

# Living in a converged world - impossible without standards?

The 6<sup>th</sup> ITU Kaleidoscope academic conference

3-5 June 2014, St. Petersburg, Russian Federation

## Call for Papers

**Kaleidoscope 2014: Living in a converged world - impossible without standards?** is the sixth in a series of peer-reviewed academic conferences organized by ITU that bring together a wide range of views from universities, industry and research institutions. The aim of Kaleidoscope conferences is to identify emerging developments in information and communication technologies (ICTs) and, in particular, areas in need of international standards to support the development of successful products and services.

Given the belief that future technologies should be designed to enhance quality of life, Kaleidoscope 2014 will highlight the need for future standards for ICT services and applications to take into account aspects of socio-economic, cultural, ethical, legal and sustainable-development policy. The event will also pinpoint aspects to increase the inclusivity of the Information Society; addressing the demands of people with disabilities, and the need for standards to be accessible to people of different countries and languages.

Recognizing the steadily growing role of ICT in other social and economic sectors and the resulting challenges for global standards makers, ITU has begun forming partnerships with organizations not traditionally part of the ICT ecosystem in the interests of developing global standards tailored to new ICT-enabled services in other industry sectors.

For example, the development of successful standards for intelligent transport systems (ITS) demands the input of automobile manufacturers. Initially located at the intersection of automotive and ICT, today's ITS involve stakeholders from many other sectors, such as utilities (in the context of electromobility) and health and insurance (in the context of road safety).

Standards for e-health require the participation of the healthcare ecosystem. Health services and systems are changing to reflect the need for improvements in the quality, safety and accessibility of healthcare. E-health, the use of ICTs in healthcare, continues to demonstrate its immense value in enabling these changes.

Developing ICT standards for mobile money transfer, mobile payment and mobile banking services needs the involvement of banks. Effective standardization in the smart grid field will similarly require the participation and endorsement of power utilities.

Kaleidoscope 2014 will explore this new paradigm, looking at how the standards can bring these different worlds together and evolve in line with ensuing industrial and technological convergence. The standards development processes capable of meeting the challenges introduced by convergence will be ones that provide open, inclusive processes to attract key players from different industry sectors, public-sector entities and academic and research institutes.

*Living in a converged world - impossible without standards?* is calling for original academic papers offering bold, innovative approaches to research and development of standards on the subject of industries' and technologies' convergence in today's ICT-dependent world.

### Audience

Kaleidoscope 2014 is targeted at all specialists with a role in the field, including researchers, academics, students, engineers, policy-makers and regulators, innovators and futurists from around the world.

### Date and venue

3-5 June 2014, Bonch-Bruевич Saint-Petersburg State University of Telecommunications (SPbSUT), St. Petersburg, Russian Federation

### Submission of papers

Prospective authors, from countries that are members of ITU, are invited to submit complete, original papers with a maximum length of 4,500 words within eight pages including summary and references, using the template available on the event website. All papers will be reviewed through a double-blind, peer-review process and handled electronically; see <http://itu-kaleidoscope.org/2014> for the online submission (EDAS). Paper proposals will be evaluated according to **content, originality, clarity, relevance to the conference's theme** and in particular **significance to future standards**.

### Deadlines

Submission of full paper proposals: **9 December 2013 (Extended)**

Notification of paper acceptance: **17 February 2014**

Submission of camera-ready accepted papers: **3 March 2014**

### Publication and presentation

Accepted and presented papers will be published in the Conference Proceedings and submitted for inclusion in IEEE Xplore. The best papers will be evaluated for potential publication in *IEEE Communications Magazine*. In addition, selected papers will be considered for publication in the *International Journal of Technology Marketing* or the *International Journal of IT Standards & Standardization Research*.

### Awards

A prize fund totaling \$ 10,000 will be granted to the three best papers, as judged by the Steering and Technical Programme Committees. In addition, young authors presenting accepted papers will receive a Young Author Recognition certificate.

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## Keywords

Information and communication technologies (ICTs), converging technologies, human-oriented technologies, technological innovation, standardization, radio spectrum, ambient intelligence, smart grid, mobile banking services, ubiquitous networks, internet of things, M2M, e-applications, information society, ethics, sustainability.

## Suggested (non-exclusive) list of topics

### Track 1: Technology and architecture evolution in a converged world

- Billing and charging for converging services
- Business process management and optimization in convergent networks
- Communications for smart grid
- Cooperation and convergence of networks
- End-to-end quality of service support
- Enterprise integration and service-oriented architecture
- Environmental and biometric actuators and sensors in convergent services
- Human-centric, cognitive and context-aware systems
- Machine-to-machine communication, Internet of Things, and Internet of Everything
- Mobility and nomadicity
- Monitoring, tracking convergence system
- Nanonetworks
- Near-field communications (personal area network, body area network, etc.)
- Network convergence (heterogeneous network system)
- Network functions virtualization and software defined networks
- Network support for converging services
- New transmission network systems (terabit, petabit, exabit)
- Optical wireless convergence system (LD-LED optical device convergence)
- Pervasive and trusted network and service infrastructure
- Protocol architecture convergence and interoperability
- Security and privacy-enhancing technologies
- Vehicle and infrastructure convergence
- Virtual and real network convergence
- Wireless sensor networks

### Track 2: ICT applications and services for converging worlds

- Accessibility - ageing and ambient assistive living
- Augmented reality and technology intelligence
- Autonomous vehicles and vehicle communications
- E-agriculture
- E-learning and e-science
- Energy efficiency/use cases of smart grid
- Home entertainment hubs
- Innovative applications and content delivery (IPTV, games, etc.)
- Location-based services
- Mobile banking services: mobile payments and mobile money transfer
- Mobile robots
- New models for health-care (e-health, m-health, tele-health, telemedicine, etc.)
- Service convergence
- Service layer requirements
- Smart cities: utilities, transport, buildings and homes
- Social networking services and convergence
- Television and video services (3D video image communication)
- XaaS (Anything as a Service)

### Track 3: Social, economic and policy aspects of ICT for converging worlds

- Accessibility and usability
- Business models (including accounting, billing and charging)
- Crowdsourcing and service convergence
- Deployment of smart grids in developing countries
- Digital journalism
- Digital rights and identity management
- Education about Standardization
- Environmental sustainability
- E-government and e-democracy
- Ethical issues
- Inclusiveness, affordability and equal access
- Internationalization and localization
- Legislative and regulatory frameworks
- Network neutrality
- Regulation (for QoS, network sharing, etc.)
- Security, confidentiality and privacy
- Societal impact
- Stakeholder perceptions in standards
- Standardization and innovation management
- Standardization, innovation and convergence
- Standards in healthcare services

**General Chairman:** Sergey Bachevsky (Rector, SPbSUT, Russian Federation)

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The Technical Programme Committee is composed of over 100 subject matter experts worldwide. Details are available at <http://www.itu.int/ITU-T/uni/kaleidoscope/2014/progcom.html>

#### For additional information

Additional information is available on the conference website:

<http://itu-kaleidoscope.org/2014>

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