2305. Hybrid-Electric Vehicles

Introduction to the architecture of hybrid and electric vehicle powertrain. Calculation of basic components (power, torque, etc.). Engine-transmission systems. Energy storage systems (batteries, high speed flywheels, supercapacitors, etc.). Systematic energy management planning for the motion of the vehicle. Degree of hybridization. Energy recovery systems. Modeling - component analysis of hybrid - electric vehicles. Current technologies of hybrid vehicles. Sustainable Transportation.

Project (1): C 100% of the Final Grade

D. Koulocheris