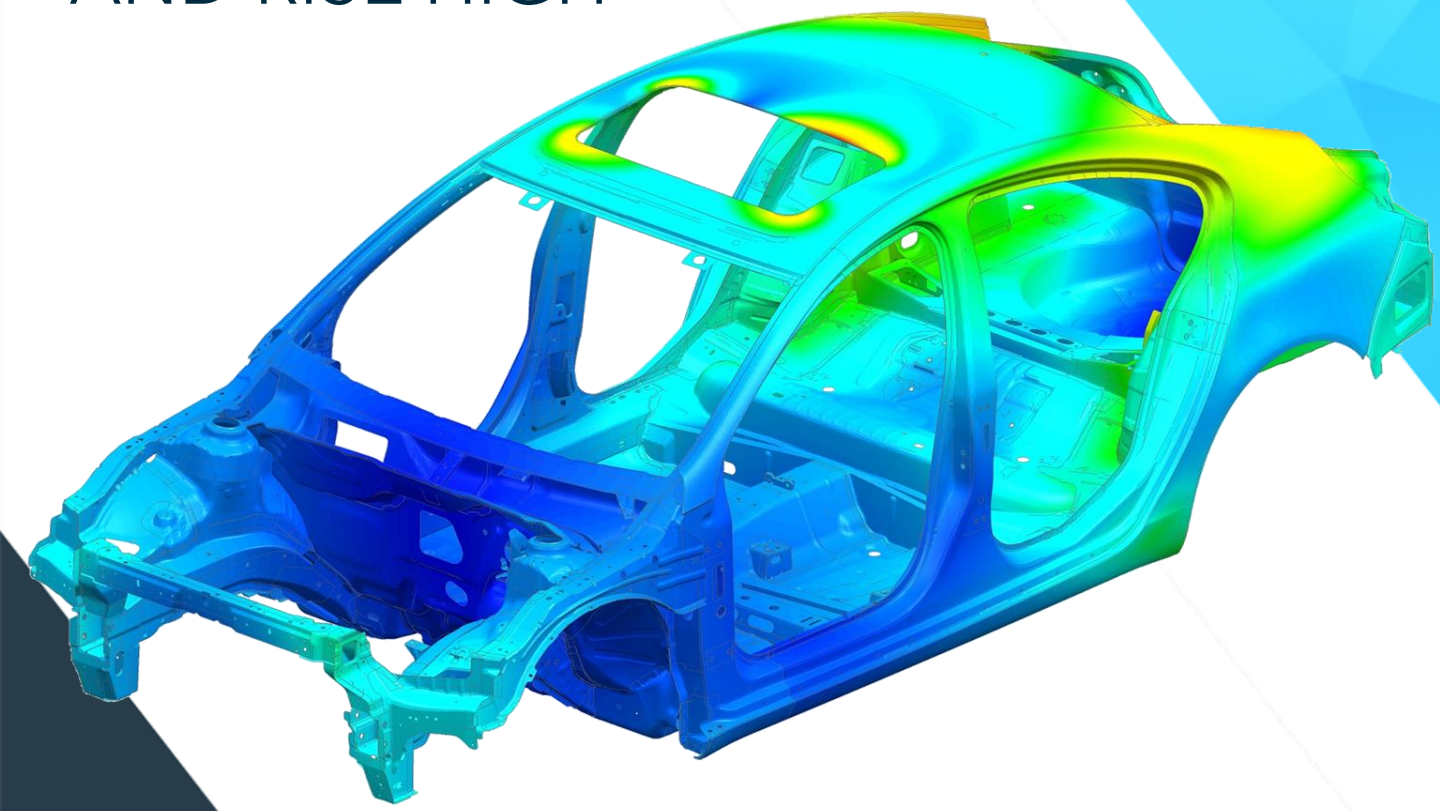
DISENOSYS

CAE APPLICATION ENGINEER TRAINEE

IT'S TIME TO STEP UP AND RISE HIGH



DISENOSYS

We provide job leading training to Mechanical Engineering graduates and Automotive enthusiasts, by our seasoned industry experts who have worked across several OEMs. We help you excel in your career and be an expert in your domain.

We provide staffing solution to companies, and help candidates to choose the right job. Disenosys also has its wings in engineering consultancy along with an in house R&D team.

