

Design and Development of Chassis Made of Composite Material

Authors : P. Ravinder Reddy, Chaitanya Vishal Nalli, B. Tulja Lal, Anusha Kankanala

Abstract : The chassis frame of an automobile with different sections have been considered for different loads. The orthotropic materials are selected to get the stability by varying fiber angle, fiber thickness, laminates, fiber properties, matrix properties and elastic ratios. The geometric model of chassis frame is carried out with parametric modelling approach. The analysis of chassis frame is carried out with ANSYS FEA software. The static and dynamic analysis of chassis frame is carried out by varying geometric parameters, orthotropic properties, materials and various sections. The static and dynamic response is discussed in detail in different sections.

Keywords : chassis frame, dynamic response, geometric model, orthotropic materials

Conference Title : ICAMAME 2017 : International Conference on Aerospace, Mechanical, Automotive and Materials Engineering

Conference Location : Mumbai, India

Conference Dates : February 07-08, 2017