

# Fuel Requirement Optimization of a Vehicle by using Taguchi

**S. Das, B. Banerjee**

The requirement of fuel is essential for everybody to maintain their daily lifestyle. Petrol being a major area of concern in recent times due to its scarcity soon, it is the responsibility of all to use this in an optimized manner. A broad transport network within India results in huge demand for petrol due to which optimizing the use of petrol without giving up on the need is the goal. This goal can be brought through this fuel optimization technique. The main aim of this research was to find out the fuel economy of a vehicle by optimizing the factors influencing the fuel economy. Factors that were considered were the speed at which the vehicle will move, the load that is the number of people on the vehicle, and the tire air pressure of the vehicle. By differing the factors according to the requirement and investigating with the help of S/N ratio signal to noise ratio and regression analysis we have tried to optimize the fuel requirement without sacrificing any of our needs which in turn will also help us economically in a long run.