Critical Infrastructure Preparedness and Resilience Research Network

CIPR Net

Master Class on Modelling, Simulation and Analysis of Critical Infrastructures (CI)

UIC (International Union of Railways)
16 Rue Jean Rey, 75015 Paris, France

April 24–25, 2014

www.ciprnet.eu

The Master Class is organized by:
University Campus Bio-Medico of Rome

International Union of Railways – UIC

French Alternative Energies and Atomic Energy
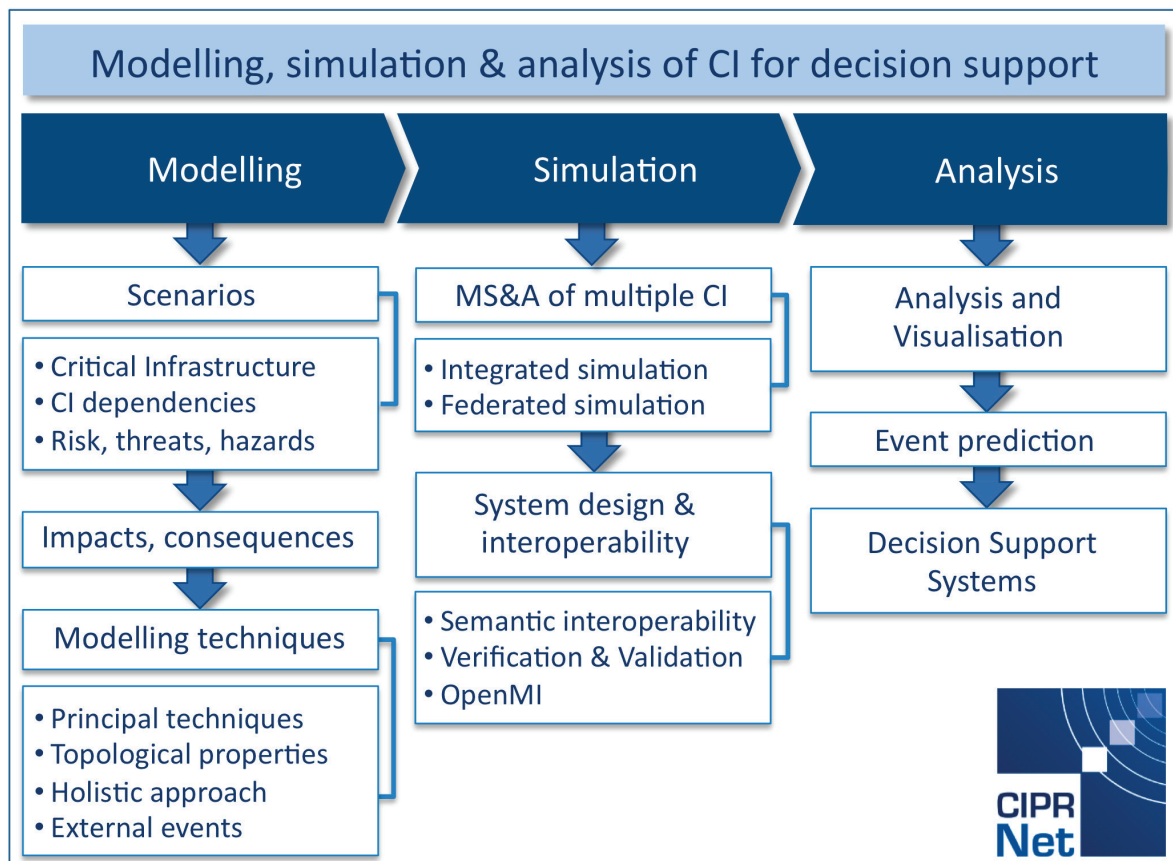Commission - CEA

