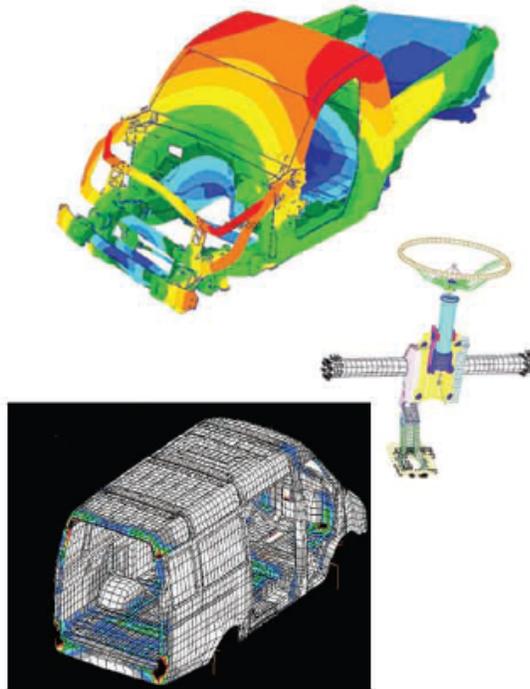


## **NOISE, VIBRATION AND HARSHNESS (NVH) ANALYSIS**

NVH analysis provides essential benefits towards designing vehicles for ride comfort and quietness, an increasingly competitive advantage in today's global automotive market. The design of a car body structure is decisive in order to gain favorable vibration and acoustic behavior of vehicles. The body structure is the most significant transfer path for road-excited and engine-excited vibrations. The body panel vibrations are then radiated into the vehicle cavity, where they are perceived as audible noise. Apart from the audible noise, which is transferred into the cavity, structural vibrations of the body are perceived as an annoyance as well.

AEG Product Design and engineering solutions have a dedicated and focused NVH team with core competency in solving complicated design problems pertaining to automotive and aerospace applications with HPC (High Performance Computing : SGI-Altix/16 GB RAM/1500 GB HDD/Msc.Nastran 2005 R2 DMP etc) resources. The NVH team comprises of experienced and skilled team members having automotive background in various engineering disciplines which help designers analyze the NVH attributes before the first vehicle prototype is built, allowing engineers to understand potential problems and identify solutions early in the design process.

AEG has engineering team with fully equipped engineering tech center in Bangalore, India who imparts necessary knowledge and experience during the product design and development process. Few of the capabilities include aero-acoustic analysis, exhaust system acoustic analysis, NVH optimization (body, chassis, brake, tire etc.), and transmission loss studies. In any vehicle NVH, testing plays a major role in optimizing the vehicle design for NVH. Our design experts have hands-on experience in Test plan preparations, Testing methods and techniques, Testing, Test data collection and analysis, Test-CAE correlation techniques, Design modifications based on testing etc.



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