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Strengthening the Bridge of ComSoc with Industry
Interview with Ashutosh Dutta, Director of Marketing and Industry Relations

By Stefano Bregni, Vice-President for Member Relations, and Ashutosh Dutta, MIR Director

This is the seventh article in the series started in September and published monthly in the *Global Communications Newsletter*, which covers all areas of IEEE ComSoc Member Relations. In this series of articles I introduce the seven Member Relations Directors (namely: Sister and Related Societies; Membership Programs Development; AP, NA, LA, EAME Regions; Marketing and Industry Relations) and the Chairs of the Women in Communications Engineering (WICE) and IEEE Young Professionals (YP, formerly Graduates Of the Last Decade, GOLD) Committees. In each article, one by one they present their activities and plans.

In this issue I interview Ashutosh Dutta, Director of Marketing and Industry Relations.

Ashutosh is a senior member of IEEE and ACM, and served in the past as the chair for IEEE Princeton/Central Jersey Section, Industry Relations Chair for Region 1 and MGA, Pre-University Coordinator for IEEE MGA, and the chair for the Ad Hoc Committee for Public Visibility for ComSoc. Ashutosh co-founded the IEEE STEM conference (ISEC) in 2011, and helped establish STEM clubs and implement EPICS (Engineering Projects in Community Service) in the high schools within the Princeton/Central Jersey Section. In his 25-year career Ashutosh has been Lead Member of Technical Staff at AT&T's Chief Security Office; CTO of Wireless at a Cybersecurity company NIKSUN; Senior Scientist in Telcordia Applied Research; Director of the Central Research Facility at Columbia University; and Computer Engineer with TATA Motors. Ashutosh is co-author of the book *Mobility Protocols and Handover Optimization*, published by Wiley and IEEE. Ashutosh obtained his BS in EE from NIT Rourkela, India, his MS in computer science from NJIT, and he earned his M. Phil. and Ph.D. in electrical engineering from Columbia University, New York, under the supervision of Prof. Henning Schulzrinne.

I am glad to interview Ashutosh and to present the organization and activities of the Marketing and Industry Relations Board (MIRB).

Stefano: Hello Ashutosh. In your opinion, what are the main issues relating to how ComSoc addresses industry needs and areas of interest?

Ashutosh: Industry is one of the important vertices of the ComSoc Member Relations Golden Pentagon. However, as a matter of fact, lack of interest and active participation from Indus-

try has contributed to the sharp decline in industry's share of IEEE Communication Society membership.

IEEE has the following charter for industry engagement:
- Promote and inform the concept of IEEE as a progressive technical information provider to industry and its employees.
- Promote and inform the relevance of support of IEEE in developing/changing technologies.
- Work with industry to establish an understanding of their needs, and to demonstrate how IEEE can help address their needs.
- Encourage the establishment of leadership training within the regions and sections.

However, it is very important to evaluate if IEEE is delivering on Industry's requirements.

Stefano: Might you be more specific?

Ashutosh: A SWOT analysis of IEEE on industry relevance brings forth some of the weaknesses and areas of opportunities that IEEE ComSoc needs to keep in mind while engaging with the Industry. Some points associated with the weaknesses include insufficient industry-relevant publications; lack of industrial content for conferences; and too much academic dominance.

Some threats include: industry people are too busy; industry requires immediate short-term returns; and industry people have little time for conferences. Some strengths include: IEEE's global outreach; its accessibility and affordability to engineers, including the digital library; opportunities to cooperate with standards bodies; a forum and global initiator of discussion and debate on relevant issues; and a professional community to excite, motivate, and energize action.

Some opportunities that could be explored include creation of professional and vocational qualification and recognition; creating opportunities for individuals and companies to gain international recognition; provide and facilitate industry experience for students; IEEE sponsored industry lectures; creating IEEE mentoring for professional development; reaching out to industry leaders in explaining the values of IEEE; creating global job opportunities; recruiting for IEEE actively at industry sites; and demonstrating that IEEE is special and desirable to join.