Over 3,00,000 Mechanical Engineers graduate every year in India. The Graduates find it difficult to get a job in a core company, mainly due the lack of skills required by the industry and sole focus on design software rather than domain knowledge

Our trainers are industry experts with over a decade of experience and have worked with OEMs like Ford, Daimler, Ashok Leyland, Renault-Nissan. The trainers are across the world including, US, Canada & UK. We connect to our students from all corners of the world though online, live-interactive classrooms

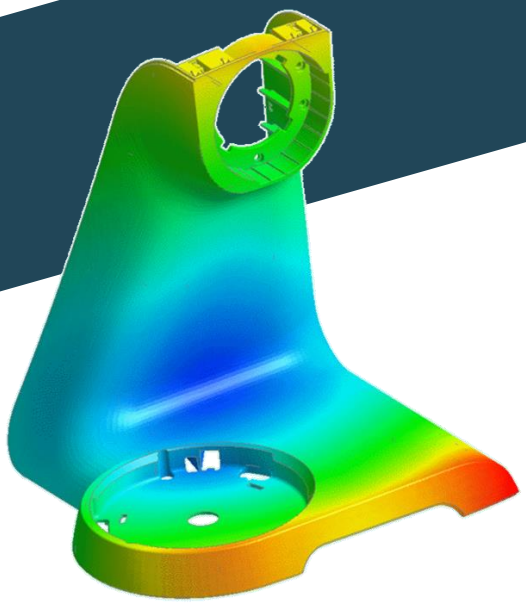
TRAINING

STAFFING SOLUTIONS

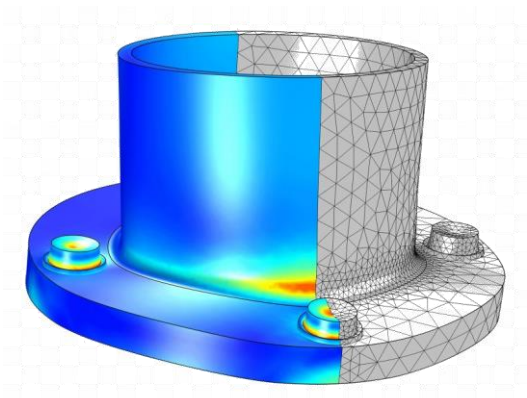
ENGINEERING CONSULTANCY

INNOVATIONS

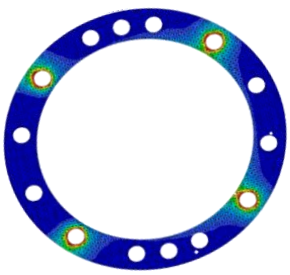
ABOUT THE PROGRAM

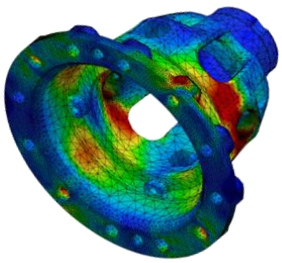


CAE tools are very widely used in the automotive industry. Their use has enabled the automakers to reduce product development cost and time while improving the safety, comfort, and durability of the vehicles they produce. The predictive capability of CAE tools has progressed to the point where much of the design verification is now done using computer simulations (diagnosis) rather than physical prototype testing.



Computer-aided engineering (CAE) is the broad usage of computer software to aid in engineering analysis tasks It includes finite element analysis (FEA), computational fluid dynamics (CFD), multibody dynamics (MBD), durability and optimization. It is included with computer-aided design (CAD) and computer-aided manufacturing (CAM) in the collective abbreviation "CAx"





CAE dependability is based upon all proper assumptions as inputs and must identify critical inputs (BJ). Even though there have been many advances in CAE, and it is widely used in the engineering field, physical testing is still a must. It is used for verification and model updating, to accurately define loads and boundary conditions and for final prototype sign-off.

PROGRAM BENEFITS

- 100% Placement Assistance, valid lifetime for one job
- Industry oriented curriculum
- Mentors Industry Experts with 10+ years experience
- Real industrial hands on projects
- Mock interviews
- Online doubt clearing
- Perfect resume building
- Learning support
- Program completion Certificate
- Free D-CODE membership for one year
- International Exposure

