

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

## Emerging trends and applications in future communication networks

### Call for papers

Future emerging networks are envisaged to deliver high data rates to a large number of users within tight time boundaries, respecting energy consumption constraints and security demands and satisfying high and reliable bit rates. This is expected to support a wide variety of emerging applications (e.g., health monitoring, smart cities/buildings, underwater, UAV and IoT applications) as well as evaluation and experimentation in these environments (e.g., performance analysis, experimentation, epidemics and malware behavior, machine learning and artificial intelligence, edge computing).

This special issue focuses on state-of-the-art developments regarding high data rate communication among diverse devices (e.g., terahertz, millimeter wave, powerline and D2D communications, etc.), and it is dedicated to future networks as they will emerge in the new decade (e.g. beyond 5G).

This special issue seeks novel contributions dealing with but not limited to the following topics.

#### Suggested topics

##### Emerging application paradigms

- Health monitoring
- Smart cities and buildings
- Underwater applications
- UAV and IoT

## Evaluation and experimentation in modern network environments

- Performance analysis
- Experimentation
- Epidemics, malware behavior
- Machine learning and artificial intelligence
- Edge computing
- Design, planning and operational strategies

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## Emerging communication paradigms

- Information processing and learning
  - Terahertz communications
  - Millimeter wave communications
  - Powerline communications
  - Beyond 5G
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## Keywords

Performance analysis, experimentation, machine learning and artificial intelligence, edge computing, terahertz and powerline communications, beyond 5G, smart applications

## Deadlines extended

Paper submission: **15 March 2022**

Paper acceptance notification: 16 May 2022

Camera-ready paper submission: 16 June 2022

## 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/N29253>. 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](mailto:journal@itu.int).