Stefano: What is ComSoc doing to address such challenges, in particular, the Marketing and Industry Relations Board?

Ashutosh: Within the past few years, both IEEE and the Communication Society have experimented with various ways to re-engage with industry. To re-engage the Communication Society with industry sectors, we have come up with a strategic framework based on the principles that embrace industry's interests and objectives while integrating IEEE and ComSoc's objectives.

With the above strategic framework in place, we have now taken steps to mobilize the team and implement the steps from the framework. We have developed an Industry-relations volunteer support portal (www.ieee-industry.org) where some of the

Stefano Bregni   Ashutosh Dutta

Distinguished Lecturer Tour of Rath Vannithamby in Indonesia

By Satriyo Dharmanto, Indonesia Chapter Chair, and Lingga Wardhana CEO of PT Floatway Systems, Indonesia

Indonesia has an estimated population of over 253 million people. Currently there are more than 850 colleges majoring in Information and Communication Technology (ICT), with approximately 500,000 active students and 40,000 engineering graduates per year. This has made IEEE well established in Indonesia for 26 years. This country is also actively participating in international organizations such as ASEAN, OIC, and APEC, and is an active member of ITU. As the largest economy in Southeast Asia, Indonesia also belongs to other economic groups such as the G-20 major economies (G-20) and Developing 8 Countries (D-8), as well as the G-11, G-15, and G-77 groups.

Indonesia is the world's fourth most populous country, with the world's fourth highest percentage of mobile subscribers and the world's third highest growth rate of Internet users with CAGR 58% (source: Internet World Stats). It also has the world's fourth highest number of Facebook users and the world's fifth highest number of twitter users.

The above conditions create unique and heavy demands on the development of an integrated national ICT. Indonesia Digital Network (IDN) 2020 is the main target of the government to develop an ICT network in Indonesia, with three main programs: id-Access, id-Ring, and id-Con.

id-Access has the main programs to achieve 200 Mobile Broadband City, ubiquitous access for 50 big cities and broadband satellite access. id-Ring has the main programs to achieve the Indonesia intelligent transport network, Indonesia's digital hub, and 100% broadband transport to all municipalities. Furthermore, id-Con has the main programs to achieve nationwide ecosystem-based apps, nationwide cloud computing for government, businesses, and individuals, nationwide cyber security systems, and the target to develop a data center facility with total 100,000m2 in 2015 and 500,000m2 by 2020.

The IEEE Indonesia section currently has about 900 active members, with activities in the five different chapters and four different joint chapters, seven IEEE student branches, and two affinity groups, Women in Engineering and SIGHT in Telemedicine.

The Distinguished Lecturer Tour (DLT) Program has been a favorite program hosted yearly by the IEEE ComSoc Indonesia section. The lecture in 2014 was on "5G Evolution and Candidate Technologies & M2M Communications for Internet of Things (IoT)", by Dr. Rath Vannithamby.

Dr. Rath Vannithamby made a great presentation in front of the participants of two different universities, Mercu Buana University, Jakarta, and Telkom University, Bandung. He was also a keynote speaker at the IEEE Asia Pacific Conference on Wireless and Mobile (APWIMOB 2014), held at the Grand Inna Hotel, Kuta Bali.

The lecture at Mercu Buana University was held on Tuesday, 26 August, 2014, and was introduced by Dr. Mudrik Alaydrus, the Dean of the Master Program of Telecommunication Management. The lecture was attended by a total of 34 participants, 15 participants from academia and 19 from industry. Five of the attendees were IEEE members, and 29 were non-members. Most of the attendees were master students from industries that have business activities in the telecommunication area.

Lecture of Dr. Rath Vannithamby in Mercu Buana University, Jakarta.

