



## Secretaría General (SG)

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Asunto: **Caleidoscopio de la UIT 2024 – Innovación y transformación digital para un mundo sostenible, Nueva Delhi (India), 21-23 de octubre de 2024**

A:

- los Estados Miembros de la UIT;
- los Miembros de Sector, Asociados e Instituciones Académicas de la UIT y las organizaciones internacionales, regionales y nacionales pertinentes

Muy Señora mía/Muy Señor mío:

1 En el marco de la serie de conferencias Caleidoscopio, una iniciativa de la Unión Internacional de Telecomunicaciones (UIT) para fomentar el diálogo entre las Instituciones Académicas y el I+D de la industria, me complace informarle acerca de la decimoquinta serie de conferencias que tratan de identificar los acontecimientos emergentes en las tecnologías de la información y la comunicación (TIC) y, especialmente, las áreas que requieren de normas internacionales para contribuir al desarrollo sostenible de nuestro mundo interconectado. *Innovación y transformación digital para un mundo sostenible* tendrá lugar en Nueva Delhi (India), del 21 al 23 de octubre de 2024, en paralelo a la Asamblea Mundial de Normalización de las Telecomunicaciones de 2024 (AMNT-24).

2 *Caleidoscopio 2024* invita a presentar artículos académicos originales en los que se analicen las implicaciones de la innovación tecnológica y la transformación digital para los marcos normativos, reglamentarios, jurídicos y éticos, para la economía y para la sociedad. **Se presta una atención especial a la manera en que las normas internacionales de TIC contribuyen al logro de los Objetivos de Desarrollo Sostenible de las Naciones Unidas.** En el **Anexo 1** se adjunta el texto íntegro de la convocatoria. Los artículos deben presentarse antes del **29 de abril de 2024**.

3 La participación está abierta a los Estados Miembros, a los Miembros de Sector, a los Asociados y a las Instituciones Académicas de la UIT, y a cualquier persona de un país que sea miembro de la UIT y desee contribuir a los trabajos. Esto incluye a las personas que también sean miembros de organizaciones nacionales, regionales e internacionales. La participación en el evento es gratuita.

4 Alentamos a todos los Miembros de la UIT a promover este evento entre la comunidad de investigación de sus países, en particular entre las universidades, instituciones académicas, I+D de la industria y empresas emergentes. El programa también incluirá una sesión especial centrada en la juventud y la normalización.

5 En la página web del evento <http://itu.int/go/K-2024> se irá facilitando información detallada relativa a la inscripción y la logística a medida que se vaya aproximando la fecha de la conferencia. Rogamos tengan presente que la preinscripción de los participantes en este evento se efectúa exclusivamente *en línea*.

Atentamente,

Doreen Bogdan Martin  
Secretaria General

**Anexo: 1**

ANNEX

15<sup>TH</sup> ITU ACADEMIC CONFERENCE

# ITUKALEIDOSCOPE NEW DELHI 2024

*Innovation and digital transformation  
for a sustainable world*

21-23 October 2024  
New Delhi, India

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CALL FOR PAPERS

Hosted by



Organized by



# ITU KALEIDOSCOPE

## NEW DELHI 2024

***Kaleidoscope 2024: Innovation and digital transformation for a sustainable world*** is the fifteenth 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 Kaleidoscope is to foster collaboration and discussion on emerging trends in technologies for a digital and sustainable transformation that can benefit humanity.

## CALL FOR PAPERS

### Preamble

The United Nations (UN) 2030 Agenda for sustainable development, which includes the 17 Sustainable Development Goals ([SDGs](#)), recognizes that “the spread of information and communication technology and global interconnectedness has great potential to accelerate human progress, to bridge the digital divide and to develop knowledge societies, as does scientific and technological innovation across areas as diverse as medicine and energy”.

The UN Secretary-General’s vision on the future of global cooperation puts forward an upgraded UN that can offer more relevant, system-wide, multilateral and multi-stakeholder solutions to better respond to humanity’s most pressing challenges, focusing significantly on innovation and digital transformation.

Sustainable digital transformation and universal connectivity are ITU’s main goals, as indicated in the Union’s Strategic Plan, which put forward a clear vision for “an information society, empowered by the interconnected world, where telecommunication/information and communication technologies (ICTs) enable and accelerate social, economic and environmentally sustainable growth and development for everyone”.

### Theme

The theme of the fifteenth edition of the ITU Kaleidoscope academic conference captures the ongoing global efforts to harness the power of technology for positive and sustainable change.

The landscape of innovation and digital transformation is evolving at an unprecedented pace, influencing every aspect of our lives, and profoundly impacting global development. As we strive to achieve the SDGs and address pressing societal and environmental concerns, the role of ICTs becomes pivotal.

The conference invites contributions that delve into cutting-edge research, transformative technologies, and innovative practices that underpin the digital revolution with a focus on sustainability and standardization. From the fundamental restructuring of network infrastructures to the applications shaping sustainable development, and the enabling technologies driving these advancements, we seek to explore the multidimensional facets of innovation and digital transformation.

