

**2013 IEEE International  
Conference on Communication,  
Networks and Satellite  
(COMNETSAT 2013)**

**Yogyakarta, Indonesia  
3 – 4 December 2013**



**IEEE Catalog Number: CFP1331U-POD  
ISBN: 978-1-4673-6055-5**

## TABLE OF CONTENT

Foreword General Chair	i
Foreword Program Chair	ii
Committee	iii
Schedule Conference Program	iv
<b>Keynote 1:</b> Networks of Networks of Quantum Repeaters <i>Prof. Rodney Van Meter</i>	vi
<b>Keynote 2 :</b> Ubiquitous Communications <i>Thomas Widodo</i>	vii
<b>Plenary 1 :</b> Future Perspectives of Microwave Imaging with Application to Multi-Parameter Fully Polarimetric POLSAR Remote Sensing and Geophysical Stress-Change Monitoring <i>Prof. Wolfgang-Martin Boerner</i>	viii
<b>Plenary 2 :</b> Trends in Telecommunication and Broadcasting Industries <i>Satriyo Dharmanto</i>	x
<b>Tutorial :</b> Cognitive Radio Networks: Some Research Aspects <i>Prof. Iti Saha Misra</i>	xi
Reviewer	xiii
Table of Content	xiv
<i>Concurrent Multi-path Data Transfer Using Modified SCTP</i> <i>Murat Akzeybek, Ensar Gul</i>	1
<i>Energy Consumption Evaluation of Low Energy Adaptive Clustering Hierarchy Routing Protocol for Wireless Sensor Network</i> <i>Veronica Windha Mahyastuti, Aloysius Adya Pramudita</i>	6
<i>Improving Short-term Fairness in WLAN with QoS Support</i> <i>Warakorn Srichavengsup</i>	10
<i>Noise Modeling of Source Inductive Degeneration Low Noise Amplifier in 0.18-<math>\mu</math>m CMOS Technology</i> <i>Taufiq Alif Kurniawan, Gunawan Wibisono</i>	15
<i>VoIP based Two-tier Cognitive Radio Network: Developing Implementation Techniques</i> <i>Tamal Chakraborty, Iti Saha Misra</i>	21
<i>Performance of Trajectory Plot for Serial Concatenation of BCH and Convolutional Codes</i> <i>Melinda, Nasaruddin, Syahrial, Yuwaldi Away</i>	26

<i>Performance Evaluation of The Manhattan Mobility Model In Vehicular Ad-hoc Networks for High Mobility Vehicle</i>	31
<i>Aji Hanggoro, Riri Fitri Sari</i>	
<i>Active Integrated Microstrip MIMO Antenna for Gain Enhancement</i>	37
<i>Fitri Yuli Zulkifli, Muhammad Fahmi, Basari, Eko Tjipto Rahardjo</i>	
<i>Angular Spectrum and Second Order Statistics of Interference in Wireless Networks</i>	41
<i>Yifan Chen, Lorenzo Mucchi, Rui Wang</i>	
<i>Beacon-Enabled IEEE 802.15.4 Wireless Sensor Network Performance</i>	46
<i>M. Udin Harun Al Rasyid, Ferry Astika, Zen Samsono Hadi, Alfian Fahmi</i>	
<i>Design and Implementation of Linear Precoding LTE Downlink based on FPGA</i>	50
<i>Nur Chaeriyah Chaeruddin Ganto, Rina Pudji Astuti, Denny Darlis</i>	
<i>Design of Tunable Microstrip Antenna Using Photodiode as Optical Switching Controlled By Infrared</i>	55
<i>Erna Risfaula Kusumawati, Yono Hadi Pramono, Agus Rubiyanto</i>	
<i>Energy Efficient Hybrid Multihop Clustering Algorithm in Wireless Sensor Networks</i>	59
<i>Ananya Patra, Sonali Chouhan</i>	
<i>Analysis of Energy Efficiency for Wi-Fi 802.11b Multi-Hop Networks</i>	64
<i>Nasaruddin, Mira Andriani, Melinda, Muhammad Irhamsyah</i>	
<i>Joint Optimization of Detection Thresholds and Power Allocation in OFDM Based Cognitive Femtocell Networks</i>	69
<i>Tanumay Manna, Iti Saha Misra</i>	
<i>Multipath Backbone Routing for Latency and Energy Reduction in MANET</i>	P IC
<i>Francis Antony Selvi, M.S.K Manikandan</i>	
<i>Per block Pre-distortion of a Two Carriers Non-linear Satellite Communication Channel</i>	79
<i>Thibault Deleu, Mathieu Dervin, François Horlin</i>	
<i>Power Control using Fuzzy Genetic Algorithm to Enhance WCDMA Capacity</i>	84
<i>Firdaus, Ali Muayyadi, Rina Puji Astuti</i>	
<i>Link adaptation framework for video transmission over WiMAX using MDP over cross-layer approach</i>	89
<i>Ali Abdulqader Bin Salem, Tat-Chee Wan, Yung-Wey Chong, Ali Shannon</i>	
<i>A Topologically Simple Keyed Hash Function using a Single Robust Absolute-Value Chaotic Map</i>	95
<i>Wimol San-um, Warakorn Srichavengsup</i>	
<i>Deterring Traitor Using Double Encryption Scheme</i>	100
<i>Antonius Cahya Prihandoko, Hossein Ghodosi, Bruce Litow</i>	
<i>Prevention of Denial-of-Service Attacks in Garbled Routing (GR) Network</i>	105
<i>Shaahin Madani, Ibrahim Khalil</i>	

<i>Requirements and Challenges for Distributed Detection of Clones in Wireless Sensor Networks</i>	P 10
<i>Wazir Zada Khan, Mohammed Y Aalsalem, N M Saad</i>	
<i>Design of Concurrent Multiband Inductive Degeneration Low Noise Amplifier with LC Resonator</i>	115
<i>Gunawan Wibisono, Taufiq Alif Kurniawan, Puspita Sulistyningrum</i>	
<i>Design of Power Amplifier for Radio-Frequency Identification Application on 13.56 MHz</i>	120
<i>Gunawan Wibisono, Daniel Simanjuntak</i>	
Author Index	124