Objective

This Summer School is a unique opportunity for Master and PhD students, post docs, faculties and engineers from industry for learning and brain-storming with international experts on basic research and applications in the very complex domain of risk management. A particular attention will be given to Human Centered approaches. An important part will be dedicated to Transports such as trains, aircraft flying, air traffic control, cars, and to crisis management by organizations such as hospitals, civil security or firemen.

Access

By car :

From Paris: Follow A2 motorway Paris/Brussels towards Brussels. Exit 21A to "Université Mont-Houy "
From Lille: Follow A23 motorway. Exit 21A to "Université Mont-Houy".

By air :

Lille – Lesquin Airport 45km from Valenciennes
Car hire available, Shuttle service to Lille TGV station
www.lille.aeroport.fr
Brussel Airport 115km from Valenciennes
www.brusselsairport.be
Paris Charles de Gaulle Airport 181km from Valenciennes
www.aeroportsdeparis.fr
Paris Orly Airport 220km from Valenciennes
www.aeroportsdeparis.fr

By train :

Valenciennes train station
By train to Valenciennes.
By tramway follow "University" direction and stop at station "Moriamez-Recherche".
www.voyages-sncf.com / transvilles.tmpds56.haisoft.net

Hotel accommodation

Valenciennes downtown is 10 min by tramway from the summer school site at the University of Valenciennes – Campus du Mont-Houy. A list of hotels will be available on the website:
http://www.univ-valenciennes.fr/risk-management-2015

SUMMER SCHOOL:
RISK MANAGEMENT, A HUMAN CENTERED APPROACH
VALENCIENNES (FRANCE) JULY 6-9, 2015

Registration

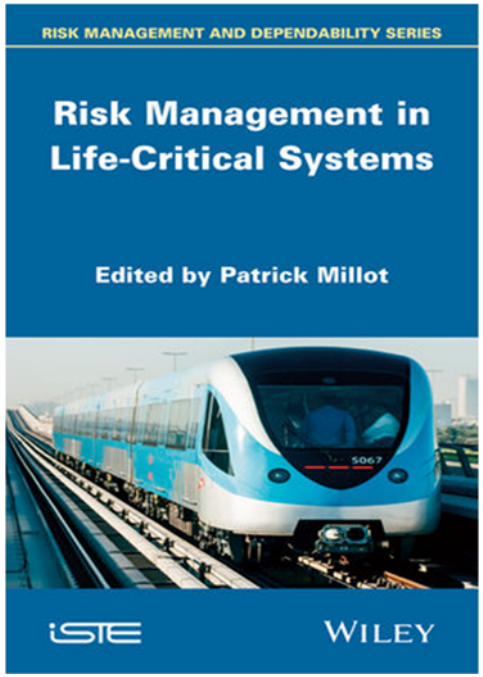
Registration fees include lectures, visits & demos, coffee breaks, lunches, a gala dinner, and the book Risk Management in Life Critical systems (*) gathering the acts of the first Summer School held in July 2013.

Online registration is available at the web site:

- Students (Master, PhD students, Post Doc): 210 €
- Academic: 260 €
- Industrial: 460 €

For PhD students regularly registered at "**Ecole Doctorale SPI"** of Univ-Lille Nord de France, the participation will allow 18 Credits .

(*) **http://www.iste.co.uk**



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Summer school announcement

Risk Management, a Human Centered Approach

6-9 July 2015, Valenciennes, France

Organizers: Patrick Millot *, Guy A. Boy**, Frederic Vanderhaegen*, Marie-Pierre Pacaux-Lemoine*, Carole Magniez ***, Philippe Polet*

* LAMIH CNRS-University of Valenciennes, F

** Human Centered Design institute, Florida Institute of Technology, Melbourne FL,USA

*** IRT Railenium, Valenciennes, F

Program: 21 hours of lectures and case studies, 5 hours of demos round table, and a visit of the Eurotunnel site, over 4 days.

NEW: For security reasons, we are sorry to cancel the vist of Eurotunnel site.

E-Mail: patrick.millot@univ-valenciennes.fr

Location: University of Valenciennes, Campus du Mont-Houy, ENSIAME **Amphi 14E**
http://www.univ-valenciennes.fr/risk-management-2015

This summer school is the second issue after the school on "Risk management in Life critical Systems" held on July 2013.

