North America Region
Interview with Merrily W. Hartmann, Director of the North America Region
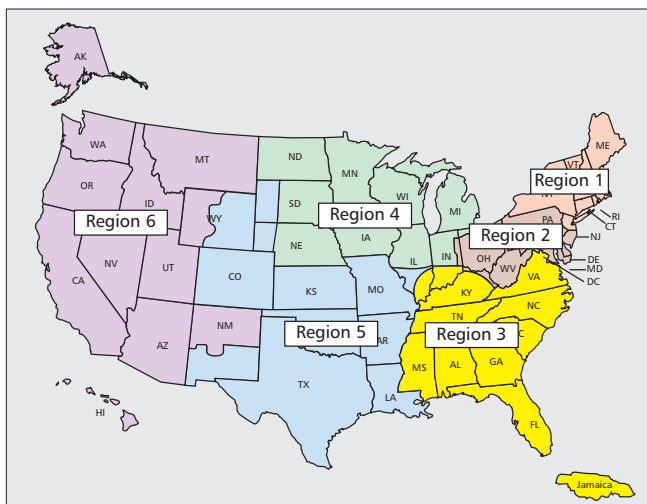
By Stefano Bregni, Vice-President for Member Relations,
and Merrily W. Hartmann, Director of the North America Region

This is the fourth article in the series of eight, opened 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 (name-ly: Sister and Related Societies; Membership Programs Development; AP, NA, LA, EAME Regions; Marketing and Industry Relations) and the Chair of the Women in Communications Engineering (WICE) Standing Committee. In each article, one by one they present their activities and plans.

In this issue, I interview Merrily W. Hartmann, Director of the North America Region.

Merrily received her B.S. degree in Mathematics and Comput-er Sciences from the University of Illinois, Chicago. She retired

IEEE	ComSoc
Regions 1-6 (United States)	North America Region
Region 7 (Canada)	
Region 8 (Europe-Middle East-Africa)	EMEA Region
Region 9 (Latin America)	LA Region
Region 10 (Asia Pacific)	AP Region

from SBC Communications, Inc. (formerly Southwestern Bell and now AT&T) being Executive Director of Global Markets Sales Sup-port, managing all sales operations for SBC's 200 largest cus-tomers, in 2000 after 25 years of service. Prior to joining Southwestern Bell, she started her career with Bell Telephone Laboratories (Naperville, IL).

Merrily has been a member of IEEE for 31 years. Currently, she is serving on the ComSoc Board of Governors as a Member-at-Large and as the North America Region Director. Previously, she served as Director of Conference Operations (2008-2011, 2013) and Member-at-Large of the GIMS Committee (2006-2007), which is responsible for providing strategic guidance and management oversight of the Society's flagship conferences, ICC and GLOBECOM.

It is my pleasure to interview her and to have this opportunity to focus on the North America Region, to present how it is organized and how it operates.

Begni: *Hello Merrily. Let us begin by pre-senting how the North America Region is organized geographically.*

Hartmann: The IEEE Member and Geo-graphic Activities (MGA) organization is divid-ed into 10 regions. In turn, ComSoc manages its member activities via four regions, which are composed of the IEEE regions as shown in the accompanying table.

Bregni: Might you give us some membership statistics for Regions 1-7?

Hartmann: At the end of 2013, IEEE had 431,191 members. Out of them, 221,410 (51%) were in Regions 1-7, that is Com-Soc's NA Region. Among them, 20,525 were ComSoc members. In the ComSoc NA Region, there are 92 Chapters, ranging in size from 2,000 to 5,000 members. Each of the seven IEEE Regions includes from 8 to 16 ComSoc Chapters.

Bregni: So, what is the mission of all of those ComSoc Chap-ters? For what purpose have they been created?

Hartmann: IEEE MGA defines a Chapter as a "technical sub-unit of one or more Sections." Specifically, ComSoc Chapters pro-vide a local connection for our society members to interact and engage regarding ComSoc's field of interest. It is ComSoc's chal-lenge to create and conduct activities that will enable these inter-actions/engagements.

Bregni: That is, in practice? Could you provide some actual exam-ples of activities organized by ComSoc Chapters in North America?

Hartmann: Chapter activities include the following: Distin-guished Lecturer talks, social events, member status elevation sessions, workshops, seminars, special events, etc. Coming up with interesting and relevant programming throughout the year requires a lot of creativity, planning, and coordination by our Chapter Chairs and their committees. To provide some specific examples, I'd like to highlight the special events held by our New Jersey Coast ComSoc Chapter in 2013, which contributed to their receiving the 2014 ComSoc Chapter Achievement Award for the NA region.

