Power Car

Ahmed, Aurangzeb
Jafry, Syed Ali
Shafiq, Tohami

This project aims at utilizing the previously wasted energy and channel it to a battery pack installed in the boot of the car. The current in the charged batteries was passed through an inverter to power houses and other domestic units or even the energy could be used to power-up the car. The first source included the rotational effect of the vehicle's wheel, which was converted into a generator. Hence, electricity was generated around 100 W/h, at the speed of 60km/h. The second source was the car's alternator which runs continuously even though car's own battery is charged.Therefore, the excess energy produced by it was wasted. The next sources included the Solar Cells and Wind Turbine. The turbine was installed on the roof and wind micro-motors were installed on both sides of the car, covered with aerodynamic body. The wind turbine generated 20.4W at the speed of 32.2 Km/h. The Solar Cells covered the whole car body, including the windows,which produced around 800-900W. The final source is the Peltier Tiles which produced 5.4mW at the temperature difference of 5°C.A Boost Converter was used to increase the output voltage to 5 V. These Tiles were installed on the bonnet and the steering Wheel. The Energy from all sources and wasted energy from the alternator will charge the batteries in the boot. As these sources are environmental-friendly, it could be implemented on a larger scale like public buses and almost in every car, thus reducing global warming.

Awards Won: