Selected Areas in Communications Symposium

Green Communications Track

Symposium Co-Chairs

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The 2015 IEEE International Conference on Communications (ICC) will be held in London, UK from 8-12 June 2015. Themed “Smart City & Smart World,” with its proximity to Tech City, the fastest growing technology cluster in Europe, this flagship conference of IEEE Communications Society will feature a comprehensive technical program including twelve Symposia and a number of Tutorials and Workshops. IEEE ICC 2015 will also include an exceptional Industry Forum & Exhibition program including business panels and keynote speakers. We invite you to submit your original technical papers, and industry forum, workshop, and tutorial proposals to this event. Accepted and presented papers will be published in the IEEE ICC 2015 Conference Proceedings and submitted for inclusion in IEEE Xplore®/IEEE Digital Library. Full details of submission procedures are available at http://www.ieee-icc.org/2015.

Submission deadline: 15 October, 2014

Scope and Topics of Interest

The Green Communications Track of in the Selected Areas in Communications Symposium will focus on improving the green topics and issues relevant to of communications systems. This track not only addresses energy relevant green topics but also discuss other non-energy relevant green topics. Green information communication technologies have been globally recognized as this has become an important research topic field in its own right, with the emphasis on both reducing carbon emissions and thereby reducing operational costs in networks discussing energy- and/or resource-efficient and/or environment-sustainable communications and relevant systems. Research projects to date have identified solutions in terms of algorithms and subsystems, as well as new ideas for system architectures. Research will further develop these solutions as well as showing how different concepts can be integrated to design energy different efficient systems from the ground up. This track solicits contributions describing cutting-edge research in communication systems and networks that incorporate "green" considerations in their designs and operations. This covers a wide range of green topics, including not only greening communications and systems, but also exploiting communications and relevant systems to achieve green objectives for the sustainable world. This track covers broader topics enabling various green topics, such as green technologies, smart homes and offices, intelligent transport and smart grid energy systems, green services, green business and economic concerns.

To ensure complete coverage of the advances in this field, the Green Communications Track of the Selected Areas in Communications Symposium solicits original contributions in, but not limited to, the following topical areas:

- Theory, modeling, analysis, and/or optimization for green and sustainable green communications and systems
- Life-cycle analysis
- Architecture, strategies, algorithms, protocols, scheduling, and/or designs for green communications and systems

- Non-energy green topics
- Green software, hardware, devices, and equipment
- Green wireless and/or wireline communications
- Green scheduling and allocation for communications
- Green optical devices, signal processing, switching and communications
- Electromagnetic pollution mitigation
- Green terminals
- Green data storage, data centers and cloud computing, content distribution networks
- Green communications under delay or quality of service constraints
- Physical layer approaches for green communications
- Green Internet of Things
- Energy harvesting, storage, and recycling
- Applications, economics, social issues, and interdisciplinary topics
- Novel network concepts and architectures lowering the overall network footprint
- Self-organizing wireless networks for energy efficiency
- Traffic shaping and policy implementation for energy saving
- Use of cognitive principles to achieve green objectives
- Signal processing for green communications
- Low cost, energy-efficient antenna and radio frequency system designs
- Economy and pricing for green communication and systems
- Environmental monitoring
- Measurement and profiling of energy consumption
- Power consumption trends and reduction in communications
- Standardizations, policies and regulations for green communications
- Mitigation of electromagnetic pollution
- Experimental test-beds and results for green communications
- Green technologies for intelligent transport systems
- Green technologies for industrial processes
- ICT technologies for green buildings and offices
- Field trials and deployment experiences
- Optimal use of renewable energy in communication systems and networks
- Communication System and network design with embodied energy and energy harvesting
- Green Approaches for Smart Grids
- Field trials and deployment experiences
- Possible avenues for standards and intervention

Submission Guidelines

Prospective authors are invited to submit original technical papers by the deadline 15 October 2014 for publication in the IEEE ICC 2015 Conference Proceedings. All submissions should be written in English with a maximum paper length of Six (6) printed pages (10-point font) including figures without incurring additional page charges (maximum 1 additional page with over length page charge if accepted).

