Mini-symposium AIMETA 2019

Vehicle dynamics
Dinamica del veicolo

Organisers
Basilio Lenzo[1], Massimo Guiggiani[2]

[1]Sheffield Hallam University, United Kingdom
[2]Università di Pisa, Italy

The proposed session aims to present and discuss recent state-of-the-art contributions in the field of vehicle dynamics. Specific topics of interest include, but are not limited to, the following:

- torque vectoring control for electric vehicles with multiple motors (e.g. yaw rate control, sideslip angle control)
- vehicle parameter estimation using observers (e.g. Kalman filters) or neural networks
- maps of achievable performance
- vehicle understeer/oversteer analysis
- motorcycle dynamics
- driver models
- modelling of tyre/road friction phenomena
- innovative methodologies for the evaluation of tyre characteristics
- identification of Pacejka magic formula coefficients based on experimental data
- vehicle data management for autonomous and connected mobility
- physical models in MIL/HIL/DIL real-time simulation architectures
- performance indicators
- autonomous vehicles