Prior to Dr. Rath Vannithamby's DLT session, Mr. Lingga Wardhana, CEO of PT Floatway Systems, who was the coordinator of this DLT program, spoke about 4G readiness in Indonesia and promoted their collaborative book writting program in telecommunication technology and business.

At Telkom University, the lecture was held on Wednesday, 27 August, 2014, and was attended by a total of 78 participants, all of whom were from academia. Five of the attendees were IEEE members, and 73 were non-members. Most of the participants were students and lecturers at Telkom University; three people were from Sumatera Utara University, and two were from Lampung University. Most of the non-members expressed interest in joining IEEE. The seminar was introduced by Dr. Rina Pudji Astuti, the Dean of the School of Electrical Engineering, and was also attended by the Vice Dean II, Dr. Basuki Rahmat.

In Bali, on 28 August 2014, Dr. Vannithamby delivered a keynote speech in front of the IEEE APWIMOB 2014 conference, on the topic of 5G Evolution and Candidate Technologies and M2M Communications for IoT. Prior to Dr. Vannithamby's talk, Mr. Rizkan Chandra, CTO of Telkom Indonesia, spoke about Mobile & Wireless System Technology, Business & Industry Highlights in Digital Business Era, moderated by Mr. Satriyo Dharmanto, IEEE COMSOC Indonesia Chapter chair.

The IEEE APWIMOB 2014 conference was attended by 72 people from many countries, of whom 59 were from academia and 13 were from global companies such as Telkom Indonesia, AT&T, Huawei, Samsung, and Intel. The attendees included 31 IEEE members and 41 non-members. The conference was also attended by Mr. Arief Hamdani Gunawan, advisory board and past IEEE Indonesia chapter chair, Mr. Muhammad Ary Murti, and and IEEE Indonesia chapter executive officers.

On the second day in Bali, Dr. Vannithamby discussed 5G Evolution and Candidate Technologies. Of the 18 attendees, 15 were from academia and three were from industry; eight were IEEE members and 10 were non-members.

During the four-day DLT and keynote session, Dr. Vannithamby provided insight on the key development of telecommunications and described the key technologies for the realization of future 5G of telecommunication technology. This lecture was very helpful for researchers, professionals, and students who attended this seminar. Most of the participants said the topic improved their knowledge of telecommunication evolution. The other topic, M2M Communications for IoT, covered challenges, existing M2M technologies, and 5G research directions on M2M/IoT. The Intel collaborative university research program also became a topic of interest for almost all of the participants, so they are excitedly waiting for the next DLT program.

International Conference on Localization and GNSS (ICL-GNSS 2014), Helsinki, June 2014

By J. Nurmi, General Co-Chair, Finland

The fourth edition of the International Conference on Localization and GNSS was organized in Helsinki, Finland on June 24-26, 2014, jointly by Tampere University of Technology (TUT) and the Finnish Geodetic Institute (FGI). The conference was chaired by Prof. Jari Nurmi from TUT and Dr. Laura Ruotsalainen from FGI, and the program committee co-chairs were Prof. Elena-Simona Lohan from TUT and Jose Salcedo from Universidad Autonoma de Barcelona, Spain. The conference was technically co-sponsored by IEEE ComSoc, and financially supported by the Federation of Finnish Learned Societies, local positioning industries, and the City of Helsinki. The event brought together 45 positioning professionals for nearly three days to the conference center Wanha Satama (old harbor), which is a brick-built former harbor warehouse with arched windows.

There were four high-caliber keynote speakers. Dr. Lauri Wirola from HERE, Finland talked about mobile positioning and privacy from the service provider point of view; Dr. Marco Lisi from ESA, The Netherlands, shed light on the GALILEO program status and applications of its services; Dr. Valerie Renaudin from IFSTTAR, France, concentrated on pedestrian navigation solutions; and Dr. Vidal Ashkenazi, Nottingham Scientific, UK, looked at the present challenges, potential solutions and future opportunities of Global Navigation Satellite Systems (GNSS).

