

# Advances in Automotive Control

## An IFAC 2017 invited open track



### **Context**

Modern society needs made the automotive vehicle the most used transportation mean making a steady growth of the number of vehicle on roads. In the same way, the automotive vehicle has, then, not stopped evolving since the invention of the first automotive at the end of the 19th century to cope with the new mobility needs and to overcome some drawbacks related to the vehicle use. In that way, automotive manufacturers and suppliers as well as academicians made considerable efforts to make the automotive vehicle safer, eco-friendly and more comfortable. For that purpose, continuous innovation has been necessary and developed as well as the numerical tools and methods to reach time and costs constraints. Then, in the last decades, considering the continuous increasing of embedded computing capacities, the automotive vehicle has integrated more and more ECU leading to a more and more automatized vehicle via Advanced Driver Assistance Systems (ADAS).

### **Objective - Topics**

During the IFAC World Congress'17, within this open track, a focus will be made on the development of new tools and methods dedicated to the conception, the development, the validation, the integration and the monitoring of new embedded functionalities to make the automotive vehicle safer, eco-friendly and more comfortable. More particularly, the following topics will be highlighted:

- Vehicle dynamics
- Powertrain control
- Engine control
- Hybrid vehicles
- Global chassis control
- Driver in the loop
- Active safety and ADAS
- Perception for control
- Energy management
- Autonomous vehicle
- Cars and smarter cities: new services, new applications for control

inducing developments in modeling, identification, observers, control, diagnosis, signal and image processing.

### **Important dates**

Paper submission deadline: [31 October 2016](#)

How to submit: [www.ifac2017.org/submit](http://www.ifac2017.org/submit)

More information: [www.ifac2017.org/demonstrators](http://www.ifac2017.org/demonstrators)

Contact us for more information: [xavier.moreau@u-bordeaux.fr](mailto:xavier.moreau@u-bordeaux.fr), [michel.basset@uha.fr](mailto:michel.basset@uha.fr)

