



# 4<sup>th</sup> Workshop on Universal Augmented Interaction (UNAI)

## https://www.unai-ismar.tech/

at IEEE International Symposium on Mixed and Augmented Reality (ISMAR 2025) <a href="https://www.ieeeismar.net/">https://www.ieeeismar.net/</a>

## Call for Papers

The era of generative content is upon the humankind. For the first time in the evolutionary history, our mind is pervasively experiencing multi-modal signals produced not by other living beings, but by mathematical models. We do not yet have an understanding of this phenomenon's lasting effects on human cognition and behaviour. This especially concerns Virtual and Augmented Reality, which is known to "amplify" affections, particularly for inexperienced user groups. We believe that studying the new neural engagements' potential benefits and threats is urgently called for.

This year UNAI's motto is going to be "Accessible and Neurosecure Augmented Reality". The UNAI workshop will bring in original research, review and position papers, as well as practical developments dedicated to various types of augmented interaction, including Alenhanced interfaces and generated content, neural technologies, etc. The focus is on making today's VR/AR safe and universally applicable, usable and accessible for all kinds of users, including non-technologically advanced ones, such as elder people, and in all contexts: at home and at work, in medicine/healthcare and in industry, as momentary entertainment and as everyday job. As with previous editions of our workshop, the scope involves human factors aspects and social implications, rather than technological nuances.

The **topics of the workshop** include but are not limited to:

## Theme 1: Accessibility in Virtual and Augmented Reality

- Adaptive AR environments for cognitive and sensory impairments
- Adaptive feedback mechanisms in AR
- Evaluating accessibility, security, and user experience (UX)
- Evaluation frameworks for accessibility and security in AR
- Intelligent assistants and conversational agents in AR
- Personalization and adaptation in AR
- Technology acceptance and social implications
- User-centered methodologies for accessible AR development

### **Theme 2: Human-Computer Interaction**

- Agent-based interactions
- Content creation / authoring and content management
- Cross-modal interaction techniques
- Explainability and transparency in Al-assisted UI design
- Human sensory systems and perception in AR
- Human-machine intelligence systems
- Novel VR/AR interaction paradigms

### Theme 3: Neurosecurity and Neurotechnology in AR

- Detection and mitigation of neural attacks and manipulations
- Evaluating cognitive and emotional factors
- Neuroadaptive AR Systems for personalized UX
- Neuroethical and societal considerations
- Neurosecurity: challenges and solutions
- Real-time neurofeedback integration
- Safe and efficient Brain-Computer Interfaces (BCIs)
- User privacy and data protection in AI-AR systems

## Theme 4: AR for human well-being and ergonomics

- Applications in healthcare and medicine
- AR and AI in business processes
- AR-based technologies for successful ageing
- Ergonomics and human factors in AR
- Inclusive and efficient AR
- Practices and standards for Al-generative content
- Psychotherapy and rehabilitation with VR/AR

#### **Important Dates:**

Submission deadline: 20th July 2025

Acceptance notifications issued: 1<sup>st</sup> August 2025

Camera-ready materials: 15<sup>th</sup> August 2025

**Workshop date:** 12<sup>th</sup> October 2025 (in hybrid mode) *All dates are Anywhere on Earth Time (UTC-12)* 

#### **Papers Submission**

Authors are invited to submit original contributions in English. All submissions will be peer reviewed by the technical program committee members. The submission needs to be done via EasyChair: <a href="https://easychair.org/conferences/?conf=unai2025">https://easychair.org/conferences/?conf=unai2025</a>

Please format the papers according to the requirements and follow the guidelines and policies specified for ISMAR conference papers:

https://www.ieeeismar.net/2025/contribute/guidelines/authors/

#### Contribution types:

Research, review or position papers: 4-6 pages excluding references. References should not exceed 2 pages in length.

Demo / practical papers: 2-4 pages excluding references, plus a video of up to 5 minutes. All the submissions will be reviewed by the members of the Program Committee. Accepted papers will be published in **ISMAR 2025 adjunct proceedings to appear in IEEE Xplore and to be indexed by Scopus**. For each accepted paper, at least one author must attend the workshop and present the paper.

**Registration** is subject to the terms and conditions of ISMAR.

## **Workshop Organizers**

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