

# **FUEL SAVING BY REDUCTION OF DRAG ON CARS THROUGH PROPER SELECTION OF SHAPES**

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## **ABSTRACT**

The three primary influences upon fuel efficiency are the mass of the vehicle, the efficiency of the engine and the aerodynamic drag. Of them, the aerodynamic drag significantly depends on the shape of the car. Therefore, estimation of drag on three different rear-shaped car models, namely notch-back, hatch-back and square-back, were carried out inside Jadavpur University Subsonic Low Turbulence Closed Circuit Wind Tunnel test section. The results show significant drag variation among the three different shaped cars. It is observed that the hatch-back car experiences the least drag, which in turn decreases fuel consumption. Also, it is observed that less is the ground clearance less would be the drag and the corresponding fuel consumption. Less fuel consumption indicates more energy conservation, which is the talk of the day in every part of the sphere.

**Keywords:** car, drag minimization, fuel consumption, notch-back, hatch-back, square-back.