

IEEE International Conference on Communications
IEEE ICC 2014
Communications: The Centrepiece of the Digital Economy
10-14 June 2014, Sydney, Australia

Selected Areas in Communications Symposium
Green Communications and Computing Track

Symposium Co-Chairs

Jaafar Elmirghani, University of Leeds, J.M.H.Elmirghani@leeds.ac.uk
John Thompson, University of Edinburgh, john.thompson@ed.ac.uk

The 2014 IEEE International Conference on Communications (ICC) will be held in the beautiful city of Sydney, Australia between 10 and 14 June 2014. The theme of this flagship conference of IEEE Communications Society for 2014 is “*Communications: The Centrepiece of the Digital Economy.*” The conference will feature a comprehensive technical program including twelve Symposia and a number of Tutorials and Workshops. IEEE ICC 2014 will also include an attractive expo program including keynote speakers, and Industry Forum & Exhibitions (IF&E). We invite you to submit your original technical papers, industry forum, workshop, and tutorial proposals to this event. Accepted and presented papers will be published in the IEEE ICC 2014 Conference Proceedings and in IEEE Xplore®. Full details of submission procedures are available at <http://www.ieee-icc.org/2014>.

Scope and Topics of Interest

The Green Communications and Computing Track of the Selected Areas in Communications Symposium will focus on improving the Energy efficiency of communications and computing systems. This has become an important research topic in its own right, with the emphasis on both reducing carbon emissions and thereby reducing operational costs in networks. 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 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 design and operation. This covers a wide range of green communications topics, including not only energy efficiency in communications networks, but also how communication technologies enable broader solutions, such as smart homes and offices, intelligent transport and smart grid Energy systems.

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

- Energy-efficient protocols and networking
- Transmission technologies and network protocols for energy saving

- 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
- Energy efficient optical communications, switching and networking
- Energy efficient radio frequency wireless communications
- Use of cognitive principles to reduce energy consumption in wireline or wireless networks
- Energy-efficient scheduling for communications and computing
- Energy-efficient design of communication equipment, including chips, base stations, routers, and passive network elements
- Physical layer approaches for green communications
- Signal processing for green communications and computing
- Low cost, energy-efficient antenna and radio frequency system designs
- Economy and pricing for green communication and services
- Network monitoring for energy saving
- Green data centers and cloud computing
- Measurement and profiling of energy consumption
- Power consumption trends and reduction in communications
- Modeling and analysis for green communications and computing
- Standardization, policy and regulation for green communications and computing
- Mitigation of electromagnetic pollution
- Experimental test-beds and results for green communications and computing
- Optimum use of renewable energy in communication systems and networks
- Communication technologies for intelligent transport systems
- Communication technologies for industrial processes
- Communication technologies for energy efficient buildings and offices
- Communication technologies for 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 September 2013 for publication in the IEEE ICC 2014 Conference Proceedings and for oral or poster presentation(s). 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](http://www.comsoc.org/confs/globecom/2008/downloads/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 <http://edas.info/>

John Thompson was appointed as a lecturer at what is now the School of Engineering at the University of Edinburgh in 1999. He was recently promoted to a personal chair in Signal Processing and Communications. His research interests currently include signal processing, energy efficient communications systems, and multihop wireless communications. He has published over 200 papers to date including a number of invited papers, book chapters and tutorial talks, as well as co-authoring an undergraduate textbook on digital signal processing. During 2012-2014 he will serve as member-at-large for the Board of Governors of the IEEE Communications Society. He was technical programme co-chair for the IEEE Globecom Conference in Miami in 2010 and will serve in the same role for the IEEE Vehicular Technology Conference Spring in Dresden in 2013.

Jaafar Elmirghani is a Fellow of the IET, Fellow of the Institute of Physics 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 2012 including 10 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 60 industrial and academic members), Core Switching and Routing 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.