### Workshop Description – I-ESA 2014 – N°6

### Theme: EI Application domains and IT

# 1. Workshop title Applications of advanced technologies in the context of disaster relief and crisis management

## 2. Information about the organiser (s)

Name: CHARLES

First name: Aurelie

Organisation: DISP lab, Lyon 2 University

Sector activity: Decision & Information Sciences for Production Systems, Reseach lab

Country: France

Email: a.charles@univ-lyon2.fr

Research interests and areas of expertise: humanitarian logistics, risks and uncertainties, decision

support systems

Name: GUINET First name: Alain

Organisation: DISP lab, Lyon 2 University

Sector activity: Decision & Information Sciences for Production Systems, Reseach lab

Country: France

Email: alain.guinet@insa-lyon.fr

Research interests and areas of expertise: health care system design and control

Name: RUIZ First name: Angel

Organisation: CIRRELT, Université Laval

Sector activity: Enterprise networks, logistics and transportation, Reseach lab

Country: Canada

Email: angel.ruiz@fsa.ulaval.ca

Research interests and areas of expertise: health care system design and control

Research interests and areas of expertise: crisis management, mediation information system

#### 3. Objective

Goals of the workshop, content and topics covered

Disaster relief (also called emergency relief or humanitarian assistance) is of vital interest for researchers, because it is confronted with many challenges, requiring innovative solutions. Much can be gained for researchers, but also for humanitarian agencies, who can seek advice on better ways of operating. This application to humanitarian aid and crisis management is a challenging issue. Indeed, humanitarian organizations differ from private companies in many ways. Firstly, this sector is historically focused only on immediate response, in essence the day to day work needed to attend people affected by disasters, the beneficiaries. Yet, such a focus has been criticised for fire-fighting and a lack of strategic thinking (Van Wassenhove, 2006). Furthermore, the sector has been facing high requirements for coordinating activities across humanitarian organisations including in setting up their supply chains – yet according to Thomas and Kopczak, in 2005, only 56% of logisticians did this in practice. There is also a high turnover of staff, impeding strategic decision-making and reducing the possibilities to build knowledge on past experiences (Thomas and

Kopcak, 2005). At the same time, decision-making needs to be quick, with high impact in terms of human live (Tomasini and Van Wassenhove, 2009; Charles et al., 2010). In the current situation, with humanitarian lacking the time and appropriate tools, it is difficult, if not impossible to collect data and devise new ways of operating. Humanitarian organizations, for example, have huge difficulties to build on past experiences, and often have to choose the first option they find because they need to take decisions quickly. Researchers are no doubt aware that the first step to ensure the success of applications in a specific field consists in producing a complete and representative model of the studied system. This alignment with reality is not easy to achieve though. This is particularly true in the humanitarian context, as in all new research areas, where researchers have difficulty identifying the right decision variables and parameters to be able to develop accurate and relevant models. At the same time, the uncertainty of the humanitarian operational environment does not facilitate data collection and analysis (Goncalves, 2008). This gap is true for many applications in the humanitarian sector (Charles, 2010), including research on ICT. The aim of this workshop is to underline the bottlenecks linked to ICT applications in the context of disaster relief and crisis management and propose ways forward. Papers presenting on-going projects in the sector are welcomed. Proposals may focus on application and/or standardization issues or concrete description of funded project results. 4. Format 2 invited speakers + 2 selected speakers + round table + discussion. Papers must be submitted before the 20th of December 2013. 5. Important dates Papers must be in English, describe original work and must follow the HERMES eng-guidelines for authors. Paper length should be 6 pages for a full paper and 4 pages for a short paper. Papers will be peer-reviewed. Authors should submit their contributions by email to the Workshop Chairs.