



July 4-6th 2017

Toulouse, France

Special Session on **HYBRID ENERGY STORAGE SYSTEMS (H-ESSs) FOR VEHICULAR APPLICATIONS**

organized by MEGEVH (French Network on EVs and HEVs)

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Call for Papers

To face economic and environmental challenges, road vehicle of the future must be less energy-consuming and less polluting. Battery-Electric Vehicles (B-EVs) have a significant potential to reduce transport sector energy and emissions. However, the battery has to perform high current rates in some cases what is harmful for its lifetime. Fuel Cell (FC) is an alternative to internal combustion engine as energy converter but has some limitations in terms of lifetime and power transfer. Hybrid Energy Storage Systems (H-ESS) consist in taking advantage of the characteristics of different sources (power peaks, driving range,..). By using this kind of systems, the vehicle operations can be more efficient. Moreover, H-ESS can improve the vehicle reliability. Several kinds of H-ESS vehicles can be emphasized. There are the conventional Hybrid Electric Vehicles (HEVs). Also, there are some associations of electrical sources like Battery-SuperCapacitors vehicles (SCs). A recent trend consists in combining FC with battery. However, these solutions lead to complex systems and some tools are then required to design such vehicles.

The aim of this special session is to present different methods to design, control and manage H-ESS vehicles.

Topics of interest include, but are not limited to:

- ✓ Energy Management of H-ESSs for vehicular application
- ✓ Modelling of H-ESSs for vehicular application
- ✓ Sizing of H-ESSs for vehicular application
- ✓ Topologies of H-ESSs for vehicular application

Applications of interest:

- ✓ Buses, Heavy duty vehicles
- ✓ Cars
- ✓ Trains
- ✓ More electric aircraft

Deadlines:

Submission of digests (4-6 pages): December 1st, 2016

Notice of acceptance: April 1st, 2017

Submission of full papers: May 20th, 2017

All the instructions for abstracts are included in the conference website: www.electrimacs2017.fr