



THE 2ND INTERNATIONAL CONFERENCE ON
**INFORMATION & COMMUNICATION
TECHNOLOGIES FOR DISASTER MANAGEMENT**

In Rennes, Brittany, France - November 30 to december 2, 2015



Monday, November 30th

08:15 Registration

09:15 Opening session

09:45 Invited talk #1: Erol Gelenbe (Imperial College, UK)

Distributed pervasive emergency management

Chair: Gerardo Rubino

10:45 Coffee break

11:15 Plenary session #1: [Mobile applications and social media for disaster management]

Chair: Ivan Gojmerac

> **ProximAid: proximal adhoc networking to aid emergency response**

Konstandinos Koumidis, Panayiotis Kolios, Christos Panayiotou, and Georgios Ellinas

> **Leveraging human mobility in smartphone based ad-hoc information distribution in crowd management scenarios**

Tobias Franke, Sascha Negele, George Kampis, and Paul Lukowicz

> **Event detection using social sensors**

Alexiei Dingli, Loui Mercieca, Ronald Spina, and Marco Galea

> **Strategy for processing and analyzing social media data streams in emergencies**

Matthias Moj, Therese Friberg, Robin Marterer, Christian Reuter, Thomas Ludwig, Deborah Markham, Mike Hewlett, and Andrew Muddiman

12:35 Lunch break

14:00 Plenary session #2: [Wireless networks for disaster management]

Chair: Samer Lahoud

> **Fast deployment of an energy-efficient heterogeneous wireless network for disaster management**

Mohamed Aymen Chalouf, Martin Peres, and Francine Krief

> **Experimental evaluation of a software defined radio-based prototype for a disaster response cellular network**

Saim Ghafoor, Kenneth N. Brown, and Cormac J. Sreenan

> **Motivation for a step-by-step guide to set up wireless disaster recovery networks**

Matthias Herlich and Shigeki Yamada

> **Efficient communication over cellular networks with network coding in emergency scenarios**

Tan Do-Duy and M. Angeles Vazquez-Castro

> **Towards efficient disaster management: 5g and device to device communication**

Priyanka Rawat, Majed Haddad, and Eitan Altman

15:40 Poster session #1

> **Use of a multi-criteria decision support tool to prioritize reconstruction projects in a post-disaster phase**

Bénédicte Goujon and Christophe Labreuche

> **A task-based ubiquitous approach to urgent computing for disaster management**

Siew Hoon Leong and Dieter Kranzlmüller

> **Evacuation time in tall high-rise buildings**

Mitko Aleksandrov, Abbas Rajabifard, Mohsen Kalantari, and Hosna Tashakkori

> **Urban mobility data to support the assessment of dynamic vulnerability to disasters**

Luciana De Resende Londe, Leonardo Bacelar Lima Santos, Érico Soriano, Livia Tomás, and Tiago Carvalho

> **Strategic framework for advancing the utility of geoict in emergency preparedness**

Rifaat Abdalla

> **YouSOS: a victim-centered multimedia sos emergency framework**

Sofiene Jelassi and Gerardo Rubino

15:40 Demo session #1

> **Correlation analysis of the radar precipitation echo and the precipitation area**

Changwon Choi, Inkyu Jeong, Jiwon Seo, Jung Tak Lim, and Jinyoung Kim

> **3D disaster management focused on the site - a study on utilization of smart cctv based 3D geo-spatial information-**

SoYoung Park, JunWoo Lee, and MinKyo Youm

> **Communication with traveller groups in the aftermath of the disaster**

Morten Gustavsen

> **Development of open platform for enhancing disaster risk management**

Jiwon Seo, Jinyoung Kim, Inkyu Jeong, Jungtak Lim, and Yejing Park

16:20 Plenary session #3: [Security and routing in networks for disaster management]

Chair: Panayiotis Kolios

> **Security in transnational interoperable PPDR communications: threats and requirements**

Ramon Ferrus, Oriol Sallent, Cor Verkoelen, Frank Fransen, Jaakko Saijonmaa, Claudia Olivieri, Michel Duits, Anila Galin, Franco Pangallo, and Debora Proietti Modi

> **Towards transnational interoperable PPDR communications: the european ISI cloud network**

Ramon Ferrus, Oriol Sallent, Claudia Olivieri, Kirsten Aabye, Aladdin Rashed, Franco Pangallo, and Debora Proietti Modi

> **Design of multi-path network topology for contingency cellular network**

Jyh-Shyan Huang, Yao-Nan Lien, and Chun-Fu Wang

> **Multi-path routing in emergency with health-aware classification**

Huibo Bi and Olumide Akinwande

18:30 **Welcome reception (City Hall)**
Bus departure from INRIA at 18:00

Tuesday, December 1st

09:00 **Invited talk #2: Tarik Taleb** (Aalto University, Finland)
Towards 5G: carrier-grade programmable virtual mobile networks
Chair: Yassine Hadjadj-Aoul

