

EM-GIS2017 Workshop Report

The 3rd ACM SIGSPATIAL International Workshop on the Use of GIS in Emergency Management

Hui Zhang¹, Jean-Claude Thill², Yan Huang³, Danhuai Guo⁴, Yi Liu¹, Rui Yang¹

¹Institute of Public Safety Research, Department of Engineering Physics, Tsinghua University

²Department of Geography & Earth Sciences University of North Carolina at Charlotte

³University of North Texas

⁴Computer Network Information Center, Chinese Academy of Sciences

Emergency management involves four stages: Planning and Mitigation, Preparedness, Response and Recovery. Geospatial applications (including GIS) have been extensively used in each stage of emergency management. Decision-makers can utilize the geospatial information to develop planning and mitigation strategies. GIS models and simulation capabilities are used to exercise response and recovery plans during non-disaster times. They help the decision-makers understand near real-time possibilities during an event. Once disaster occurs, GIS will take effect in real time response and recovery activities

EM-GIS 2017(<https://em-gis2017.github.io/>) was held in conjunction with the 25th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (SIGSPATIAL 2017) on November 7th, 2017 in Redondo Beach, California, USA. The purpose of the EM-GIS 2017 workshop is to provide a forum for researchers and practitioners to exchange ideas and progress in related areas. This workshop in the ACM SIGSPATIAL conference addresses the challenges of emergency management based on advanced GIS technologies. This workshop will bring together researchers and practitioners in massive spatio-temporal data management, spatial database, spatial data analysis, spatial data visualization, data integration, model integration, cloud computing, parallel algorithms, internet of things, complex event detection, optimization theory, intelligent transportation systems and social networks to support better public policy through disaster detection, response and rescue.

EM-GIS 2017 has accepted 14 research papers for or all presentations (15 minutes for each paper). EM-GIS 2017 was a one-day workshop consisting of four sessions: (1) Mitigation using forecasting models, (2) Mitigation using social media and network analysis, (3) response in emergency management , and (4) summarize and analysis in emergency management. The workshop have two best paper, Social Media Discourse in Disaster Situations: A Study of the Deadly July 21, 2012 Beijing Rainstorm and Experimental Study on Driving Behaviour. We would like to express our special thanks to the keynote speaker, Prof. Hui Zhang (Tsinghua University), who gave a very interesting and inspiring talk Smart Emergency Management and GIS Technology for a Mega City. We would also like to thank the authors for publishing and presenting their papers in EM-GIS 2017, and the program committee members and external reviewers for their professional evaluation and help in the paper review process. We hope that the proceedings of EM-GIS 2017 will inspire new research ideas, and that you will enjoy reading them.