Study of Parallel Hybrid Power System of Golf Car

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ABSTRACT

The hybrid vehicle not only can promote energy service efficiency but also reduce the environmental pollution effectively. The hybrid technology used in the general vehicle has been for many years, but relevant paper in golf car less at preset. So this research aimed at the parallel hybrid golf car after the technology will be ripe in the future, and I still wish shift the relevant technology to the generally extensive of city-car. This research is mainly utilize the organization of the twin planet gear, and tie in internal combustion engine, electronic motor and generator to Integration the dynamical system. In order to completely utilize the high torque of low-speed of electronic motor and the internal combustion engine output greatly horsepower of high speed ,at the same time the generator can produce electric energy to give electronic motor use or charge to the batter. In the initial stage of this study, using the Matlab/Simulink software to set up the model for this system and selecting Japan 10 mode driving cycle norms as the goal and simulate the response of every performance under this driving cycle and according to simulate result to improve specification and control rule of this system. Simultaneously to set up the experiment platform and measurement the performance data to compare simulate result can be revise simulate result and real action each other. Finally, we can shift the components of this system to the real vehicle.

Keywords : Hybrid Electric Golf Car, Parallel Hybrid Power System, Twin Planet gears Organization

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