**DESIGN MODIFICATION AND ANALYSIS OF TWO WHEELER COOLING PINS**

**ABSTRACT**

An air-cooled motorcycle engine releases heat to the atmosphere throughthe mode of forced convection to facilitate this, fins are provided on the outer surface of the cylinder. The heat transfer rate depends upon the velocity of the vehicle, fin geometry and the ambient temperature. Insufficient removal of heat from engine will lead to high thermal stresses and lower engine efficiency. The cooling fins allow the wind to move the heat away from the engine. Low rate of heat transfer through fins is the main problem of air cooling system. An attempt is made to simulate the heat transfer using CFD for different shape and geometry of Fins to analyze effects on rate of heat dissipation from fins surfaces. The heat transfer surfaces of Engine are modeled in and simulated in SOLID WORKS software. The main of aim of this work is to study different shapes and geometry of fins to improve heat transfer rate by changing fin geometry under different velocities. Presently Material used for manufacturing cylinder fin body is Aluminum 1060 Alloy which has thermal conductivity of 202.4W/mk. We are analyzing the fins using this material and also using Aluminum 1060 alloy which have higher thermal conductivities.