Experience Certificate & Internship

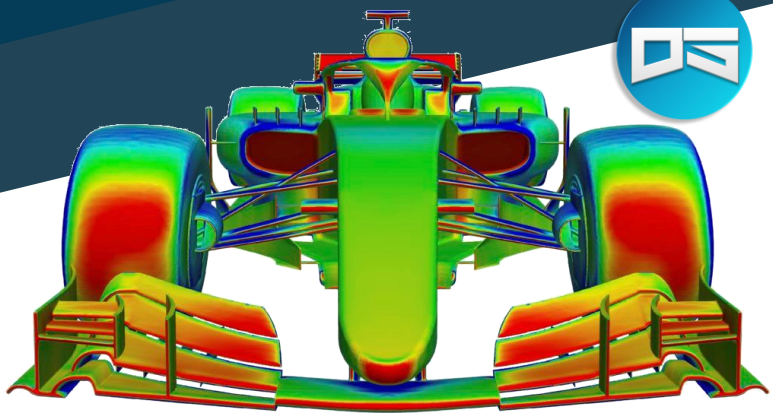
- **You will receive one year experience certificate after successful completion of the assigned projects.**

- The program includes 9 months of training and hands on projects, which goes hand in hand. 3 months of guaranteed internship under Disenosys will give the necessary exposure to real time industry projects.

- The program is designed to provide you industrial exposure and practical knowledge of the subject. The program gives you the head start equivalent to 2 - 3 years of experience, with your honest efforts.

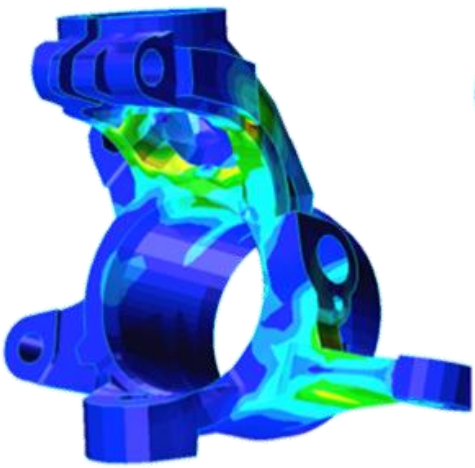
- Each project involves intensive work on different operations like meshing, deck preparation, report generation, etc. based on the requirements of the project and provides you thorough working knowledge on conducting similar projects on your own.

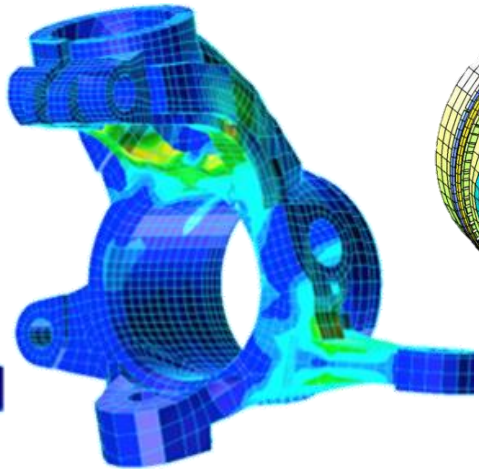
PROGRAM CURRICULUM

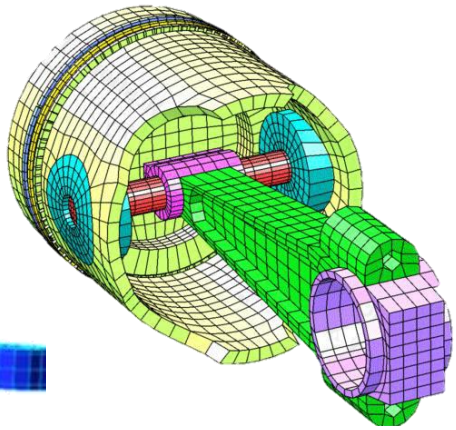


1. INTRODUCTION TO FINITE ELEMENTS ANALYSIS

- What is FEA?
- Why We need FEA?
- Scope of Real-Time Industrial Problems.
- General Procedure to Conduct FEA.
- Inputs required to perform FEA.
- Working with Units.
- Materials and Its Strength.
- Finite Element Modeling.
- Elements and Its Degrees of Freedom.
- Types of loads and boundary condition.
- Engineering Analysis and its Limitation.
- Why we need Geometry Cleanup?
- Verification Methods and Results Validation.
- Important Terms and Definitions.