Programme

24 April

8:30 – 9:00	**Registration and welcome coffee**	
9:00 – 9:10	J. Pires (UIC) M. Eid (CEA)	Welcome
9:10 – 9:40	E. Rome (Fraunhofer)	Introduction to CIPRNet
9:40 – 10:10	C. Pursiainen (JRC)	From critical infrastructure protection to critical infrastructure resilience
10:10 – 10:50	E. Luiijf (TNO)	Simulation of Critical Infrastructure (CI): relevant applications
10:50 – 11:20	**Coffee break**	
11:20 – 11:50	M. Eid (CEA)	Principal modelling techniques: applications and limitations
11:50 – 12:30	R. Setola (UCBM)	Modelling and investigating dependencies of CI
12:30 – 13:30	**Lunch**	
13:30 – 14:00	V. Rosato (ENEA)	Topological properties of complex networks and their relevance for CI
14:00 – 14:40	J. Marti (UBC)	Phenomenological approaches to simulate system of systems
14:40 – 15:10	**Coffee break**	
15:10 – 17:00	B. Becker and A. Burzel (Deltares)	OpenMI – Introduction, basic concepts and live demonstration

Programme

25 April

8:45 – 9:00	**Welcome coffee**	
9:00 – 9:30	W. Huiskamp (TNO)	Introduction to federated simulation
9:30 – 10:00	A. Usov (Fraunhofer)	Modelling, simulation and analysis techniques for CIP
10:00 – 10:30	E. van Veldhoven (TNO)	Verification and validation techniques
10:30 – 10:50	**Coffee break**	
10:50 – 11:20	M. Pollino (ENEA)	Geographical information systems for visualisation and analysis
11:20 – 11:50	A. Zijderveld (Deltares)	Real-time events prediction
11:50 – 12:30	V. Rosato (ENEA)	Introduction to the DSS in the area of risk management of CI
12:30 – 13:00	J. Pires (UIC) E. Rome (Fraunhofer)	Discussion and closing remarks
13:00 – 14:00	**Lunch**	

Conceptual map of topics in modelling, simulation and analysis of CI

Venue

The Master Class will be held at the International Union of Railways, UIC, 16 Rue Jean Rey, 75015 Paris, France.

How to get to UIC

> Metro : Line 6, Bir Hakeim
> RER : Line C, Champ de Mars
> Bus : 42, 69, 82, 87
> Taxi : One taxi station next door
> From Airport Charles de Gaulle take RER B direction to:
>   1 - Denfert-Rochereau and then take metro line 6 to Bir Hakeim or;
>   2 - Saint-Michel - Notre-Dame and then take the RER C to Champ de Mars
> From Airport Orly – Orly Bus to Denfert-Rochereau and then take metro line 6 to Bir Hakeim

Registration

The **participation** to the CIPRNet Master Class is free but limited to a maximum of 40 participants for logistic reasons. **Details** about the event and an **online registration form** can be found at http://www.ciprnet.eu/endusertraining.html

In case you need accommodation, please **book yourself** a hotel room. For your convenience, we have included a list of hotels on the registration page (same URL as above).

Contacts

For enquiries regarding the content of the course, please contact Claudio Romani c.romani@unicampus.it for any information.

For enquires about logistic aspects of the course, please contact José Pires PIRES@uic.org.

The aim

The aim of this CIPRNet Master Class on "Modelling, Simulation and Analysis of Critical Infrastructures" is to perform training and activities for the Critical Infrastructure Protection community, in order to strengthen the links between different research institutions and create common views. This CIPRNet Master is the first edition in a series of training events organised within the European FP7 Project CIPRNet – Critical Infrastructure Preparedness and Resilience Research Network. In this 1.5–day training event, basic concepts about MS&A (Modelling, Simulation and Analysis) of Critical Infrastructures (CI) and advanced aspects related to federated simulation and the use of the Open Modelling Interface (OpenMI) will be illustrated in a multi-disciplinary framework. Experts from the multi-disciplinary FP7 network CIPRNet will be presenting the lectures. The CIPRNet Master Class addresses the Critical Infrastructures Protection community (experts from CI operators and Public Authorities and researchers and experts from the Critical Infrastructure Protection research communities), in order to familiarise them with MS&A of CI and its applications in analysis, decision support, and training.