**Design And Analysis Of Rear Wheel Hub**

**Abstract**

The paper describes process of design and fatigue analysis for rear wheel hub & steering knuckle. Wheel hub & steering knuckle in automotive system are attached wheel to motor shaft (axle) and provide the support to the tie rods, connect the trailing arm from chassis to the rear wheel, fastening of brake caliper respectively. while we designing the wheel hub & steering knuckle that time have to work on mainly overall shape, material specification, size, surface finish and appearance, easy to fastening & handling. Because rear wheel hub & steering knuckle is undergoing radial load, axial load, tangential load, fatigue load during running condition in the various automotive system. The Finite element analysis (FEA) is used after designing process for checking factor of safety and what would be possible changes that can provide adequate design of it. And by using FEA we can select the exact material from the others by which we can made light weight wheel hub & steering knuckle with adequate properties so, it will survive against different load condition with higher factor of safety.

key words: wheel hub & steering knuckle, material selection, Design, Finite element analysis (FEA), light weight, factor of safety.