

# GLOBAL Communications NEWSLETTER

November 2013

## *A One-Day Educational Lecture Program: IEEE ETCOMS 2013*

*By R. Nandi and P. Venkateswaran, Jadavpur University, Kolkata, India*

With the approval of IEEE RAB Committee, the IEEE ComSoc Kolkata Chapter (affiliated to the IEEE Kolkata Section) had been formed on Oct. 13, 2003 and the Chapter is fully active now. The Chapter in Collaboration with the Dept. of Electronics & Tele-Communication Engineering (ETCE), Jadavpur University (JU), Kolkata, West Bengal, India, had organized a One-day Educational Program IEEE ETCOMS 2013 (Emerging Topics on Communication Systems) at Dr. K. P. Basu Memorial Hall, JU Campus, Kolkata on February 02, 2013.

IEEE ComSoc Chair, Prof. R. Nandi welcomed the gathering. Prof. D. Guha spoke about the new initiatives being taken by the IEEE Kolkata Section to organize more educational programs to reach out both IEEE Members and Non-Members of Kolkata Section. Prof. Subir Kr. Sarkar, Head, Dept. of ETCE, JU stressed the importance of such Collaborative Programs as it brings both academia and industry under one Platform.

During Pre-Lunch Session, Mr. Ayan Paul, Sub-Divisional Engineer (SDE), BSNL, Kolkata spoke on “A Dynamic Agreement Framework for Trading of Wireless Networks.” He explained rapid change in demands of wireless services is compelling wireless service providers (WSP) to deploy most recent wireless technologies (such as 3G, LTE) in the market. Dr. Aniruddha Chandra, Assistant



*Inaugural session : (L-R) Prof. R. Nandi, Chair, IEEE ComSoc Kolkata; Prof. Subir Kr. Sarkar, Head, Dept. ETCE, JU; Prof. D. Guha, Chair, IEEE Kolkata Section.*



*Participation profile — number of participants: IEEE members: 28; non-IEEE members: 53; total = 81.*

Professor, Dept. of ECE, NIT Durgapur spoke on the topic “Green Wireless Communication.” He informed that wireless operators are geared up to reduce electrical energy consumption as it matters most for environmental protection and sustainable development.

During the Post-Lunch Session, Mr. Jayanta Nandy, RFID & Sensors Divisions, Tata Consultancy Services (TCS), Kolkata spoke on “Learning and Experience from Practical RFID Implementations.” He explained in details about some of the interesting field problems faced during the implementation of different customer projects. Mr. Satyajit Brahma, Specialist Support, Intelligent Networks, Ericsson India spoke on “Intelligent Networks – An overview.” His talk has provided some insights into the concepts, technology and architecture of Intelligent Networks (IN) and some IN Protocol like CAMEL and INAP.

A total of 81 Participants (IEEE Members – 28 + Non-Members – 51) from Academic Institutions, Industrial Houses in and around Kolkata city has participated in this Program. Prof. R. Nandi and Dr. P. Venkateswaran, of Dept. of ETCE, JU had been the Joint Coordinators of this One-day Program. The complete activities of IEEE ComSoc Kolkata Chapter can be found at: <http://ewh.ieee.org/r10/calcutta/comsoc>

# Summary of San Diego Chapter Activities in 2012 and 2013

By Zhensheng Zhang, San Diego ComSoc Chapter Chair, USA

In the last few years, San Diego Communications Chapter is one of the most active chapters in IEEE Comsoc North American region and in IEEE Region 6. There are more than 500 members within the chapter. The Chapter leadership team consists of: Chair, Zhensheng Zhang; Vice Chair, Hua Zhu; Secretary, Liangping Ma; Membership Development, Allen Heberling; Treasurer, Xun Luo. During year 2012, the chapter held 11 technical and social meetings and involved in many local activities such as membership development, distinguished lecture tours (DLT), Science Fair, Student Micro-mouse Competition and Student Paper Competition, senior grade promotion, and conference organization. Due to our team's hard working and leadership, our membership increased to 550 in 2012, with 169 new or former comsoc members (who were not members in year 2011). In the following, we briefly describe some of the activities in years 2012 and 2013.

