United Nations International Conference on Space-based Technologies for Disaster Risk Reduction
“Enhancing Disaster Preparedness for Effective Emergency Response” 24 to 26 October 2018, Beijing, China

Rapid Response Disaster Simulation Platform

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"Towards Harnessing the Communication Revolution: A Time for Global Disaster Network."

VIII Pacific Science Congress

Co-sponsored by: WSSI and United Nations University

June, 1995, Beijing, China
ADERSIM: Advanced Disaster, Emergency and Rapid-response Simulation

- Research
- Training
- Supporting Real Time Disaster Response

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ADERSIM Simulation Themes

Hazard and Incident simulations

Disaster Management Operations simulations

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ADERSIM: Selected Technologies

Training and Rapid Response

Research and Simulation

Augmented Reality

GIS and Spatial Modelling

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ADERSIM Primary Simulation Method: Agent-Based Simulation

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GIS-Based Agent-Based Disaster Simulation

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Agents’ Behaviors Behaviour

Train Agent Behavior

Person agent Behavior

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Tornado Simulation

1. Select the touch down point on the map
   - Add point
   - Clear Points

2. Select the ending point
   - Add point

3. Load tornado agent
   - Tornado

4. Define parameters
   - Tornado Scale (F)
     - Value: 4
   - Tornado Wind
     - Value: 800

5. Select layers to be considered in the simulation
   - Population
   - Shopping Malls
   - Schools
   - Police
   - Fire stations
   - Ambulance
   - Hospitals
   - Trees
   - Traffic Lights
   - Cameras
   - Airports

6. Run the scenario

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Mass Evacuation Simulation

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Reducing the power outage restoration period
DISASTER MUTUAL AID SIMULATION: ARCGIS ONLINE COMPONENT

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DISASTER MUTUAL AID SIMULATION: AGENT-BASED SIMULATION COMPONENT

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DISASTER MUTUAL AID SIMULATION : AGENT-BASED SIMULATION COMPONENT

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Complex Emergencies: Forced displacement Simulation

Humanitarian Response
Wildfire Evacuation Simulation

Fort McMurray Wildfire Evacuation Simulation

Fort McMurray Wildfire Evacuation Simulation

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Volcano Evacuation Simulation: Vulcano Italy

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San Francisco Airport Crash - Transportation & Logistics

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Added by Ali Asgary

Application area: Disaster Management, Disaster Simulation, Transportation Disaster,

Simulation method: Agent Based

Tags: ali asgary york university disaster management disaster modeling disaster simulation

Run the model
Share and Run the Simulations on the Cloud

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