19th International Conference on Information Systems for Crisis Response and Management

Tarbes, France

May 22- May 25, 2022

ISCRAM 2022

Tarbes, France

Organized by

ÉCOLE NATIONALE D'INGÉNIEURS DE TARBES

In collaboration with

ISCRAM

Sponsored by

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Mairie de TARBES

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Communauté d'agglomération

La Région Occitanie Pyrénées Méditerranée

Welcome message

On behalf of the organizing committee, we welcome you to the 19th International Conference on Information Systems for Crisis Response and Management (ISCRAM 2022), Tarbes, France. The conference is organized by INP-ENIT and in collaboration with ISCRAM Organization.

ISCRAM 2022 Conference is a forum where researchers and practitioners from all around the world meet every year to share experiences and raise challenges in all the aspects related to the design, development, and use of information systems to improve the management of crisis and disaster situations.

The 4-days program exhibits high level scientific presentations and workshop sessions.

A number of networking and social events are also organized all along the conference.

We underline the presentation of the four distinguished keynote speakers: Pr. Christian Reuter (Technical University Darmstadt), Pr. Gyöngyi Kovács (Hanken School of Economics, Helsinki, Finland), Pr. Keri K. Stephens (University of Texas, Austin), and Mr. Gregory Allione (Fire and Rescue Service of the Bouches-du-Rhône, France).

We hope that you will enjoy your stay in Tarbes.

General program

	Sunday May 22 th						Monday May 23 th					Tueday May 24 th			Wendesday May 25 th			
08:00 - 17:30							On site registration					On site registration			On site registration			
08:30 - 09:00							Opening & Welcome											
09:00 - 10:00							Keynote speaker 1 - Gyöngyi Kovacs Room: Grand Amphi					Keynote speaker 2 - Gregory Allione Room: Grand Amphi			Keynote speaker 4- Christian Reuter Room: Grand Amphi			
10:00 - 10:30							*Coffee break*					*Coffee break*			*Coffee break*			
10:30 - 11:30							Track 1 Applications, Tools and Components for Crisis Management Room: E1	Track 3 Usability and Universal Design of ICT for Emergency Management Room: E2	Track 8 Command & Control Studies Room: E3	Track 9 Social Media for Crisis Management Room: E4	Track 12 AI and Intelligent Systems for Crises and Risks Room: E5	EENA Panel			Track 9 Social Media for Crisis Management Room	Track 2 Analytical Modeling and Simulation Room: E1	Tracks 8 & 7 Command & Control Studies & Disaster Public Health and Healthcare Informatics Room: E2	Tracks 10 & 11 & 14 Geospatial Technologies and Geographic Information Science for Crisis Management & Reimagining ethical, legal, and social issues in a COVID era & Open Track Room: E4
11:30-12:30												Practioner Session Room: E3	Track 6 Technologies for First Responders Room: E2	Track 2 Analytical Modeling and Simulation Room: E1	Practioner Session Room: E3			
12:30 - 13:30	On site registration						*Lunch*					*Lunch*			*Closing Ceremony & Lunch*			
13:30 - 14:30	Worshop 1 Systemic Risk Assessment and Management Room: E1	Worshop 2 Intelligent Crisis Manageent Technologies (ICMT) : Big Data Analytics and AI for Disaster Risk Reduction Room: E2	Worshop 3 Listening to listeners: current approaches and challeges in using social media as a source of information Room: E3	Worshop 4 Crisis Anticipation : concepts, methods and systems Room: E4	Tutorial Trust and reliability of social data for crisis management and analysis Room: E5	Doctorial Consortium Room: C18	Track 2 Analytical Modeling and Simulation Room: E1	Track 4 Visions for Future Crisis Management Room: E2	Track 6 Technologies for First Responders Room: E3	Track 9 Social Media for Crisis Management Room: E4	Track 13 Data and resilience: opportunities and challenges Room: E5	Keynote speaker 3 - Keri Stephens Room: Grand Amphi			Social Event: Visit of the "Grottes de Bétharram"			
14:30 - 15:30												Poster & demos Room: Building E						
15:30 - 16:00	*Coffee break*						*Coffee break*					*Coffee break*						
16:00 - 17:00	Worshop 1 Systemic Risk Assessment and Management Room : E1	Worshop 2 Intelligent Crisis Manageent Technologies (ICMT) : Big Data Analytics and AI for Disaster Risk Reduction Room: E2	Worshop 3 Listening to listeners: current approaches and challeges in using social media as a source of information Room: E3	Worshop 4 Crisis Anticipation : concepts, methods and systems Room: E4	Tutorial Trust and reliability of social data for crisis management and analysis Room: E5	Doctorial Consortium Room: C18	Panel: Ethics and Crisis management Katrina Peterson, Carole Adam, Stefan Schauer, Florence Sedes and Nada Matta Room: Grand Amphi					ISCRAM General Assembly Room: Grand Amphi						
18:30 - 22:00	Social Event at "Les galoppins" bar						Cocktail + Visit of Lourdes					Gala Dinner (Château Bouscassé)						
17:30 - 23:00																		

ISCRAM 2022 Tracks

- **Track 01:** Applications, Tools and Components for Crisis Management
- **Track 02:** Analytical Modeling and Simulation
- **Track 03:** Usability and Universal Design of ICT for Emergency Management
- **Track 04:** Visions for Future Crisis Management
- **Track 05:** Enhancing Protection of Critical Infrastructures
- **Track 06:** Technologies for First Responders
- **Track 07:** Disaster Public Health and Healthcare Informatics
- **Track 08:** Command & Control Studies
- **Track 09:** Social Media for Crisis Management
- **Track 10:** Geospatial Technologies and Geographic Information Science for Crisis Management (GIS)
- **Track 11:** Reimagining ethical, legal, and social issues in a COVID era
- **Track 12:** AI and Intelligent Systems for Crises and Risks
- **Track 13:** Data and resilience: opportunities and challenges
- **Track 14:** Open Track

ISCRAM 2022 Workshops

- **Workshop 01:** Systemic Risk Assessment and Management
- **Workshop 02:** Intelligent Crisis Management Technologies (ICMT): Big Data Analytics and AI for Disaster Risk Reduction
- **Workshop 03:** Listening to listeners: current approaches and challenges in using social media as a source of information
- **Workshop 04:** Crisis Anticipation: concepts, methods and systems

