V. Rericha, J. Bartyzal</i>	
Practical Issues Related To The Design Of UWB Directional Couplers In Stripline Technology	104
<i>B. Hornecker, J. Mosig</i>	
Design Of Quarter-Wave Multi-Section Multi-Band Devices.....	108
<i>F. Chiadini, A. Scaglione, V. Fiumara</i>	
Towards High-Power SW DRM Transmitter In Solid-State Technology.....	112
<i>G. Pavlakovic, R. Tomljanovic, S. Hrabar</i>	

Shielding Effectiveness Measurements In Resonant Enclosure Using Mode-Tuned And Mode-Stirred Method.....	115
<i>D. Senic, A. Sarolic</i>	
Some Optimizations Of The Galerkin-Bubnov Integral Boundary Element Method.....	119
<i>S. Antonijevic, D. Poljak</i>	
Computational Difficulties Related To Green's Functions For Longitudinal Current Sources Radiating Inside Waveguides And Cavities.....	124
<i>B. Bieda, P. Slobodzian</i>	
Integral-Equation Solution Of Modes In Apertured Laser Resonators With Distributed Mirrors	129
<i>D. Babic</i>	
THz Spectroscopy Of Polymeric Carbon Nitride From Melamine Cyanurate	134
<i>P. Chamorro-Posada, J. Vazquez-Cabo, P. Martin-Ramos, L. Navas-Gracia, J. Martin-Gil, F. Sanchez-Arevalo, O. Rubinos-Lopez, F. Fraile-Pelaez, R. Dante</i>	
Decision Fusion For Buried Radioactive Target Detection And Discrimination Using Radiation And EMI Data.....	136
<i>Z. Long, Q. Du, W. Wei, A. Turlapaty, N. Younan</i>	
Wide Area Multilateration Demonstration System	141
<i>R. Seller, A. Szullo</i>	
Overview Of The Multisensor IMMPDA Filter With An Amplitude Feature For Tracking Maneuvering Target In Cluttered Environment.....	146
<i>B. Vondra</i>	
Design Of Miniaturized Radiating Systems For GNSS Applications In Interference Conditions	152
<i>C. Vegni, A. Caporale, A. Vegni</i>	
Compact THz Oscillators With Resonant Tunneling Diodes And Application To High-Capacity Wireless Communications.....	157
<i>M. Asada, S. Suzuki</i>	
Terahertz Imaging Based On Optical Coherence Tomography	162
<i>T. Nagatsuma, T. Ikeo, H. Nishi</i>	
Graphene Active Plasmons Toward The New Types Of Terahertz Lasers	167
<i>T. Otsuji, V. Ryzhii, A. Dubino, V. Popov</i>	
Temperature, Back Gate And Polarization Studies In Nanotransistor Based THz Plasma Detectors.....	171
<i>W. Knap, D. But, M. Bawedin, S. Chang, O. Klimenko, N. Dyakonova, D. Coquillat, A. El Fatimy, F. Teppe, A. Gutin, T. Nagatsuma, S. Cristoloveanu</i>	
Terahertz Wave Scattering By A Graphene Disk	177
<i>A. Nosich, M. Balaban</i>	
Inkjet-Printed RFID-Enabled Sensors On Paper For IoT And "Smart Skin" Applications	179
<i>M. Tentzeris, S. Kim, K. Yoshihiro, A. Traille, H. Aubert, A. Georgiadis, A. Collado</i>	
Chipless RFID Tags Based On Magneto-Inductive Or Electro-Inductive Delay Lines	183
<i>F. Herraz-Martinez, A. Gonzalez-Moreno, D. Segovia-Vargas</i>	
Strategies For The Implementation Of Sensors And RF Barcodes Based On Transmission Lines Loaded With Symmetric Resonators	185
<i>J. Naqui, M. Duran-Sindreu, F. Martin</i>	
Modeling And Characterization Of A Substrate Integrated Chip-Less RFID Tag Communication System.....	189
<i>H. Matbouly, G. Eyebe, F. Domingue</i>	
UWB Time-Coded RFID Sensors: A Comparison Between Passive And Semi-Passive Approaches	193
<i>D. Girbau, A. Ramos, A. Lazaro, R. Villarino</i>	
Indoor Localization Using Short Range Radio Modules	197
<i>Z. Szalay, L. Nagy</i>	
Using RFID Technology For Sensor Purposes	202
<i>D. Purkovic, Z. Sipus</i>	
Design Of Small RFID Reader Antenna	207
<i>M. Vukomanovic, J. Bartolic</i>	
ULA And MRA Beamforming Using Conventional And Particle Filter Based Algorithms	212
<i>Z. Szalay, L. Nagy</i>	
Impact Of Slot Dimensions On The Resonant Frequencies Of Rectangular Microstrip Antennas	216
<i>J. Kucan, M. Joler</i>	
Microstrip Antenna Design Using Neural Networks Optimized By PSO	221
<i>I. Vilovic, N. Burum, M. Brailo</i>	
Some Applications Of A Fundamental Scheme To Simple Implementations Of The Finite-Difference Time-Domain Method And The Beam-Propagation Method.....	225
<i>J. Shibayama, J. Yamauchi, H. Nakano</i>	

Transient Voltage Induced Along The Grounding System Using The Antenna Theory Approach.....	229
<i>D. Poljak, D. Cavka, B. Nekhoul, D. Sekki, K. Drissi, K. Kerroum</i>	
Transient Response Of A Buried Wire	234
<i>D. Poljak, S. Sesnic, K. Drissi, K. Kerroum</i>	
Laboratory Tests On A Nonredundant Near-Field To Far-Field Transformation With Spherical	
Scanning For Long Antennas	238
<i>F. D'Agostino, F. Ferrara, C. Gennarelli, R. Guerriero, M. Migliozzi</i>	
Spiral Antenna Array Configurations On Spherical Surface	242
<i>S. Rupcic, V. Mandric</i>	
Author Index	