•The chapter proposed honoring ComSoc's 60th anniversary

1st FUSECO (FUture SEamless COmmunications) Forum Asia (FFAsia 2014)

By Thomas Magedanz, Florian Schreiner, and Anne Halbich, Fraunhofer FOKUS, Germany; I. Narayana and Fajar Nugroho, TELKOM Indonesia; Thomas Michael Bohnert, Zurich University of Applied Sciences, Switzerland

Impressions of the FUSECO Forum 2014.

The 1st FUSECO (FUture SEamless COmmunications) Forum Asia (FFAsia 2014), organized jointly by PT TELKOM Indonesia, and Fraunhofer FOKUS, was held in Bali, Indonesia from June 9-10, 2014. With around 300 attendees from 14 countries, this event proved to be a real premier international forum in Asia, discussing different technical and business aspects of emerging ecosystems within Smart Cities and beyond.

Under the technical lead of Prof. Dr. Thomas Magedanz, an senior IEEE member for more than 20 years, and Ir. Joddy Hernady, MSEE, Group Head of Innovation and Design Center, Telkom Group Indonesia, this two day event featured four keynotes, six technical sessions, one vendor session, and a final panel discussion on the challenges and opportunities in the establishment of Smart Cities infrastructures. In addition, vendor exhibitions from Huawei, Fiberhome, ZTE, and CISCO, including Fraunhofer, were presented. Attendees had many opportunities to learn about the state of the art in Smart City enabling technologies and international best practices.

FFAsia Day One

After the opening by Prof. Dr. Thomas Magedanz on behalf of Fraunhofer FOKUS and Ir. Joddy Hernady, Telkom Group Indonesia, and Ir. Indra Utoyo, MSc, Chief of Innovation and Strategy Officer, Telkom Group Indonesia on behalf of Arief Yahya, the CEO of PT TELKOM Indonesia, two keynotes were held.

Prof. Dr. Radu Popescu-Zeletin presented in his keynote "Information & Communication Technology Convergence Enabling Smart Cities," the technological pillars of Smart Cities ICT platforms and stressed the important role of (big) data and the various required business processes. In the second keynote, "Enabling a Converged World Through Ecosystem Solution," Indra Utoyo presented the Indonesian Digital Network initiative from PT Telkom. In addition, he also discussed TELKOM's ecosystem framework featuring a business incubator and an experience center (Digital Lounge and Loop Station).

The first session entitled "Digital Lifestyle and Smart City Applications as Drivers for Mobile Broadband Network Evolution," chaired by Prof. Alfonso Ehijo from the Univ. de Chile, featured four talks from Asia that set the floor for the following Smart City considerations, namely addressing major digital lifestyle changes due to powerful new multimedia devices and describing potential Smart City application domains.

The second session on "Smart City Network – Evolution Path from LTE towards 5G and SDN," chaired by Prof. Rui Aguiar from the Universidade de Aveiro, Instituto de Telecomunicacoes, Portugal and Prof. Magedanz featured three talks on the requirements for emerging 5G and mobile broadband networks gathered by the NGMN Alliance, and the role of emerging SDN technologies for the flexible implementation of different virtual services in Japan, including virtualized IMS services, disaster tolerant services, and SDN-based Smart City services in Korea.

The third session, "Internet of Things/M2M as Backbone for Smart Cities," was chaired by Dr. Adel Al-Hezmi, from Fraunhofer FOKUS, Germany, and Prof. Noel Crespi, from Telcom Sued Paris, France. Based on an overview of SIM and NO SIM based IoT/M2M markets, an overview of the OneM2M Alliance standards was given. After that Telkomsel and Entel presented, from an operator perspective, interesting aspects on APIs provisioning for developers as well as data analytics, respectively.

At a Balinese beach party and buffet the delegates had the oppotunity to relax and enjoy local dances, music, and food, while discussing questions and making new friends.

FFAsia Day Two

The second day started with two keynotes. Dr. Roberto Minerva from Telecom Italia talked about "Mastering the Innovation Challenges of the Future Network Operators in an Emerging IoT World," and stressed the major challenge of network operators in becoming successful Internet actors. He highlighted the potential of IoT for future telco business, ending with a new IEEE IoT initiative. Ir. Rizkan Chandra, M.Sc highlighted the challenges of the transition from a telecommunications company, like TELKOM Indonesia, into a digital company. He mentioned that it requires a transformation on People, Processes and Technology. In the case of TELKOM, changing the mindset and finding new business models were the biggest challenges.