Standard IEEE Transactions templates for Microsoft Word or LaTeX formats found at
http://www.ieee.org/portal/pages/pubs/transactions/stylesheets.html

Alternatively you can follow the sample instructions in template.pdf at
http://www.comsoc.org/confs/globecom/2008/downloads/template.pdf

Only PDF files will be accepted for the review process and all submissions must be done through EDAS at
https://edas.info/newPaper.php?c=17735&track=58689

Co-Chairs Biographies

Kenichi Higuchi received the B.E. degree from Waseda University, Tokyo, Japan, in 1994, and received the Dr.Eng. degree from Tohoku University, Sendai, Japan in 2002. In 1994, he joined NTT Mobile Communications Network, Inc. (now, NTT DOCOMO, INC.). In NTT DOCOMO, INC., he was engaged in the research and standardization of wireless access technologies for wideband DS-CDMA mobile radio, HSPA, LTE, and broadband wireless packet access technologies for systems beyond IMT-2000. In 2007, he joined Tokyo University of Science. He is currently an Associate Professor at Tokyo University of Science. His current research interests are in the areas of wireless technologies and mobile communication systems, including advanced multiple access techniques, inter-cell interference coordination techniques, multiple-antenna transmission techniques, signal processing such as interference cancellation and turbo equalization, and issues related to heterogeneous networks using small cells. He was a co-recipient of two conference best paper awards and the Prime Minister Invention Prize in 2010. He is a member of the IEEE and Institute of Electronics, Information, and Communication Engineers of Japan.

Khairi Hamdi obtained an MSc degree with Distinction in Telecommunication Engineering from Technical University of Budapest in 1988 and he was awarded the PhD degree from the Hungarian Academy of Science in 1993. He joined the University of Manchester (formerly UMIST) in 2002, and is currently a Lecturer of Communications in the School of Electrical and Electronic Engineering. Previously, he held teaching and research posts at the Department of Computer Science, University of Manchester and the Department of Electronic Systems Engineering, University of Essex. In 2002 Dr Hamdi was a BT research fellow and in 2007-2008 a visiting professor at Stanford University. His research is concerned with the application of mathematical and statistical techniques to the design, optimisation and performance analysis of wireless communication systems and networks in different interference and fading environments. He has been involved in modelling and performance analysis of wireless communication systems, with emphasis given on the physical and multiple-access control layers.

Jaafar Elmirghani is a Fellow of the IET, Fellow of the Institute of Physics, Senior Member of IEEE and is the Director of the Institute of Integrated Information Systems and Professor of Communication Networks and Systems within the School of Electronic and Electrical Engineering, University of Leeds, UK. He joined Leeds in 2007 having been chair in optical communications at the University of Wales Swansea 2000-2007. He was Chairman of the IEEE UK and RI Communications Chapter, 2004-2009, and was Chairman of IEEE Comsoc Transmission Access and Optical Systems Committee, 2004-2005, and Chairman of IEEE Comsoc Signal Processing and Communication Electronics (SPCE) Committee, 2001-2003. He was an editor of IEEE Communications Magazine and is and has been on the technical program committee of several IEEE ICC/GLOBECOM conferences between 1995 and present including 13 times as Symposium Chair/Co-Chair. He was founding Chair of the Advanced Signal Processing for Communication Symposium which started at IEEE GLOBECOM'99 and has continued since at every ICC and GLOBECOM and was also founding Chair of the first IEEE ICC/GLOBECOM optical symposium at GLOBECOM'00, the Future Photonic Network Technologies, Architectures and Protocols Symposium. He chaired this Symposium, which continues to date. He founded a track on Green Communication Networks and Systems at GLOBECOM'11 which continues to date. He received the IEEE Communications Society 2005 Hal Sobol award for exemplary service to meetings and conferences, the IEEE Communications Society 2005 Chapter Achievement award, the University of Wales Swansea inaugural 'Outstanding Research Achievement Award', 2006 and the IEEE Communications Society Signal Processing and Communication Electronics outstanding service award, 2009. He is currently an editor of IET Optoelectronics, editor of Journal of Optical Communications, Co-Chair of the GreenTouch, (a consortium of about 50 industrial and academic members), Wired, Core and Access Networks Working Group, an adviser to the Commonwealth Scholarship Commission, member of the Royal Society International Joint Projects Panel and an IEEE Comsoc Distinguished Lecturer (2013-2014) with a focus on energy efficiency. He has been awarded in excess of £20 million in grants to date from EPSRC, the EU and industry. He has published over 350 technical papers, co-edited "Photonic Switching Technology- Systems and Networks", IEEE Press 1998, leads a number of research projects including the EPSRC £5.9m INTelligent Energy awaRe NETworks (INTERNET) project 2010-2015, and has research interests in communication networks and optical communication systems; see http://www.personal.leeds.ac.uk/~eenjmhe for more details.