

2015 13th International Conference on Electromagnetic Interference and Compatibility (INCEMIC 2015)

**Visakhapatnam, India
22-23 July 2015**



**IEEE Catalog Number: CFP15454-POD
ISBN: 978-1-5090-5351-3**

**Copyright © 2015 by the Institute of Electrical and Electronics Engineers, Inc.
All Rights Reserved**

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

****** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number:	CFP15454-POD
ISBN (Print-On-Demand):	978-1-5090-5351-3
ISBN (Online):	978-1-5090-5350-6
ISSN:	2573-329X

Additional Copies of This Publication Are Available From:

Curran Associates, Inc
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: (845) 758-0400
Fax: (845) 758-2633
E-mail: curran@proceedings.com
Web: www.proceedings.com

CURRAN ASSOCIATES INC.
proceedings
.com

Table of Contents

Id.No	Title	Pg.No
INCEMIC2015_01	Comparison of Theoretical and Practical Forward power requirements during CS114 calibration as per MIL STD 461E/F <i>Bilal Khan and L Sudhakar</i>	001
INCEMIC2015_02	EMI / EMC Considerations in Ultra Wideband (UWB) Electronic Systems <i>Chandana Viswanadham</i>	005
INCEMIC2015_03	Pulse Response Analysis of Quasi Peak Detector in EMI Receiver <i>Gopal Mahesh, J Thomas Vethamoni, M Vasanthakumar and V Venkatesan</i>	013
INCEMIC2015_04	Calibration of Transfer impedance of ESD Co-axial Target chain <i>Gopal Mahesh, Sruthi K and Venkatesan V</i>	018
INCEMIC2015_05	Transceiver Installation and Grounding Scheme <i>AravindKamath</i>	021
INCEMIC2015_06	Analysis of Rectangular and Triangular Microstrip Antenna Arrays using HFSS <i>K.A.R.G.ChandraMouli, Dr.M.SatyaAnuradha, DarshanaKuppili and DattatreyaGopi</i>	024
INCEMIC2015_07	TDR Analysis of the Conical Plate NEMP Simulator Using A Proposed Transmission Line Circuit Model <i>SulabhaRanade, GyanendraVerma and GautamShende</i>	031
INCEMIC2015_08	EMI Failure Mechanism in Microcontroller IO Interface and Solutions <i>AravindKamath</i>	035
INCEMIC2015_09	Novel Methodology to analyze the source causing Electromagnetic Interference Problem in a LASER System. <i>Anil Nayak and SabyasachiMitra</i>	040
INCEMIC2015_10	Enhanced Switching Regulators with Lower Conductive EMI <i>P V K Chaitanya and Dr. K C B Rao</i>	N/A
INCEMIC2015_11	Optimization of Spectrum utilization in Cognitive Radio using Bistable Stochastic Resonance based Adaptive Threshold ED Spectrum Sensing <i>Sunil Kumar Reyyi, Dr. K Chandra BhushanRao and N. BalaSubrahmanyam</i>	N/A

INCEMIC2015_12	Electromagnetic Shielding Effectiveness of Multiwalled Carbon Nanotube filled Silicone Rubber <i>Joseph Vas and Joy Thomas</i>	055
INCEMIC2015_13	Hybrid Taguchi-Genetic Algorithm based Beamforming for Smart Antenna System <i>Prakasarao Amara and NvsnSarma</i>	060
INCEMIC2015_14	Indigenous Development and Calibration of the Current Target Required For Calibration of the 30 KV ESD Generators. <i>SulabhaRanade, GyanendraVerma and GautamShende</i>	066
INCEMIC2015_15	Techniques and Concepts to Mitigate and Neutralize incoming Electro-Magnetic Waves <i>Dinesh Kumar, DrNeelam Rup Prakash and DrSukhwinder Singh</i>	069
INCEMIC2015_16	Measurement of Radiated emissions of Rolling stock used for Mumbai Suburban rail transport <i>Milind Joshi, GyanendraVerma, Ramesh Pawar, SandipDagde, Sameer Walunj, AbhilashDharan, ChetanVinjuda and SulabhaRanade</i>	074
INCEMIC2015_17	Radiated emissions measurement of entire railway system including rolling stock for Mumbai Monorail project as per EN50121-2: A case study <i>Milind Joshi, GyanendraVerma, Ramesh Pawar, SandipDagde, SmitaSolanki, AbhilashDharan, ChetanVinjuda, Lini Alex and SulabhaRanade</i>	077
INCEMIC2015_18	Study of Propagation of Ultra-Wide Band Electromagnetic Pulse through a Dispersive Soil Medium for the Detection of Unexploded Buried Ordnance. <i>VijayakumarSolaiselvam and Joy Thomas</i>	081
INCEMIC2015_19	Experimental Study of a Pressurised Gas Switched HIRA based UWB System <i>Vijay Bhosale, Joy Thomas and D C Pande</i>	087
INCEMIC2015_20	Design of Hybrid Nuclear Electromagnetic Pulse Simulator. <i>RakeshKichouliya</i>	092
INCEMIC2015_21	Performances and Design of Implantable CPW Fed Antennas at 2.45GHz ISM Band for Biomedical Applications <i>Ashok Kumar Srinivasan and Dileepan D</i>	098
INCEMIC2015_22	Overview of Advances in Communication Technologies. <i>Budati Anil Kumar and TrinathaRao P</i>	102