ISCRAM 2022 KEYNOTE Speakers

Christian Reuter is Professor at Technical University of Darmstadt. His chair Science and Technology for Peace and Security (PEASEC) in the Department of Computer Science combines computer science with peace and security research. On the intersection of the disciplines (A) Cyber Security and Privacy, (B) Peace and Conflict Studies as well as (C) Human-Computer Interaction, he and his team specifically address (1) Peace Informatics and technical Peace Research, (2) Crisis Informatics and Information Warfare as well as (3) Usable Safety, Security and Privacy. As author and reviewer (since 2009) as well as co-track chair (since 2015) he has been involved in ISCRAM for more than one decade. (www.peasec.de/team/reuter)

Gyöngyi Kovács is the Erkko Professor in Humanitarian Logistics, and the Subject Head of Supply Chain Management and Social Responsibility at the Hanken School of Economics, in Helsinki, Finland. She is a founding Editor-in-Chief of the Journal of Humanitarian Logistics and Supply Chain Management (JHLSCM) and is on the editorial board of several other journals. She was the first Director of the Humanitarian Logistics and Supply Chain Research Institute (HUMLOG Institute) and has published extensively in the areas of humanitarian logistics and sustainable supply chain management. She was awarded humanitarian logistics researcher of the year 2020 by the American Logistics Aid Network ALAN. Currently, she is leading a Horizon 2020 (EU) COVID-19 project called "HERoS" (Health Emergency Response in Interconnected Systems).

Keri K. Stephens, PhD, is a Professor in Organizational Communication Technology, a Distinguished Teaching Professor, Co-Director of Technology, Information, & Policy Institute, and she directs the OPTICLab in the Moody College of Communication at The University of Texas at Austin. Her research program examines the role of technology in organizational practices and organizing processes, especially in contexts of crisis, disaster, and health. She has authored over 100 articles appearing in research journals, proceedings, and books, and her two most recent books are the national-level, award-winning book New Media in Times of Crisis (2019, Routledge), and the two-time, national-level, award-winning book Negotiating Control: Organizations and Mobile Communication (2018, Oxford University Press). Prior to academia, she used her BS in biochemistry degree and worked in the fields of environmental chemistry, biopharmaceutical analysis, and laboratory robotics.

Gregory Allione is the General Controller, Departmental Director of the Fire and Rescue Service of the Bouches-du-Rhône, France. *"Like most of us, I was a volunteer firefighter in my village, in one of these communal rescue centers where we enjoy meeting up and getting involved. I was barely 17 years old."* Originally from the Var, he became a volunteer fireman in 1989, then a professional in 1997. He joined the board of directors of the Federation in 2003, then left the federal authorities in 2010 to serve the State and carry the voice of firefighters. He thus became social advisor to the Director General of Civil Security and Crisis Management, then civil security advisor to the Minister of the Interior in 2012. In October 2014, he is appointed chief of corps, departmental director of Bouches-du-Rhône. He is again elected to the Federation's Board of Directors in September 2015 and then joined the Executive Committee as Vice President in charge of strengthening the role of firefighters in civil security and crisis management. He has been President of the Federation since October 12, 2018 and as such he sits on the national governance bodies of fire and rescue services (National Commission of Fire and Rescue Services, National Council of Volunteer Firefighters, Association for the Loyalty and Recognition Benefit, Monitoring Committee of the National Sdis-SAMU Reference System).

Sunday 22-May -2022		
12:30 - 13:30	Onsite registration	
13:30 - 15:30	**Workshop 1: *Systemic Risk Assessment and Management*** *(**Room**: E1)*	**Chairs: *Jose Julio Gonzalez and Colin Eden***
		• Introduction to the tool strategyfinder™ • Creation of a map of risks for a simple pandemic scenario (how infodemic affects people willingness to vaccinate • Creation of causal diagram (adding arrows showing causes and effects) • Review and quality assurance of the causal diagram • Analysis of the map of risks as causal diagram • Development of strategies that are effective and practical • How to assign responsibility for implementation of the strategies • Documentation of the strategies • Discussion and evaluation as dialogue between the researchers and the participants
	Workshop 2: Intelligent Crisis Management Technologies (ICMT): Big Data Analytics and AI for Disaster Risk Reduction *(**Room**: E2)*	**Chairs: *Anastassios Karakostas, Stefanos Vrochidis, Claudio Rossi, Evangelos Sdongos, Spyridon Kintzios, Maike Overmeyer, Katerina Margariti, and Krishna Chandramouli***
		• Technological Big Data and AI trends of crisis management • Brainstorming session • Interactive session
13:30 - 15:30	**Workshop 3: Listening to listeners: current approaches and challenges in using social media as a source of information** *(**Room**: E3)*	**Chairs: Lucia Castro Herrera and Terje Gjøsæter**

		• Introduction - presentations of concepts and methods
		• Basic concepts and hands-on activities
		  ○ Social media use in PSOs.
		  ○ 3-5 examples of configurations.
		• Analysis of scenarios that could illustrate current challenges and opportunities
		  ○ Breaks will be administered in between scenario activities (approximately every 2 sessions).
		• Summary and discussion of experience (interactive - 15 min)

		○ Questionnaire for feedback about the workshop and evaluation of learning outcomes.
13:30 - 15:30	**Workshop 4: Crisis Anticipation: concepts, methods and systems** *(**Room**: E4)*	**Chairs: Agnès Voisard and Christian Després** • Emerging concepts, methods, and systems to model and handle anticipation in crisis management • Processes in the preparation of a crisis • Preparedness and strategic plans for crisis • Benchmarks for resilience • Formal description of crisis scenarios • Crisis labs: design and user behavior
13:30 - 15:30	**Tutorial: Trust and reliability of social data for crisis management and analysis** *(**Room**: E5)*	**Chairs: Valentina Dragos, Delphine Battistelli, and Farah Benamara** • Trust and reliability on social platforms • Facts, opinions and uncertainties in social data • Upcoming trends for social data analysis • Questions & Answers
13:30 - 15:30	**Doctorial Consortium** *(**Room**:C18)*	**Chairs: Kathleen Moore, Audrey Fertier**

