**Design and analysis of alloy wheel**

Alloy wheels are wheels that are made from an alloy of aluminum or magnesium. They are typically lighter for the same strength and provide better heat conduction.

Lighter wheels can improve handling by reducing unsprung masses, allowing suspension to follow more closely to improve grip. Reduction in overall vehicle mass can also help to reduce fuel consumption and alloy wheels are non corrosive and can resist the vibrations. However not all alloy wheels are lighter than their steel equivalents.

In this project is to generate the alloy wheel of light weight alloy materials and perform the structural analysis by different alloy materials at different loads by using solid works premium 2014.