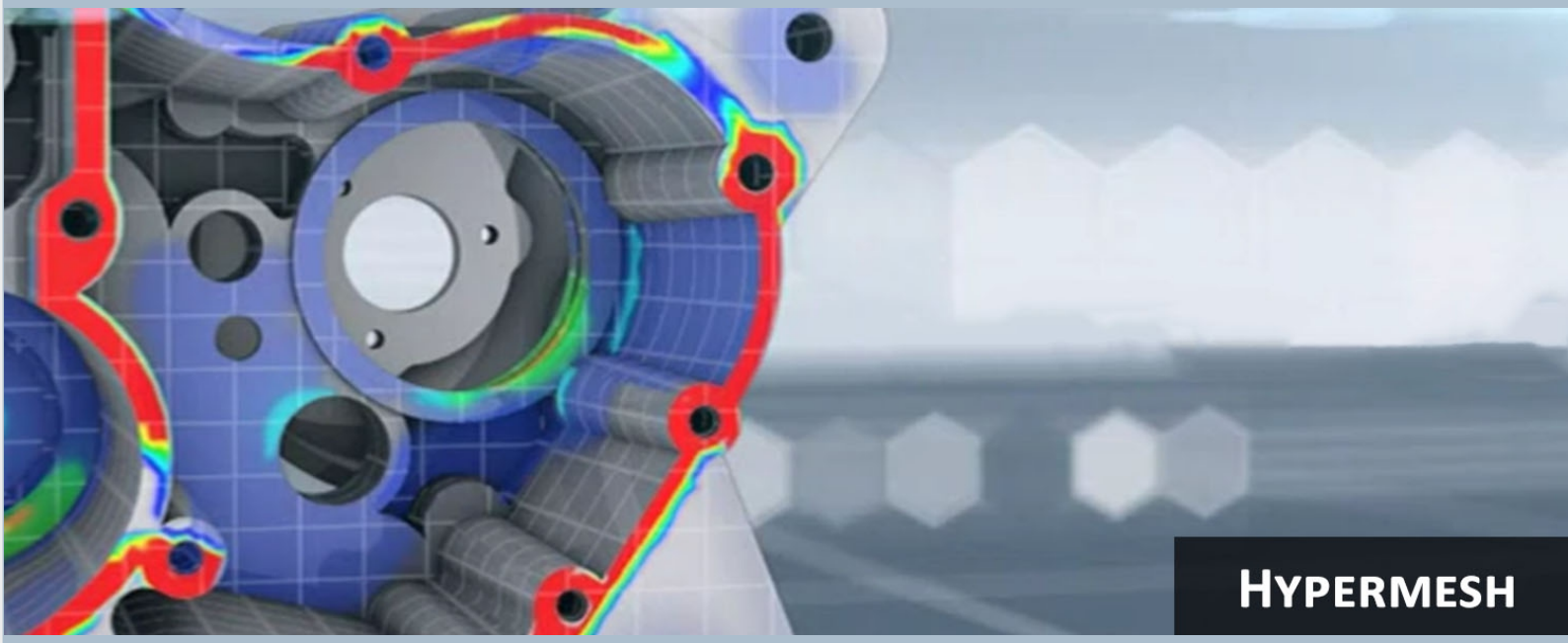
HYPER MESH



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Introduction to HYPER MESH

Introduction about Hyper mesh
Introduction to CAD
CAE Application of CAE Software
Advantages and Theory of FEM and Basic engineering and Shortcuts

Geometry

Create node
Node edit
Temp nodes
Distance
Dimensioning
Lines
Line edit
Length
Creation of surfaces and surface edit
Normal Translate and Rotate

MID – SURFACE EXTRACTION

Auto – mid surface Extraction
De – featuring
Quick Edit

GEOMETRY CLEAN – UP

Surface edges
Visualization toolbar
Display toolbar
Clean up using quick edit

2D MESHING

Introduction to meshing
Auto meshing
Size & Biasing
Density and mesh style
Mesh connectivity
Replace and remeshing
Current and surface components

2D MESH QUALITY

Quality criteria
Warpage
Aspect ratio
Jacobian
Skew
Reducing the Trias percentage

QUALITY INDEX

Quality index
T – Connections
Duplicates
Free – edges

MANUAL MESH

Ruled
Spline
Skin
Drag
Elem offset

TOOLS

Color
Rename
Order
Number and mass calculation
Project
Position

3D HEX MESHING

Introduction to 3D meshing
Types of 3D elements
Drag, spin, line drag & Elem offset

3D SOLID MESH

Solid and solid edit
Solid map commands
Linear mesh
Solid mesh

3D TETRA MESHING

Introduction to tetra mesh
Tetra parameters
Tet collapse
Remeshing

MESH

Introduction to 1D elements
Beam elements, bars, rods
RBE2 & RBE3 elements, welding, Bolt creation

LINEAR MESHING

Introduction to analysis
Create collectors
Material properties
Load constraints
Load steps

MODAL, LINEAR STATIC AND BUCKLING ANALYSIS

Deck preparation
Material and properties assignment
Assign of loads and constraints
Saving the file formats

FINAL PROJECT

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