ISCRAM2013

Integrative and Analytical Approaches to Crisis Response and Emergency Management Information Systems

10th International Conference on Information Systems for Crisis Response and Management

Kongresshaus Baden-Baden
Baden-Baden Germany

TRACK: Decision Support Methods and Tools for Holistic Emergency Management

Introduction of the track

One of the major challenges decision makers face in the preparation for, and the sense- and decision-making during a crisis is to handle complexity and uncertainty. This is most prominent when handling crises that impact complex networks and cascade over time and space. The consequences of a decision may be difficult to assess, for instance as series of action-steps may be required or as several heterogeneous sources of information may need to be integrated. Particularly, the dynamics of the situation (e.g., cascading effects and feedback loops associated with CI failures) need to be addressed despite the related difficulties: although we know that various 'paths of development' (and associated outcomes) are possible, it is difficult to quantify the uncertainties, choose the most relevant paths and to manage the associated risks. Therefore interdependencies of decisions over time and across organisations should be part of the considerations.

To support decision-makers in these situations, transparent and well-structured decision support systems need to be developed. This track explores how tools (e.g., expert systems, databases, visualisations) and methods involving human experts (crowd sourcing, Delphi, MCDA) can be combined to enable better informed decision-making under complexity, uncertainty and risk. Ultimately, the methods and tools presented in this track should aim at providing coherent, understandable and reliable information to decision makers; facilitating communication, transparency and coordination; and account for the present uncertainties, even when time is short and the pressure is high.

Track topics

This track investigates how to provide holistic support to decision-makers in complex situations in all phases of crisis management. Specifically, we invite contributions addressing the following topics:
- *Robust decision-making*
- *Scenario-based situation assessment and decision support*
- *Collaborative and participatory decision-making*
- *Representing and communicating uncertainties and their impact on the results*
- *Experiences with working with uncertainty and lessons learned*
- *Methods and techniques for handling uncertainty at different crisis stages, or across crisis stages*
- *Iterative, sequential and interdependent decision-making under uncertainty*
- *Information fusion and knowledge integration in uncertain environments*
- *Modelling or planning under uncertainty including re-planning and updating problems*
- *Concepts of reversibility, flexibility, agility and ease of adaptation*
- *Re-using (uncertain) information from different crisis stages, or across crisis stages*

- Optimization under soft constraints

Track Chairs

Dr. Tina Comes*, Institute for Industrial Production, Karlsruhe Institute of Technology, COMES@KIT.EDU
(Corresponding Chair)

Dr. Valentin Bertsch, Institute for Industrial Production, Karlsruhe Institute of Technology, VALENTIN.BERTSCH@KIT.EDU

Dr. Marcus Vogt, Baden-Wuerttemberg Cooperative State University (DHBW Stuttgart), VOGT@DHBW-STUTTGART.DE

Dr. Niek Wijngaards, D-CIS Lab / Thales Research & Technology Netherlands, NIEK.WIJNGAARDS@D-CIS.NL-

Type of submissions

ISCRAM2013 is soliciting three types of submission:

1. Full research papers, which will be double blind peer reviewed. It is intended that these will report completed work which can be assessed to the highest academic standards. Such papers should be no more than 10 pages with figures & tables (~5000 words)

2. Work in progress and discussion paper which will be subjected to a light peer review to ensure clarity. Such papers should be no more than 5 pages with figures & tables (~2500 words)

3. Practitioner reports and discussions which raise issues, examples and case studies of importance in responding to and managing crises. These submissions will be subject to a light peer review to ensure clarity. Such papers should be submitted in the form of an extended abstract (maximum two pages, ~ 1200 words). All practitioner reports should be submitted via the dedicated "Practitioner report track".

Note that the designation of the paper and its reviewing will be indicated in the conference proceedings. Also we are not trying to create some concept of first and second quality papers. Rather we are aware that some report finished work which can be assessed in the sense of full peer review and contribution to research, while others offer ideas and thoughts which will stimulate discussion at ISCRAM conferences. The latter are vital if we are to make the conference valuable for shaping our subject.

> ***Note that the ISCRAM MS Word template for submissions is available at***
> ***http://www.iscram.org/iscram2013***

Submission Process and Deadlines

Authors must submit papers and posters electronically at https://www.conftool.com/iscram2013/. All papers must use the ISCRAM paper template. Deadlines for each submission format are listed below.

> ### Submission Deadline Schedule for Papers, Posters, and PhD Colloquium:
>
> *Full paper submissions* -- November 15th, 2012
> *Work-in-progress paper, practitioner papers, posters* -- January 15th, 2013
> *Doctoral student colloquium papers* -- February 15th, 2013
>
> Submission site: https://www.conftool.com/iscram2013/

About ISCRAM:

The ISCRAM Community is a worldwide community of researchers, scholars, teachers, students, practitioners and policy makers interested or actively involved in the subject of Information Systems for Crisis Response and Management. At its annual international conference alternating between the US and Europe, the ISCRAM Community gathers to present and discuss the latest research and developments in this growing area during an interactive and stimulating 3 day program. The ISCRAM Community also organizes an International Summer School for PhD students and ISCRAM-CHINA, an annual conference for ISCRAM research in China. Full information on ISCRAM can be found at www.iscram.org.