



**Thirteenth International Conference on
Ecological Vehicles & Renewable Energies
EVER'2018, April 10-12, 2018, Monte-Carlo (Monaco)**

**Call for Contributions to the Special Session on
Mechatronic Actuators for Automotive Applications**

by Prof. Armin Dietz and Dr. Michael Schier

Thematic: Individual as commercial transportation is the most important key technology of future mobility. Ecological vehicles, particularly battery electric vehicles and fuel cell vehicles, currently are coming into the market. Regarding the advantages of emission free mobility there are a lot of scientific ideas to increase the range of electric vehicles, also to reduce energy consumption by managing the auxiliary units like air conditioning systems, precondition heating or cooling systems, vehicle chassis dynamics or autonomous driving architectures. Most of the technologies are based on a mechatronic combination between electromechanical actuators, power electronic devices and control strategies. Inductive and conductive charging systems also belong to this issue. In the context of integrating different engineering disciplines, mechatronic actuators are able encouraging perspectives in terms of costs and efficiencies. The main objective of this special session is to bring the ideas of the worldwide research community into common platform, to present the latest advances and developments in design, mathematical modeling, electromechanical design, power electronic control, computer simulation tools, and practical implementation of mechatronic actuator systems in automotive application. Topics of interest of this special session include, but are not limited to:

- Total vehicle energy management, energy harvesting systems and vehicle grid integration
- Modeling and simulation techniques of mechatronic actuator systems
- Power electronic control strategies used in mechatronic applications
- Power electronics for electromechanical actuators
- Wheel steering, braking and chassis control actuators
- Auxiliary units like air conditioning systems, charging systems, fans and blowers
- Reliability, noise behavior and electromagnetic compatibility

Submission: Prospective authors are invited to submit comprehensive abstracts of three A4 pages each, written in English. Abstracts should be sent by e-mail to the special session organizer: michael.schier@dlr.de

Important Dates:

September 29, 2017	submission of abstracts
November 11, 2017	notification of provisional acceptances
December 22, 2017	submission of full papers
January 26, 2018	notification of final acceptances