

# **2013 IEEE International Conference on Electronics, Computing and Communication Technologies**

**(CONECCT 2013)**

**Bangalore, India  
17 – 19 January 2013**



**IEEE Catalog Number: CFP13COT-PRT  
ISBN: 978-1-4673-4609-2**

# TABLE OF CONTENTS

<b>A Capacitive Dynamic Comparator With Low Kickback Noise For Pipelined ADC</b> .....	1
<i>D. Duong, T. Nguyen</i>	
<b>High Performance Bulk FinFET With Bottom Spacer</b> .....	5
<i>S. Tripathi, R. Mishra, V. Narendra, R. Mishra</i>	
<b>Outage Analysis Of Coded Cooperation With Two Relays And Nakagami-m Fading</b> .....	10
<i>P. Sharma, P. Garg</i>	
<b>Design And Realization Of Maximum Boost Z- Source Inverter For Solar Power Applications</b> .....	15
<i>R. Uthirasamy, U. Ragupathy</i>	
<b>Distributed Beamforming For Randomly Distributed Sensors Using Bisection Method And Dynamic Programming Technique</b> .....	21
<i>G. Vaikundam, G. Sudha</i>	
<b>Die-To-Die And Within-Die Fabrication Variation Of 65nm CMOS Technology PMOS Transistors</b> .....	27
<i>A. Khan, Y. Ohnari, A. Dutta, S. Singh, M. Miura-Mattausch, H. Mattausch</i>	
<b>Gradient Sample Argument Weighting For Robust Image Region Description</b> .....	33
<i>J. Nilsson, P. Handel</i>	
<b>Investigation On Spatial Filtering To Increase Information Carrying Capacity In Single Mode Optical Fiber Communications</b> .....	37
<i>M. Sudhakar, Y. Reddy, B. Rao</i>	
<b>A Thermal Imaging Based Wireless Sensor Network For Automatic Water Leakage Detection In Distribution Pipes</b> .....	42
<i>R. Parida, V. Thyagarajan, S. Menon</i>	
<b>Robust Template Matching Based Obstacle Tracking For Autonomous Rovers</b> .....	48
<i>P. Mishra, J. Kishore, R. Shetty, A. Malhotra, R. Kukreja</i>	
<b>Communication Between Two Parties Using <math>MJ^2</math> -RSA Cryptosystem And Signature Scheme</b> .....	53
<i>E. Reddy, B. Nayak, M. Padmavathamma</i>	
<b>A Statistical Modeling Of QoS In An Optical Burst Switched Network</b> .....	58
<i>S. Kumar, S. David, P. Menon, V. Jayasree</i>	
<b>MAvB A Maximum Available Bandwidth Based Routing Metric For Multiradio Multichannel Wireless Mesh Networks Ensuring QoS Provisions For Real Time Communications</b> .....	64
<i>D. Chakraborty, M. Debbarma</i>	
<b>Hardware Efficient FPGA Implementation Of Emotion Recognizer For Autistic Children</b> .....	70
<i>K. Smitha, A. Vinod</i>	
<b>Design And Development Of High Bit Rate QPSK Demodulator</b> .....	74
<i>M. Raghavendra, S. Sharada, K. Chandrasekharam</i>	
<b>Development Of Two Degree Of Freedom (DoF) Bionic Hand For Below Elbow Amputee</b> .....	79
<i>P. Srinivasa, S. Nagananda, G. Kadambi, R. Hariharan, P. Shankpal, S. Shankpal</i>	
<b>Robust Features For Environmental Sound Classification</b> .....	85
<i>S. Sivasankaran, K. Prabhu</i>	
<b>Optimization Of Wavelength Converter In WDM Networks Using Genetic Algorithm</b> .....	91
<i>A. Kumar, V. Priye</i>	
<b>A Supervised Learning Approach To Far Range Depth Estimation Using A Consumer-Grade RGB-D Camera</b> .....	94
<i>P. Mishra, A. Viswanathan, A. Srinivasan</i>	
<b>Design Of Stepped Monopole UWB Antenna With WLAN Band Notched Using Modified Mushroom Type EBG Structure</b> .....	100
<i>G. Pandey, H. Singh, P. Bharti, M. Meshram</i>	
<b>Conceptualizing IFF For Dismounted Soldier</b> .....	106
<i>M. Durga, S. Singh, P. Verma, L. Suthar, A. Kumar</i>	
<b>FL2STAR: A Novel Topology For On-Chip Routing in NoC With Fault Tolerance And Deadlock Prevention</b> .....	111
<i>P. Ghosal, T. Das</i>	
<b>Design Of Impulse Radio UWB Transmitter For Short Range Communications Using PPM Signals</b> .....	117
<i>V. Yajnanarayana, S. Dwivedi, A. Angelis, P. Handel</i>	
<b>Passivity Based Controller For Underactuated PVTOL System</b> .....	121
<i>C. Venkatesh, R. Mehra, F. Kazi, N. Singh</i>	
<b>Effect Of Erroneous Power Control On The Performance Of Overloaded Cellular UCDS-CDMA</b> .....	126
<i>A. Singh, P. Singh</i>	