Session 4, "Future Internet Technologies and Enablers as Foundation for Smart Cities," chaired by Serge Fdida from the UPMC Sorbonne University, France, featured two talks giving the European perspective of Smart City platform and application facilitation by means of a future Internet software toolbox (FIWARE), plus the related Software Development Kit (FILAB) and a corresponding validation use case for the eHealth domain given by the European FISTAR project.

Session 5 and Session 6 looked at "Smart Cities: Best Practices and Current Roleout Plans." Session 5 was chaired by Dr. Niklas Blum from Fraunhofer FOKUS, Germany and Prof. Akihiro Nakao from Tokyo University, Japan.

The first talk provided an initial market overview of Asian Smart City initiatives, stressing the importance of a "thinking platform" rather than a loose collection of individual applications. The second talk featured the "Ganesha Maturity Model," the approach adopted by ITB for the Indonesian Market. The last talk illustrated the steps adopted in South Africa in the context of Smart Energy.

Session 6 was chaired by Prof. Alfonso Ehijo from the Universidad de Chile and Assist. Prof. Dr. Supavadee Aramvith from Chulalongkorn University, Thailand. The first talk showed the initial steps toward Smart City Emergency services implementation taken in Thailand; the second talk showed the Smart Objects approach from France; the third talk showed some advances in surveillance and emergency infrastructures in Japan as well as the need for application driven SDNs. Finally, Orange highlighted the experiences gained in Smart City M2M services.

A dedicated Best Practices Vendor Session brought Huawei, Fiberhome, and ZTE to the stage, presenting their current engagements in cloud-based IMS deployments, Smart City portals and solutions in China.

The final panel, uniting all the main speakers, discussed interactively with the audience the challenges and opportunities in the establishment of Smart Cities ecosystems and infrastructures. It has become clear that the business cases for Smart Cities are

Highlights from the 19th European Conference on Networks and Optical Communications (NOC 2014)

By Guido Maier, NOC2014 TP CoChair, Politecnico di Milano, Italy

IEEE ComSoc has technically co-sponsored the 19th European Conference on Network and Optical Communications, held in Milano, Italy, on June 4-6, 2014 (http://www.noc-conference.com).

The European Conference on Network and Optical Communications (NOC) was originally started in 1986 and has been run on a yearly basis in Europe. Up to last year's edition, it used to combine the Conference on Optical Cabling and Infrastructure (OC&I) within a single even, but starting in 2014 it will focus solely on NOC.

The goal of the conference is to present high-quality results in the field, and to provide a framework for research collaboration through focused discussions that will designate future research efforts and directions, as well as a forum for the promotion of new opportunities from industry, institutes of technology, research centers, and academia. Despite being naturally more oriented to the European research community on optical networks (both academic and industrial), NOC has so far attracted many attendees and presenters from non-European countries, especially the USA, China, and India, as well as South-America. NOC is a well consolidated European conference with international stature and broad coverage of topics related to optical networking and communications. Most recent editions have been in Spain (Polytechnic University of Catalunya in 2012) and Austria (Technical University of Graz in 2013).

The 19th European Conference on Network and Optical Communications (NOC 2014) was held in Milan, from June 4 to 6, 2014. The host university was Politecnico di Milano, one of the most prestigious technical education institutions in the country, celebrating its 150th anniversary in 2013. Politecnico offered its main campus "Leonardo" (Milano Città Studi) as the venue for the conference. The General chair, Prof. Achille Pattavina, and most of the organizing committee were from the Dipartimento di Elettronica, Informazione e Bioingegneria (DEIB) of Politecnico di Milano.

Through its technical program, the conference has provided an opportunity for the academic and industrial communities to meet and address new research challenges, share solutions, and discuss issues on optical networking and photonic equipment technology. NOC has addressed research topics in the optical networks area, such as core, metro, and access network planning design and modeling, optical communications (both fiber and

Workshop "Optical Access Network Virtualization: from Unbundling to Open Access", co-organized by NOC 2014 and the Italian national research project ROAD-NGN, room "Rogers", June 3rd, 2014. The invited speakers at the final panel discussion: (from left to right) Bart Lannoo, iMinds, Belgium; Marco Forzati, Acreo, Sweden; Clelia Lorenza Ghibaudo, Telecom Italia, Italy; Thomas Pfeiffer, Alcatel-Lucent Deutschland AG, Germany; Gabriella Cincotti, Università degli Studi Roma TRE, Italy; Domenico Siracusa, Create-NET, Italy; Luca Valcarenghi, Scuola Superiore Sant'Anna, Italy.