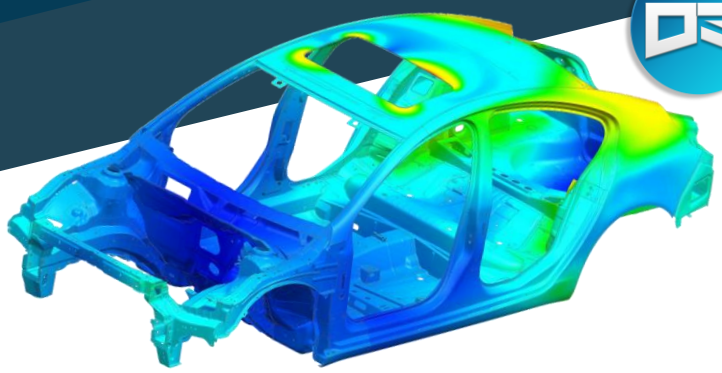




2. ENDURANCE AND DURABILITY ANALYSIS

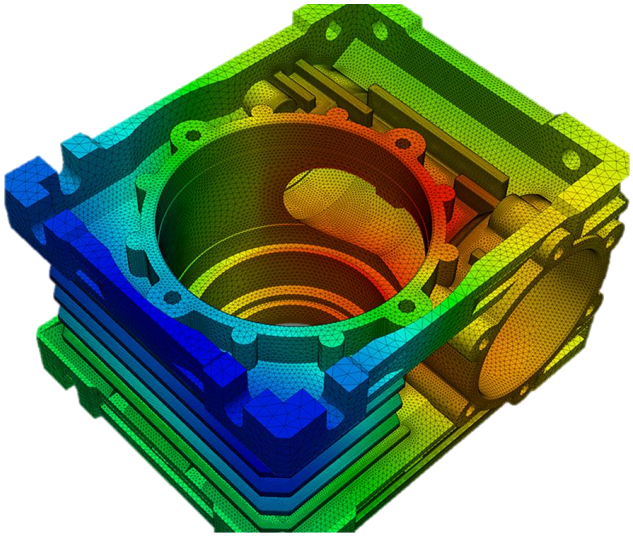
- Linear Static Analysis
- Pressure Vessel Modeling Using Shell
- Sub-Modeling
- Bolt-Modeling
- Hydrostatic Pressure Analysis
- Composite Modeling
- Advance Metal Plasticity.
- Viscoelasticity and Viscoplasticity
- Hyperelasticity
- Contact Modelling and Algorithms
- Non-Linear Buckling Analysis
- Weld Modelling and Stress Linearization
- Fatigue Analysis
- Convergence Issues and Troubleshooting

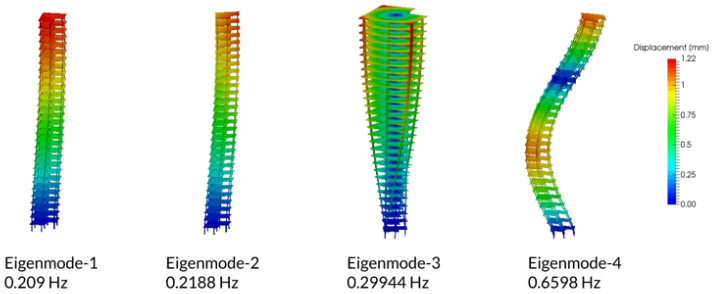
PROGRAM CURRICULUM



3. TEMPERATURE DEPENDENT ANALYSIS

- Conduction Heat Transfer Analysis
- Convection Heat Transfer Analysis
- Radiation Heat Transfer Analysis
- Insulation Analysis
- Thermal Contact Analysis
- Transient Thermal Analysis





Eigenmode-1
0.209 Hz

Eigenmode-2
0.2188 Hz

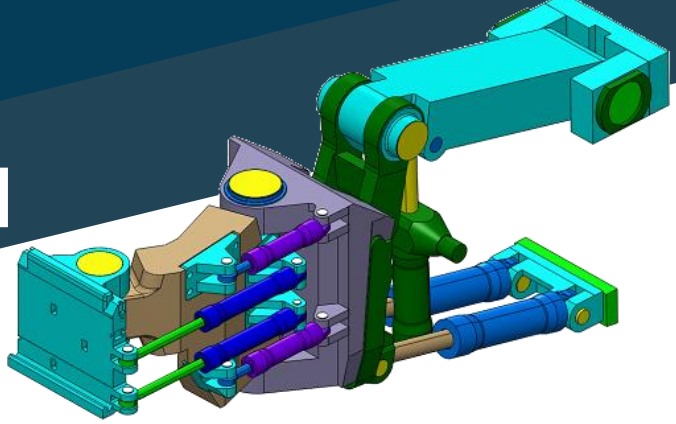
Eigenmode-3
0.29944 Hz

Eigenmode-4
0.6598 Hz

4. FREQUENCY RESPONSE ANALYSIS

- Free Vibration Analysis
- Forced Vibration Analysis
- Damping Analysis
- Pre-Stress Analysis
- Critical Speed Analysis
- Campbell Diagram
- Harmonic Frequency Analysis
- Response Spectrum Analysis
- Random Vibration

