Call for papers

"CPS-Based Modeling and Optimization Control of Renewable Energy Vehicles" Workshop (Code: x6225)

Cyber physical systems (CPSs) are defined as the system where physical and software components are deeply intertwined to exhibit multiple and distinct behavioral modalities and interact with each other in a myriad of ways that change with context. Recent increased demands of performance and complex usage pattern accelerate advancements in the research field of CPSs.

Being a typical application of CPS in green transportation, hybrid electric vehicles (HEVs) show great potential to reduce energy consumption and air pollution. In such a system, hybrid electric powertrain and driving environments constitute the physical resources, communication and control data compose the cyber part of this system. Strong nonlinearities and uncertainties of the interactions between the cyber and physical resources increase difficulties in control, management and optimization of HEVs. Specially, energy management of HEV is critical and several challenges remain to be resolved, such as optimization, calculation time and adaptability.

This workshop aims to provide up-to-date research and development advances in modeling and optimization control of renewable energy vehicles.

The topics of interest include but are not limited to:
- Dynamic modelling of vehicle powertrain
- CPS-based optimization control for vehicles
- Parallel reinforcement learning-based energy management
- Testing, verification and assessment of hybrid tracked vehicles
- Energy management of multimode hybrid electric vehicles
- Advanced battery management systems
- Parallel driving-based connected hybrid electric vehicles
- Battery electric vehicle dynamics and control.

Workshop Organizers:
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How and when to submit papers

The workshop papers should be submitted by **Jan 31, 2017**, via the conference Papercept management system (http://its.papercept.net). Note that the authors need to use the workshop code "**x6225**" to direct the paper to "**CPS-Based Modeling and Optimization Control of Renewable Energy Vehicles**" workshop. Also, please choose in the conference management system the 2018 IEEE Intelligent Vehicles Symposium.

Note that workshop paper is limited to a total of six pages including references. A maximum of two supplementary pages is permitted at an extra charge. Further, due to space constraints on the proceedings of the conference, all papers are limited to 2 MB in size and should preferably be less than 500 kB.