The session topics were Applications and Services, WLAN and Cellular-based Positioning, GNSS Receivers, Advanced GNSS Processing, Signals of Opportunity, and MULTI-POS Special Session. There were two awards given at the event. The best paper award was given to Enik Shytermeja, ENAC, France who was one of the speakers in the MULTI-POS (Multi-technology Positioning Professionals Marie Curie Innovative Training Network project) special session. The best presentation award went to Nyein Aye Maung Maung, Ritsumeikan University, Japan. There were a total 24 presentations, with an acceptance ratio of exactly 50%.

The social events were also of high quality. On the first

Walhalla calling…

The best presentation in progress, given by Nyein Aye Maung Maung.

evening there was a visit and reception at the Finnish Geodesy Institute, with the house band playing. The banquet took place on the second evening, at the restaurant Walhalla on the old fortress island of Suomenlinna (to which there was the compulsory boat trip as well). The conference was concluded with a sightseeing tour of Helsinki City and barbeque dinner on the courtyard of the brewery restaurant Bryggeri.

In 2015 ICL-GNSS will be organized in Gothenburg, Sweden. For more information, see www.icl-gnss.org

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The R. Macedonia ComSoc Chapter wins the 2014 Chapter Achievement Award for the EMEA Region

By Zoran Hadzi-Velkov, Chair, R. Macedonia ComSoc Chapter

The Republic of Macedonia ComSoc Chapter (ComSoc Macedonia) was founded in 1997. Since its founding, many highly motivated and competent volunteers have served the Chapter with great dedication to the benefit of its members. In recent years, ComSoc Macedonia has been particularly successful in providing high-level programs and activities to its members, which resulted in the Chapter being honored by the IEEE Communications Society with the 2014 Chapter Achievement Award (CAA) for Region 8 (Europe, Middle-East and Africa).

According to the CAA citation, the Chapter was awarded for "achieving excellence in Chapter activities and for contributions made in furthering the objectives of the Society". Specifically, the Chapter has seen a rapid rise in its membership (e.g. 59 members in 2013, up from 34 members in 2012), which is one of the most important recent achievements of the Chapter. Some of the Chapter activities that have led to the award are the following.

1) The Chapter has registered and set up its own web page in the comsoc.org domain (http://chapters.comsoc.org/macedonia). The web page has been continuously updated with information about chapter activities in both Macedonian and English languages. The English version has made our Chapter activities visible at the international level, whereas the Macedonian version provides better outreach in the local environment. The Chapter also maintains a Facebook profile. Both the web page and Facebook profile have facilitated the interaction among the Chapter members and have increased their participation in Chapter activities. Information (in Macedonian) that promotes membership in the IEEE and IEEE Communications Society (discounts and benefits, especially for students) is also constantly updated, and is an important contributing factor to the growth in membership.

2) In 2012, the Chapter established the student achievement award, which is given annually to a Bachelor or Master student in telecommunications engineering in Macedonia who has achieved notable research results. The selected student should have had his/her research results published in a scientific article during the previous year, or alternatively should have won an award at an international student competition in telecommunications. Preference is given to students who have published articles as first co-authors in IEEE journals or IEEE conference proceedings. The award consists of an honorarium. The Bachelor student Elena

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Boshkovska is the 2013 award recipient for winning third place at the regional student competition "Elektrijada" in the telecommunications field (photo below).

The 2013 student achievement award ceremony on 14 June 2013 at the Institute of Telecommunications, Ss. Cyril and Methodius University in Skopje (from left: Zoran Hadzi-Velkov, the Chapter Chair, Elena Boshkovska, the Award recipient, and Liljana Gavrilovska, the former Chapter Chair).

