

## **A CONCEPTUAL DESIGN OF COLLAPSIBLE WIND FRICTION REDUCTION ATTACHMENTS TO BIKE FOR BETTER FUEL ECONOMY**

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### **Abstract**

To travel on Bikes at a speed of around 120 KMPH on highways, the power consumption to overcome the wind friction increases drastically, because the power consumption to overcome the wind friction is proportional to the cubic velocity of vehicle. In the present paper an innovative wind drag reduction attachments are proposed to reduce the wind drag coefficient from  $c_d = 0.9$  to around  $c_d = 0.25$  and at the same time these attachments improve mileage of vehicle at high speeds without increasing the engine capacity, and protects the rider from rain, wind and sun radiation. The attachments are opened and closed with the help of hydraulic system controlled by remote.

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