Monday 23 - May - 2022	
08:00 - 17:30	Onsite registration
08:30 - 09:00	Opening & Welcome ***Room:** Grand Amphi*
09:00 - 10:00	Keynote speech: ***Humanitarian Logistics for Pandemic Response***. By **Prof. Gyöngyi Kovács** Professor in Humanitarian Logistics, and the Subject Head of Supply Chain Management and Social Responsibility at the Hanken School of Economics, in Helsinki, Finland. Session Chair: ***Room:** Grand Amphi*
10:00 - 10:30	Coffee break

10:30-12:30	**Track 1:** ***Applications, Tools and Components for Crisis Management*** *(**Room**: E1)*	**Chairs:** ***Bas Lijnse, Jürgen Moßgraber & Anastasios (Tasos) Karakostas***	
		10:30	**Preparedness against hazardous events: A novel tool for water *utilities*** *Christina Tsouti, Eleni Ntzioni, Efstathia Tsarouchi, Dimitris Sakellariou, Marios Kotoulas, Christina Papadaskalopoulou, Katerina Valta and Anastasios Karakostas*
		10:50	**Enabling Participatory Flood Monitoring Through Cloud Services** *Diego Fabian Pajarito Grajales, Livia Castro Degrossi, Daniel Barros, Mohammed Rizwan Khan, Fernanda Lima E Silva, Maria Alexandra Cunha, João Porto de Albuquerque and Rachel Trajber*
		11:10	**Emergency Procedures to Executable Plans** *Massimo Cossentino, Davide Andrea Guastella, Salvatore Lopes, Luca Sabatucci and Mario Tripiciano.*
		Chair: ***Nada Matta***	
		11:30	**Analyzing citizens' needs during an extreme heat event, based on 311 service requests: A case study of the 2021 heatwave in Vancouver, British Columbia** *Ayda Kianmehr and Duygu Pamukcu*
		11:50	**A DEA-based Approach for Managing Performance of Public Service Systems During a Disaster** *Duygu Pamukcu, Christopher Zobel and Yue Ge*

10:30-12:30	**Track 3:** ***Usability and Universal Design of ICT for Emergency Management*** *(**Room**: E2)*	**Chairs:** ***Terje Gjøsæter & Jaziar Radianti***	
		10:30	**Adapting Textual Alerting Messages to Context and Population needs: Feedbacks from France** *Johnny Douvinet*
		10:50	**Community Segmentation and Inclusive Social Media Listening** *Lucia Castro Herrera and Terje Gjøsæter*
		11:20	**CBRNe, a universally designed app for that?** *Laura Petersen, Grigore M. Havarneanu, Natasha McCrone, Garegin Markarian, Åsa Burlin and Per-Erik Johansson*
		11:40	**Key Concepts for Effective Use of Digital-supported Table-top Crisis Management Exercises** *John Sören Pettersson*

		12:00	**(Remote presentation) Evaluating the Impact of 2D vs. 3D Building Plans for Fireground Incident Command Decision-Making** *Katelynn Kapalo, Kevin Pfeil, Joseph Bonnell and Joseph LaViola*
10:30-12:30	**Track 8: *Command and Control Studies*** *(**Room**: E3)*	**Chairs: *Peter Berggren, Björn Johansson***	
		10:30	**Understanding at the Boundary of Inter-organizational Crisis Management – Perspectives from the Swedish COVID-19 Response** *Jonas Herkevall and Björn J. E. Johansson*
		11:00	**Managing natural hazards in Sweden – needs for improved information and decision support systems** *Viktor Sköld Gustafsson, Sofie Pilemalm, Tobias Andersson Granberg and Martin Waldemarsson*
		11:20	**A meta-evaluation of Swedish evaluations of COVID-19 pandemic management** *Alva Lindhagen, Anton Björnqvist and Peter Berggren*
		11:40	**Modeling Real World Crisis Management Plans with C2Sketch** *Bas Lijnse*
		12:10	**Functional and Dysfunctional modelling and assessment of an Emergency Response Plan** *Cendrella Chahine, François Peres, Thierry Vidal and Mohamad Elfalou*
10:30-12:30	**Track 9: *Social Media for Crisis Management*** *(**Room**: E4)*	**Chair: *Amanda Hughes***	
		10:30	**Incident Streams 2021 Off the Deep End: Deeper Annotations and Evaluations in Twitter** *Cody Buntain, Richard Mccreadie and Ian Soboroff*
		11:00	**A 'glocal' approach for real-time emergency event detection in Twitter** *Dario Salza, Edoardo Arnaudo, Giacomo Blanco and Claudio Rossi*
		11:30	**Are Sudden Crises Making me Collapse? Measuring Transfer Learning Performances on Urgency Detection** *Nils Bourgon, Benamara Farah, Alda Mari, Véronique Moriceau, Gaetan Chevalier, Laurent Leygue and Yasmine Djadda*
		11:50	**Ensemble learning for the classification of social media data in disaster response** *Hafiz Budi Firmansyah, Jesus Cerquides and Jose Luis Fernandez-Marquez*
		12:10	**Bang for your Buck: Performance Impact Across Choices in Learning Architectures for Crisis Informatics** *Shivam Sharma and Cody Buntain*

