Il giorno **giovedì 7 marzo 2019**, alle **ore 16:00**, la **prof.ssa** **Simona Onori** della Stanford University terrà in
aula B5
un seminario sul tema:

Hybrid electric vehicles: energy management strategies and tools for optimal energy storage systems selection.

Di seguito un *abstract* dei contenuti del seminario.

Hybrid vehicles offer additional degrees of freedom in controlling the instantaneous torque delivered to the wheels due to their more complex powertrain architecture. This 'content-rich' architecture provides many opportunities to improve fuel economy and reduce emissions. Realistic figures of achievable improvement in fuel economy in HEVs range from 10% for mild hybrids to more 30% for highly hybridized vehicles. This potential can be realized only with a sophisticated control system that optimizes energy flow within the vehicle. Adopting systematic model-optimization methods, using meaningful objective functions and optimal control tools to improve the energy management controller give a more formal framework to deal with such a problem.

In this talk, we will present developments and trends of control and optimization for supervisory controllers in hybrid electric vehicles using optimization tools and we also present solutions for the selection and sizing of energy storage technologies (either in a standalone or hybrid configuration).