

ADVANCED DISASTER, EMERGENCY AND RAPID RESPONSE SIMULATION (ADERSIM)

Professors Jimmy Huang, Ali Asgary and Jianhong Wu from York University in Canada have received \$1, 650,000 through the Natural Sciences and Engineering Research Council of Canada’s (NSERC) Collaborative Research and Training Experience (CREATE) Grants over six years to lead the industry program titled “Computational Approaches for Advanced Disaster, Emergency and Rapid Response Simulation (ADERSIM)”. The proposed Advanced Disaster, Emergency, and Rapid Response Simulation NSERC CREATE industry stream program will enhance Canada’s capacities in public safety and emergency management through innovative training, research, and development of professionals in state-of-the-art simulations and emergency management information systems.

The ADERSIM program will train 78 postdoctoral fellows and graduate students of the next generation of Canadian HQPs with excellent interdisciplinary theoretical and professional skills in information searching, data mining, knowledge management, modeling and simulations to meet Canada’s current and future demands in emergency management and public safety industry.

Research and development activities will involve developing state-of-the-art technologies, computational approaches and tools for simulating disaster risks (natural, technological and human made) and disaster planning and operations (i.e. emergency warning and evacuation, impact assessment, search and rescue, disaster logistics, volunteer and donation management), debris management, and recovery and reconstruction planning and monitoring.

The program team includes 11 researchers at York University, University of Calgary, McMaster University, University of Montréal, Ryerson University and Western University, as well as 27 other academic collaborators and 18 industrial partners. The program will offer graduate courses in information technology, emergency management, computer science, mathematics, environmental study, business, geometric engineering and civil engineering from 10 graduate programs of six participating universities. “The NSERC CREATE program supports industry-academic collaborations and helps strengthen the mentoring and training environment for students and postdoctoral trainees,” said York’s Vice-President Research & Innovation, Robert Haché. “We are thrilled about the opportunity to provide a world-class training environment in the fields of emergency and disaster management and response planning, through this program”.

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