



General Secretariat (SG)

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To: ITU Member States
ITU Sector Members, Associates,
Academia and relevant international,
regional and national organizations

Contact: Alessia Magliarditi
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Subject: **ITU Kaleidoscope 2019 - ICT for Health: Networks, standards and innovation
Atlanta, Georgia, United States, 4-6 December 2019**

Dear Sir/Madam,

1 As part of the Kaleidoscope events, an ITU initiative to increase cooperation with academia and research institutions, I am pleased to inform you about the eleventh in a series of forward-looking academic conferences that aim at identifying emerging developments in information and communication technologies (ICTs) and, in particular, areas in need of international standards to aid the healthy development of the Information Society. *Kaleidoscope 2019 - ICT for Health: Networks, standards and innovation* will take place at the Georgia Institute of Technology, Atlanta, United States from 4-6 December 2019.

2 *Kaleidoscope 2019* calls for original academic papers addressing ICTs' contribution to innovation in healthcare delivery and medicine. In particular, the conference encourages submissions highlighting the role to be played by communication networks and international standards in achieving affordable access to healthcare for everyone, everywhere. This objective is fully in line with the United Nations Sustainable Development Goals. The full text of the call for papers may be found in **Annex 1**. It invites submissions by **17 June 2019**.

3 Participation is open to ITU Member States, Sector Members, Associates and Academic Institutions and to any individual from a country which is a member of ITU who wishes to contribute to the work. This includes individuals who are also members of international, regional and national organizations. The event is free of charge but no fellowships will be granted.

4 We encourage all ITU members to promote this event within the academic community of their countries.

5 Detailed information concerning registration and logistics will be available on the event's webpage, <http://itu.int/go/K-2019>, closer to the date of the conference. **Please note that pre-registration of participants for this event will be carried out exclusively online.**

6 We would remind you that citizens of some countries are required to obtain a visa in order to enter and spend time in the USA. Where this is the case, the visa must be requested and obtained from the office (embassy or consulate) representing the USA in your country or, if there is no such office in your country, from the one that is closest to the country of departure. Participants who need support from the host country to obtain an entry visa are requested to check the Kaleidoscope webpage at <http://itu.int/go/K-2019>. Information will be published as soon as available.

Yours sincerely,

(Signed)

Houlin Zhao
Secretary-General

Annex: 1

ANNEX 1

ITU Kaleidoscope 2019

ICT for Health: Networks, standards and innovation

The 11th ITU Kaleidoscope academic conference

Atlanta, United States, 4-6 December 2019

Call for Papers

Kaleidoscope 2019 - ICT for Health: Networks, standards and innovation is the eleventh in a series of peer-reviewed academic conferences organized by ITU to bring together a wide range of views from universities, industry, and research institutions. The aim of the Kaleidoscope conferences is to identify emerging advancements in information and communication technologies (ICTs) and, in particular, areas in need of international standards to aid the healthy development of the Information Society. This year's conference will be hosted by the Georgia Institute of Technology.

Theme

The World Health Organization warns that at least half of the world's population is still not fully covered by essential health services. In countries with sufficient coverage, caring for an ageing population requires significant expenditures from governments, as well as public and for-profit entities. Moreover, emergency response teams working in distress and disaster situations depend on interoperable and survivable networks and systems to effectively and efficiently rescue individuals and communities at risk.

New applications of information and communication technology (ICT) show great potential to assist in overcoming socio-economic challenges in what is being called "digital health".

Digital health is part of the "Fourth Industrial Revolution" where innovative ICT applications are mobilized to revolutionize the health sector – from the manufacturing of medical devices and systems to medical research, drug discovery and healthcare delivery – leading to increased life expectancy and a greatly enhanced quality of life.

