



# TRACK 4: Usability and Universal Design of ICT for Emergency Management

21<sup>st</sup> International Conference on  
INFORMATION SYSTEMS FOR CRISIS RESPONSE AND MANAGEMENT

*“Theme: Embracing the Crisis Management  
Lifecycle”*

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University of Münster and State Fire Service Institute North Rhine-Westphalia  
<https://iscram2024.ercis.org/>

## THE TRACK OVERVIEW

All ICT tools being used in emergency management should be accessible and easy to use, which can be achieved through carefully following the principles of universal design, i.e. ensuring that the ICT tools are usable by diverse users, including the elderly and people with disabilities.

This track focuses on Usability and Universal Design of ICT in Emergency Management which is an important emerging area of research within the ISCRAM community. The primary objectives of the track are to focus on usability for all users, and to promote an understanding the implications of ICT for the elderly and people with disability in emergency management, uncover how ICT can contribute to remove barriers, and bring together relevant researchers and practitioners to ensure access to information for all in an emergency situation.

The nature of this track is broadly interdisciplinary, accommodating research with approaches from diverse fields including Universal Design, Accessibility and Usability, Human-Computer-Interaction and Interaction Design, Human-Centred Design, as well as Information and Communication Technology (ICT), Information



Systems, Cognitive Psychology, Disaster Resilience and Emergency Management, that together may contribute to disaster resilience for all.





Scientists and practitioners concur that appropriate ICT technology can improve disaster management and crisis communication in all cycles: preparedness, response and recovery in terms of the needs of people with disabilities. Information sharing and crowdsourcing tools are emerging as important factors in disaster resilience, and it is essential that these tools are accessible and usable for as many potential users as possible.

## TRACK TOPICS

Possible topics of interest for this track include, but are not limited to the following:

- *Usability and accessibility of ICT tools for improving the resilience for all users, including the elderly and people with disabilities*
- *Personalized and adaptive ICT systems for elderly and people with disabilities*
- *Universal Design of Crisis Visualization Tools and Technologies*
- *Universal Design of Emergency Response Tools and Technologies*
- *Universal Design of Information Crowdsourcing Tools and Technologies*
- *Universal Design and Usability of Technology for Digital Volunteers*
- *Universal Design of Emerging Technologies in Emergency Management*
- *Universal Design of Social Media for Emergency Interaction*
- *Universal Design of Crisis Maps*
- *Universal Design of Emergency Alert Systems and Technologies*
- *Universal Design of Security for Emergency Management Solutions*
- *Evaluation of Emergency Management Systems and Tools*
- *Universal Design of Command and Control Room for Emergency Management*
- *Human-centered Design of Emergency Management Tools and Technologies*
- *Assistive Technologies with ICT Tools in Emergency Management*
- *Interface design for ICT Tools in Emergency Management*
- *Technologies and Methodologies for Improving Accessibility of Crisis Terminologies*
- *Supporting ICT Tools to Mitigate Language and Cultural Barriers in Emergency Management*
- *Situational Disability in Emergency Situations*
- *Integrated Research and Evaluation Methodologies for Usability of ICT Support for Emergency Management*
- *Emerging Technologies such as Augmented Reality for helping Elderly People and People with Disabilities*
- *Universal Design and Usability for Covid19-related tools and platforms*
- *Universal Design and Usability for Humanitarian Technologies*

## TRACK CHAIR AND CO-CHAIR

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