10:00 **Coffee break**

10:20 **Plenary session #4: [Data Analysis for Disaster Management]**
Chair: Ramon Ferrús

> **Topology reduction and probabilistic information extraction for large data-sets: a disaster management case study**

Marcello Trovati, Eleana Asimakopoulou, and Nik Bessis

> **Identification of information gaps in civil-military cooperation in disaster management**

Gerald Lichtenegger, Wolfgang Vorraber, Ivan Gojmerac, Ada Sporer, Julia Brugger, Erik Exner, Helmut Aschbacher, Markus Christian, and Siegfried Voessner

> **A methodology for fire data analysis based on pattern recognition towards the disaster management**

Simin Rasouli, Ole-Christoffer Granmo, and Jaziar Radianti

> **Volunteer reputation evaluation for emergency response operations**

Anum Kaleem, Awais Majeed, Hammad Afzal, Tamim Ahmed Khan, and Faisal Bashir

> **knowledge modeling framework - towards user-centered medical services delivery in the emergency context**

Julia Kantorovitch, Georgios Milis, Panayiotis Kolios, Aggeliki Giakoumaki, Antonis Korakis, and Toni Staykova

12:00 **Lunch break**

13:30 **Social event: “Mont-Saint-Michel” (Guided tour and dinner)**
Bus departure for “Mont-Saint-Michel” from the university restaurant at 13:30

Wednesday, December 2nd

09:00 Invited talk #3: Gerardo Rubino (Inria, France)
Risk and loss prediction and analysis: probabilistic approaches
Chair: Oriol Sallent

10:05 Plenary session #5: [Resource localisation for disaster management]
Chair: Paolo Gubian

> **Optimal geospatial allocation of volunteers for crisis management**
Jasmin Pielorz and Christoph Lampert

> **A resource-based decision support tool for emergency response management**
Panayiotis Kolios, George Milis, Christos Panayiotou, Toni Staykova, and Homer Papadopoulos

10:45 Coffee break

11:05 Plenary session #6: [Real world disaster situations: analysis and cases studies]
Chair: Priyanka Rawat

> **COAST: a connected open platform for smart objects**
Zhe Li and Jean-Charles Point

> **Linguistic analysis of japanese tsunami evacuation calls**
Naomi Ogasawara and Jason Ginsburg

> **The disaster of costa concordia cruise ship: an accurate reconstruction based on black box and automation system data**
Paolo Gubian, Bruno Neri, Mario Piccinelli, Paolo Neri, and Francesco Giurlanda

> **Realization of a safe and secure society using ICT in Shiojiri-city, Nagano prefecture, Japan**
Hikofumi Suzuki, Yasushi Fuwa, David K.Asano, Mitsuru Komatsu, Yuji Takeshita, Masato Futagawa, Eiki Motoyama, So Seryu, and Haruo Kaneko

> **Mobility-aware DTN protocols for post-disaster scenarios**
Erika Rosas, Felipe Garay, Nicolas Hidalgo and Olivier Marin

12:45 Lunch break

12:45 Poster session #2

> **Indoor incident situation awareness using 3d indoor/outdoor spatial city model**
Hosna Tashakkori, Abbas Rajabifard, Mohsen Kalantari, and Mitko Aleksandrov

> **A factoring algorithm for solving the problem of partitioning core networks**
Takuya Omura and Masahiro Hayashi

> **A smartphone application to help alert in case of flash floods**
Sekedoua Kouadio and Johnny Douvinet

> **Pulling information from social media in the aftermath of unpredictable disasters**

Marco Avvenuti, Fabio Del Vigna, Stefano Cresci, Andrea Marchetti, and Maurizio Tesconi

> **An operational open source approach for watersheds delimitation and characterization based on digital images and geographical databases**

Tiago Carvalho, Leonardo B. L. Santos, Eduardo F. P. Luz, Rogério Ishibashi, Aurelienne A. S. Jorge, and Luciana R. Londe

> **A semantic framework to characterise and monitor territories affected by environmental risks**

Domenico Calcaterra, Marco Cavallo, Giuseppe Di Modica, and Orazio Tomarchio

12:45 Demo session #2

> **WarnWave: Empowering the crowd to exchange emergency information**

Alireza Kashian, Abbas Rajabifard, Kai-Florian Richter, and Yiqun Chen

> **A new approach for optimized vertical handover in NGWN**

Safia Gueziz and Driss Korichi

13:45 Closing ceremony and awards