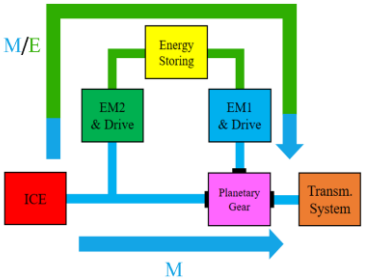
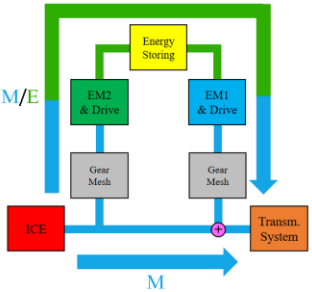
Thesis Proposal: Optimization and Energy Management of HEVs

Research field: Hybrid Electric Vehicles (HEVs)

- Power-Split Architecture:



- Parallel Architecture:



- Series Architecture:

Objective: Modeling, Control and Optimal Energy Management of Hybrid Electric Vehicles.

- The candidate will acquire skills in the Modeling, Control and Simulation of Planetary Gear Sets, Electric Machines and other physical elements typically involved in Hybrid Electric Vehicles;
- The candidate will acquire skills in the Modeling, Control, Simulation and Energy Management of different classes of Hybrid Electric Vehicles;
- The candidate will acquire skills in the computation of HEVs Globally Optimal Efficiency Maps;
- The candidate will acquire skills in the use of the Matlab/Simulink/Simscape tools.

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