**M.CHIDAMBARATHANU**

**E-mail: chidambaramthanu@gmail.com**

**Mob No: +919483515625**

**No 319 B-Block, DS Max Susheela Scion, Hennur Village, Bangalore-43.**

**Skills: Hypermesh, Ansa, Ls-Dyna**

**Optistruct, Python, Nastran**

## **PROFESSIONAL SUMMARY:**

Result oriented CAE engineer of 6 years of experience in Meshing, crash and optimization (full vehicle) of automotive components with good communication and presentation skills

Companies worked

Easi Engineering Services ( deputed to FORD-Chennai) (April 2016 to November 2019)

Tecosim Engineering Services (June 2013 to November 2015)

## **Project description in ANALYSIS:**

* **Objective :** Prepare the error free run for nastran deck for topology optimization of full vehicle assembly
* **Tools used :** HyperMesh,Ansa,Nastran
* Preparation of the deck for optistruct profile
* Assigning the material& Sections to the meshed components with connections as per requirement
* Apply loads on the hot points as per the client rule
* Extracting the Desvar values on the particular hot points with the initial loading of 1 N
* Submitting to solver &debugging the deck
* Observing the animation and result and evaluating the result with experimental value (client value)
* Components optimized for better results are rad support , pt 3 bracket , pt 4 bracket , shot gun, pt 3 cross beam, stancia (all the components from the frontal side)
* **Objective :** Prepare the error free run for nastran deck for modal analysis of the seating system
* **Tools used :** HyperMesh,Ansa,Nastran
* Preparation of the deck for Nastran profile
* Assigning the material& Sections to the meshed components with connections as per requirement
* Applying the Number of modes needed and boundary cards
* Submitting to solver &debugging the deck
* Observing the animation and result and preparing the report
* **Objective :** Prepare the error free run for nastran deck for modal analysis of the IP/console assembly
* **Tools used :** HyperMesh,Ansa,Nastran
* Preparation of the deck for Nastran profile
* Assigning the material& Sections to the meshed components with connections as per requirement
* Applying the Number of modes needed and boundary cards
* Submitting to solver &debugging the deck
* Observing the animation and result and preparing the report
* **Objective :** Prepare the error free Dyna deck for Crash analysis (FMVSS)
* **Tools used :** HyperMesh, Ls Dyna
* Setting up the model as per FMVSS
* Assigning the material& Sections to the meshed components as per requirement
* Preparing the Key files & removing the penetration & intersections if any
* Giving 1D Connections like NRBs, Rigid Patch, Extra Node, Spotweld, Adhesives as per requirement
* Initial velocity generation card is activated with 11.2 mm/ms
* Preparing the main key file for \*Control Cards, \*Database Cards, \*Initial Cards, \*Boundary Cards, \*Sets cards
* Submitting to solver &debugging the deck
* Observing the energies and evaluating the result with experimental value
* **Objective :** Prepare the errors free Dyna deck for Touch and feel analysis in grab

handle and trim components

* **Tools used :** HyperMesh, Ls Dyna
* Assigning the material& Sections to the meshed components as per requirement
* Preparing the Key files & removing the penetration & intersections if any
* Giving 1D Connections like NRBs, Rigid Patch, Extra Node, as per requirement
* Load is given in the particular direction to achieve the exact performance
* Preparing the main key file for \*Control Cards, \*Database Cards, \*Initial Cards, \*Boundary Cards, \*Setscards
* Submitting to solver &debugging the deck
* Observing the energies and evaluating the result with experimental value

## **Responsibilities IN MESHING:**

* Communication with the team
* Meshing:
* Responsible for meshing of plastic and BIW components
* Quality checking as per guidelines
* Responsible to review the meshed components
* Deck preparation of the model:
* Deck preparation include material assigning , intersection and penetration removal ,welding and spider creation, include file creation
* Preparation of load cases of the models
* Modal Analysis of the model

## **Project description IN MESHING:**

* FEM of SEATING assembly :
* The project involved Finite Element Modeling of seating components using the CAD data of the components provided by the client. Shell elements with weld connections were created with basic necessary checks based on the client’s requirements and quality standards, with the basic necessary run
* FEM of IP , CCB and door trim and CRFM assembly:
* The scope of the project is to build the FE Model for the IP, console with steering column and door trims CAD and CCB assembly. Shell elements and 3D elements with connections were created with basic necessary checks based on the client’s requirements and quality standards. Intersections and penetrations were cleared with modal check

## **Academic:**

* M.Tech in CAD in S.R.M University with 6.5 C.G.P.A during 2010-2012
* B.E in Mechanical engineering in Noorul Islam College of Engineering under Anna university with 70% during 2005-2009
* H.S.C in D.V.D higher secondary school under Tamil Nadu state board with 79.4% during 2004-2005
* S.S.L.C in Hebron Matric Higher Secondary School Tamil Nadu state board with 73.45% during 2002-2003