

Design your Destiny!



Who are we?

Mission: Imparting Practical Domain knowledge to Mechanical Engineering Graduates and Automotive enthusiasts by our seasoned industry experts. Empowering our students to become an expert in the domain of their choice.

3,00,000 mechanical engineers graduate every year in India and only a few get into core companies. Mechanical engineers find it difficult to get employed in the industry due to their sole focus on learning the design software, without proper domain knowledge. We Disenosys, are working to bridge this skill gap between students and the industry requirements. We

have a team of industry experts, with over a decade of experience who empower our students to land their dream jobs. We connect to our students from all the corners of the world through live, interactive and virtual classrooms.

Disenosys is bootstrapped by Praveen Kumar, who has worked with many multinational OEMs like Ford, Daimler, Ashok Leyland. Together as a team, we are constantly working to provide Automotive industrial domain training to young and aspiring design engineers around the globe.

Our students are our Hope. We are dedicated to making their dreams into reality.



Automotive Seating Design

Importance of Seating Design

Comfort is an attribute that today's consumers demand more and more. The seat has an important role to play in fulfilling these comfort expectations. Overall seating comfort is influenced by both static and dynamic characteristics of the seat system. For occupant's comfort and health, good seat design should be applied by considering sitting postures. Static and dynamic anthropometry data are considered for the proper design of a comfortable and safe seat.

Seats are one of the most important components of vehicles and they are the place where professional driver spend most of their time. Automotive seats, which are in contact with vehicle occupants, play an important role in improving the comfort and work environment of a driver and passengers. The function of automotive seating is to support, protect and to provide comfortable seating posture to its occupants.



Who can take this course?

- 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

Prerequisite: Working Knowledge of Mechanical CATIA V5

Why should I take the Automotive Seating Design course with Disenosys?

Top benefits of Automotive Seating Design course:

- Get trained by seasoned industry experts working in OEMs.
- We help in building your **resume** after completion of the course.
- A **course completion certificate** from Disenosys.
- **Mock interviews** will be conducted after completion of the course, to clear Industrial Technical rounds for placements.
- You will learn about the various **design aesthetics and ergonomics of seating systems used in a car.**
- In-depth understanding about various styling, safety standards, materials and design guidelines to be followed for seating system design.
- Excellent performers will be **referred to top OEMs** through our internal contacts.
- Stand out among your peers in getting a job as a **Design Engineer.**

OUR TRAINERS



Our team comprises of design experts, working in top OEMs around the globe. We stand apart from others with the quality we deliver to our students. Our seasoned industry experts impart their knowledge for the betterment of the future generation.

Course Duration

- 3 Months Live, Online and Interactive Sessions

Certification

- A digital certificate will be provided by Disenosys after successful completion of the course.

