

**ICWCSC 2010: International Conference on “Wireless Communication and Sensor Computing” held at SSN**



## **General Information**

SSN is an institution that aspires always to be in the forefront of research. With the growth of wireless communication, sensor computing will assume a greater role in meeting the needs of the society. To fulfill these important needs of society, SSN put forward itself by hosting a three day International Conference on “Wireless Communication and Sensor Computing”, ICWCSC 2010 organized by the Departments of ECE & IT during Jan 02-04, 2010.

ICWCSC 2010 intended to promote research activities in various areas of Wireless Communication, Sensor Networks, Mobile Ad hoc Networks and Cognitive Radio by providing a forum for exchange of ideas, bringing the Scientists, Engineers, and Researchers together to showcase the exciting and challenging developments in their research work, develop interaction among them and discuss the future directions in this area.

The conference had attracted a total of 273 papers from around the globe. The expert panel members of the technical committee and review committee had a challenging task of reviewing the papers submitted. The Technical Program Committee recommended 65 papers for presentation at the conference and for publications in IEEE Xplore. The International Advisory Committee had envisaged a comprehensive technical program of 6 sessions that covered a broad spectrum of topics in Wireless Communication, Ad hoc Networks, Cognitive radio and Sensor Networks.

The organizers are grateful to IEEE Madras Section, Chennai Chapters of IEEE Computer Society and IEEE Communication Society, Indian Nuclear Society, Kalpakkam Chapter, Department of Information Technology, BRNS, CSIR, DRDO, MoES, CTS, HCL, Agilent Technologies, Infosys, IOC, TMB, WinTek, FrontLine, ivetel and other industries located in and around Chennai for sponsoring this conference.

And also organizers were very grateful to the IEEE Conference Publications Management Group for publishing the conference papers in IEEE PDF eXpress.

## **Pre-Conference Tutorials**

As a part of three-day conference, two pre-conference tutorials were organized on day one, 2<sup>nd</sup> January 2010. The first Tutorial on “*Distributed Sensor Networks*” was offered by Dr. S.S. Iyengar, Professor and Chairman, Department of Computer Science, LSU, USA. , The second tutorial on “*Cognitive Radio – Technical Overview*”, was offered by Dr. David Koilpillai, Professor, Department of Electrical Engineering, IITM, Chennai in the forenoon session and Dr. P. H. Rao, SAMEER, Chennai shared his relevant knowledge on “Antenna Design Challenges for Cognitive Radio” in the afternoon.

## **Inaugural Session**

The conference was inaugurated by Dr. S. Shanmughavel, Registrar, Anna University Chennai on 3<sup>rd</sup> January 2010. Dr. S. Shanmughavel delivered the inaugural address and also released the Conference Proceedings and Souvenir. Mr. Naresh Kumar, General Manger, South Asia Pacific, Application Engineering Organization, Agilent Technologies was the guest of honour. Dr. S. Salivahanan, General Chair, ICWCSC 2010, Principal, SSN College of Engineering and Chairman of IEEE Madras Section, welcomed the gathering and Dr. S. Radha, Conference Chair, ICWCSC 2010, Professor and Head, Department of ECE *presented the conference highlights and programme details while introducing the chief guest.* Dr. T. Nagarajan, Conference Chair, ICWCSC 2010, Professor and Head, Department of IT introduced the guest of honour.

## **Technical Program**

### ***Technical Sessions***

Following the conference inauguration, the technical sessions were scheduled on Jan 3<sup>rd</sup> and Jan 4<sup>th</sup> in six sessions chaired by 12 invitees from academia and industry. About 150 participants including 70 outsiders participated in the conference. Around 30 research papers have been presented by the authors.

The papers covered many topics but reflected the growing with an increasing focus on security and routing issues in WSNs and MANETs, Wireless Communication, RFID and Underwater Communication.

### ***Keynote Addresses and Invited Talks***

In addition to the normal technical sessions, the technical program also includes eight keynote speeches. The four keynote speeches on Day Two, January 03, 2010 were “*Criteria and Strategies for Sensor Deployment*”, delivered by Dr. Sartaj Sahni, Professor and Chair, Department of Computer and Information Science and Engineering, University of Florida, USA, “*Exo-Scale Studies: Algorithm for the Scattering Amplitude*” by Dr. Paul Saylor, Professor, Computer Science Department, Louisiana State University and the University of Illinois, USA, “*Latest Research Trends in Broadband Communications*” by Dr. Arokiaswami Alphones, Associate Professor of School of Electrical & Electronic Engineering, NTU, Singapore, “*Evolution of 802.11 WLANs*” by Dr. S. Srikanth, Member Research Staff, AU-KBC Research Centre, MIT Campus, Anna University Chromepet, Chennai.

On Day Three, January 04, 2010, the four keynotes were “*3GPP*” delivered by Dr. S. Sricharan, Project Engineer, Wipro Technologies, Chennai, “*LTE Architecture and Protocol*”, by Dr. Jackson Juliet Roy, Specialist Design & Development (Wireless Domain), Tata Elxsi Ltd, Chennai, “*Emerging Mobile Broadband Technologies - What and How will they deliver?*” by Dr. K. Giridhar, Associate Professor, Department of Electrical Engineering, IITM, Chennai, “*RF Sensor Networks for Improved Signal Detection and Geo-location*” by Ms. Sonali Sarpotdar, Technical Consultant, Agilent Technologies Pvt., Ltd, Chennai.

All sessions, including tutorial sessions, oral sessions, and keynote sessions were extremely well attended and produced active discussions. The conference banquet was held on the evening of 3<sup>rd</sup> January 2010 at Quality Hotel Sabari Classic, Chennai.

## **Conference Proceedings**

A CD-ROM containing all the papers of the conference, the details about ICWCSC 2010 and the summary of pre-conference tutorials and keynote addresses/invited talks was provided to each delegate.

## **Valedictory**

Dr. Raj Reddy, Professor of Computer Science & Robotics Department, Carnegie Mellon University delivered the valedictory address and distributed certificates to the participants. The Best Paper award was presented to Bashir Ahmad, Zeeshan Shafi Khan, Adeel Akhtar for their paper titled “An Energy Efficient, Modified Hybrid Adaptive IntraCluster Routing for Wireless Sensor Networks”. Dr. S. Salivahanan welcomed the gathering. Ms. Kala Vijayakumar, President, SSN Institutions delivered the presidential address. Dr. S. Radha introduced the Chief Guest and Mr. I. Joe Louis Paul, Organizing Secretary, ICWCSC 2010, Assistant Professor, Dept. of IT, SSN CE proposed vote of thanks.