

University of Naples Federico II
Department of Industrial Engineering

In collaboration with Institut Supérieur de Mécanique de Paris- SUPMECA



Short Course on
Model-based mechatronic design (3CFU)
Prof. Jean-Yves Choley - Prof. Faïda Mhenni, Supmeca, Paris

Scuola Politecnica e delle Scienze di Base
Naples, 5th-9th November 2018

Course proposed by Prof. Stanislao Patalano

Mechatronic safety critical systems require a collaborative design with systems architects, domains engineers (mechanics, electronics, etc.) and experts (safety, multiphysics, etc.).

In order to deal with this complexity, we propose a Model-Based Systems Engineering (MBSE) design methodology, including safety analyses and multi-domains simulations.

Detailed contents:

- Introduction and global presentation;
- Requirement engineering with SysML language;
- Architecting mechatronic systems with SysML language;
- Multi-domains modeling and simulation with Modelica language;
- Integration of MBSE and SA (Safety Assessment);
- Collaborative mechatronic design and Tradeoffs management.

The course is dedicated to students attending Master Degree Courses in Industrial Engineering or PhD course in Industrial Engineering.

Registration to the short course is allowed by sending an e-mail to calvanes@unina.it

**Participants must specify surname, name, e-mail,
actual attending course and a short CV.**