PROGRAM CURRICULUM

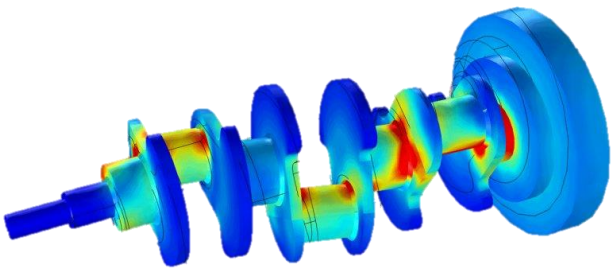


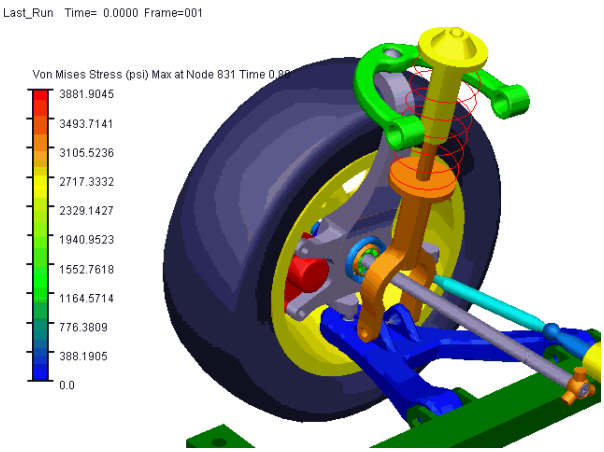
5. TIME DEPENDENT ANALYSIS

- Non-Linearity in Dynamic Analysis
- Load Steps and Sub-steps
- Automatic Time Steps
- Newton Raphson Method
- Large Deformation Problems

6. MULTIPHYSICS ANALYSIS

- Thermal Stress Analysis
- Fluid-Structure Analysis

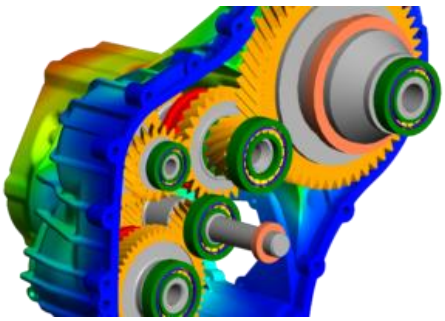




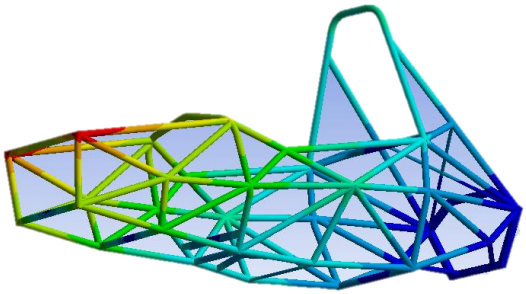
7. MULTIBODY DYNAMIC AND EXPLICIT ANALYSIS

- Mechanism Analysis
- Analysis of Joints
- Analysis of Spring Modelling
- Newton Raphson Method
- Large Deformation Problems

