

# **Finite Element and Experimental Analysis of Automobile Lower Control Arm**

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**Abstract:** *In automotive suspension, a control arm is a hinged suspension link between the chassis and the suspension or hub that carries the wheel. The lower control arm is a unique type of independent suspense used in machine vehicles. The lower control arm is subjected to many loads due to variation in gross weight and impacts due to fluctuation of road surface and additional forces. The experimental findings are validated using Finite Element Analysis (FEA) Performed in Ansys workbench to analyze stress distribution and deformation behaviour Experimental testing is performed. New design of Automobile lower control arm is manufactured Future Research directions are also outlined to enhance the reliability of lower control arm. In this paper we have taken the literature review of previous papers based on that taken conclusion.*

**Keywords:** Cast Iron, Aluminium Alloy, Finite Element Analysis(FEA), Ansys, Stress Concentration, suspension system

