



The 9th IFIP WG5.15 Conference on Information Technology in Disaster Risk Reduction (ITDRR2024)

October 14-16, 2024, KREMS Austria

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SIEMENS



Conference Programme

Time Slots	Monday 14.10	Tuesday 15.10	Wednesday 16.10
08:30 - 09:00	Registration	Morning Welcome	Morning Welcome
09:00 - 09:05	Welcome by the Conference Hosts, Walter Seböck & Ingeborg Zeller	SESSION 3 - EVACUATION	
09:05 - 09:15	Welcome Speech by Rector Friedrich Faulhammer	Lucia Castro Herrera, Ingimar Ari Jenson and Terje Gjøsaeter - <i>"Between Early Warning and Fatigue: Exploring Evacuation and Crisis Management in the 2023/24 Volcanic Eruptions in Iceland"</i>	
09:15 - 09:30	Facts and Figures of ITDRR2024 Details about the Conference Julie Dugdale, Yuko Murayama, Walter Seböck		
09:30 - 10:00	Keynote - Marcos Borges <i>"The Overlooked Role of Social Disasters in Disaster Management"</i>	Cagri Toraman, Izzet Emre Kucukaya, Oguzhan Ozcelik and Umitcan Sahin - <i>"Detecting Social Media Messages Calling for Help in Earthquake Disaster"</i>	Keynote - Ingrid Schaumüller-Bichl <i>"The EU NIS 2 Directive and its Perspectives for Disaster Risk Reduction"</i>
10:00 - 10:30		Kunihiro Nakahara and Michinori Hatayama - <i>"Toward the Realization of Resident-led Tsunami Evacuation Simulation Creation for the Promotion of Community-based Countermeasures"</i>	
10:30 - 11:00	Coffee Break	Coffee Break	Coffee Break
	SESSION 1 - INFORMATION FOR DISASTER MANAGEMENT	SESSION 4 - RELIABILITY IN DECISIONMAKING	SESSION 5 - WAR AND SAFETY ISSUES
11:00 - 11:30	Kjetil Rustenberg - <i>"Identifying Bottlenecks for Information Flow with an Explorative Information Trading Zone Framework in Emergency Management"</i>	Benny Benyamin Nasution, Rahmat Widia Sembiring, Indra Siregar and Rina Walmiaty Mardi - <i>"Software-Based True Random Number Generator (STRNG) for Reducing Communication Vulnerabilities during Disaster Evacuation and Recovery within Resilient Urban Development (RUD) Framework"</i>	Bettina Biron, Stephan Schraml and Walter Seböck - <i>"Autonomy of reconnaissance CBRN-drones and the need for trust in the technology: A survey"</i>
11:30 - 12:00	Kei Hiroi, Akihito Kohiga, Sho Fukaya and Yoichi Shinoda - <i>"Performance Evaluation of An Orchestrator Framework for Disaster Cyber-physical System"</i>	Diogo Sasdelli and Thomas J. Lampoltshammer - <i>"On the Ethical Value of Evidence in Disaster Response"</i>	Nicolas Stockhammer - <i>"The Virtualization of Terrorism and its Consequences for Counterterrorism"</i>
12:00 - 12:30	Jacimar Tavares and Marcos Borges - <i>"Towards to maintaining Awareness Data in Emergencies Involving Critical Infrastructure - A framework for process and actions"</i>	Sophie Coudert and Tullio Joseph Tanzi - <i>"Autonomous systems: towards an assessment of the reliability"</i>	Jaziar Radianti, Preet Laaniste, Stella Polikarpus and Terje Gjøsaeter - <i>"Air Raid Shelters - Painful Memory (from the Cold War) with New Actuality"</i>
12:30 - 13:30	Lunch Break	Lunch Break	Lunch Break
	SESSION 2 - TRAINING		SESSION 6 - INFORMATION AND COMMUNITY DISASTER MANAGEMENT
13:30 - 14:00	Anna Sumereder, Bernhard Bürger and Robert Woitsch - <i>"Digitalization of Table-Top Exercises: An Emergency Response Training Showcase"</i>	Keynote - Michinori Hatayama <i>"Improvement of Adaptive Capacity using Disaster Information Management Systems"</i>	Jun Sasaki - <i>"Proposal of a Tourism and Disaster Prevention Information Portal Site for Foreign Tourists Visiting Japan"</i>
14:00 - 14:30	Jennifer-Marieclaire Sturlese and Ronald Hochreiter - <i>"Modeling the case of Cyber Espionage for Executive Game Simulations"</i>		Hans J Scholl - <i>"The Iberian Orca Interaction Crisis: Disentangling Wild Marine and Human Lives—A Call for Managed Co-existence"</i>
14:30 - 15:00	Coffee Break	Coffee Break	Coffee Break
15:00 - 15:30	Stella Polikarpus, Reet Kasepalu and Edna Milena Sarmiento-Márquez - <i>"From Dynamic Decision-making Assessments Using Virtual Simulation-based Training to Targeted Training of Incident Commanders"</i>	Poster Session	Barbara Gruber <i>"Integrating Relationality into Community Resilience: Enhancing Disaster Management Strategies"</i>
15:30 - 16:00	Koki Asami, Kei Hiroi and Michinori Hatayama - <i>"Interactive Disaster Training Scenario Generation System with Large Language Models"</i>		Awards Ceremony, ITDRR 2025, and Closing
17:00 - 18:30	City Tour KREMS		
from 18:30	Hofbräuhaus (Restaurant)	Salzstadl (Restaurant)	

