TRACK 2: Geographic Information Systems for Crisis Management (GIS)

21st International Conference on
INFORMATION SYSTEMS FOR CRISIS RESPONSE AND MANAGEMENT

"Theme: Embracing the Crisis Management Lifecycle"

Conference May 25th-29th, 2024

Münster - Germany

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

INTRODUCTION TO THE TRACK

With crisis and hazardous events being an "inherently spatial" problem, geospatial information and technologies frequently support disaster and crisis management. Therefore, geospatial methods and tools - such as Spatial Decision Support Systems (SDSS), Geographic Information Systems (GIS) architectures, Volunteered Geographic Information (VGI), spatial databases, and spatial-temporal methods, as well as geovisual analytics technologies - have great potential to contribute to understanding the geospatial characteristics of a crisis, such as to identify regions at risk, estimate damaged areas, define evacuation routes, and plan resource distribution. New forms of data, such as sensor data and citizen-generated (e.g., social media and OpenStreetMap) data, are employed to support disaster management (e.g., near real-time mapping). These big geospatial data pose new challenges for geospatial data visualization and data modeling and analysis. Existing technologies, methodologies, and approaches now deal with data shared in various formats, velocities, uncertainties, and from a plethora of sources.

In line with this year's conference theme, the GIS Track welcomes submissions that address process-centric views of integrating humanitarian technologies and developing resilient societies. We believe that a holistic and integrated process view of crisis management can overcome isolated considerations of crisis management lifecycle phases and showcase well-structured solutions using geospatial data, tools, and methods.

The GIS Track is one of the longest-running ISCRAM tracks. The track presents an opportunity to involve the broader GIS community in ISCRAM, which traditionally publishes considerable work in disaster and crisis management.

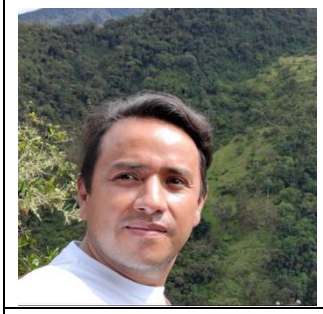
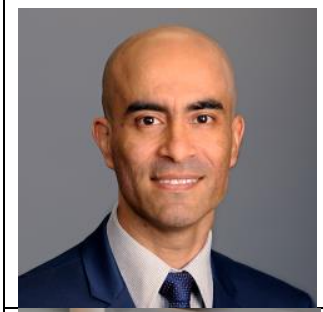
TRACK TOPICS

Authors are encouraged to submit works related to the following topics. Topics are not limited to the following list.

- *Including geospatial approaches in process-centric disaster thinking*
- *Developing well-structured solutions using geospatial tools and techniques*
- *Defining holistic geospatial approaches instead of isolated approaches*
- *Location analytics for crisis management*
- *Geospatial machine learning and artificial intelligence for crisis management*
- *Collaborative and participatory disaster mapping, citizen participation*
- *Location-based services and technologies for crisis management*
- *Cloud-based technologies for crisis data management and processing*
- *Geospatial ontology and linked data for crisis management*
- *Geospatial big data in the context of disaster and crisis management*
- *Urban computing and geospatial aspects of smart cities for crisis management*
- *Spatial decision support systems for crisis management*
- *Remote sensing and geospatial data collection for crisis management*
- *Geospatial intelligence for crisis management*
- *Spatial data management and infrastructure for crisis management*
- *Geovisual analytics, mapping, and geovisualization for crisis management*
- *Spatial-temporal modeling in disaster and crisis context*
- *Geoethics, privacy, and spatial justice in crisis management and disaster risk reduction*
- *Public policies and governance for geospatial information*
- *Case studies of geospatial analysis/tools*
- *Teaching cases using geospatial approaches*

TRACK CHAIR AND CO-CHAIR

**Corresponding Chair*

	*Michael A. Erskine*, Associate Professor* *michael.erskine@mtsu.edu* *Middle Tennessee State University*
	*Joy Garfield, Senior Teaching Fellow* *j.garfield@aston.ac.uk* *Aston University*
	*Diego Pajarito Grajales* *diego.pajaritograjales@glasgow.ac.uk* *University of Glasgow*
	*Andrés Díaz López, Clinical Associate Professor* *adiazlop@asu.edu* *Arizona State University*
	*Olaf Steenbergen* *osteenbergen@redcross.nl* *The Netherlands Red Cross*


ISCRAM 2024
MÜNSTER, GERMANY


WWU
MÜNSTER


IdF
Institut der Feuerwehr NRW


ERCIS
C³M


ISCRAM
ISCRAM 2024
MÜNSTER, GERMANY