



Special Session on

## ADVANCED CONTROL AND OBSERVATION

### ON MULTI-SOURCE/MULTI-CONVERTER SYSTEMS

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## Call for Papers

Control and observer systems play a prominent role in the enhancement of performance, reliability and safety of transportation systems. Advanced control systems for vehicular systems guarantee robustness against parameter uncertainties, optimize energy consumption and cost, and reduce harmful emissions. This special session is dedicated to control and observation in automotive systems such as Electric Vehicles (EVs), Hybrid-Electric Vehicles (HEVs), Fuel Cell Vehicles (FCVs) and Flywheels Vehicles (FVs). Automotive control systems from both theoretical and technological points of view are covered.

### Topics of interest include, but are not limited to:

- Modelling of energy storage systems (batteries, ultra capacitors, fuel cells, flywheels, etc.)
- Modelling and/or control of DC-DC, AC-DC and DC-AC converters dedicated to EVs, HEVs, FCVs and FVs
- Modelling and/or control of multi-source, multi-converter powertrain systems for EVs, HEVs, FCVs and FVs
- Ultra-capacitors, battery and fuel cell power management
- Storage systems monitoring (State of Charge, failure identification and localization, ageing estimation, diagnostic and prognostic, etc)

**Keywords:** linear and non-linear control, observer, modelling, multi-source/multi-converter, EV, HEV, FCVs, FVs, energy storage (battery, ultracapacitor, flywheel), power management, estimation, diagnostic and prognostic.

### Deadlines:

Submission of abstracts: Mar. 31, 2017

Notice of acceptance: June 15, 2017

Submission of full papers: Sep. 15, 2017

**All special session digests must be prepared and submitted in the same way as those for the conference regular tracks (see <http://www.vppc2017.org/>), except that the corresponding special session should be identified during submission.**