10:30-12:30	**Track 12: *AI and Intelligent Systems for Crises and Risks*** *(**Room**: E5)*	**Chair: *Antonio De Nicola, Linda Elmhadhbi & Fiona McNeill***	
		10:30	**Multi-Agent Dynamic Planning Architectures for Crisis Rescue Plans** *Cendrella Chahine, Thierry Vidal, Mohamad El Falou and François Pérès*
		10:50	**A Simulation Framework for Epidemic Spreading in Semantic Social Networks** *Rocco Sergio Palermo and Antonio De Nicola*
		11:10	**Towards flexibility sharing in multi-agent dynamic planning: the case of the health crisis** *Aïdin Sumic, Emna Amdouni, Thierry Vidal and Hedi Karray*
		11:30	**A new approach to structured processing of feedback for discovering and investigating interconnections, cascading events and disaster** *Christian Iasio, Ingrid Canovas, Elie Chevillot-Miot and Tendry Randramialala*
		11:50	**(Remote Presentation) Understanding Data augmentation with synthesized damaged roof images generated by GAN** *Koki Asami, Shono Fujita, Kei Hiroi and Michinori Hatayama*
		12:10	**(Remote Presentation) Automatic Multilingual Incident Report Generation for Crisis Management** *Simon Mille, Gerard Casamayor, Jens Grivolla, Alexander Shvets and Leo Wanner*
12:30 -13:30	Lunch		
13:30-15:30	**Track 2: *Analytical Modeling and Simulation*** *(**Room**: E1)*	**Chair: *Julian Zobel***	
		13:30	**Severity of Crowding at Evacuation Shelters after a Major Earthquake** *Toshihiro Osaragi, Koji Ogino, Noriaki Hirokawa and Takuya Oki*
		14:00	**Finding and explaining optimal screening strategies with limited tests during the COVID-19 epidemics** *Carole Adam and Hélène Arduin*
		14:30	**Predicting Volunteer Travel Time to Emergencies** *Violeta Tobias Andersson Granberg, Sara Erlander, David Fredman, Lovisa Olovsson and Emma Persson*
		14:50	**CAMON: Aerial-Ground Cooperation System for Disaster Network Detection** *Julian Zobel, Ralf Kundel and Ralf Steinmetz*
13:30-15:30		**Chair: *Rob Grace***	

	Track 4: ***Visions of Future Crisis Management*** *(**Room**: E2)*	13:30	**Use of Physics of Decision to assess how COVID-19 impacted air pollution** *Camelia Bellepeau, Hugo Bergere, Corentin Thevenet, Frédérick Bénaben, Nafe Moradkhani and Thibaut Cerabona*
		14:00	**Modeling cascading disasters: The importance of political systems and organizational networks** *Francesca Giardini and Clara Egger*
		14:30	**Data Ecosystems and Disaster Risk Reduction in Cross-border Regions: Visioning from 2020 Roya Valley Flood Disaster** *Anouck Adrot and Mercedes Aguerre*
		Chair: *Aurélie Montarnal*	
		15:00	**Opportunities for Multisensor Integration in Public-Safety Answering Points** *Rob Grace and Michelle Potts*

<table>
<tr><td rowspan="2">13:30-15:30</td><td rowspan="2"><u>Track 6:</u>
<u>Technologies for First Responders</u>

(Room: E3)</td><td colspan="2">Chairs: Evangelos Sdongos, Angelos Amditis, Eleftherios Ouzounoglou, Petros Daras, Anastasios Dimou, George Boustras, Tiina Ristmäe</td></tr>
<tr><td>13:30

14:00

14:30

14:50</td><td>A Symbiotic Orchestration Module for Multi-agent Collaboration in Disaster Response Scenarios
Thomas Theodoridis, George Katsikas, Nicholas Vretos and Petros Daras

Barriers to Digitalized Co-production: the Case of Volunteer First Responders
Sofie Pilemalm

Analysis of the chemical incidents from Seveso Directive according to direct fatalities and injuries
Ana María Cintora, Eva Teresa Robledo, Cristina Gomez, Raquel Lafuente, Ricardo García and Cristina Horrillo

Improving cardiopulmonary resuscitation by building trust between dispatchers and citizens through simulation workshop
Ophélie Morand, Caroline Rizza, Stéphane Safin and Robert Larribau</td></tr>
<tr><td rowspan="2">13:30-15:30</td><td rowspan="2"><u>Track 9:</u>
<u>Social Media for Crisis Management</u>

(Room: E4)</td><td colspan="2">Chair: Christian Reuter</td></tr>
<tr><td>13:30

14:00

14:30

14:50

15:10</td><td>Is Multi-Modal Data Key for CrisisContent Categorization on SocialMedia?
Zijun Long and Richard McCreadie

"Please Donate for the Affected": Supporting Emergency Managers in Finding Volunteers and Donations in Twitter Across Disasters
Pooneh Mousavi and Cody Buntain

Towards an Automated Information Extraction Model from Twitter Threads during Disasters
Kiran Zahra, Rahul Deb Das, Frank O. Ostermann and Ross S. Purves

Automated construction of a French Entity Linking dataset to geolocate social network posts in the context of natural disasters
Gaëtan Caillaut, Cécile Gracianne, Nathalie Abadie, Guillaume Touya and Samuel Auclair

Real-time Alert Framework for Fire Incidents Using Multimodal Event Detection on Social Media Streams
Thomas Papadimos, Nick Pantelidis, Stelios Andreadis, Aristeidis Bozas, Ilias Gialampoukidis, Stefanos Vrochidis and Ioannis Kompatsiaris</td></tr>
<tr><td>13:30-15:30</td><td></td><td colspan="2">Chairs: Kees Boersma & Jaziar Radianti</td></tr>
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	Track 13: *Data and resilience: opportunities and challenges* *(**Room**: E5)*	13:30 14:00 14:20 14:50 15:10	**Understanding Building upon the existing knowledge: Updating and improving the Smart Mature Resilience Model** *Eulalia Gomez Martin, Josune Hernantes, Leire Labaka and Marcos Borges* **Using Social Media Data in Emergency Management: a proposal for a socio-technical framework and a systematic literature review** *Anouck Adrot, Samuel Auclair, Julien Coche, Audrey Fertier, Cécile Gracianne and Aurélie Montarnal* **Continuous systematic situation monitoring: pitfalls and possibilities** *Joeri van Laere and Kristens Gudfinnsson* **(Remote Presentation) Understanding Historical, Socio-Economic, and Policy Contributions to COVID-19 Health Inequities** *Savannah Thais, Shaine Leibowitz, Allie Saizan and Ashay Singh* **(Remote Presentation) Enhancing community resilience through dialogical participatory mapping** *Vangelis Pitidis, Joao Porto de Albuquerque, Jon Coaffee and Fernanda Lima*
15:30 - 16:00	*Coffee Break*		
16:00 - 17:00	*Panel: Ethics and Crisis management* *By Katrina Peterson, Carole Adam, Stefan Schauer, Florence Sedes* *Session Chair: Nada Matta* ***Room**: Grand Amphi*		
Cocktail + Visit of Lourdes			