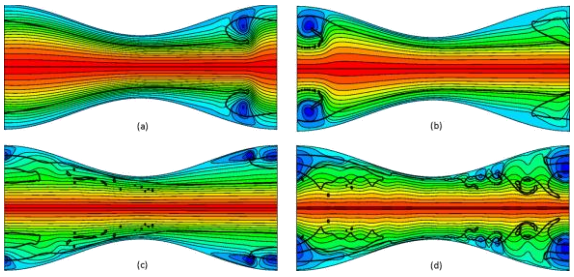
PROJECTS



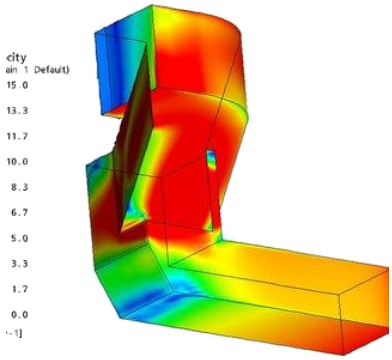
1. Vibration Analysis On Gearbox



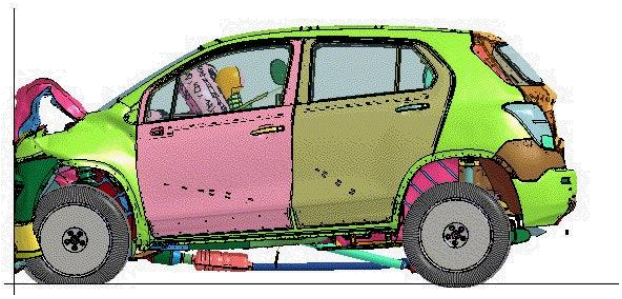
2. Random Vibration On Chassis



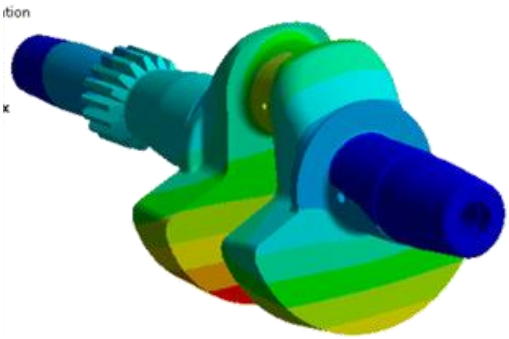
3. Analysis On Immiscible Liquids



4. Analysis Of Cooling Duct

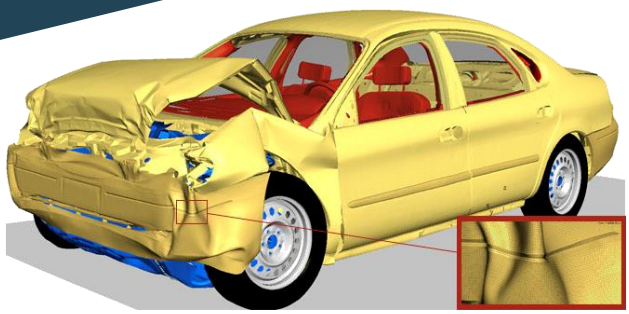


5. Vehicle Crash Analysis

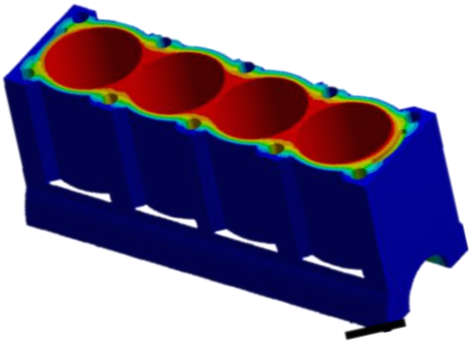


6. Analysis On Crankshaft Redesign

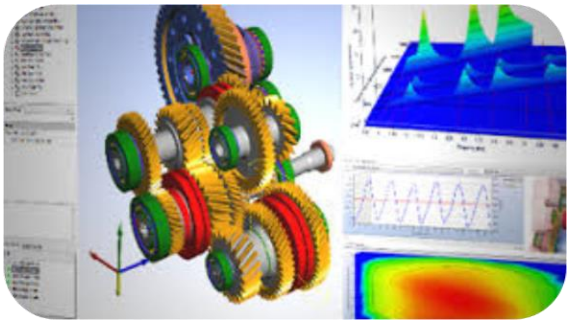
PROJECTS



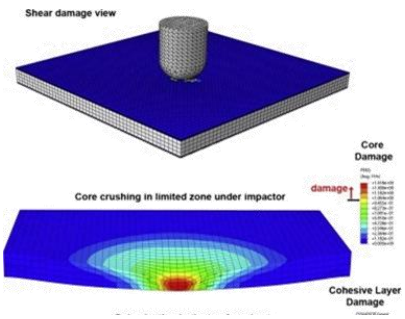
7. Vehicle Bumper Crash Analysis



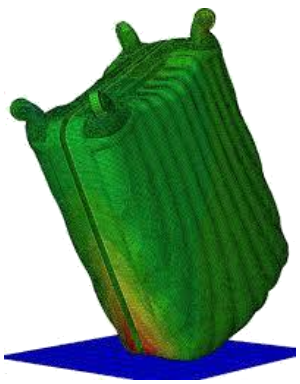
8. Analysis Of Engine Block/Head Thermo-structure



