2012 Ninth International Conference on Wireless and Optical Communications Networks

(WOCN 2012)

Indore, India
20-22 September 2012

WOCN 2012 CONFERENCE PROGRAM

Conference Venue @ Indore Radisson Blu
Tutorial @ Sri Aurobindo Institute of Technology, Indore

20 September, Thursday - Tutorials all day
Location: Sri Aurobindo Institute of Technology, Indore

Tutorials address location for entire day:

Engineering Conference Hall
Sri Aurobindo Institute of Technology
SAIMS Campus, Indore Ujjain Highway, Near MR-10 crossing, at Indore (M.P.)-453111
Phone: +91 731 4231611 or +91 731 4231616

Tutorial – 1
9:00 am - 10:00 pm - Room: Engineering Conference Hall

Associate Professor Vivek S Deshpande, Department of Information Technology
MIT College of Engineering, Pune, India.

Title: Challenges in Wireless Communication Networks

Tutorial – 2
2:00 pm - 5:00 pm - Room: Engineering Conference Hall

Professor Dr. Alok Kumar Das, Electronics & Communication Engineering Deptt.
Jadavpur University, Kolkata

Title: Optical Communications Networks and Devices

Tutorial – 3
10:30 am - 12:00 pm - Room: Engineering Conference Hall

Dr. Prakash D. Vyavahare, Senior Member IEEE, Professor, Department of Electronics and Telecom.
Engg. S. G. S. Institute of Technology and Science, INDORE (M. P.)

Title: Near Shannon Limit Channel Codes: Modified Turbo Codes

---

21 September, Friday - WOCN2012 Conference
Location: Indore Radisson Blu

8:45 – 10:30 am - Opening remarks - Room: Summit III & IV

Professor Dr. Durgesh Kumar Mishra, Sri Aurobindo Institute of Technology, Indore, India

Keynote Speakers / Invited Talk

Dr. Arvind K. Mishra, Karlsruhe Institute of Technology (KIT), Germany

Title: OFDM Signal Transmission using Directly Modulated Lasers for Wireless Backhauling

Professor Dr. Yatindra Nath Singh, EE/ACES, IIT Kanpur

Title: Research issues in P2P computing

10:00 am - 10:30 am also Coffee Break
10:30 am - 12:30 pm - Room: Summit III
SESSION 1. WIRELESS: Dynamic spectrum Access/Cognitive Radio Networks
Chair: Associate Professor Vivek S Deshpande , MIT College of Engineering, Pune, India

Spectrum Sharing in Multi-hop Cognitive Radio Networks with Optimal Power Control '''3
by Shobhita Gupta, Shashikala Tapaswi

Anti-jamming in Cognitive Radio Networks Using Reinforcement Learning Algorithms '''8
by Sangeeta Singh, Aditya Trivedi

Priority Based MAC Scheme for Cognitive Radio Network: A Queuing Theory Modelling '''33
by Lokesh Chouhan, Aditya Trivedi

Secure and Trusted algorithm for Cognitive Radio Network '''38
by Rajni Dubey, Sanjeev Sharmay, Lokesh Chouhan

DSAT-MAC : Dynamic Slot Allocation based TDMA MAC protocol for Cognitive Radio Networks '''45
by Satyam Agarwal, Rajeev K. Shakya, Y. N. Singh, Amitabha Roy

10:30 am - 12:30 pm - Room: Summit IV
SESSION 2. OPTICAL: Optical Communications and Networking
Chair: Professor Dr. Alok Kumar Das, Gargi Memorial Institute of Technology, Kolkata, India

WDM PON Enhanced Capacity Architecture for Unicast, Multicast and Broadcast through Efficient Sideband Carrier Modulation '''4;
by Gaurav Pandey, Nupur Agarwal, Aditya Goel

Design and Simulation of CSRZ Modulated 40 Gbps DWDM System in Presence of Kerr Non Linearity '''57
by Lucky Sharan, V K Chaubey

Comparison of Metaheuristic Approaches for Impairment Aware Transparent Optical Networks'''62
by Urmila Bhanja, Debajyoti Mishra

A Novel Architecture for Full Duplex WDM Radio Over Fiber System Converged With Wired Network Using Dual Drive MZM and Light Remodulation using RSOA '''68
by Pradeep R, Karthikeya G. S, Jeevan M, Vijayakumar N

12:30 pm - 1:30 pm - Lunch
1:30 pm - 3:00 pm - Room: Summit III
SESSION 3. Application of Communications and Information Security
Chair: Professor Dr. Yatindra Nath Singh, EE/ACES, IIT Kanpur