<table>
<tr><th colspan="4">Tuesday
24 - May - 2022</th></tr>
<tr><td></td><td colspan="3"></td></tr>
<tr><td>08:00 - 17:30</td><td colspan="3">Onsite registration</td></tr>
<tr><td></td><td colspan="3"></td></tr>
<tr><td>09:00 - 10:00</td><td colspan="3">Keynote speech: Crisis Management from FRENCH Practitioners Perspectives.
By Gregory Allione
General Controller, Departmental Director of the Fire and Rescue Service of the Bouches-du-Rhône, France.
Session Chair:
Room: Grand Amphi</td></tr>
<tr><td>10:00 - 10:30</td><td colspan="3">Coffee break</td></tr>
<tr><td>10:30 - 11:30</td><td colspan="3">EENA Panel
Session Chair:
Room: Grand Amphi</td></tr>
<tr><td rowspan="2">11:30-12:30</td><td rowspan="2"><u>Track 2:</u>
<u>Analytical Modeling and Simulation</u>

(Room: E1)</td><td colspan="2">Chairs: Bernd Hellingrath</td></tr>
<tr><td>11:30

12:00</td><td>Measuring the resilience of supply chain networks
Till Sahlmüller and Bernd Hellingrath

A physics-based approach to evaluate crisis impacts on project management
Clara Le Duff, Jean-Philippe Gitto, Julien Jeany, Raphaël Falco, Matthieu Lauras and Frederick Benaben</td></tr>
<tr><td rowspan="2">11:30-12:30</td><td rowspan="2"><u>Track 6:</u>
<u>Technologies for First Responders</u>

(Room: E2)</td><td colspan="2">Chairs: Evangelos Sdongos, Angelos Amditis, Eleftherios Ouzounoglou, Petros Daras, Anastasios Dimou, George Boustras, Tiina Ristmäe</td></tr>
<tr><td>11:30

12:00</td><td>In-depth analysis of practitioners' perceptions about seismic early warning prior to aftershocks: the point of view of the USAR community
Samuel Auclair, Pierre Gehl, Mickael Delatre, Christophe Debray and Philippe Méresse

Augmented reality points of interest for improved first responder situational awareness
Kyriaki Christaki, Dimitrios Tsiakmakis, Ivanka Babic, Guillaume Inglese, Konstantinos Konstantoudakis, Gabriele Giunta, Anastasios Dimou, Olivier Balet and Petros Daras</td></tr>
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<tr><td rowspan="4">11:30-12:30</td><td rowspan="4"><u>Practionner Session:</u>

(Room: E3)</td><td colspan="2">Chair: Nada Matta</td></tr>
<tr><td>11:30</td><td>Electronic Visualization for Situational Awareness in Control Rooms
Christoph Lamers</td></tr>
<tr><td>11:45</td><td>ELD-BS: the digital situation dashboard for Baden-Württemberg
Tobias Hellmund, Manfred Schenk, Jürgen Moßgraber, Hans Springer, Reuter Jürgen and Philipp Hertweck</td></tr>
<tr><td>12:00</td><td>Post-earthquake damage assessment: feedback from a cross-border crisis exercise
Samuel Auclair, Christian Iasio, Andreï Balgiu, Antoni Blasquez, Jean-Christophe Castagnos, Emilie Crochet, Olivier Dalverny, Xavier Goula, Paco Martinez, Philippe Méresse, Philippe Soulé-Péré and Ghislaine Verrhiest-Leblanc</td></tr>
<tr><td></td><td></td><td>12:15</td><td>Evaluation of Tabletop Exercises in Emergency Response Research and Application in an Anonymous Research Project
Pauline Tobergte, Alena Knispel, Lennart Landsberg and Ompe Aimé Mudimu</td></tr>
<tr><td>12:30 - 13:30</td><td colspan="3">Lunch</td></tr>
<tr><td>13:30 - 14:30</td><td colspan="3">Keynote speech: Communication, Technology, & Trust in the Future of Crisis Management
By Keri Stephens
Professor in Organizational Communication Technology, Co-Director of Technology, Information, & Policy Institute
Session Chair:
Room: Grand Amphi</td></tr>
<tr><td>14:30-15:30</td><td><u>Posters and Demos</u>

(Room: Building E)</td><td colspan="2">Chairs: Linda Elmhadbi, Terje Gjøsæter</td></tr>
<tr><td>15:30 - 16:00</td><td colspan="3">Coffee Break</td></tr>
<tr><td>16:00 - 17:00</td><td colspan="3">ISCRAM General Assembly.

Room: Grand Amphi</td></tr>
<tr><td colspan="4">Gala Diner: Château Bouscassé</td></tr>
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<tr><th colspan="3">Wednesday
25 - May - 2022</th></tr>
<tr><td></td><td colspan="2"></td></tr>
<tr><td>08:00 - 17:30</td><td colspan="2">Onsite registration</td></tr>
<tr><td></td><td colspan="2"></td></tr>
<tr><td>09:00 - 10:00</td><td colspan="2">Keynote speech: 20 Years of Crisis Informatics: Citizens' and Authorities' Attitudes Towards Social Media for Public Safety and Security
By Christian Reuter
Professor at Technical University of Darmstadt, Director of chair Science and Technology for Peace and Security (PEASEC)
Session Chair:
Room: Grand Amphi</td></tr>
<tr><td>10:00 - 10:30</td><td colspan="2">Coffee break</td></tr>
<tr><td rowspan="4">10:30-12:10</td><td rowspan="4"><u>Track 2:</u>
<u>Analytical Modeling and Simulation</u>

(Room: E1)</td><td colspan="2">Chair: Julian Zobel</td></tr>
<tr><td>10:30</td><td>Dynamic Capacitated Vehicle Routing Problem for Flash Flood Victim's Relief Operations
Florent Dubois, Paul Renaud-Goud and Patricia Stolf</td></tr>
<tr><td>11:00</td><td>Coupling agent-based simulation with optimization to enhance population sheltering
Ahmed Laatabi, Benoit Gaudou, Chihab Hanachi, Patricia Stolf and Sébastien Truptil</td></tr>
<tr><td>11:20</td><td>Regarding the COVID-19 crisis from a systems engineering perspective
Santiago Pantano Calderón, Claude Baron, Jean-Charles Chaudemar, Élise Vareilles and Rob Vingerhoeds</td></tr>
<tr><td rowspan="2">12:10-12:30</td><td rowspan="2"><u>Track 7:</u>
<u>Disaster Public Health and Healthcare Informatics</u>

