



## TRACK: Analytical Modeling and Simulation

14<sup>th</sup> International Conference on  
INFORMATION SYSTEMS FOR CRISIS RESPONSE AND MANAGEMENT

# *“AGILITY IS COMING”*

Workshops and Doctoral Symposium May 21<sup>th</sup>, 2017  
Conference May 22<sup>nd</sup>-24<sup>th</sup>, 2017

ALBI (FRANCE)  
Ecole des Mines d'Albi-Carmaux



## INTRODUCTION TO THE TRACK

The purpose of this track is to discuss the development and application of analytic problem-solving techniques, including simulation, optimization, and statistical analysis, which can help improve decision making in the context of disaster operations management. The development of such techniques is critical for each of the four topics of interest for ISCRAM 2017: detection, adaptation, reactivity, and effectiveness. Such analytic tools can be particularly important for managing disaster preparedness and response because better decision making can lead to improvements in response times and operational effectiveness. Similarly, for either disaster mitigation planning or disaster recovery efforts, improving the ability to make informed decisions can help organizations identify priorities and operational efficiencies, and therefore lead to more effective use of limited resources.

This track would invite both theoretical and applied research papers discussing topics relevant to the concepts of modeling and simulation. Its overall purpose is to provide a dedicated venue for such research to be shared and discussed, and thus to highlight the breadth and depth of efforts to improve the effectiveness and efficiency of disaster operations management. In honor of this year's conference theme, submissions which explicitly consider flexibility and responsiveness will be particularly welcome.

## TRACK TOPICS

Topics will include (but not be limited to):

- Quantitative modeling and process optimization associated with mitigation, preparedness, response, or recovery
- Modeling and analysis of disaster resilience
- Simulation modeling and analysis
- Stochastic optimization and modeling
- Data mining and information analysis

## AUTHORS AND REVIEWERS RECRUITEMENT

The team of track chairs has academic experience in both information technology and in engineering, as well as real-world experience in applied operations management; this will allow them to recruit a diverse group of new participants and reviewers for the track. Because this is also the seventh year in a row that the track will be offered at the ISCRAM conference, previous contributors and reviewers will be encouraged to participate again.

## TRACK CHAIR AND CO-CHAIR

Christopher Zobel (Chair) is a professor of Business Information Technology at Virginia Tech, and a member of the Board for the ISCRAM Association. He has been the Track chair of the Analytical Modeling and Simulation track at ISCRAM since 2011, he collaborated with Tina Comes on offering the Humanitarian Relief Logistics track at ISCRAM 2013, and he was one of the editors for the 2010 ISCRAM Proceedings, along with Simon French and Brian Tomaszewski. He previously was also the program chair (and conference chair) for the 2012 meeting of the Southeast Decision Sciences Institute (160 attendees). Dr. Zobel's research on disaster operations management modeling and simulation has been published in a number of different academic journals, including Decision Sciences, Decision Support Systems, and the Journal of Humanitarian Logistics and Supply Chain Management.

Josey Chacko (Co-chair) is an assistant professor at Mount St. Mary's University. He has been one of the Track chairs for the Analytical Modeling and Simulation track since 2015. Dr. Chacko's research, which has been published in Decision Support Systems, addresses disaster operations management and policy analysis with a focus on stakeholder-based, values-driven modeling and simulation. Prior to his doctoral work in the US he served as a department head for a manufacturing firm in Kenya and was responsible for systems optimization, predictive and preventative maintenance, and new capacity development.

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