3) The Chapter co-sponsored the most important (bi-annual) scientific conference in electrical engineering in the Republic of Macedonia, the 11th International conference ETAI 2013, which was held 26–28 September 2013 in Ohrid, Macedonia. This conference is widely advertised among the research community and ICT industry professionals in Macedonia and Southeastern Europe. The conference had a separate telecommunications track, in which about 30 papers in the telecommunications field were presented. As a conference co-sponsor, the logo of the R. Macedonia ComSoc Chapter was clearly visible on the conference web page.

4) In March 2014 ComSoc Macedonia hosted the Distinguished Lecturer of the IEEE Communications Society, Prof. Norman Beaulieu from Canada, in the framework of his Distinguished Lecturer Tour (DLT) in Southern Europe. During Prof. Beaulieu's three-day visit to Skopje, the Chapter organized a workshop entitled "How to Write an IEEE Paper", during which the Chapter members acquired crucial information about the art of writing high-quality research papers from the former Editor-in-Chief of *IEEE Transactions on Communications*.

5) In April 2014 the Chapter hosted the Distinguished Speaker of the IEEE Communications Society, Prof. Vijay Bhargava from the University of British Columbia, Canada, who gave a lecture on green communications. Since energy efficiency has already become one of the key concerns of modern societies, Prof. Bhargava's lecture sparked many questions by the numerous attendees from academia and the ICT industry in Macedonia.

In conclusion, winning the CAA award is a critical milestone for ComSoc Macedonia, upon which the Chapter will build its future activities. The award is motivation for our Chapter's volunteers to work effortlessly for the promotion of telecommunications and communications technologies in our local environment and beyond, as well as furthering the objectives of the IEEE Communications Society as a whole.

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manuals, industry focused messaging, and promotional fliers/brochures can be found.

Stefano: Would you highlight any specific initiative that can be realized in the short term?

Ashutosh: While the Industry Relations and Marketing Board is working on some long term strategic initiatives to engage industry, a working committee has been set up, which defined some focused key short-term deliverables that include the following items.

• Planned Webinars around Industry Day Tools with Chapter Chairs and Section Chairs.

• The India Council Communication Society and Bangalore Section have started taking many initiatives to engage with the industry. They have organized a series of industry related activities in the area of Software Define Networking, Big Data, and Smart Devices. They organized TechTalks at academic institutions by industry experts. There are also efforts underway to include industry professionals as part of the section executive committee. The India council is also increasingly focusing on ComSoc sponsored conferences across India. In order to further strengthen the industry relationship, Bruce Worthman recently visited India, and with the help from Munir Mohammed made contacts with many key industry leaders at Hyderabad and Mumbai in addition to attending the Intelect conference in Mumbai.

• In order to engage industry members with high value technology, the IEEE Communication Society plans to a have high impact one day summit in emerging technology areas (e.g. SDN/NFV, 5G, IoT, and Cybersecurity). Currently, a high impact 5G Summit is being planned at Princeton University on May 26, 2015.

• The IEEE Communication Society plans to hold "Future Skillset Workshops" at a number of universities. This is an opportunity for collaboration among industry, the academic community, and IEEE.

• Industry initiative with the startup community. According to the 2014 member survey results compiled by ComSoc's Director of Marketing, John Pape, 30.8 percent of ComSoc members are/have been engaged in a start-up, and 30.5 percent plan to hire within the next 12 months. Hence, it is very important that the IEEE Communication Society reach out to the start-up community. There are a few proposals that are being considered such as to name a start-up of the month, and publishing industry news on the startup.

• The industry relation committee plans to liaise with ICEC (Industry Content and Exhibition Committee) and collect feedback for implementing industry content appropriately into some of the conferences.

• The IEEE Communication Society is also exporing potential ways to increase membership, for example by instituting a Member-Get-a-Member (MGM) Program.

• ComSoc has introduced new courses in emerging areas such as 5G, Big Data, and Mobility.

• MIRB plans to hold virtual job fairs at many IEEE sponsored conferences. MIRB also plans to sign an MOU with an interested Industry partner to create an award sponsored by a specific industry.