INCEMIC2015_23	Design of CPW Fed Reconfigurable U-Shaped Antenna for Cognitive Radio Applications <i>Ashok Kumar Srinivasan and Dileepan D</i>	107
INCEMIC2015_24	Ultra-Wideband Hexagonal MIMO Antenna with Defected Ground Structure (DGS) <i>Ramesh Boddu, Ramesh Manikonda and Rajya Lakshmi Valluri</i>	109
INCEMIC2015_25	A Triple band Pentagonal shaped DRA Array for X-BAND Applications <i>Sri Lakshmi, RajyalakshmiValluri and Ramesh Boddu</i>	112
INCEMIC2015_26	Electromagnetic Environment in Modern Railway System <i>Dipankar Dan and SatyajitChakrabarti</i>	116
INCEMIC2015_27	High current EMI/EMC filters in fuel cell power converters for Marine applications <i>SomaiahBoddu and Santosh Kumar</i>	122
INCEMIC2015_28	An Octagonal Monopole Antenna for Ultra Wide Band Applications <i>ChalasaniSubbaRao and AlapatiSudhakar</i>	128
INCEMIC2015_29	A Compact Octagonal Printed Monopole Antenna for Bio-Medical Applications <i>S.H.V. PrasadaRao</i>	131
INCEMIC2015_30	A Koch Multiband Fractal Array Using Kaiser Window Technique <i>Gottemukkala V PadmavathiPranathi, Dr. N. Deepika Rani, Dr. P. V. Sri Devi and Prof.G. TirumalaRao</i>	135
INCEMIC2015_31	Elliptical function based differential Band pass filter for IF signal processing and EMI applications <i>SrinivasaRao Mandala, Mahalakshmi I and Murugayan K</i>	138
INCEMIC2015_32	Numerical analysis of Biological Effects on Human tissues exposed to Microwave radiation <i>PurushothamanSeetharaman and Mini R.L</i>	142
INCEMIC2015_33	ESD failure resolution with ferrites on exposed signal lines <i>Prasad Muttathukunnel</i>	146

INCEMIC2015_34	Challenges in Interlab Comparison of Radiated Emission Measurement above 1GHz <i>Gulshan Kumar</i>	150
INCEMIC2015_35	Analysis of Conducted Emission from Induction Plate and Recommending the Minimization Techniques <i>Dr.Shreenivas Jog and NidhiChaturvedi</i>	156
INCEMIC2015_36	Analysis of Radiated Emission for Induction Cook Top and Implementing the Mitigating Technology <i>Dr.Shreenivas Jog and SuvidhaChitnis</i>	160
INCEMIC2015_37	HIS based asymmetrical fractal boundary Microstrip patch antenna <i>NelaturiSuman and NvsnSarma</i>	164
INCEMIC2015_38	Reduction of Mutual Coupling in Microstrip MIMO Antennas Systems <i>K. VasuBabu, Dr.K. Chandra BhushanaRao and Gorre Naga JyothiSree</i>	N/A
INCEMIC2015_39	Frequency Notched Antenna to overcome EMI between UWB systems and Wireless Local Area Networks (WLANs) <i>AnnapantulaSudhakar, Satyanarayana M, Sunil Prakash M and Sudhir Kumar Sharma</i>	170
INCEMIC2015_40	Mobile Phone Radiation Reduction Using Shield Made of Different Materials <i>Boopathi Rani ,Raja Sekar and Shashi Krishna Pandey</i>	176
INCEMIC2015_41	Novel Planar Power Divider for EMC Application <i>Subhendra P. Singh and Dr. Nisha Gupta</i>	179
INCEMIC2015_42	Design and Simulation of C-band Microstrip Corporate Feed Array Antenna <i>Mohammad Riyazuddin and J. RamlalBharath</i>	182
INCEMIC2015_43	Single, dual and multi band generation using pentagonal slot antenna and array <i>Sanjeev Reddy and Vakula D</i>	187
INCEMIC2015_44	A Novel Approach to Improve Merit Factor Values Using Rudin-Shapiro and M-Sequences <i>SuribabuNaick and P Rajesh Kumar</i>	191
INCEMIC2015_45	Corner reflectors pattern study with & without orthogonality errors <i>Rama SaratPulapa, Srikanth Kota and VeeraSrideviPadavala</i>	196