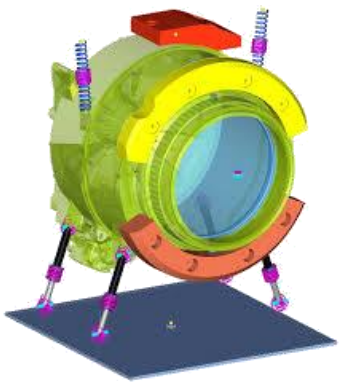
9. Analysis On Force Required For Transmission



10. Ball Drop Analysis On LED/LCD Screen Of A Phone

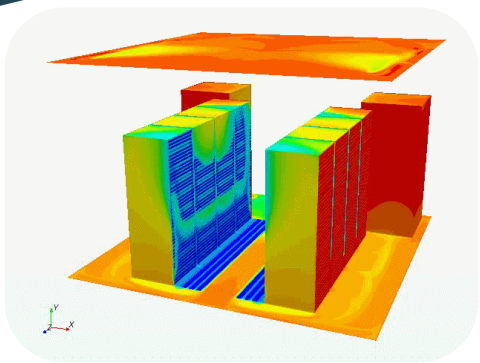


11. Drop Analysis Of Suitcase

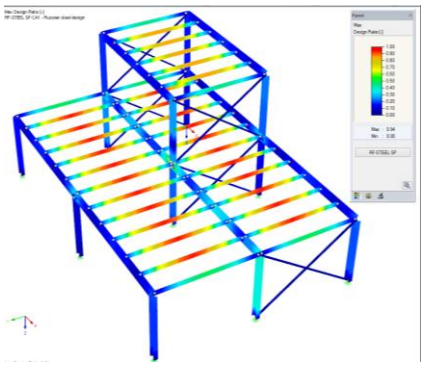


12. Multibody Analysis On Washing Machine Drum

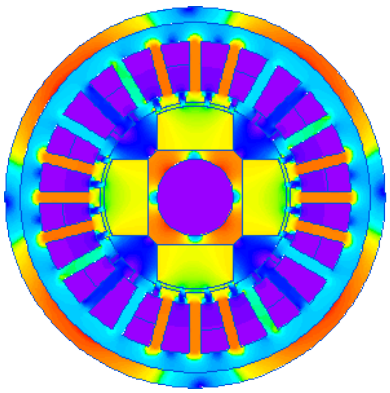
PROJECTS



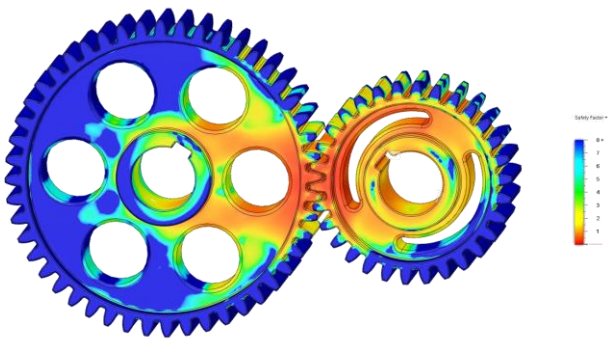
13. Analysis on racks for server mounting



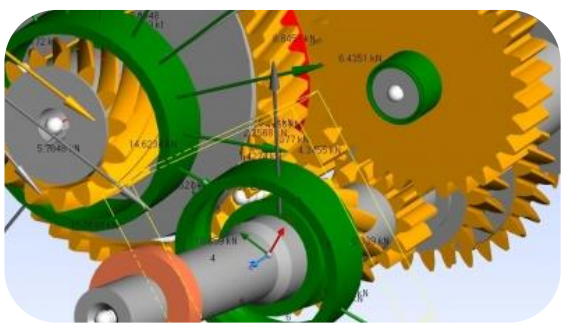
14. Seismic analysis on large frame



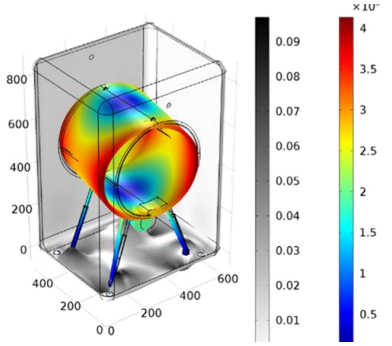
15. Analysis of force on the Magnetic rotor