(Room: E2)</td><td colspan="2">Chair: Nicolas Lalone</td></tr>
<tr><td>12:10</td><td>Detecting Covid-19 relevant situations using Privacy-by-Design based Mobile Experience Sampling
Hannes Restel, Eridy Lukau, Sebastian Sterl and Lars Gerhold</td></tr>
</table>

10:30-12:10	**Track 8:** ***Command and Control Studies*** ***(Room**: E2)*	**Chairs: *Peter Berggren, Björn Johansson***	
		10:30	**An Analysis of a Swedish Medical Command and Control System's Situation Reports from the COVID-19 Pandemic** *Anton Björnqvist, Marc Friberg, Carl-Oscar Jonson, Jenny Pettersson and Peter Berggren*
		11:00	**Synthesizing Comparison for the Development of a Generic Command and Control System** *Lennart Landsberg, Jörg Schmidt and Ompe Aimé Mudimu*
		11:20	**Assessment of Collaborative Crisis Management Capability by Generic Questions** *Per-Anders Oskarsson, Niklas Hallberg, Johan Nordström, Mari Olsén and Magdalena Granåsen*
10:30-11:30	**Track 9:** ***Social Media for Crisis Management*** *(**Room**: E3)*	**Chair: *Cody Buntain***	
		10:30	**Gaussian Processes for One-class and Binary Classification of Crisis-related Tweets** *Jens Kersten, Jan Bongard and Friederike Klan*
		10:50	**" TriggerCit: Early Flood Alerting using Twitter and Geolocation - a comparison with alternative sources** *Carlo Alberto Bono, Barbara Pernici, Jose Luis Fernandez-Marquez, Amudha Ravi Shankar, Mehmet Oğuz Mülâyim and Edoardo Nemni*
		11:10	**Understanding reactions to misinformation - a Covid-19 perspective** *Ahmed Alnuhayt, Suvodeep Mazumdar, Vitaveska Lanfranchi and Frank Hopfgartner*
10:30-11:10	**Track 10:** ***Geospatial Technologies and Geographic Information Science for Crisis Management*** *(Room E4)*	**Chair: *Michael Erskine***	
		10:30	**Examining the feasibility of LoRa-based monitoring in large-scale disaster response scenarios** *Tim-Jonathan Huyeng, Timo Bittner and Uwe Rüppel*
		10:50	**Development of a Geospatial Agent-Based Simulation of Disaster Evacuations for Battery Electric Vehicle (BEV) Policy** *Michael Erskine, Scott Seipel and Cayson Seipel*
11:10-11:30	**Track 11:** ***Reimagining ethical, legal, and social issues in a COVID era*** *(**Room**: E4)*	**Chair: *Katrina Petereon***	
		11:10	**A serious game for debating about the use of Artificial Intelligence during the COVID-19 pandemics** *Carole Adam and Cédric Lauradoux*

<table>
<tr><td rowspan="4">11:30-12:30</td><td rowspan="4"><u>Track 14:</u>
<u>Open Track</u>

(Room: E4)</td><td colspan="2">Chair: Hemant Purohit</td></tr>
<tr><td>11:30</td><td>Towards More Insight into Cyber Incident Response Decision Making and its Implications for Cyber Crisis Management
Jelle Groenendaal, Ira Helsloot and Christian Reuter</td></tr>
<tr><td>11:50</td><td>Human-AI Teaming for COVID-19 Response: A Practice & Research Collaboration Case Study
Amanda Hughes, Keri Stephens, Steve Peterson, Hemant Purohit, Anastazja G. Harris, Yasas Senarath, S. Ashley Jarvis, Carolyn E. Montagnolo and Karim Nader</td></tr>
<tr><td>12:10</td><td>Tactical police interventions: design challenges for situational awareness
Erik Borglund and Jonas Hansson</td></tr>
<tr><td rowspan="4">11:30-12:30</td><td rowspan="4"><u>Practionner Session:</u>

(Room: E3)</td><td colspan="2">Chair: Nada Matta</td></tr>
<tr><td>11:30</td><td>How to support situation awareness in operational crisis Management: Case studies
Mickael Babin, Nada Matta, Guillaume Delatour, Paul Henri Richard and Patrick Laclemence</td></tr>
<tr><td>11:45</td><td>Ethics in Catastrophes, Extraordinary decisions
Ana Maria Aldea Reyes, Marta Burgos Gonzalez and Susana Izquierdo Funcia</td></tr>
<tr><td>12:00</td><td>Experience Feedback capitalization of Covid’19 Management in Troyes city
Nada Matta, Paul Henri Richard, Alain Hugerot and Theo Lebert</td></tr>
<tr><td>12:30 - 13:30</td><td colspan="3">Closing Ceremony & Lunch</td></tr>
<tr><td colspan="4">Social Event: Visit of the "Grottes de Bétharram"</td></tr>
</table>

ISCRAM 2022 Committee

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Conference Venue

ISCRAM 2022 conference will be held at ENIT (Ecole Nationale D'ingénieurs de Tarbes).
Address: 47 Avenue d'Azereix 65000 Tarbes.

Access by road

Turn right towards Tarbes Town Centre at the first roundabout, then go straight ahead until you reach the university round about, then follow the signs to the university campus.
The entrance to the university campus is a few meters further along on your left (drive past the Observatory and then take the first on the right to access the car park next to the gymnasium).
ENIT can also be reached through the *Place de l'Ingénieur* entrance by driving a few hundred meters down the *Avenue d'Azereix*.