NOC 2014 attendees during the visit to models based on da Vinci's engineering sketches at the National Science and Technology Museum Leonardo da Vinci in Milan, June 5th, 2014.

free-space), and photonic devices. New topics such as optical mobile backhauling, optical interconnects, intra-datacenter networking, and software-defined optical networks have also been discussed.

NOC 2014 has been a single track event. The rich technical program of the conference consisted of eight technical sessions and comprised 27 excellent technical regular paper presentations, six invited paper presentations, a keynote speech, and an industrial symposium involving leading experts. Prof. Jaafar Elmirghani (University of Leeds, UK) gave the keynote speech, presening new approaches to minimize power usage in content distribution optical networks. The symposium (organized and chaired by Prof. Pierpaolo Boffi, Politecnico di Milano) focused on flexigrid optical networks, and it was opened by two keynote speeches delivered by Dr. Giuseppe Ferraris (Telecom Italia, Italy) and Dr. Ken Falta (Finisar, USA). Other panelists from Alcatel Lucent, Cisco, and Ericsson joined in the final panel discussion.

The Technical Program Committee (TPC), co-chaired by Prof. Guido Maier (Politecnico di Milano) and Prof. Eiji Oki (University of Electro-Communications, Japan), was built to guarantee a balanced industrial and research (academic) list of members with a solid background in the conference areas. With this objective, the TPC included a list of 37 outstanding experts from around the world. The acceptance ratio of papers at the end of the reviewing process was 50%. Accepted and presented papers will be published in IEEE Xplore as well as other Abstracting and Indexing (A&I) databases. The Publication Chair was Prof. Giacomo Verticale, Politecnico di Milano.

The technical contribution to NOC 2014 has been quite international. The most represented countries in the papers' authorship were: Italy (25%), Spain (11%), France (9%), and Japan (6%), but there were also authors from the USA, Canada, China, Korea, South America, Africa, and the Middle East. A total of 30 countries were represented by authors who submitted papers.

NOC 2014 has been technically co-sponsored by the IEEE Communications Society and by the IEEE Italy Section Photonics Society Chapter, AICT – Association for "Tecnologia dell'Informazione e delle Comunicazioni" of AEIT (Associazione Italiana di

NOC 2014 conference banquet in the ballroom of "Conte Biancamano" trans-Atlantic liner, inside the National Science and Technology Museum Leonardo da Vinci in Milan, June 5th, 2014.

The Modernization of the Spanish University System: the Campus of International Excellence Program

By Pilar Manzanares-López, Josemaria Malgosa-Sanahuja, Spain

With the goal of developing a national strategy for modernizing the Spanish university system, and in this way to face the challenges set by the "European Modernization Agenda for Universities: Education, Research and Innovation," in 2009 the Government of Spain started an action plan known as "2015 University Strategy." Presumably, the objectives of this action plan will be evaluated next year to measure the degree of its implementation.

This strategy looks for a significant improvement in the competitiveness of the teaching and research staff as well as to improve the international visibility and academic leadership of Spanish universities. In fact, it follows the model initiated some years before in France, Germany, and the United Kingdom. In relation to university management, this strategy aims to develop an efficient and effective model, accountable to external institutions about the development of its functions. A cornerstone of this strategy is the Campus of International Excellence program (from the Spanish Campus de Excelencia Internacional (CEI)), whose main objective is to improve the internationalization and specialization of Spanish university campuses. This project promotes the evolution of university campuses with the objective of positioning the CEIs among the most prestigious international campuses, and as international references in each of their areas of specialization. This initiative aims to help the Spanish university system improve the quality of its offering and promote efficient and effective teaching and research by means of the promotion of strategic partnerships with institutions, research centers, and companies.

The CEI project has set the targets of enhancing the quality and excellence in teaching and adapting the university studies to the requirements of the European Higher Education Area (EHEA), with particular attention to internationalization and excellence in the field of postgraduate education consisting of masters and Ph.D. programs of international excellence. The CEIs include actions aimed at the recruitment and retaining of international postgraduate and postdoctoral talent, the increase of university education taught entirely in English, the internationalization of the students by means of university exchange programs such as the Erasmus program and other international scholarship programs, the development of training programs oriented to entrepreneurship, the integration of this skill to the curriculum, and the strengthening of the Spanish language courses for foreigners.