## Objective

The fifteenth Kaleidoscope conference calls for original, academic papers exploring technological innovation and digital transformation's implications for policy, regulation, legal and ethical frameworks, the economy, and society. **Emphasis is placed on how international ICT standards contribute to achieving the UN SDGs.**

## Audience

Kaleidoscope 2024 targets specialists in the fields of ICT and socio-economic development, including researchers, academics, students, engineers, policymakers, regulators, and innovators.

## Date and venue

21-23 October 2024, in conjunction with the World Telecommunication Standardization Assembly 2024 (WTSA-24), 15-24 October - [www.itu.int/wtsa/2024/](http://www.itu.int/wtsa/2024/)

## Submission of papers

Submission of full, original papers should be within eight pages, including a summary and references, using the template available on the event website. All papers will go through a double-blind peer-review process. Submission must be made electronically; see <http://itu.int/go/K-2024> for more details on 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: **29 April 2024**

Notification of paper acceptance: **12 July 2024**

Submission of camera-ready accepted papers: **2 August 2024**

## Publication and presentation

Accepted and presented papers will be published in the Conference Proceedings.

## 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

Artificial intelligence, cloud computing, digital transformation, extended reality, green communications, human-oriented technologies, Internet of Things, machine learning, metaverse, mobile and wireless communications, regulation and standardization, security and privacy in cyberspace, technological innovation, UN agenda for sustainable development

## Suggested (non-exclusive) list of topics

### Track 1

Technology, next-generation network architectures

Future mobile and wireless communication networks and network infrastructures (5G and beyond)  
Energy-efficient cloud computing and sustainability  
Cyber-physical systems for environmental monitoring and management  
System architectures for extended Reality (XR), metaverse, and Immersive Live Experience (ILE)  
Security, privacy, and trust in decentralized and distributed systems  
Edge computing and fog computing for real-time applications  
Machine learning and AI-driven optimization in sustainable solutions: Quality of Service (QoS), Quality of Experience (QoE) and performance  
Network resilience in disaster relief and recovery systems  
Quantum communication for secure and resilient networks  
Optical and wireless communication convergence system  
Long-distance and ultra-high-speed transmission network systems (terabit, exabit)  
Efficient communication and design in IoT and sensor networks  
Circular economy approaches in ICT waste management

### Track 2

Applications and services for sustainable development

AI-driven personalized e-services for health and well-being  
IoT applications for water quality monitoring and sanitation  
Sustainable energy services  
Smart transportation and urban mobility applications  
Data analytics for monitoring and assessing development goals  
Robotics and drones for eco-friendly applications  
Technology for aging in place and ambient assistive living  
Sustainable smart cities and communities  
Provision of adequate security and privacy services

### Track 3

Enabling technologies

Data processing, management and analytics  
Interoperability in decentralized and distributed systems  
Next-generation human-computer interaction  
Location-based services and spatial registration technologies  
Semantic computing and communications  
Service chaining, orchestration and federation  
Technology convergence: computing network convergence, IT/OT (operational technology) convergence, etc.  
Modelling and simulation for digital twins and digital humans  
Emerging AI techniques and algorithms including Generative AI  
Edge intelligence with on device AI  
Blockchain/distributed ledger technologies with incentive and consensus mechanisms  
Technologies for quality and sustainable online education  
Alternate technology options for rural connectivity  
Integration of existing mechanisms to provide for security and privacy

## Track 4

Social, economic, environmental and policy aspects for sustainable development

Standards and regulations for sustainable development and sustainable ICT solutions  
ICT strategies for sustainable development  
Regulatory mechanisms under the convergence paradigm  
Environmental implications of cloud computing services  
Accessibility and usability in technology solutions  
Engineering education for sustainable development  
Modelling of the role of technology in society  
Intellectual property rights in the digital era  
Conformance and interoperability for global technology adoption  
Regulation to enforce adequate security and privacy mechanisms  
Generating a sustainable echo-system for the Startups

## Steering Committee

**Christoph Dosch**, Former Chairman of ITU-R Study Group 6; ARD, Germany

**Debkumar Chakrabarti**, Ministry of Communications, India

**Eva Ibarrola**, University of the Basque Country, Spain

**Kai Jakobs**, RWTH Aachen University, Germany

**Gyu Myoung Lee**, Liverpool John Moores University, United Kingdom

**Tiziana Margaria**, University of Limerick, Ireland

**Mitsuji Matsumoto**, Waseda University Emeritus Professor, Japan

**Roberto Minerva**, Télécom SudParis, France

**Vishnu Ram OV**, Independent Consultant, India

**Mostafa Hashem Sherif**, Consultant, United States

**Atul Sinha**, Ministry of Communications, India

## Technical Programme Committee

**Mostafa Hashem Sherif**, Consultant, United States

The Technical Programme Committee is composed of international subject-matter experts. Details will be available shortly at <http://itu.int/en/ITU-T/academia/kaleidoscope/2024/Pages/progcom.aspx>.

## Additional information

For additional information, please visit the conference website: <http://itu.int/go/K-2024>. Inquiries should be addressed to Alessia Magliarditi at [kaleidoscope@itu.int](mailto:kaleidoscope@itu.int).

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