In January 2012, Dr. Arun Somani, IEEE Fellow, gave us a distinguished lecture on Autonomous Aero-Visual and Sensor Based Inspection Network for Asset Monitoring. During the talk, Dr. Somani introduced a theoretical and experimental program to develop the inspection and fault detection technology needed to integrate Micro Air Vehicles (MAVs) for persistent intelligence, reconnaissance, maintenance and surveillance for obscured or logistically challenging assets in non-urban environments. Dr. Somani discussed issues in design and information management and processing in such sensor networks. The meeting was well attended, about 70. There were many interactions during and after the talk. Positive feedback was received from our local members. San Diego chapter initiated the DLT and a total of four local chapters within the Southern California region participated. It is worthy to mention that two high school students (Torrey Pine High School) attended the talk.

In March 2012, we jointly organized a student meeting at UCSD, talking about the UCSD IEEE CanSat Project by Alex Forencich, Jeff Wurzbach, Chris Warren, 5th year EEs and 4th year ME majors at UCSD at the time of event. They provided an overview of the CanSat competition ([www.cansat-competition.com](http://www.cansat-competition.com)), in which they participated again this year, a review of their performance in the 2011 competition and the lessons they learned from the 2011 competition were discussed. Many students were impressed with the work and excited about the IEEE local activities.

San Diego chapter members actively involved in the annual San Diego science fair, Southwest Area and California Micro-mouse Competition (visit CAMM website for more information: <http://ieee.ucsd.edu/micromouse/>) and Student Paper Competition, serving as judges and organizers.

In April 2012, we jointly organized a Distinguished speaker program (DSP) with Broadcast Technology Society, Professor Lap-Pui Chau from Singapore talked about "Multi-Program Video Coding for Digital Video Broadcasting." There were 45 people attended the meeting, a lot of interaction during and after the talk. Prof. Chau is a distinguished lecturer from IEEE BTS.

In December 2012, the chapter organized another DSP, the speaker is Professor Rene Cruz, UCSD, IEEE Fellow, he talked about "Applications and Algorithms for Global Ad-Hoc Networks." It is a new research filed, the attendees were impressed by the talk and many questions raised during and after the talk.

San Diego Chapter has sponsored many grade promotions; many chapter members (senior or fellow) provided recommendation letters to our local members to be promoted to



From left: Professor Kathleen Kramer, Dr. Irwin Jacobs, Dr. Zhensheng Zhang.

senior member. Overall, San Diego had 28 or more members promoted to senior grade in 2012.

Growing membership: Given the struggling economic in San Diego area, some of our local members were unemployed or in transition. This affected our membership development significantly. Our goal was to recruit new members and to convince many members to renew their membership. Our chapter officers worked hard to organize events to help our members to provide many networking opportunities for them to exchange ideas and information on recent technologies development, information on job openings, etc. As mentioned before, in year 2012, we held 10 technical meetings, and one IP protection meeting for our local members/engineers; this was a very active and rewarding year for us (even though finding the meeting place was a problem). As a result of the team's hard working, our membership increased to 550 in 2012 even during this difficult time, with 169 new or former comsoc members (who were not members in year 2011).

The San Diego chapter contributed significantly to the organization of the IEEE Globecom, held in Anaheim, December 2012. Zhensheng Zhang as the TPC chair, Xun Luo, as the tutorial co-chair, Liangping Ma, as Publicity co-chair, Dilip Krishnaswamy as Forum chair. Volunteers from San Diego chapter also helped at the conference. San Diego chapter co-sponsored the Globecom conference.

San Diego has many companies such as Qualcomm, Viasat, Nokia, Entropic Commutations, Samsung, LG, Motorola, Sony, Broadcom, Huawei, etc. Most of the attendees were from industries, and most of the speakers were also from industries. Most of the topics directly related to communication industry, regulation, standards and technical trends.