An Improved Cryptographic Algorithm using UNICODE and Universal Colors'"73
by Hemant Suryavanshi, Pratosh Bansal

Automated Multilevel Defence Model to Investigate Packets for Web Interface "76
by Seema Verma, Tanya Singh

Digital Watermark Performance with Visual Secret Sharing on Either of RGB Plane of Colour Image "82
by Ankita Sengar, Preeti Verma

Dynamic Key Management Method for Wireless Sensor Networks "87
by Vijay Anand H.M, G.Varaprasad

Efficient Algorithm for Intrusion Attack Classification by Analyzing KDD Cup 990"""92
by N. S. Chandolikar, V. D. Nandavadekar

12:30 pm - 1:30 pm - Lunch
1:30 pm - 3:00 pm - Room: Summit IV
SESSION 4. MIMO and Beam forming and OFDM
Chair: Dr. Arvind K. Mishra, Karlsruhe Institute of Technology, Germany

Space-Time-Frequency Turbo Coded MIMO-OFDM Systems Over Frequency Selective Fading Channels'"97
by Neeraj Shrivastava, Sapna Bishoriya, Aditya Trivedi

Time and Frequency Synchronization Techniques for OFDM Systems "9;
by Ratna Gour, Raksha Upadhyay

Investigation Effect of Phase Noise of OFDM System and Realization LO (Local Oscillator) with and without Phase Locked Loop (PLL) "": 7
by Krishna Kumar Pandey, Uma Rathore Bhatt, Raksha Upadhyay

Optimized Data Allocation & Combining Scheme for ICI Self Cancellation in OFDM Systems""; 2
by Ashish Goel, Ankit Nagpal, Jasmeet Kaur

3:00 pm - 3:30 pm - Coffee Break
3:30 pm - 5:00 pm - Room: Summit III
SESSION 5. Mobile Ad-Hoc and Sensor Mesh Networks I
Chair: Dr. Muralidhar Kulkarni, National Institute of Technology Karnataka, Surathkal, Karnataka, India

Performance Simulation of MANET Protocols with the Combination of Horizontal and Vertical Topology using NS2 "; 6
by Santosh Kumar Soni

A Novel Spatial Correlation Model for Wireless Sensor Network Applications "; :
by Rajeev K. Shakya, Yatindra Nath Singh, Nishchal K. Verma

Mobile Ad hoc Network Performance Improvement Using Strategical RED "326
by Jeetendra Kumar Patel, Jigyasu Dubey

Impact of Mobility and Terrain Size on Performance of AODV and DSR in Mobile Ad hoc Network '''32:
by Banoj kumar Panda , Manoranjan Das, Benudhar Sahu, Rupanita Das

A Comparative Study on Routing schemes of IP based Wireless Sensor Network '''335
by Suman Sankar Bhunia, Dilip Kanti Sikder, Sarbani Roy, Nandini Mukherjee

A Density Control Energy Balanced Clustering Technique for Randomly Deployed Wireless Sensor Network '''33:
by Sanjeev Kumar Gupta, Neeraj Jain, Poonam Sinha

Automated Patch System to Interface between HF and VHF Radios with De-Noising using Wavelet Transform '''345
by Rajorshee Raha, Arnab Pramanik

Performance Analysis of Effect of Transmission Power in Mobile Ad hoc Network '''34:
by Manoranjan Das, Banoj Kumar Panda, Benudhar Sahu

Performance Comparison of 802.11 DCF in Fading with OFDM and Diversity '''355
by Raksha Upadhyay, Sanjiv Tokekar, P. D. Vyavahare

Self-Adjustment Channel Rank Based on Reordered Cholesky Factorization '''35:
by Rabah Maoudj, Christophe Alexandre, Michel Terre

Decision Driven Risk Measurement Model to Quantify Reengineering Risk in Stakeholder Perspective of Legacy System ''''364
by Er. Anand Rajavat, Vrinda Tokekar

Liquid Crystal Polymer Dual Band Pan Slot Antenna ''''369
by B.T.P.Madhav, P. Syam Sundar, K. Sarat Kumar, A.N.V.Kishore, Ankit Kumar Jain

Neural Modelling Of Smart Antenna Array Using Radial Basis Function for Beam Shipping of GSM Transmitter '''374
by Rahul Shrivastava, Abhishek Rawat, Yogendra Kumar Jain, R.N. Yadav, S.C. Shrivastava

Performance Study of Ad-hoc Routing Protocols for IEEE802.11 and IEEE802.11e Standards '''379
by Shailendra Kumar Pathak, Raksha Upadhyay, Rajdeep Shrivastava

A Survey on Threats in Routing Security in MANET for Trust Management using SMC Protocols ''''384
by Shubham Joshi, Durgesh Kumar Mishra

