



# Fifteenth International Conference on Wireless and Optical Communications Networks (WOCN)

2nd, 3rd and 4th of FEB 2018 Kolkata, West Bengal, India

## Conference Program

### Tutorials

**Title: Design Quality of Service QoS and Design Challenges in Wireless Sensor Communications Networks**



#### **Prof. Vivek S Deshpande**

Affiliation: VIT College of Engineering, Pune, India

Full Professor, Department of Computer Engineering

Phone: M: +91 094225 19649, 9552520032

Email: vsd.deshpande@gmail.com

**Abstract:** Now-a-days Wireless Sensor Networks plays predominant role in the communication domain. The data to be disseminated from multiple sources to the destination base station or sink is having vital significance. There are many problems with which data can be conveyed up to the sink. The congestion, reliability, delay, fairness, etc. are of main concern. These can be treated as Quality of Service parameters that govern the performance of the WSN. Above all the Energy consumption is the main constrain for WSN node. It is very difficult to obtain good QoS by keeping energy consumption low. Even if response of one of QoS parameter will depends on the many other QoS parameters. We have to take care of all QoS parameters to improve the performance of the wireless sensor networks. This Quality of Services may improve the application base of the WSN. With the QoS parameters the data dissemination along with energy optimization is get affected. We have to check the performance of the WSN against the QoS metrics for different data inputs. This may contain the periodic- non periodic data, event based data, transient or burst data. For all these different types of inputs data we are checking the performance of QoS parameters like congestion, reliability and fairness. This may lead to new researcher to verify their results and excel their research work accordingly.

**Biography:** Dr Vivek S. Deshpande, Dean, Academics, MIT College of Engineering, holds Bachelors and Masters of Engineering in Electronics and Telecommunications from Pune University and Doctorate from Nagpur University. Currently he is doing a research in Wireless Sensor Networks, embedded systems and High Performance Computer Networks. Dr Vivek is

pursuing his Post-Doctoral Research Fellowship from Technical University of Sofia, Bulgaria, Europe. Dr Vivek published more than 60 papers in International journals and conferences of repute. He filed 19 patents and all are published now. Vivek is working on many research projects which tackles more social and industrial problems. Vivek is active member of IEEE, Pune Section (R10, India). He chairs Education Society, Pune Chapter. He also on conference committee of Pune Chapter.

Specific topics of interest and Research: Wireless sensor networks, Body area networks, Quality of Service, Algorithm/Protocol development, Mobile Communications and mobility in WSN, Wireless Communications and networking in WSN, Information and Communications technologies in WSN, Simulation, Modeling and analysis and performance evaluations, Network management and services, Health care and home networking, Reviews and Applications: Social, health, sports, environmental, etc. The Rs.25 lacks of funded projects “Highway Traffic Monitoring Systems (HTMS)” phase-I done under his guidance. The innovation of palm tops based on Android ported on ARM is having great success of research project. With the kind help of his technical consultancy, many industries achieve huge success in their research and development. His 25 years of teaching and industrial experience is an asset to the organization. He is working as Associate Professor in Department of Information Technology, His expertise in the field of Wireless computer Networks and Distributed system helps in guidance to the PG students and researchers. Dr Vivek recently developed a Wireless Network Lab in Pune. Many researchers take advantage of the infrastructure laid for this type of study and research. This lab is now converted into Center of Excellence for IoT. The targeted researchers are from entire country. There are three verticals namely e-Health, Precision Agriculture and Smart City.

## **Session 1: Optical Passive and Active Component Sand Devices OPA and Optical Communications and Networking OCN**

### **Session Chair:**

Phase Noise Estimation and Compensation in 100G 4-QAM CO-OFDM system using Radial Basis Function Network

by *Syed Tajammul Ahmad, Pradeep Kumar K.*

Development of Architecture for Secured Data Transmission in OCDMA System with Designed Modified Walsh Code

by *Madhumita Sarkar, Somali Sikder , and Shila Ghosh*

Quantum Well Laser-Based Optical Bistable Switching Device

by *Yajie Li, Pengfei Wang, Huolei Wang, Hongyan Yu, Xuliang Zhou, Weixi Chen, Jiaoqin Pan*

Computation of Skin Depth for MIM Surface Plasmon Structure at Higher Frequency

by *Arpan Deyasi, Pratibha Verma*

On-chip Photonic Temperature Sensor Using Micro Ring Resonator

by *Satyabrata Singha, Bishanka Brata Bhowmik*

Analysis of Illumination Properties of LED Sources used in Li-fi Communication

by *Semanti Chakraborty, Tanusree Das, Rahul Dutta, Subhankar Sen, Irin Shabnam, Kanik Palodhi*

Quantum Well Laser Diodes With slightly-doped Tunnel Junction

by *Huolei Wang, Yajie Li, Hongyan Yu, Xuliang Zhou, Weixi Chen, Jiaoqing Pan, Ying Ding, Weixi Chen*

**Session 2: Application of Information and Communication AICT**

**Session Chair:**

Study on Active Filter Based on Memristor and Memcapacitor

by *Nijing YANG, Chenyu YANG, Yongbin YU, Xiang LU, Lin Wang, Tashi Nyima*

Co-extraction of Opinion Targets and Opinion Words from Online Reviews Based on Opinion and Semantic Relations

by *Savitha Mathapati Shreelekha B S Tanuja R S H Manjula and Venugopal K R*

**Mini-session 3: Simulations, Modelling, and Analysis and Performance Evaluation SMAP**

**Session Chair:**

A Compact Printed UWB MIMO Monopole Antenna with Modified Complementary Fractal for Isolation Improvement and Triple Band Notch Characteristics

by *Jeet Banerjee, Anirban Karmakar, Rowdra Ghatak*

**Mini-session 4: Cloud Computing CC**

**Session Chair:**

Forward Secrecy in Authentic and Anonymous Cloud with Time Optimization

by *Muthi Reddy P, Rekha Rangappa Dasar, Tanuja R, S. H. Manjula, Venugopal K. R.*

**Mini-session 5: WLAN and Mobile WIMAX 3, 4, 5G Systems**

**Session Chair:**

Reduction Scheme of SS for D2D Relay-Path Selection to Achieve Guaranteed Throughput for 5G Systems

by *Bingxuan Zhao, Koichiro Kitagawa, Takashi Fujimoto, Katsuo Yunoki, Ryochi Kataoka, Hiroyuki Shinbo*

**Mini-session 6: Mobile and Wireless Communications Networks MC, WMC**

**Session Chair:**

Improvement of Performance of MIMO System using Different Protocols  
by *Aritra De, Tirthankar Datta*

**Mini-session 7: Internet of Things IOT**

**Session Chair:**

A QoS-aware MAC protocol for IEEE 802.11ah-based Internet of Things  
by *Nurzaman Ahmed, Debashis De, Md. Iftekhar Hussain*

**End of Program**