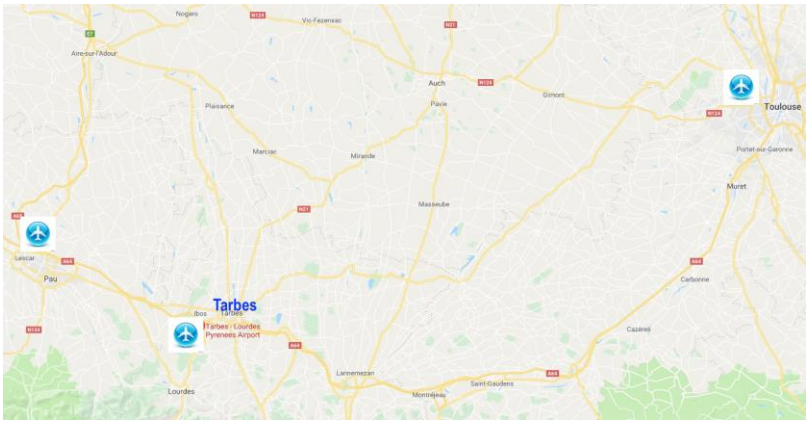
Tarbes is also served by the Highway allowing in the direction of Toulouse, Pau, Bayonne and Bordeaux.

Access by Train

The Gare de Tarbes railway station offers direct connections with Paris, Bordeaux, Toulouse, Bayonne and several regional destinations.

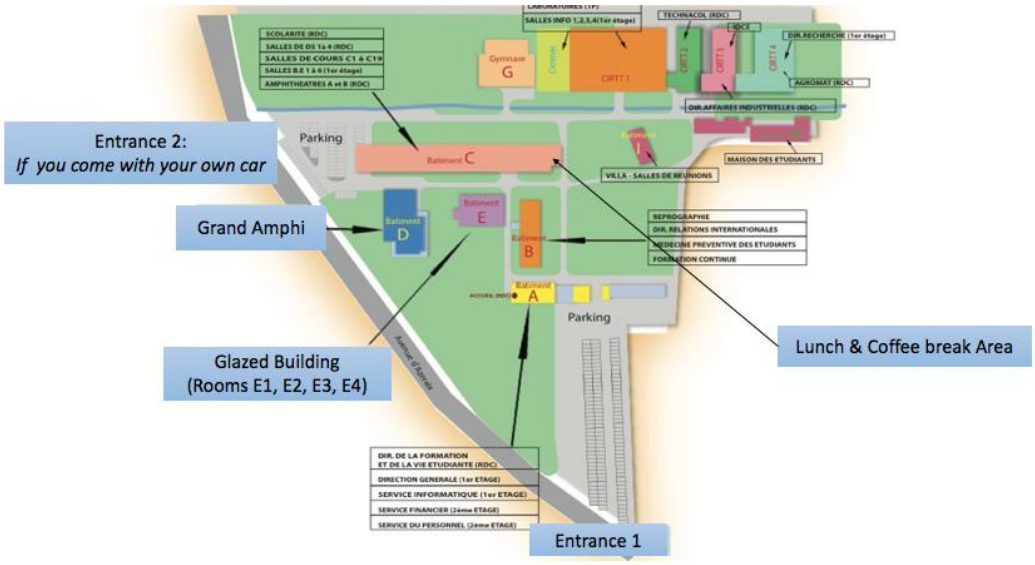
Access by air

- **Tarbes-Lourdes- Pyrenees Airport:** 10 km from the campus (10 minutes)
    - Then taxi or rent car.
    - https://www.tlp.aeroport.fr/destinations
- **Pau-Pyrenees Airport:** 45 km from the campus. (30 minutes)
    - **Then** Shuttle buses to Tarbes /SNCF [rail] connection/-hire car
- **Toulouse Blagnac Airport:** 150 KM from the Campus (90 minutes)
    - Then Shuttle buses to Tarbes /SNCF [rail] connection/-rent car



The Tarbes-Lourdes-Pyrénées Airport is situated 10 kilometres (6.2 mi) from the town centre. This airport is served by HOP! which provides three daily and two weekend air services to Paris Orly. Ryanair serves London-Stansted and Milan Bergamo, with two and three flights a week, respectively. Meridiana connects to Rome and finally Air Nostrum (Iberia Regional) offers two flights per week to Madrid Barajas.

MAP of ENIT



The Glazed building

The glazed building includes rooms E1, E2, E3, and E4 for the parallel sessions.

The Grand Amphi

The plenary sessions are scheduled in the Grand Amphi room.

ISCRAM BUS pick up and drop off

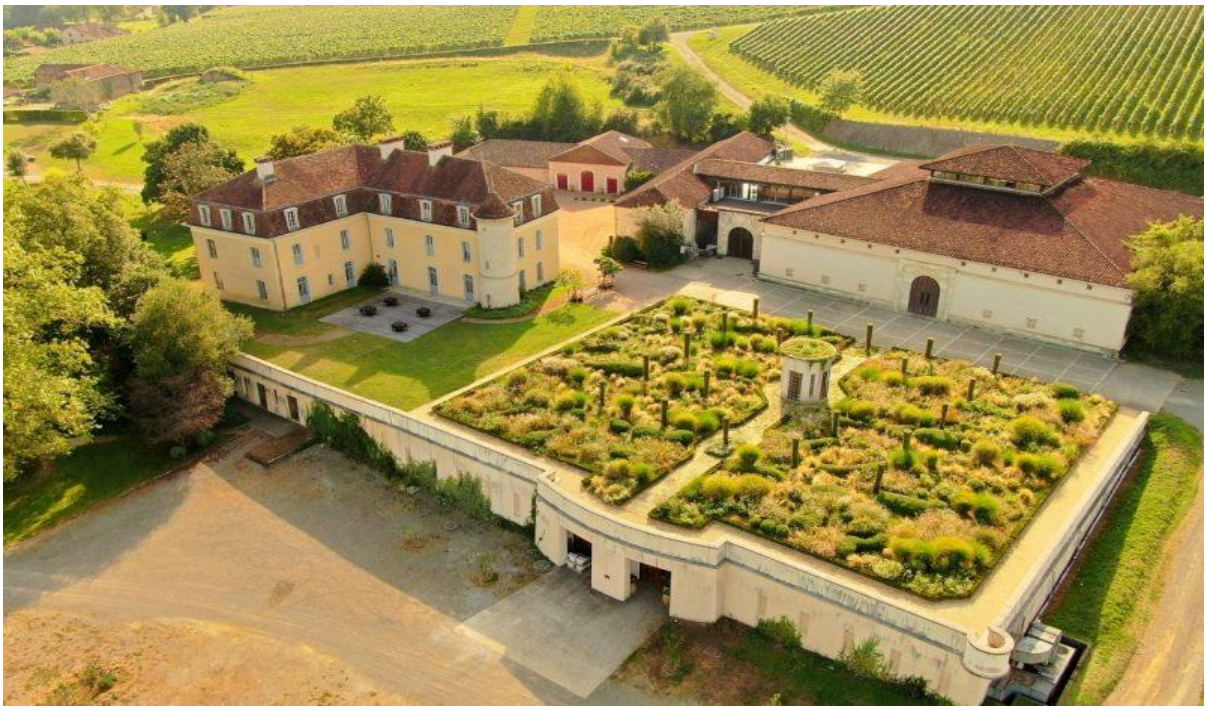
ISCRAM 2022 will provide pick up and drop off bus service from Verdun Square to ENIT.
1 ride the morning and 1 ride the evening.
More details about the station and ride time will be provided soon.

