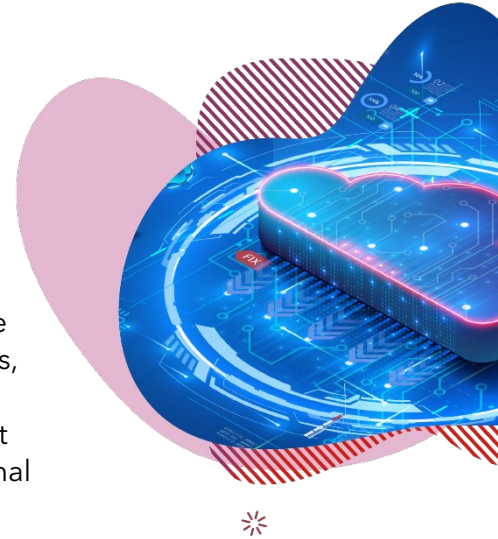The *ITU Journal on Future and Evolving Technologies (ITU J-FET)* is an international journal providing complete coverage of all communications and networking paradigms, free of charge for both readers and authors. The ITU Journal considers yet-to-be-published papers addressing fundamental and applied research. It shares new techniques and concepts, analyses and tutorials, and learnings from experiments and physical and simulated test beds. It also discusses the implications of the latest research results for policy and regulation, legal frameworks, and the economy and society. This publication builds bridges between disciplines, connects theory with application, and stimulates international dialogue. Its interdisciplinary approach reflects ITU's comprehensive field of interest and explores the convergence of ICT with other disciplines. The ITU Journal welcomes submissions at any time, on any topic within its scope.

Special issue on

Innovative network solutions for future services

Call for papers

Future networks will support emerging services including Ultra-HD 4K and 8K video, Augmented Reality (AR) and Virtual Reality (VR), and interactive and holographic telepresence for near-real-time communication experiences. They will also provide the basis for innovation in fields such as digital health, autonomous driving and intelligent transport systems, and autonomous industrial processes.

There is a real possibility that networks may not achieve the versatility and flexibility required to support this wide array of envisaged services. Achieving this vision will call for future networks with characteristics including:

- Dynamism to serve constantly changing access points
- Ability to guarantee multiple services' interactivity with physical systems
- Ability to provide precision time in packet delivery
- Flexible and adaptive control and management planes
- Ability to serve different parts of the network with characteristics that will differ considerably in line with the requirements of different applications

This special issue is inviting research on the innovation required for networks to achieve these capabilities.

Innovative network solutions	• Edge cloud computing architecture and functionalities
	• Device-to-edge threshold for intelligence deployment
	• Advances in software-defined networking and deploying strategies
	• New software developments for implementing 5G/B5G/6G networks
	• Network Function Virtualization (NFV) and Service Function Chains (SFC)
AI in the network	• Artificial intelligence and machine learning to improve network performance measures
	• Applications of big data and small data
Emerging applications	• Applications, requirements and management of the network of networks
	• Strategies to provide Time-Engineered Communication Services
	• Software and hardware components for a multi-sensor network
A trustworthy network	• Trustworthiness, security and privacy
	• AI for supporting security
	• Resilient and stable networks

Keywords
Device-to-edge threshold, edge cloud computing, holographic type communications, Network Function Virtualization (NFV) and Service Function Chains (SFC), Time-Engineered Communication Services, trustworthy network

Deadlines extended
Paper submission: 30 August 2022
Paper acceptance notification: 30 November 2022
Camera-ready paper submission: 9 January 2023

Paper submission
This special issue calls for original scientific papers. Submitted papers should not be under consideration for publication elsewhere. Submissions must be made electronically using EDAS: Editor's Assistant at https://edas.info/N28851. Templates and guidelines can be found at https://www.itu.int/en/journal/j-fet/Pages/submission-guidelines.aspx

Publication
As soon as they get accepted, papers will be continuously published on the ITU digital library. They will then be bundled into the special issue digital publication.

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Inquiries should be addressed to Alessia Magliarditi at journal@itu.int