

MS10: Smart materials, structures & systems (Prof. Ayech BENJEDDOU, ROBERVAL, SUPMECA, France)

The integration in structures and systems of the so-called *smart* materials, such as piezoceramics, shape memory alloys, magneto-strictive/rheological solids/fluids, electro-strictive/rheological solids/fluids, optical fibres, etc., renders them *smart* in the sense that they can assure integrated *sensing*, *actuation* or transduction for *energy harvesting*, vibration *damping*, noise *reduction* or health *monitoring*.

Contributions related to any of the following topics (indicative only-list) are welcome:

- Smart Sensors and Actuators
- Identification of Smart Materials Properties
- Nonlinearities modelling, simulation and control
- Multi-physical Models Reduction for Structural Control
- Passive, Semi-Active, Active, and Hybrid Damping
- Active Noise and Vibration Control
- Morphing and shape control
- Multi-objective and Robust Optimal Design
- Multi-scale Modelling and Simulation
- Evolutionary Algorithms for Design, Optimization, Control and Health Monitoring
- Experimental Benchmarking and Concepts Validations