Social events

Lourdes is a French town in the Pyrenean foothills and one of the world's most frequently visited pilgrimage sites.

Website: Lourdes

Château Bouscassé is one of the most famous wineries and vineyards in France.



Website: Château Bouscassé

Grottes de Bétharram are one of the most beautiful caves of Europe.

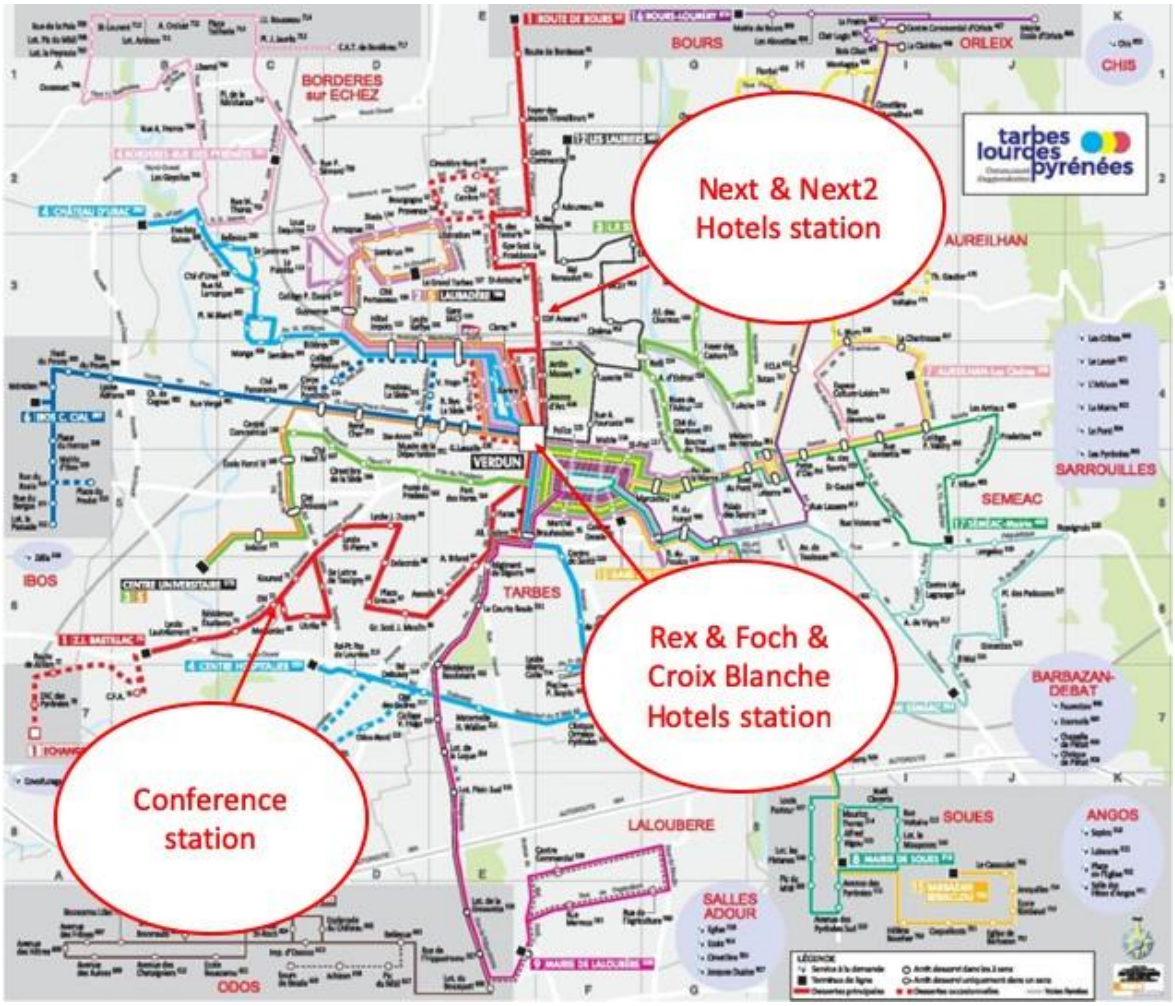
Website: Grottes de Bétharram

Further information about your stay in Tarbes during ISCRAM 2022

Public transport in Tarbes:

Grand Tarbes bus network. The following bus routes go to the university campus:

- Line 1 (Red line on the map) from Verdun square in the direction of “Echangeur ouest”



Taxi service in Tarbes

Radio Taxis Tarbais
Phone: +33 5 62 34 32 36
Taxi Station: Place de Verdun

Approx. 10-12€/ride from Downtown (Verdun square) to ENIT

Verdun Square (Place de Verdun)

Partner Hotels

Hotel name	Price	Website
Le REX Hôtel ★ ★ ★ ★	99 € (Breakfast included)	www.lerexhotel.com
Le NEXHOTEL ★ ★ ★	72€ (Breakfast included)	www.lenexhotel.com
Hôtel FOCH ★ ★ ★	70 € (Breakfast included)	www.hotel-foch.eu [hotelfoch@gmail.com]
Hôtel La Croix Blanche ★ ★	62€ (Breakfast included)	www.hotel-lacroixblanche.fr
Le Nex2 Hôtel ★ ★	60€ (Breakfast included)	www.lenex2.com

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