



VPPC 2016

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HANGZHOU

The 13th IEEE Vehicle Power and Propulsion Conference

#SS4 - Special Session on

RELIABILITY AND DURABILITY IMPROVEMENT OF THE FUEL CELL SYSTEMS IN FCEV

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Call for Papers

Fuel cells provide a promising solution of the main generator in electric vehicles thanks to the high power density, high efficiency and low polluted emission. However, the reliability and durability of fuel cells are still the major challenges for the commercialization of FCEV. In order to improve the performance of reliability and durability, much efforts have been put into the optimization of fuel cell system besides the research on the materials and assembly of fuel cells. The auxiliary subsystem design, the system modelling and control, the health management and the energy management strategies have been proven to have an important impact on the fuel cell performance. In this consideration, the objective of this Special Session is to present the researches dealing with the system design, control, diagnosis, prognosis, and energy management methods dedicated to improving the reliability and durability performance.

Topics of interest include, but are not limited to:

- Control oriented modeling for FC systems.
- Design, control, and optimization of the auxiliary components for fuel cells.
- Fault diagnosis and fault tolerance control for FC systems.
- Ageing degradation and influencing factors.
- Prognosis and rest useful life prediction.
- Topologies and control of DC/DC converters used for fuel cells.
- Improving durability of fuel cells by optimizing energy management approach.

Deadlines:

Submission of digests: ~~March 31, 2016~~ April 30, 2016
Notification of acceptance: May 15, 2016
Submission of full papers: July 15, 2016

All special session digests must be prepared and submitted in the same way as those for the conference regular tracks (see <http://www.vppc2016.org/>), except that the corresponding special session should be identified during submission.