In addition, since Spanish universities are institutions where a large part of the Spanish R&I activities are developed, another key objective is to consolidate these institutions as research centers of international excellence and reference from which the obtained knowledge is transferred to society and the productive and business sector.

To reach these goals, the CEI program has considered cutting-edge research, the research activities carried out on the basis of public-private partnerships by means of strategic alliances with research institutes, agencies, and centers of international excellence in the corresponding areas. Therefore, a Campus of International Excellence usually will be composed of the aggregation of more than one university (and each university can be composed of different campuses), public research entities, technology centers, science and technology parks, hospitals, and companies. These strategic alliances seek to provide the transfer of the knowledge and technology resulting from the academic research to the business sector, substantially strengthening the university-society-business relationship.

Another strategic objective of the CEI program is campus transformation, changing the traditional vision of the university campus as a group of buildings with equipment that only offer internal functions to the university community, to a wider vision, inclusive and integrated with the urban environment. The actions proposed in this field include the use of spaces (buildings, student halls of residence, auditoriums, etc.) for cultural activities and public events open to the city, the improvement of sport facilities, and the promotion of community participation in sport events and competitions. Sustainability is another line of action in the projects, promoting actions related to accessibility and mobility, and oriented to the achievement of a sustainable end eco-efficient campus.

The first public call of the CEI program awarded the Campus of International Excellence stamp to nine proposals. A second public call of the same program awarded 14 new proposals. Currently, almost the entire Spanish university system is framed within a Campus of International Excellence.

In particular, the University of Murcia (UM) and the Technical University of Cartagena (UPCT) lead the campus Mare Nostrum 37/38 (CMN). CMN was developed with the vision to become an international resource in the Mediterranean basin to serve as a catalyst for higher educational excellence and a promoter of sustainable product development, using its territory as a model of regional cohesion, and promoting modernization and innovation in key productive sectors of the region that are characteristic of the Mediterranean. The CMN has already established agreements with several Mediterranean Universities and Research Centers of Cyprus, Croatia, Slovenia, Greece, France, Italy, Turkey, Morocco, and Tunisia. The efforts of the CMN are focused on three main research and academic lines: health technologies and their implications in the Mediterranean society's quality of life; naval and marine technologies in the Mediterranean Sea; and the proposal of an eco-economy based on the agro-industry (a filed in expansion in all Mediterranean countries but especially in the north of Africa).

FUSECO/*Continued from page 2*

varying depending on the different starting points and specific targets, making it difficult to compare the different existing initiatives. Essential for any success of Smart Cities are political drive, regulatory and legal support in regard to security and privacy aspects, as well as economic operation and sustainability. All this is demanding for "standardized" and open solutions, which demand for Smart City reference frameworks and architectures and common reusable building blocks. Smart Cities are fueled by a major convergence of quite different application domains and heterogeneous ecosystems into a common framework. This convergence goes far beyond the convergence we have witnessed in the last decades, with many challenges and many opportunities.

Outlook

In the end, Prof. Magedanz and Mr. Hernady closed the Forum by summarizing the key findings and thanking all speakers, chairmen, attendees, sponsors, and local organizing committee for making this forum possible and a success. Most important was the final announcement, that based on this successful first FFAsia, the second FUSECO Forum Asia should be held again in Bali in mid 2015, which by then will also feature an additional IEEE FUSECO Workshop. For more information about FFAsia go to www.fuseco-forum.asia. However, for those interested in the subject matter, the parent event, FOKUS FUSECO Forum, will take place in Berlin, Germany on November 13-14, 2014. See www.fuseco-forum.org for details.

and recognizing the 50th anniversary of ASCII coding as the theme for the 2013 Section banquet. Special guests from industry (the President of Bell Labs was the keynote speaker) and IEEE (past IEEE and ComSoc presidents from the local area) participated as part of this celebration. It was an informative and engaging evening with over 110 attendees.

•The full-day Advanced Communications Symposium was held on Sept 21, 2013 at Stevens Institute of Technology. The ComSoc chapter financially co-sponsored the symposium and chapter members served on the organizing committee.

Bregni: May Chapters receive funding for running their meetings and events?