Multi Threshold Adaptive Range Clustering (M-TRAC) Algorithm for Energy Balancing in Wireless Sensor Networks '"38:
by Nishant Joshi D, K S Shivaprakasha, Muralidhar Kulkarni

Cluster Based Path Constraint Adaptive Multipath Routing Protocol in WMSN '"396
by Jayashree Agrakhed, G. S. Biradar, V. D. Mytri

Stimulate Non-Cooperative Nodes Using Incentive based Mechanism in MWN '"39;
by Rekha Kaushik, Jyoti Singhai

Power Optimization Strategies for Wireless Sensor Networks in Coal Mines '"3: 6
by K. A. Unnikrishna Menon, Deepa Maria, Hemalatha Thirugnanam

5:00 pm - 6:30 pm - Room: Summit IV
SESSION 8. Simulation, Modeling, Analysis and Performance Evaluation II
Chair: Dr. Ram Bilas Pachori, IIT, Indore, India

Design A Precoding Codebook Generator with An Angular Channel Model Using Eigen Beamforming '"3: ;
by Abdul Latif Sarker, Moon Ho Lee

A Performance Analysis of Network under SYN-Flooding Attack '"3; 6
by Rakesh Kumar Sahu, Narendra S. Chaudhari

A New Tree Based Double covered Broadcast Protocol for VANET '"3; 9
by Yashpal Singh, Anurag Sharma

Pre-processing Matrix Based Iterative Detection Algorithm in Asynchronous V-BLAST System'"422
by Tian Liu, Taofu Mo, Liang Han, Youxi Tang

De-Noising/Noise Cancellation Mechanism for Sampled Speech/Voice Signal '"427
by Arnab Pramanik , Rajorshee Raha

A Highly Efficient Distributed Indexing System Based on Large Cluster of Commodity Machines '"42;
by Govind S. Pole, Madhuri A. Potey

Multiclass Classifier Designing by Modified Crossover and Point Mutation Technique using Genetic Programming'"'435
by Anwar Mohd Mansuri, Deepali kelkar, Roopesh Kumar, Prithviraj Singh Rathore, Amit Jain

6:30 – 7:30 pm Panel Session

Panel Title: Compact Waveguide Devices and Switching Implementation in Optical Network

7:30 - 10:30 pm Banquet Dinner

22 September, Saturday - WOCN2012 Conference

8:30 am – 9:00 am - Room: Summit III & IV

Keynote Speakers / Invited Talk

Swati Chaudhari, Raja Ramanna Centre for Advanced Technology (RRCAT), Department of Atomic Energy (DAE), Govt. of India, Indore.

Title: Next Generation Protocol (NGP): A Roadmap

9:00 am - 10:30 am - Room: Summit III
SESSION 9. Health Care and Home Networking
Chair: Saroj Shakya, Nepal College of Information Technology, Nepal

An Intelligent Decision Support System for Enhancing an M-Health Application '"442
by Maneesha V Ramesh, Anu T. A., Hemalatha Thirugnanam

Swift - A Low Complexity Protocol for Event & Location Tracking in Wireless Sensor Networks '"447
by Dheryta Jaisinghani

A Mobile Software for Health Professionals to Monitor Remote Patients '"452
by Maneesha V Ramesh, Sruthy Anand, Rekha P

Interference Mitigation Between WBAN Equipped Patients '"456
by Judhistir Mahapatro, Sudip Misra, Manjunatha M, Nabiul Islam

8:30 am - 10:00 am - Room: Summit IV
SESSION 10. Higher and Lower layers protocols, Network Management and Services
Chair: Dr. N.S. Chouadri, IIT, Indore, India

Design and Implementation of a Cross Layered Protocol Stack for Sensor Networks in an Indoor Environment '"45;
by Anupama K r, Nishad Kamdar, Dhruv Vyas, Ishaan Baokar, Siddharth Sahu, Philip George

A Pragmatic Carbon Tax Billing Regime '"467
by Nakul Vyas

An Approach to Improve Performance of a Packet-Filtering Firewall '"474
by Urjita Thakar, Lalit Purohit, Akhilesh Pahade

10:00 am - 10:30 am - Coffee Break
10:30 am - 12:30 pm - Room: Summit III
SESSION 11. WIRELESS Communications and Networking
Chair: Dr. M.G. Sharma, Mahakal Institute of Technology, Ujjain, India

Wireless Automation using ZigBee Protocols '"479
by Kartik Rathod, Nilay Parikh, Aesha Parikh, Vrushank Shah

Modified Turbo Codes for Next Generation Wireless Networks'"484
by Archana Bhise, Prakash D. Vyavahare

