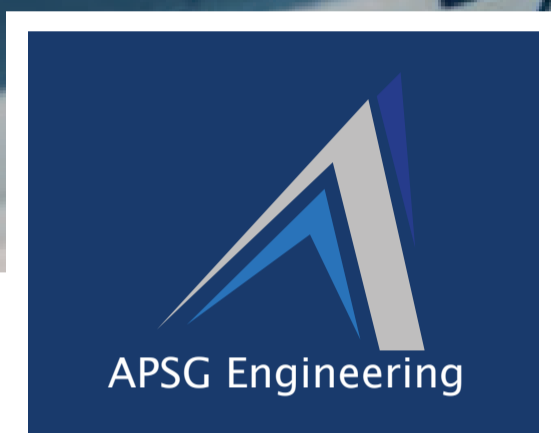


STRUCTURAL DESIGN OPTIMIZATION SOLUTIONS



APSG Engineering Pvt Ltd is a Bangalore, INDIA based organization focused on Engineering solutions, consulting and distribution. Founded in 2016, APSG has participated in several product engineering programs and have delivered solutions and value to its customers constantly.

The core goal of APSG is to focus on the advanced engineering and innovation and help itself and it's customers to generate revolutionary products and services. The team at APSG is lead by professionals with decades of experience in various industry verticals such as Automotive, Oil and Gas, Bio Medical, Heavy Engineering including Farm Equipments, Energy etc.

GENESIS

Structural Design Optimization Software

GENESIS® is a fully integrated structural finite element analysis and design optimization software package from Omniquest Inc.

APSG Engineering is Authorized Distributor & engineering partner for Omniquest Inc's products and Solutions. Omniquest Inc is based out of Colorado & Michigan, USA & it's mission is to provide the best technology leadership, software tools, domain expertise and support to client globally in virtual validation and optimization. The company was founded by Dr. Garret Vanderplaats, one of the best-known experts in the optimization world. Omniquest Inc has a track record for consistently delivering competitive advantage to customers across broad range of industry verticals.

**AUTO OEM
AND
SUPPLIERS**

**ENGINEERING
SERVICE/
SOLUTION
PROVIDERS
(ESP'S)**

**DEFENCE
AND SPACE**

AEROSPACE

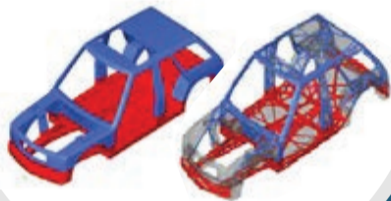
**HEAVY
ENGINEERING**

**FARM AND
CONSTRUCTION
EQUIPMENTS**

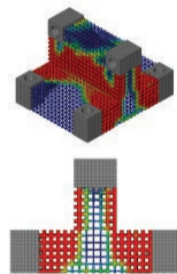
Why *GENESIS*?

- Fast, reliable, and accurate finite element analysis.
- Analysis capabilities include - static, normal modes, direct and modal frequency analysis, random response analysis, heat transfer, system buckling calculations, and acoustic analysis.
- Topology optimization at early stage of design.
- Structural optimization types include sizing, shape, topology, topometry, topography and freeform optimization.
- Reliability Based Optimization
- Multi-model optimization (MMO)
- GENESIS provides improved designs at reduced cycle times.

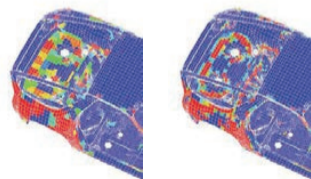
TOPOLOGY



ADDITIVE MANUFACTURING



TOPOGRAPHY



COMPOSITES



BENEFITS OF GENESIS

Light weighting, Achieve Reduction in cost and improvement in performance

Reduction in engineering time

Innovative designs come to life

SPECIAL APPLICATION OF GENESIS

Additive Manufacturing – One important usage of GENESIS topology optimization is for Additive Manufacturing.

GENESIS can generate optimal shapes and together with Design Studio, the user can automatically generate lattice structures that can be manufactured with 3D printing.

GENESIS can perform topology optimization with additive overhang angle constraints to build the structures with minimum support material.

Call for inquiry

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