Hartmann: IEEE MGA provides a small amount of funding to each Chapter yearly, based on a set of minimum performance requirements. In addition, ComSoc may provide funding based on the past year's activity performance and specific programming plans for the coming year. These funds are limited and hence are dedicated to those Chapters that are providing worthwhile technical opportunities to their members. Most chapters do obtain additional support from local companies or universities, such as free meeting space or financial contributions.

Bregni: Merrily, it's almost one year already that you have been serving as NA Director. From your privileged perspective, what are the biggest challenges that ComSoc Chapters have to face in North America?

Hartmann: Major challenges lie in creating a vibrant chapter community with high member retention, membership growth, and individuals willing to take on chapter leadership roles. Online resources (including IEEE Xplore®) make it easier and easier for our members (and potential members) to obtain the information they need without leaving their office/home. Moreover, companies and universities purchase corporate access to IEEE Xplore®, which eliminates part of the value of personal IEEE membership. Job and family time constraints reduce the amount of time for local chapter activities. Many Chapter Chairs have held their positions for several years, due to the fact that no one else is willing or able to step in.

Bregni: Similar challenges are faced by Chapters in all Regions. How do you propose to address them? What would be your recipe?

Hartmann: We try to engage all Chapters and encourage activ-

ity. The North America Region Board is made up of representatives from each Region 1-7. In addition, there is a Board member dedicated to coordinating our Distinguished Lecturer/Speaker Tours. We ensure that the benefits of ComSoc membership are made known to our Chapters to assist them in organizing activities. Addressing the specific benefits of ComSoc membership is the mission of Koichi Asatani, Director of Membership Programs Development, and his Board. They provide access to Chapter funding, Chapter Awards, Membership Development Support Grants, the Distinguished Lecturer/Speaker Program, and Student Travel Grants. Moreover, Ashutosh Dutta, Director of Marketing & Industry Relations, and his Board are leading an initiative to assist our Chapters in drawing more members from industry into their activities.

Bregni: In conclusion, what are your plans for 2015?

Hartmann: I would like to focus more on social media for managing our chapters to stay in step with the way our members conduct their daily lives. Our ComSoc IT staff stands at the ready to assist chapters in this regard. Also, our DLT Program delivers timely technical presentations for our Chapters, which help our ComSoc members keep abreast of research and developments impacting their lives and careers. Unfortunately, our DLT budget is exceeded by the annual demand. Therefore, we plan to ask our Distinguished Lecturers to consider also virtual tours (webinars). The ultimate goal, of course, is to make Chapter activities attractive, meaningful, and useful to IEEE and ComSoc members. This is key to increasing ComSoc Chapter membership and to making the Chapter communities active technical environments.

Elettrotecnica, Elettronica, Automazione, Informatica e Telecomunicazioni). The conference had Finisar as a financial patron, and received the patronage of EXPO 2015 (by means of the committee "Le Università per EXPO 2015"). Fondazione Politecnico provided support for the financial management.

It is worth mentioning that NOC 2014 was co-located with three workshops, held on June 3rd on the Politecnico campus "Leonardo," namely: "Optical Access Network Virtualization: from Unbundling to Open Access" (co-organized with the Italian national research project ROAD-NGN), "New Telecom Network Architectures for the Cloud Era" (co-organized by several European FP7 projects), and "Innovation Protection in the ICT" (co-organized by NOC 2014 and AICT).

The leitmotiv for the social events has been the multi-faceted inventor Leonardo da Vinci, who spent many years of his life in Milan, where he realized much of his endless genius production. Before the welcome reception, NOC 2014 participants were guided to visit Politecnico historical Campus "Leonardo" located in Piazza Leonardo da Vinci. The venue chosen for the banquet was the National Science and Technology Museum Leonardo da Vinci, and a visit to the museum before dinner included several models of machines based on da Vinci's engineering sketches. A post-conference guided tour to Biblioteca Ambrosiana was organized on the final day, in which visitors could enjoy a look at the original pages of the Atlantic Codex, one of the most important sets of drawings by Leonardo. NOC 2014 visitors could also admire several masterpieces of Italian Renaissance painting hosted in the adjacent Pinacoteca Ambrosiana.

Finally, we wish to acknowledge the many other persons involved in the event who made it successful thanks to their tireless work: the other chairs, Stefano Bregni (IEEE ComSoc liason) and Massimo Tornatore (workshop organization); the steering-committee members David Faulkner and Alan Harmer; the DEIB personnel; and the local team of postdoc, Ph.D., and master students who assisted speakers and participants.