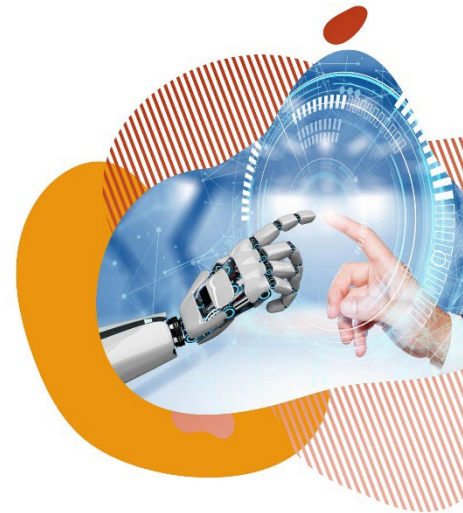


The *ITU Journal on Future and Evolving Technologies (ITU J-FET)* is an international journal providing complete coverage of all communications and networking paradigms, free of charge for both readers and authors. The ITU Journal considers yet-to-be-published papers addressing fundamental and applied research. It shares new techniques and concepts, analyses and tutorials, and learnings from experiments and physical and simulated testbeds. 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
AI for accessibility
Call for papers

The World Health Organization (WHO) states that the number of people aged 60 and over will be 1.2 billion by 2025 and 2 billion by 2050. Many of these elderly people have disabilities which make it difficult for them to use existing interaction devices. The definition of the term 'disability' differs across countries and cultures, but the World Bank estimates a rate of 10-12% of population worldwide having a condition that inhibits their use of standard interactive systems. Many persons often get isolated from the society due to their disabilities and related social issues. Modern research in interactive systems can offer valuable assistance to this population by helping them to engage more fully with the world. Additionally, systems and services developed for elderly or disabled people often finds useful applications for their able-bodied counterparts. In recent time, both artificial intelligent and interactive systems made tremendous progress. For example, we can use Augmented Reality (AR) and Virtual Reality (VR) technologies in smartphones and download software code to train complex convolutional neural networks for face or any specific object detection. This proposal takes a novel approach to bring these latest developments in computing technologies for a specific type of users, who often miss out advantages in information technology due to their limited range of abilities and excluded from rest part of society. Many commercial consumer electronics developers consider them as a non-profit making small segment of population and do not consider their specific needs in terms of designing both software and hardware interactive systems. This special issue seeks contribution on use of AI technology on developing or evaluating systems and services for people with different range of abilities.

Keywords

Artificial Intelligence (AI), accessible computing, Natural Language Processing (NLP), Cyber Physical Systems (CPS), automatic translation, sign language interpretation system

Suggested topics (but not limited to):

Intelligent Cyber Physical Systems (CPS) as assistive technology

- Assistive robotics
- Social robotics
- Multimodal human robot interaction
- Robotics for rehabilitation

Natural Language Processing (NLP) systems related to accessibility

- Automatic language translation
- Natural language generation
- Augmented and alternative communication aid
- Automatic parsing
- Chatbots/Avatars for accessibility

Sign language processing systems

- Personalization of subtitles
- Subtitles for immersive media
- Automatic translation

AR/VR systems

- Accessible gaming in AR/VR
- Navigational assistance

Computer Vision (CV)

- CV based vision guidance
- CV based object recognition for visually impaired
- CV based robot control

Deadlines extended

Paper submission: **1 September 2023**

Paper acceptance notification: 9 October 2023

Camera-ready paper submission: 9 November 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/N30057>. Templates and guidelines can be found at <https://www.itu.int/en/journal/j-fet/Pages/submission-guidelines.aspx>.

Publication

Papers will be published on the ITU digital library.

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