

ELECTRIC VEHICLE WITH MODULATED CHARGING SYSTEM

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Abstract

The world is moving to replace the conventional automobiles by electric ones, featuring these cars quite, zero emission, more efficient and more economical, but at the same time it's facing problem of inability to cross large distances, where the driver have to recharge battery in special stations and take a long charging time. In this paper the charging system is modified to be more obviated the charging station. This system based on internal combustion engine works to provide the energy required to charge the battery at appropriate time. This engine automatically turns on depending on control unit commands when the battery reaches a certain level. New charging system for electric vehicle's battery based on internal combustion engine. In this system the full output of the engine used only for charging the high voltage battery at a particular cases. Design an integrated charging system for electric vehicle permits the vehicle to operate without needing for charging stations, offers lower emissions, quieter driving, more economical and efficient. Study modulated electric vehicle main components (Battery, Engine, M/G and electric devices). Study the converted kinetic energy to electrical energy during deceleration. Study the forces effecting on vehicle (Air, Rolling and Grade). A basic requirement for electric vehicles (EVs) is a portable source of electrical energy, which is converted to mechanical energy in the electric motor for vehicle propulsion.