Keynote Speakers

Monday, October 14th, 2024

Speaker: Prof. Dr. Marcos Borges



Prof. Marcos Borges earned his doctorate in Information Systems from the University of East Anglia, UK in 1986. He was Full Professor at the Federal University of Rio de Janeiro, Brazil and at TECNUN, University of Navarra, Spain. He has been working on Emergency Management related topics since 2003. His research interests include Collaboration Support, Group Decision Systems, Resilience Engineering and Collective Knowledge. He is a former President of ISCRAM (Information

Systems for Crisis Response and Management) Association and a former Vice-President of the Brazilian Association for Disaster Risk Reduction.

Talk: The Overlooked Role of Social Disasters in Disaster Management

Abstract: This talk delves into the intricate relationship between natural and social disasters, highlighting how natural events can trigger or amplify social crises that disrupt the fabric of communities. Despite great efforts to understand disaster management through preparation, response, and recovery, social disasters—rooted in human actions, societal issues, or governance failures—remain underexplored. We will present the complexity of social disasters and examine how the research community has engaged with this critical yet underrepresented topic.

Tuesday, October 15th, 2024

Speaker: Prof. Dr. Michinori Hatayama



Prof. Hatayama is a distinguished researcher at Kyoto University's Disaster Prevention Research Institute. He earned his Ph.D. in Intelligent Systems Science from Tokyo Institute of Technology in 2000. Prof. Hatayama's career includes roles as a researcher at Kyoto University and the Japan Digital Road Map Association. He became an assistant professor at Kyoto University in 2002 and has since held various academic positions, including a visiting researcher at the Swiss Federal Institute of Technology in 2006. His research focuses on disaster prevention using ICT and robotics, collaborating with local governments and volunteer organizations.

He has also taught numerous courses at Kyoto University and Kobe City University of Foreign Studies.

Talk: Improvement of Adaptive Capacity using Disaster Information Management Systems

Abstract: When preparing for a disaster in advance, it is assumed what the threat level will be and what will be protected. Responding to a disaster of a scale that exceeds these preliminary assumptions depends on the allocation and relief input of human and material resources. To carry out better disaster response, effective information management is required. This presentation will explain effective information management during a disaster based on case studies of a huge disaster in Japan.

Wednesday, October 16th, 2024

Speaker: Prof. Dr. Ingrid Schaumüller-Bichl



Prof. Ingrid Schaumüller-Bichl is an expert in information security, data protection and risk management and was a professor at the University of Applied Sciences Upper Austria and head of the Information Security Compliance Center (ISCC) until 2020. She is a member of the Austrian Data Protection Council, has worked in several working groups of the European Union Agency for Cybersecurity

(ENISA) on risk management and certifications and is a member of the information security, cybersecurity and privacy protection working groups of Austrian Standards. From 2004 to 2020 she was the Austrian representative to IFIPTC11.

Ingrid Schaumüller-Bichl is Vice President of the Austrian Computer Society (OCG), and heads the OCG's IT security working group together with Edgar Weippl, University of Vienna.

Talk: The EU NIS 2 Directive and its Perspectives for Disaster Risk Reduction

Abstract: The new EU NIS 2 directive aims at achieving a high common level of cybersecurity across the EU. It brings a variety of measures and regulations for public and private entities to strengthen their cybersecurity and resilience, but also requirements to the member states and the EU itself. The adoption of national cybersecurity strategies, designation of cyber crisis management authorities, computer security incident response teams, as well as the build-up of EU-CyCLONe and the European vulnerability database, makes it an important factor in Disaster Risk Reduction. The keynote will highlight the most important issues of NIS 2 and their meaning for IT in Disaster Risk Reduction as well as its relation to other current EU legal initiatives like the Critical Entities Resilience Directive (CER), the Cybersecurity Act (CSA) and the Cyber Resilience Act (CRA).

Organization

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- Walter Seböck, University for Continuing Education Krems, Austria
- Ingeborg Zeller, University for Continuing Education Krems, Austria

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