16. Fatigue analysis on gearbox

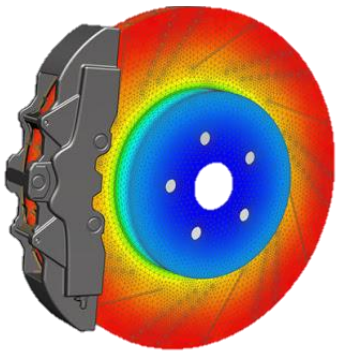


17. Analysis on transmission parts

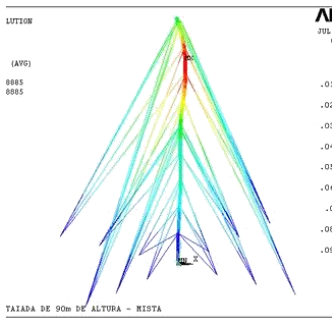


18. Vibration analysis on washing machine drum

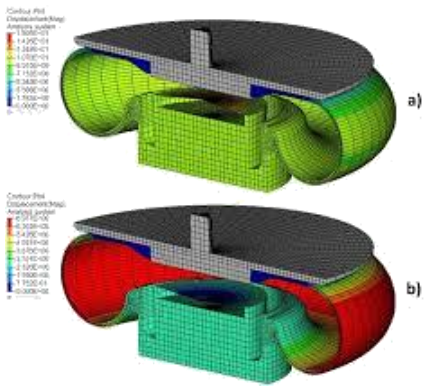
PROGRAM CURRICULUM



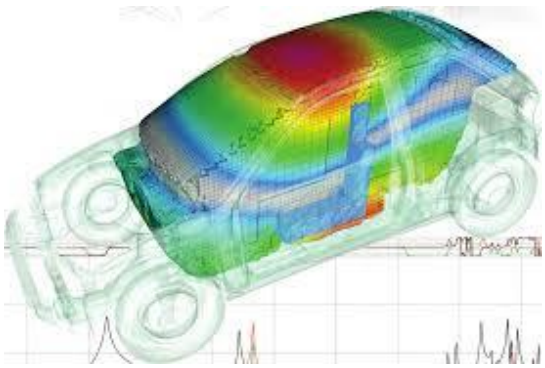
19. Thermal Structure Analysis On Vehicle Disc Brake



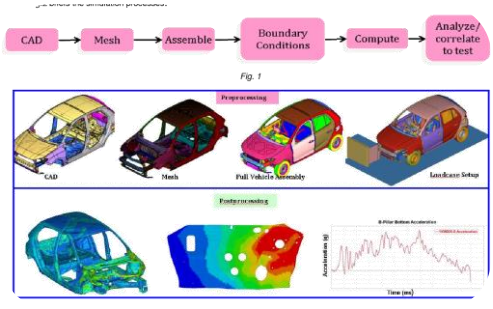
20. Wind Load Analysis On Antenna



21. Analysis Of An Air Spring



22. NVH Analysis On Passenger Cabin



23. Automation Of One Of The Projects

CAE Application Engineer Trainee

HOW ARE WE DIFFERENT.

- Disenosys mentors are Industry experts with 10+ years of experience in their respective domains who are from across the Globe, including US, UK and Canada. They worked over 10 years in various OEMs like Daimler, Renault-Nissan, Ford, Ashok Leyland, etc.
- The curriculum is handpicked by the experts to match the industry standards and to train you to be highly skilled and employable in the industry.
- The program is completely focused on hands on projects with a lot of practical exposure to real time industrial projects. The live sessions with mentors help you gain the domain knowledge and build your skills to complete the assigned projects.
- We conduct mock interviews and help in building your resume, making you the best candidate for the job with necessary skills.
- Disenosys guarantees you 100% placement assistance valid for lifetime until your first job after the program.
- Disenosys handpicks outstanding performers for our Engineering services and our in house R&D.

PROGRAM DETAILS

MODE

Live, Interactive online sessions

DURATION

3 Months

ELIGIBILITY

- 3rd and Final year B.E/B.Tech students in Mechanical/Automobile and Aerospace discipline.
- M.Tech students in Mechanical/Automobile and Aerospace discipline.
- Working professionals who are looking for better job opportunities in CAD, CAM, CAE, Auto Cad, Autodesk Domain.
- Automotive enthusiasts.

FOR FEES, ENROLL AND OTHER DETAILS, CONTACT US AT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