<b>A Compact Tri-Band MIMO/Diversity Antenna For Mobile Handsets</b> .....	132
<i>H. Singh, P. Bharti, G. Pandey, M. Meshram</i>	
<b>Nonlinear Estimation And Control Of Wind Turbine</b> .....	138
<i>R. Saravanakumar, D. Jena</i>	
<b>Group Delay Engineering Using Cascaded All Pass Filters For Wideband Chirp Waveform Generation</b> .....	144
<i>S. Bose, K. Vinoy</i>	
<b>Application Of 2D Defected Ground Structures In Microstrip Lines</b> .....	149
<i>C. Shekhar, A. Bhadauria, M. Radhakrishna</i>	
<b>Solving Intersection Searching Problem For Spatial Data Using Bloom Filters</b> .....	153
<i>P. Budhkar</i>	
<b>Analysis Of PCA Based Compression And Denoising Of Smart Grid Data Under Normal And Fault Conditions</b> .....	158
<i>R. Mehra, N. Bhatt, F. Kazi, N. Singh</i>	
<b>Comparison Of Cloud Service Providers Based On Direct And Recommended Trust Rating</b> .....	164
<i>S. Sangeeta, G. Patra</i>	
<b>A Multichannel Sampling Method For 2-D Finite-Rate-Of-Innovation Signals</b> .....	170
<i>S. Mulleti, B. Shenoy, C. Seelamantula</i>	
<b>Removal Of Baseline Wander In ECG Using The Statistical Properties Of Fractional Brownian Motion</b> .....	176
<i>S. Agrawal, A. Gupta</i>	
<b>Wireless Sensor Knowledge Archive</b> .....	182
<i>S. Sarangi, S. Kar</i>	
<b>An Investigation Of Passive Optical Networks For India Based Neutrino Observatory</b> .....	188
<i>V. Singh, N. Chandrachoodan, A. Prabhakar</i>	
<b>Quick Recovery In Transactional Flash</b> .....	193
<i>N. Kulkarni, K. Gopinath</i>	
<b>A Smarter Toll Gate Based On Web Of Things</b> .....	199
<i>P. Rajasekaran, R. Janardhan, R. Pillai, V. Chander</i>	
<b>Multimodal Image Fusion In Visual Sensor Networks</b> .....	205
<i>D. Nirmala, R. Vignesh, V. Vaidehi</i>	
<b>An Asynchronous 8-Bit 5 MS/s Pipelined ADC For Biomedical Sensor Based Applications</b> .....	211
<i>S. Kopparchy, I. Makwana, A. Gupta</i>	
<b>Author Index</b>	