

AC 2025 19th International Conference on Augmented Cognition

Jointly held under one management and one registration with HCI International 2025

https://2025.hci.international/ac

Chairs

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Gothenburg, Sweden

The main goal of the field of Augmented Cognition is to research and develop adaptive systems capable of extending the information management capacity of individuals through computing technologies, including Artificial Intelligence. Augmented Cognition research and development is therefore focused on accelerating the production of novel concepts in human-system integration and includes the study of methods for addressing cognitive bottlenecks (e.g., limitations in attention, memory, learning, comprehension, visualization abilities, and decision making). Al-driven technologies play a crucial role in this effort by assessing the user's cognitive status in real time through behavioral, psychophysiological, and/or neurophysiological data. A computational interaction employing such novel system concepts monitors the state of the user, and with the integration of Al, these systems can dynamically adapt or augment the computational interface to significantly improve the user's performance on the task at hand.

The related topics include, but are not limited to:

- Augmented Cognition: Evolving Theory and Practice Ethics and Neurotechnology
- Neuroergonomics and Operational Neuroscience
- Artificial Intelligence and Adaptive Training Systems
- Quantum computing and Augmented Cognition Applications
- Augmented Cognition for Health and Healthcare
- Shared Cognition, Team performance, and Decision-Making Physiological Measuring and Human Performance in Operational Settings
- Understanding Human Cognition and Behavior in Complex Tasks and Environments
- Brain Activity Measurement: electroencephalography, fNIRS, eye tracking
- Applied Cognitive Modeling, Perception, Emotion and Interaction

- Cybernetics and Artificial Intelligence for adaptive training systems
- Biofeedback for operational environments
- Context aware adaptive techniques and systems
- Virtual and Augmented Reality Techniques for augmented cognition applications
- Accelerated Learning through augmented learning and training
- Predictive technologies for enhancing real world performance
- Novel brain-computer interface technologies
- Rehabilitation and Cognitive Aids
- Interactive technologies for population with special needs

Submission deadlines are available at the HCII 2025 website:

https://2025.hci.international/submissions.html

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