

# ABSTRACT

## DESIGN AND FEM ANALYSIS OF FOLDABLE HELMET FOR AUTOMOBILE

### ABSTRACT

Nowadays helmet is compulsory for the riders and pinion riders of the motorcycle. Central government of india and supreme court of india made order on it. according to the police information and files records almost 80% of the motorcycle riders has got injured for their head and 30-35% of riders of motorcycle die due to their head injuries.

So this project involves designing the model and structural analysis of foldable helmet and now the problem is for the riders and pinion rides is to keep the helmet safely, to find the solution of this problem, we undergo product development process for the concept of foldable helmet. So that the product development process involves product planning, identifying customer needs, concept generation, concept selection stages.

The simulation software "ANSYS" is used to analyze the helmet with different conditions.

The maximum force of 0000kN is applied on the helmet to study the modeling static and dynamic conditions. The simulation has been carried out for the static condition for the parameters like total deformation, von mises stress, strain energy for different cases. The dynamic analysis has been carried out for the parameters like total deformation and equivalent stress. The result shows that that this values are concentrated in the retention portion of the helmet. These results has been compared with the standard experimental data proposed by the BIS and well within the acceptable limit.

**CONTACT FOR FULL SYNOPSIS**  **+91 7892151234**

#2232, 16TH B CROSS, SECTOR B, YELAHANKA NEW TOWN, BANGALORE-560064  
Ph: +91 7892151234