As of June 10, 2013, this year, we have already held 5 tech-

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# NETWORKS 2012 Conference in Rome, Italy

By Francesco Matera, Maurizio Mayer, Marco Listanti, Italy; Michal Pióro, Jacek Rak, Poland

Networks 2012 was the 15th event in the series of the Networks symposia. It followed the success of the former conferences organized since 1979 in Paris, FR, Brighton, UK (1983), Innsbrook, US (1986), Palma de Mallorca, ES (1989), Kobe, JP (1992), Sydney, AU (1996), Sorrento, IT (1998), Toronto, CA (2000), Munich, DE (2002), Vienna, AT (2004), New Delhi, IN (2006), Budapest, HU (1994 and 2008), and Warsaw, PL (2010). The conference was organized by Fondazione Ugo Bordoni, Rome, IT, Associazione per la Tecnologia dell'Informazione e delle Comunicazioni (AICT), and was technically co-sponsored by IEEE Italy Section.

Following the tradition of former editions, Networks 2012 provided a discussion forum for attendees from both academia and industry. In particular, it focused on technologies,

methods, strategies, normative and politics that are necessary to deliver the promise of the Network of the Future. Special interest was given to network design and planning issues, routing, traffic flows, convergence related to wireline and wireless infrastructures and to the platforms for video (SD, HD, 3D) services, scalability, end-to-end network performance, network management and service control, reliability, quality of service, security, or interoperability.

Since the conference occurred in a period of a deep world financial crisis, it was also very important to address the issues of gradual migration to Next Generation Networks in a way to provide co-existence and co-operation with current infrastructure, as well as to optimize resource dimensioning and pricing for the success in supporting all new services.

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Prof. Wojciech Burakowski from Warsaw University of Technology, PL - the Leader of Future Internet Engineering project.



Networks 2012 Opening Session (left to right: Francesco Matera - Fondazione Ugo Bordoni (FUB) - Networks 2012 General Chair, Giampaolo Manzella - Province of Rome Department of Innovation and Enterprise Director, Maurizio Mayer - AICT President, Alessandro Luciano - FUB President, Emilio Frezza - Rome Municipality Technological Development Director, Giorgio Maria Tosi Belefì - Ministry of Economic Development, Italy, Department of Communications, and Wojciech Ponikiewski - Polish Ambassador in Rome)

## IEEE Distinguished Lecture Tour of Zhisheng Niu to Malaysia and Thailand

By Zhisheng Niu, Tsinghua University, Beijing, China

During 27 April – 4 May, 2013, I conducted my second IEEE Distinguished Lecture Tour (DLT) to Malaysia and Thailand in my term. My first DLT was to United Kingdom (Edinburgh, Sheffield, and Surrey) from 19 Sep. to 26 Sep., 2012. During my term, I have also delivered two invited talks at Tohoku University (24 Aug., 2012) and NTT Labs (27 Aug., 2012), Japan, as a part of IEEE Distinguished Speaker Program.

During my stay in Malaysia, I was invited to deliver the following three lectures (one in an operator, one in a university, and one in a governmental agent):

Talk #1: How much energy can be traded off by how long delay in GREEN communications.

Time : 10.00AM – 12.30PM, 29th April 2013 (Monday)

Venue : Seminar Room, TM R&D, TM Innovation Center, Cyberjaya, Selangor, Malaysia

Talk #2: Rethinking about the Cellular Networks: A Novel Hyper-Cellular Architecture for Green and Smart ICT

Time : 10.00AM – 12.30PM, 30th April 2013 (Tuesday)

Venue : Main Meeting Room (Bilik Mesyuarat Utama), Fakulti Kejuruteraan & Alam Bina (FKAB), Universiti Kebangsaan Malaysia, Bandar Baru Bangi, Selangor, Malaysia

Talk #3: Rethinking about the Cellular Networks: A Novel Hyper-Cellular Architecture for Green and Smart ICT

Time : 3.00PM – 5.00PM, 30th April 2013 (Tuesday)

Venue: Seminar Room 1, MIMOS Berhad, Malaysia



Dr. Niu's IEEE Distinguished Lecture at Universiti Kebangsaan Malaysia (UKM), Malaysia, 30 April, 2013.

The lectures were very well received under the kind arrangement by Dr. Nordin Ramli, IEEE ComSoc/VTS Malaysia Joint Chapter Chair. Specifically, more than 35 faculties and students attended the lecture at UKM (see Picture 1) and I got nearly 10 questions from the audience. Thanks for this tour, I was also invited to visit Malaysia again in November to deliver a keynote speech at 2013 Malaysia International Conference on Communications (MICC'13).