INCEMIC2015_46	Performance Analysis of Extended Kalman Filter for Single and Multi Target Tracking. <i>LeelaKumari B, YasaswiDivya V and Padma Raju K</i>	202
INCEMIC2015_47	Design of Rectangular U-Shaped Fork Patch Antenna for UWB and Multiband Applications <i>Naresh Kumar Darimireddy, Ramana Reddy Ragipidi and Mallikarjuna Prasad A</i>	205
INCEMIC2015_48	A noise basesd hybrid Thresholding for enhanced noise reduction using double density dual tree complex wavelet transform. <i>Hari Krishna Modalavalasa and Sateesh Kumar Gudla</i>	208
INCEMIC2015_49	OFDM System Implementation, Channel Estimation and Performance Comparison of OFDM Signal <i>N S Sai Srinivas</i>	212
INCEMIC2015_50	Effective Electromagnetic Shielding of Air Core Reactor <i>AnikeshMathane and Dr.H.AMangalvedekar</i>	220
INCEMIC2015_51	Performance Analysis of Feature Selection methods for Feature Extracted PCG Signals <i>G. VenkataHari Prasad and Dr. P. Rajesh Kumar</i>	225
INCEMIC2015_52	Comparision of radiation attributes of printed microstrip coplanar waveguide fed fractal antennas <i>ValluriDhana Raj, Dr.A.M. Prasad, Dr.G.M.V Prasad and Dr.M. Satyanarayana</i>	232
INCEMIC2015_53	Theoretical presentation of permeability of biological tissues <i>Rajani Chandra Ch and Ratna Kumar Y</i>	240
INCEMIC2015_54	Performance Analysis of PEGASIS-MHM Protocol for Multi-Hop Mobile Wireless Sensor Networks <i>Kadali RamkeeRao and B. Anil Kumar</i>	246
INCEMIC2015_55	128 bit unsigned multiplier design and implementation using an efficient SQRT-CSLA <i>GopiMogalipuvvu and G B S R Naidu</i>	251
INCEMIC2015_56	Design of Dual-Spiral Antenna for Implantable Bio-Medical Application <i>Mahalakshmi N, Thenmozhi A and Ashok Kumar S</i>	255
INCEMIC2015_57	ASIC realization of fir digital filters – a co mparision study of power,	259

area and delay for various architectures
PitchaiahTelagathoti, Sowmya P and V Sridevi P

INCEMIC2015_58	A Hybrid Companding Transform Technique for PAPR Reduction of OFDM Signals <i>Durgaprasad Dhanareddy and VenkataNageswaraRaoMittapalli</i>	263
INCEMIC2015_59	EMI/EMC Testing of Wireless Sensor Networking Node <i>G. Sandhyarani, DeepikaVinod, Jemimah Ebenezer and S.A.V.SatyaMurty</i>	269
INCEMIC2015_60	Generation of Radiation Characteristics from Waveguide Slot Arrays for Satellite Tracking Radar System <i>Ketavath Kumar Naik and Habibulla Khan</i>	276
INCEMIC2015_61	A CPW-Fed Slotted Monopole Antenna for X-Band Applications <i>Ketavath Kumar Naik, T.V. Rama Krishna, C.S. Preetham and M.Siva Gang Prasad</i>	279