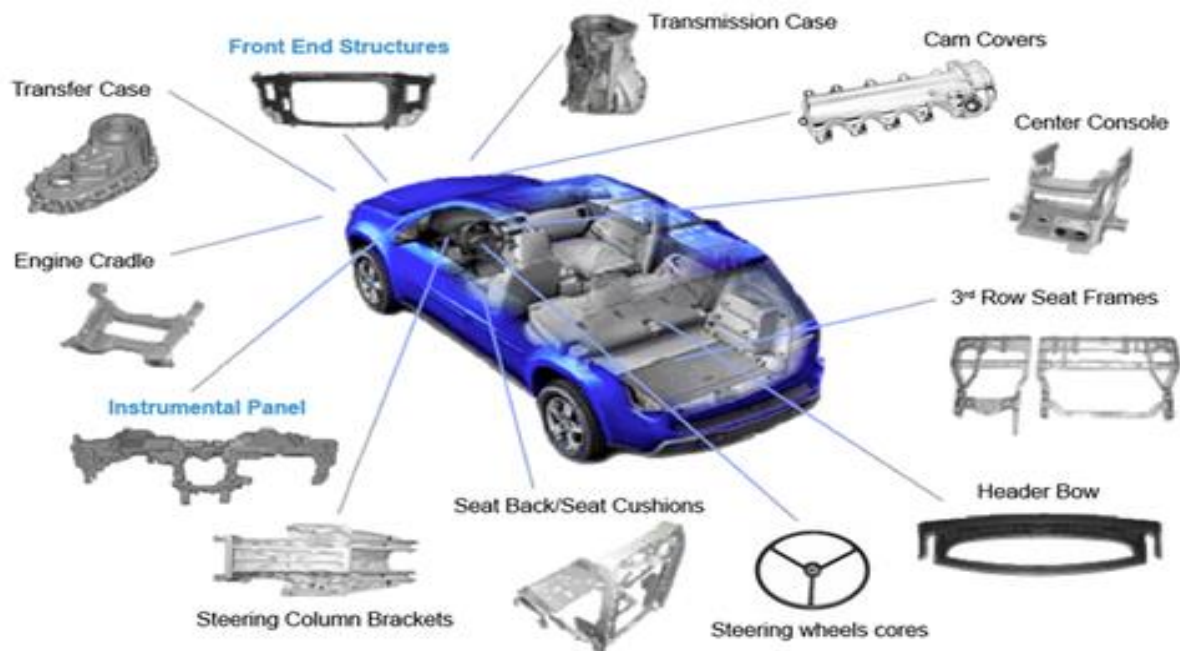
Course Curriculum

INTRODUCTION TO AUTOMOTIVE SEATING: In this introductory module, you will learn what is automotive, how automotive seating system got evolved. You will know what are seats and the history of seat evolution.

CURRENT FASHION/TRENDS: This module gives you a brief understanding of types of seats, how the seats are defined as per the number of rows in the car and the number of movements in the seat.

COMPONENTS OF SEATS

You will learn about the parts/components used to design/develop a seat as per the requirement from the customer. you will also learn the basics of mechanisms



used in a seat to provide in two segments i.e, 1. Front Row Components 2. Rear Row Components

COMPONENT DETAILS: FOAM

In this module, you will learn the following topics with hands-on Catia model

- How many types of Foam are available?
- Design Standard for Foam
- Methods pf foam development/ manufacture
- Defects in Foam

COMPONENT DETAILS: STRUCTURE

In this module, you will learn the following topics with hands-on Catia model

- Types of Structure
- Component of Structure
- Design guideline
- Materials used in manufacturing
- Methods used to develop a structure

COMPONENT DETAILS: HEADREST

In this module, you will learn the following topics with hands-on Catia model

- Types of Headrest used in automotive seats
- Components used in making headrest
- Use of Headrest



COMPONENT DETAILS: TRIMS

In this module, you will learn the following topics with hands-on Catia model

- Types of Trims used in Automotive
- The terminology used in Trims
- Defects during the development of trim
- Methods to assemble trims

COMPONENT DETAILS: PLASTICS

In this module, you will learn the following topics with hands-on Catia model

- Types of plastic (Material/Usage differentiation)
- Nomenclature of plastic parts in the seat
- Efficient ways to use plastic in a seat
- Defects occurring on plastic components

COMPONENT DETAILS: ARMREST

In this module, you will learn the following topics with hands-on Catia model

- Types of Armrest
- Mechanism of Armrest
- Components of an Armrest
- Manufacturing Defects of Armrest



COMPONENT DETAILS: MECHANISM

In this module you will learn in details about the mechanism used in automotive passenger seats including types of Mechanisms used and nomenclature:

- Recliner – Work/Function and detail study
- Track – Work/Function and detail study
- Height Adjuster – Work/Function and detail study

SEAT TESTING

- Safety-related tests
- Regulatory-related tests

COMFORT AND INNOVATION

In this module you will learn about comfort and innovation in automotive seating which shall include:

- Comfort mechanism
- New Innovations and ideas
- Comfort layouts of Seats

SEAT RELATED ISSUES

This module covers the methods that can be used all over the globe in any domain to solve a problem:

- 8D
- Fish Bone Diagram
- 5D
- Man-Machine Diagram



DFMEA and PFMEA

This module will not only be specific to seating, but these methods can also be used all over the globe in any design-related programs:

- What are DFMEA and PFMEA
- The process to prepare DFMEA and PFMEA

- Different review points of DFMEA and PFMEA

GEOMETRIC DIMENSIONING AND TOLERANCING

This module will not only be specific to seating, but these methods can also be used all over the globe in any design-related programs:

- Introduction to GD&T
- Usage of GD&T in seats
- Different examples to define GD&T with exercise to do

PROGRAM LIFE CYCLE

This module will not only be specific to seating, but these methods can also be used all over the globe in any design-related programs:

- Life Cycle of a program
- Different stages of a program
- Mile Stones of Customers

CONCLUSION AND EVALUATION

A closing session on all the above topics and queries will be answered

CERTIFICATE



DISENOSYS
CERTIFICATE
OF ACHIEVEMENT

This certificate is presented to

Ramesh P

for successfully completing the 3 months program on

Automotive Seating Design

Certificate UDIN: 20012981

Completion Date: 05-05-2020



Praveen Kumar
Director, Disenosys

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