A Novel Connectivity Control Scheme for Next Generation Wireless System by using Short Coverage Antennas "48:
by Shubhajeet Chatterjee, Soumyanil Banerjee, Arijit Mondal, Joydeep Saha

BLUE Based Imperfect CSI Analysis of Ergodic Capacity for MIMO AF Wireless Relay Networks"496
by M.PremKumar, N.S.Srinath Prasanna, S.J.Thiruvengadam

Dependency Analysis of Energy in Wireless Sensor Networks "4: 2
by Vivek S Deshpande, J B Helonde, Vijay Wadhai

2D and 3D Air Mouse "4: 8
by Anand Bora, Abrar Chapalgaonkar, Nikhil Dalshania, Aditya Bhongle

Low Power 2.4 *GHz* RF Transmitter for Satellite Subsystem Using Cordic Based Frequency Translator "4; 2
by Amrita Brahmachari, Roy P. Paily

Performance Analysis of FSO Communication with Aperture Averaging under Varying Atmospheric Turbulence Regimes "4; 7
by Aniruddh Malpani, Aditya Malpani

A Region Based Channel Allocation Scheme for LEO Satellite Communication "523
by Shubhajeet Chatterjee, Soumyanil Banerjee, Arijit Mondal, Joydeep Saha

Design of A Compact C-band Microstrip Bandpass Filter for Satellite Communications Applications "529
by Hussein Nasser Shaman

Evaluation of Inductive Coupling and RF-DC for Wireless Power Transmission "533
by Amin Mehdipour, Behrouz Moarref, Abouzar Shahraki kia, Marzieh Yazdanipour

S-band Wideband Bandpass Filter (BPF) with Improved Upper-Stopband Performance for Satellite Communication Systems "538
by Hussein Nasser Shaman

Shared and Secured Data Partitioning for Privacy Preserving of Collaborative File Transfer in Multi Path Computational Mining "542
by M Balamurugan, J Bhuvana, S ChenthurPandian

Comprehensive review and Selection criteria for Virtual Network Computing Technology '"549
by Marzieh Yazdanipour, Davood Mahmoudi, Afsaneh Yazdanipour, Mina Yazdanipour, Amin Mehdipour

Data Mining: Prediction for Performance Improvement of Graduate Students using Classification'""554
by Kamal Bunkar, Rajesh Bunkar, Umesh Kumar Singh, Bhupendra Pandya

Data Perturbation and Feature Selection in Preserving Privacy '"559
by Thanveer Jahan, G.Narsimha, C.V Guru Rao

A Simple Card to Backplane Polymeric Optical High Speed Interconnect Coupler for Computer Motherboards '"565
by Alok K Das, Biplab K Ray

Reduction of Channel Power Instabilities in Raman Amplifiers for ROADM Configured WDM Networks '"56;
by Pradeep R, Jeevan M, Karthikeya G.S, Vijayakumar N

An Enhance Approach For Web Services Discovery with QoS '"575
by Abhishek Jain, Santosh Easo

Designing Secure Email Infrastructure '"578
by Dharmendra Choukse, Umesh Kumar Singh, Lokesh Laddhani, Rekha Shahapurkar

Enhanced Traffic Aware LSP Selection Method in MPLS Networks '"587
by Ravindra Kumar Singh, N. S. Chaudhari, Kanak Saxena

A Framework for Pure Peer-to-Peer Computing System '"58;
by Jigyasu Dubey, Vrinda Tokekar

Image Distortion in AWGN Communication Channel '"596
by Madan Gopal Sharma Mieee

Machine Learning Techniques for Mobile Intelligent Systems: A Study '"599
by Archana Chaudhary, Savita Kolhe, Raj Kamal

Complete Industrial Solution for Automation in Temperature and Humidity Monitoring using LabVIEW '"5: 4
by Rohit Agrawal, Saumitra Mohan

3:00 pm - 3:30 pm - Coffee Break
3:30 pm - 6:00 pm - Room: Summit IV
SESSION 16. WLAN and WIMAX and Mobile Communications
Chair: Associate Professor Vivek S Deshpande , MIT College of Engineering, Pune, India

Performance Analysis of WiMAX 802.16e Physical Layer Model "5: 9
by Mukesh Patidar, Rupesh dubey, Nitin kumar Jain, Sarita kulpariya

Effective Spectrum Allocation Solution for WiMAX in Nepalese Context "5; 3
by Saroj Shakya, Er. Prakshet Thapa, Siddhartha Singh

An Optimized Approach to Checkpointing used for Recovery in Mobile Environment "5; 8
by Yogita Khatri

~ End of WOCN2012 conference program ~