There are many innovations in ICT that will be integrated into digital health such as 5G, machine-to-machine (M2M) communications, cloud computing, the Internet of Things (IOT), big data, artificial intelligence and machine learning, precision medicine, telemedicine and biotelemetry, etc. All these streams of technologies lead to new frontiers in health services, towards the goal of universal health coverage that is efficient and cost-effective while ensuring quality care. Digital health will place rigorous requirements on communication networks in terms of availability, reliability, survivability, and security, including stricter requirements on service quality, tighter legal protections, and a more active role on the part of public authorities.

Objective

Kaleidoscope 2019 calls for original academic papers addressing ICTs' contribution to innovation in healthcare delivery and medicine. In particular, the conference encourages submissions highlighting the role to be played by communication networks and international standards in achieving affordable access to healthcare for everyone, everywhere. This objective is fully in line with the United Nations Sustainable Development Goals.

Audience

Kaleidoscope 2019 targets specialists in the fields of ICT, digital health and socio-economic development, including researchers, academics, students, engineers, computer scientists, policymakers, regulators, innovators, futurists, clinicians and health practitioners.

Date and venue

4-6 December 2019, Georgia Institute of Technology, Atlanta, Georgia, United States.

Submission of papers

Prospective authors are invited to submit full, original papers. The submission should be within eight pages, including a summary and references, using the template available on the conference's website. All papers will go through a double-blind peer-review process. Submission must be made electronically; see <http://itu.int/go/K-2019> for more details on online submission (EDAS). Paper proposals will be evaluated based on content, originality, clarity, relevance to the conference's theme and, in particular, **significance to future standards**.

Deadlines

Submission of full paper proposals: **17 June 2019**

Notification of paper acceptance: **23 September 2019**

Submission of camera-ready accepted papers: **14 October 2019**

Publication and presentation

Accepted and presented papers will be published in the Conference Proceedings. In addition, extended versions of selected papers will be considered for publication in the *International Journal of Technology Marketing*, the *International Journal of Standardization Research*, or the *Journal of ICT Standardization*.

Awards

A prize fund totalling CHF 6 000.- will be shared among the authors of the three best papers, as judged by the Steering and Technical Programme Committees. In addition, young authors of up to 30 years of age presenting accepted papers will receive Young Author Recognition certificates.

Keywords

Digital health; healthcare architectures, technologies and services; policies and ethics for digital health; health data storage and protection; information and communication technologies (ICTs); standards for networks; and digital health applications.

Suggested (non-exclusive) list of topics

Track 1: Technology, network infrastructure and architecture evolution	<ul style="list-style-type: none">• Network availability, survivability, security, and management of privacy• Architecture for remote medical interventions using M2M, IoT, sensor networks• Wireless sensor and actuator networks for health applications• Networking technologies and cloud computing for digital health• Performance aspects, such as reliability, quality of service, and quality of experience• Interoperability of systems and applications• Data as a service (DaaS) for digital health, e.g. electronic health records (EHR)• Requirements for data storage and protection
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Track 2: ICT applications and services for health	<ul style="list-style-type: none">• Telemedicine, telehealth and biotelemetry• Emergency medical care• Medical interventions in disaster areas• Health informatics• Big data modelling, machine learning, artificial intelligence enabled solutions• Cloud computing services for digital health• Data science and analytics for smart hospitals• Health information exchange, interoperability and data integration• Technology, standardization and innovation for accessibility and digital health applications• Medical decision-making• Interventions in public health• Precision and personalized medicine
Track 3: Social, economic, legal, ethical and policy aspects of ICT for health	<ul style="list-style-type: none">• Management for electronic and virtual health cards• Public health policies, such as inclusiveness, affordability and accessibility• Security, privacy and trust issues• Digital rights and identity management• Financing digital health• Legislative and regulatory frameworks• Ethical issues• Training for digital health

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The Technical Programme Committee is composed of over 60 subject-matter experts. Details are available at: <http://itu.int/en/ITU-T/academia/kaleidoscope/2019/Pages/progcom.aspx>.

Additional information

For additional information, please visit the conference website: <http://itu.int/go/K-2019>. Inquiries should be addressed to Alessia Magliarditi at kaleidoscope@itu.int.
