

Special Session Proposal – MIM 2022 Nantes

TITLE: Modeling and Control of Dynamic Systems with Energy Constraints: Concepts and Applications

ABSTRACT:

The industrial sectors are currently experiencing major changes following the volatility of the price of energy as well as its availability. This prompts the development of new concepts and principles of economical and environmentally friendly operation and planning, technological upgrades and new forms of end-user behavior.

Energy has thus become a vital driver of modern manufacturing and societies, and consumers expect it to be available at all times of the day. This expectation is maintained even taking into account the increasing demand, environmental restrictions, the increasing use of non-deliverable energy sources, technical problems and many other factors that can have a negative impact on the efficiency of the sectors using this binding resource. This energy transition therefore forces all sectors to adapt.

This session aims to offer both new theoretical concepts of modeling and control of dynamic systems with strong energy constraints, as well as new infrastructures and new technological means in order to overcome the various hazards that may arise.

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