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Call for Papers for
Selected Areas in Communications Symposium
– Green Communications and Computing Track –

Scope and Motivation:

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.

Main Topics of Interest:

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

Sponsoring Technical Committees:

- Transmission, Access and Optical Systems (TAOS)

How to Submit a Paper:

The IEEE Globecom 2014 website provides full instructions on how to submit papers. You will select the desired symposium when submitting. **The paper submission deadline is April 1, 2014. Unlike recent ICC's and Globecom's, this is a hard deadline that will not be extended.**

Symposium Track-Chairs:

- Fabrizio Granelli, University of Trento, Italy, granelli@disi.unitn.it
- Richard Yu, Carleton University, Canada, Richard_Yu@Carleton.ca

Biographies

Fabrizio Granelli received the Laurea (M.Sc.) and Ph.D. degree in Electronic Engineering from the University of Genoa, Italy, in 1997 and 2001, respec- tively. Since 2000 he is at the Dept. of Information Engineering and Computer Science University of Trento (Italy), currently as Associate Professor in Telecommunications. In August 2004 and August 2010, he was visiting professor at the State Univer- sity of Campinas (Brasil). He is author or co-author of more than 130 papers published in international journals, books and conferences. Dr. Granelli is guest-editor of ACM Journal on Mobile Networks and Applications, special issues on WLAN Optimization at the MAC and Network Levels and Ultra- Wide Band for Sensor Networks, and served as General Chair of the 11th, 15th and 18th IEEE Workshop on Computer-Aided Modeling, Analysis, and Design of Communication Links and Networks (CAMAD). He was Co-Chair of IEEE GLOBECOM 2007-08-09-12 Symposia on Communications QoS, Reliability and Performance Modeling. His main research activities are in the field of networking, with particular reference to network performance modeling, cross-layering, medium access control, wireless networks, cognitive radios and networks, green internet and smart grid communications. He is Senior Member of IEEE, and Associate Editor of IEEE Communications Surveys and Tutorials and International Journal on Communication Systems.

Richard Yu received the PhD degree in electrical engineering from the University of British Columbia (UBC) in 2003. From 2002 to 2004, he was with Ericsson (in Lund, Sweden), where he worked on the research and development of dual mode UMTS/GPRS handsets. From 2005 to 2006, he was with a start-up in California,USA, where he worked on the research and development in the areas of advanced wireless communication technologies and new standards. He also held a position as a Postdoctoral Research Fellow with UBC in 2005 and 2006. He joined Carleton School of Information Technology and the Department of Systems and Computer Engineering (cross-appointment) at Carleton University, Ottawa, in 2007, where he is currently an Associate Professor. His research interests include cross-layer design, security, green IT and multimedia in wireless networks. He has published more than 210 papers in reputable journals/conferences in these areas with more than 2100 citations (Google Scholar). He serves on the editorial boards of several journals, including IEEE Transactions on Vehicular Technology, IEEE Communications Surveys & Tutorials, Springer/ACM Wireless Networks, EURASIP Journal on Wireless Communications Networking, Ad Hoc & Sensor Wireless Networks, Wiley Journal on Security and Communication Networks, and International Journal of Wireless Communications and Networking, and a Guest Editor for IEEE Systems Journal for the special issue on Smart Grid Communications Systems. He has served on the Technical Program Committee (TPC) of numerous conferences and as the Publication Chair of ICST QShine 2010, Co-Chair of ICUMT-CWCN'2009, TPC Co-Chair of IEEE Globecom'2013 – Cognitive Radio and Networks Symp., CCNC'2013, INFOCOM-CCSES'2012, ICC-GCN'2012, IEEE VTC'2012S – Wireless

Networks Track, Globecom'2011 – Cognitive Radio Network Symp., INFOCOM-GCN'2011, CNSR'2011, INFOCOM-CWCN'2010, IEEE IWCMC'2009, VTC'2008F Track 4, WiN-ITS'2007. He is a senior member of the IEEE.