Risk management deals with prevention, decision-making, action taking, crisis management and recovery, taking into account consequences of unexpected events. We are interested in ecological processes, human behavior, as well as control and management of life-critical systems, potentially highly-automated. Our approach is focusing on ***"human(s) in the loop"*** systems and simulations, taking advantage of human ability to cope with unexpected dangerous events on one hand, and attempting to recover from human errors and system failures on the other hand. Our competences are developed both in ***Human-Computer Interaction*** *and* ***Human-Machine System***. Interactivity and human-centered automation are our main focuses.

The approach consists in three complementary steps: ***prevention***, where any unexpected event could be blocked or managed before its propagation; ***recovery***, when the event results in an accident, making protective measures mandatory to avoid damages; and possibly after the accident occurs, ***management of consequences*** is required to minimize or remove the most severe ones. Global ***crisis management*** methods and organizations are considered.

Topics are related to risk management principles, methods and tools, and include (but not limited to):

- *Situation Awareness* and Impact of new technology
- *Reliability enhancement*: human errors as well as system failures, resilience
- *Socio-organizational issues* of crisis occurrence
- *Cooperative work* including *human-machine cooperation*
- *Responsibility and accountability*: task and function allocation, authority sharing
- Issues in *transport* systems: Car, Railways, Aviation
- Issues in *civil security*: Hospital, rescues
- Issues in *protection technologies*: swarm of robots, intelligent clothes
- Lessons learned for *Human-Centered Design*

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Lectures :

Guy A. Boy, *PR Human Centered Design Institute, Florida Institute of Technology, Melbourne, (USA),* Risk, possibility, necessity, abduction and action principle.

Luc Aliadière, *Advisor for French Rail Industry Federation FIF (F),* Why the New Information Technologies are so much delayed within the Rail sector? The safety excuse?

Oliver Carsten, *PR University of Leeds, (UK),* Safe-driving and eco-driving, equivalent or not? How to address safety concerns in designing a green driving support system ?

Etienne Cousein, *Head of Pharmacy Medication Department, Valenciennes' General Hospital (F)* Understanding and managing the risks associated to medication management in healthcare organisations.

Lahcen El Hiki, *PhD, Coordinator of the Research Institute for the Science and management of Risks, University of Mons (B),* Risk Management at hospital.

Pedro Ferreira, *PR at Lusófona University of Lisbonne, (P),* Resilience in supply chain management

Frank Flemisch, *PR RWTH Aachen University and at the Fraunhofer FKIE institute near Bonn (D), &* **MP. Pacaux** ,Risk management and automation: Human machine cooperation in cars and aircraft.

Makoto Itoh, *PR University of Tsukuba, (J),* Toward a resilient railways with safety management system.

Christian Maquaire, *Director of Innovation, Research & Development at IRT Railenium ,Valenciennes (F),* Pragmatic lessons from a risk management experience in industry.

Patrick Millot, *PR, LAMIH-CNRS, University of Valenciennes, (F),* Collective Situation Awareness for Risk management, application to civil security.

Céline Mühlethaler , *PR, ZHAW, Zurich University of Applied Sciences (CH) ,* Pilot Situation Awareness Training using Eye Tracking .

Marie Pierre Pacaux-Lemoine, *PhD, Research Engineer, LAMIH-CNRS, University of Valenciennes,* **Eric Mareschi** *(Chief Fire-fighter,SDIS 59) (F),* Individual and collective adaptation to situation emergency and complexity: a Human-Machine Cooperation approach.

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Walter Schön, *PR, Heudiasyc-CNRS, UTC Compiègne, (F),* Safety and security of modern railway systems .

Lucas Stephane, *PR Human Centered Design Institute, Florida Institute of Technology, Melbourne, (USA),* **M Gunn** *Pesident of 3-Space ,3D Reality Computing and Information Architecture for Improved Risk Awareness in Space, Transportation and Energy*

Armand Toubol, *Honorary General Manager at SNCF, Delegated for freight, (F),* Safety: automated protection or personal involvement? A glance from a personal experience

Frederic Vanderhaegen, PR, *LAMIH-CNRS, University of Valenciennes, (F),* Human-centered automation of autonomy applied to system resilience

Xianyi Zeng, *PR,* **Ludovic Koehl,***PR, ,* **G. Tartare** *GEMTEX Lab, ENSAIT Textile Institute, Roubaix, (F),* Development of an Intelligent Clothing system for Risk Management - applications to fire fighting.

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IFAC Technical Committee
TC 4.5. Human Machine Systems

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