During my stay in Thailand, under the kind arrangement by Dr. Kamol Kaemarungsi (IEEE ComSoc Thailand Chapter Chair), I delivered two lectures at a local university and a governmental agent:

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*Dr. Niu's IEEE Distinguished Lecture at National Electronics and Computer Technology Center (NECTEC), Thailand Science Park, Thailand, 3 May, 2013.*

Talk #4: 5G: A Paradigm Shift of Cellular Networks

Time : 16:00 – 17:30, 2nd May, 2013 (Thursday)

Venue : Lecture Room, Electrical Engineering Department, Chulalongkorn University, Bangkok, Thailand

Talk #5: How much energy can be traded off by how long delay in GREEN communications?

Time : 9:00 – 12:00, 3rd May, 2013 (Friday)

Venue: Room M120, 1st floor MTEC Building, Thailand Science Park, Pathumthani, Thailand

Both the two lectures were well received with nearly 60 audiences in total. The lecture at Thailand Science Park also attracted many audiences from outside of Bangkok and some of them even took a flight to this lecture (see Picture 2). After the lecture, I visited the office of the Embedded System Technology Laboratory and also the Optical Quantum Cryptography (OQC) Laboratory of the National Electronics and Computer Technology Center (NECTEC).

57 papers accepted to Networks 2012 after a careful review process were organized into 17 technical sessions. The conference additionally offered a number of invited papers, plenary talks, and three tutorials: “Valuing flexibility in telecom infrastructure projects using real options thinking” by Sofie Verbrugge and Mathieu Tahon from Ghent University-iMinds, BE, “Flow and capacity design in content-oriented networks” by Krzysztof Walkowiak from Wroclaw University of Technology, PL, and “Ethernet metro networks: understanding the present to envision the future” by Guido Maier (Politecnico di Milano, IT) and Alessandro Valenti (Fondazione Ugo Bordoni, IT), accordingly.

Networks 2012 was also a forum for presenting recent results by leading teams participating in ongoing international projects. In particular, there was a special session entitled “Future Internet IIP Initiative” outlining the results of one of the major Future Internet European projects called Future Internet Engineering (<https://www.iip.net.pl/>) lead by Prof. Wojciech Burakowski from Warsaw University of Technology, PL. During this highly attended session presenting the novel results of the project (that recently received The Arch of Europe 2012 Gold Category Award in Frankfurt), special focus was put on network virtualization, Quality of Service, resource provisioning, Internet parallelization, and Content Aware Networking.

Best Paper Award was given to Anna Buttaboni, Marilet De Andrade and Massimo Tornatore for their paper entitled “Dynamic bandwidth allocation with void filling and multi-thread for long reach WDM/TDM PONs.” A special issue of Telecommunication Systems Journal (Springer) for extended versions of selected high-quality conference papers is under preparation.

Next edition of Networks conference will be organized by Prof. Antonio Teixeira from University of Aveiro, Portugal, in Madeira island in September/October, 2014. More information can be found at <http://networks2014.av.it.pt/>.

**SAN DIEGO CHAPTER**/continued from page 2

nical meetings, including the distinguished lecture tour (DLT) given by Dr. Anthony Chan, IEEE Fellow, from Haiwei. San Diego chapter initiated the DLT with 4 other Comsoc Chapters in Southern California. During the talk, Dr. Chan discussed the existing mobility management standards in IETF, the issues of mobility management for the future mobile Internet, the trend of the mobile Internet and the proposed distributed mobility at IETF. The talk was well attended and there were a lot of interaction during and after the talk. We also recorded the lecture so that we can share with those people who were not able to attend. We are currently exploring virtual meetings through webinars.

In June 6, 2013, the San Diego chapter attended the ceremony of Dr. Irwin Jacobs receiving the 2013 IEEE Model of Honor award at Qualcomm Headquarters in San Diego (see photo on Newsletter page 2).

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[www.comsoc.org/gcn](http://www.comsoc.org/gcn)

**STEFANO BREGNI**  
Editor

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