ISCRAM 2018

Rochester Institute of Technology
Rochester, NY, USA

TRACK: Universal Design of ICT in Emergency Management

15th International Conference on INFORMATION SYSTEMS FOR CRISIS RESPONSE AND MANAGEMENT

"Visualizing Crisis"

Workshops and Doctoral Symposium May 20th, 2018

Conference May 21nd-23th, 2018

Rochester New York - USA
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https://iscram2018.rit.edu/

INTRODUCTION TO THE TRACK

Universal Design in Emergency Management is a research field where previously, the focus has been primarily on universal design of buildings and escape routes. However, Universal Design of ICT can be a matter of saving people's life in a disaster. 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 [1]. Therefore, 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.

Technologies like wireless technologies, augmented reality, and assistive technologies has the potential to empower people with disabilities regarding individual preparedness (technology outreach), response (warning and reaction), recovery (enable location of accessible shelters)

and mitigation (wireless technologies integrated into post-disaster reconstruction). Better access to crisis terminologies can improve shared understanding among crisis responders.
The primary objectives of the track is to understand the implications of ICT for elderly and people with disability in emergency management, uncover how ICT can contribute to remove barriers, and bring together the relevant researchers and practioners, to establish a research agenda for this topic.
There are many exciting and important topics and research questions in this area that the proposed track aims to bring forth, and our aim is for the track for Universal Design of ICT for Emergency Management to become a permanent part of ISCRAM in the future.

TRACK TOPICS

- *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 of Emerging Technologies in Emergency Management*
- *Universal Design of Social Media for Emergency Interaction*
- *Universal Design of Crisis Map*
- *Universal Design of Emergency Alert Systems and Technologies*
- *Universal Design of Web-based Alert Systems*
- *Evaluation of Emergency Management Systems and Tools*
- *Evaluation of Mobile Device-based Emergency Management Systems*
- *Universal Design of Command and Control Room for Emergency Management*
- *Universal Design of Information Visualization for Crisis Responders*
- *User-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 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*

AUTHORS AND REVIEWERS RECRUITEMENT

Authors and reviewers will be recruited among the members of Centre for Integrated Emergency Management (CIEM) at University of Agder (UiA) and Research group for Universal Design of ICT at Oslo and Akershus University College of Applied Sciences (HIOA), as well as their respective research networks. Colleagues as well as PhD- and Master students at the respective institutions with relevant research will be encouraged to contribute papers to the track.

TRACK CHAIR AND CO-CHAIR

Dr. Terje Gjøsæter is Associate Professor at HIOA and active member of the research group for Universal Design of ICT. He has previous experience from co-organizing and co-chairing a Workshop on Web Accessibility and Metamodelling in Grimstad, Norway in 2005, with 15 participants and 5 poster presentations, and participants and invited speakers from Italy, Egypt and Germany as well as Norway. He also co-edited the proceedings from the workshop containing peer reviewed abstracts published by University of Agder (previously Agder University College). He was Session Chair for a parallel session at MODELSWARD 2016) and is currently a member of the program committee of NISK2017. Together with co-chairs Jaziar Radianti and Weiqin Chen, he has a paper accepted at ITDRR2017 on "*Universal Design of Information Sharing Tools for Disaster Risk Reduction*" [2].

Dr. Jaziar Radianti is the head of CIEMlab at Centre for Integrated Emergency Management, University of Agder. She has wide research experience in the area of emergency management, mobile sensing technology, and disaster resilience. She has co-authored some papers related to web-Accessibility. She also has laid out a research agenda on usability and accessibility of information visualization, and command and control room for emergency management. In addition, she has done a preliminary research on technology for better access in crisis communication, and methodologies for harmonising crisis terminology. Jaziar has been active and serves as a reviewer in various international conference and journals since 2010.

Weiqin Chen is Professor at department of computer science at HIOA and leader of the research group for Universal Design of ICT. She has many years of teaching and research experiences in human computer interaction, assistive technology, and universal design of ICT. She has organized and chaired a number of conferences, workshops, special sessions/tracks, panels, and other academic events, including executive chairs for ICCE 2015-16, workshop chairs for LA 2014-7, EP4LA series, Doctoral Student Consoritum chairs and co-chairs for ICCHP2018 and ICCE2011-14, local organization committee for Design Education 2012.

All three co-chairs plan to participate in the conference and contribute to sessions connected to the proposed track.

[1] Bennett, D., B.D. Phillips, and E. Davis, *The future of accessibility in disaster conditions: How wireless technologies will transform the life cycle of emergency management*. Futures, 2017. 87: p. 122-132.; Bennett, D., P.M. Baker, and H. Mitchell, New 9 media and accessible emergency communications. Disability and Social Media: Global Perspectives, 2016: p. 119.
[2] Radianti, j., T. Gjøsæter, W. Chen, Universal Design of Information Sharing Tools for Disaster Risk Reduction, accepted for publication in the Proceedings from ITDRR 2017.

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