

06
MONTHS

ONLINE PROGRAM

PROFESSIONAL MASTER CERTIFICATION
CAD & CAE

Certified By:

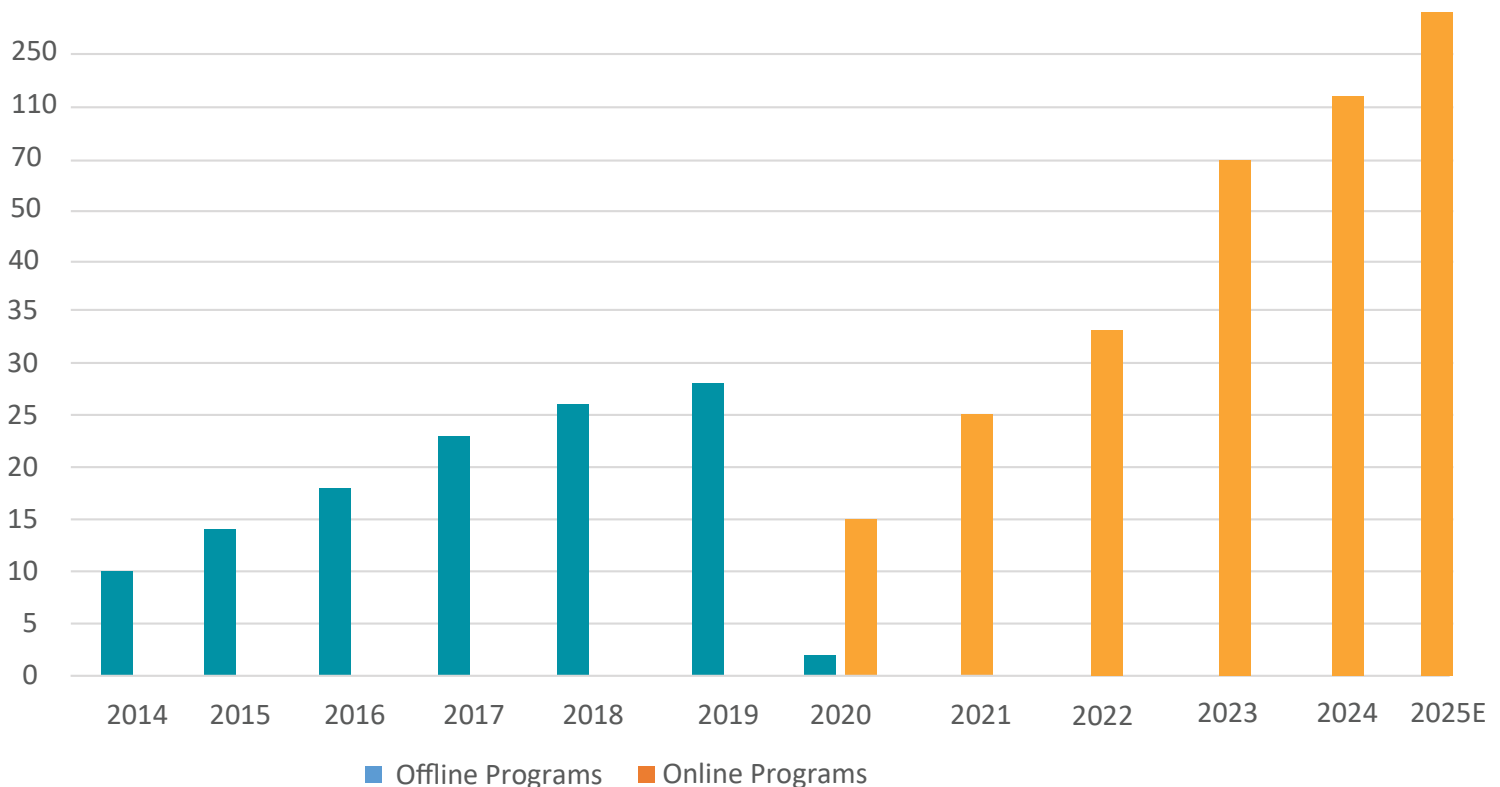


ABOUT ISIEINDIA

ISIEINDIA is the most popular and favorite E-mobility Motor sports, Education and Research Publication organization in India among engineering institutes and green energy research organization. ISIEINDIA has become one of the epicenter of green energy concept development in India. We are motivating people (Engineers + Future Engineers) to work on New and Renewable Sources of Energy. We provide the platform to new start-ups, Innovative ideas and passionate people, who really want to contribute to society.

We are giving our innovative services to more than 50,000 + peoples. Our services and product have been appreciated and noted by delegates from 22 countries. We are an associate member of FMSCI. We have been awarded by National Youth Award by Ministry of Youth Affairs, and recommended by Ministry of New and Renewable Energy. ISIEINDIA is the 1st society in India which is motivating engineering students to work on commercial green Mobility.

Program Delivered



The Skill Development Cell of Imperial Society of Innovative Engineers was established in 2015. Since, then we have delivered training in multiple domains of engineering such as - automobile, electric vehicle, computer science, electrical, electronics, etc. Since, its inception we have skilled and re-skilled more than 2.5 lac youths and professionals, helping them launch into a successful career in their desired domain.

SINCE 2015

4.5 LAC+
YOUTHS AND PROFESSIONALS
TRAINED

ABOUT PROGRAM

Professional Master Certification Programs are long term programs with 6 months of duration. These programs have been designed in order to make you employable and help you achieve that dream job. The courses under this program covers the in depth understandings of the topics covered, with 20+ case studies with mini and major projects.

The lectures will be provided on our Online platform, which can be accessed at any time as per your convenience. On each weekend we will be having a Live doubt clearing session in order to clarify your doubts, to help you gain better understanding of the subject.

We at ISIEINDIA believe that any lesson learnt is not useful unless you get to apply it in real time. Thus we have placed mini projects through out the course to help you get a proper understanding of the subject. The mini project will be briefed at the beginning of the subject and by the end of it you would have to submit the project. Apart from the mini projects you will also be provided with a major project that you would have to submit at the end of the course.



Placement Assistance



Industry Oriented Curriculum



Live Industrial Projects



Industrial Experts



Live Doubt Sessions



Globally Valid Certificate

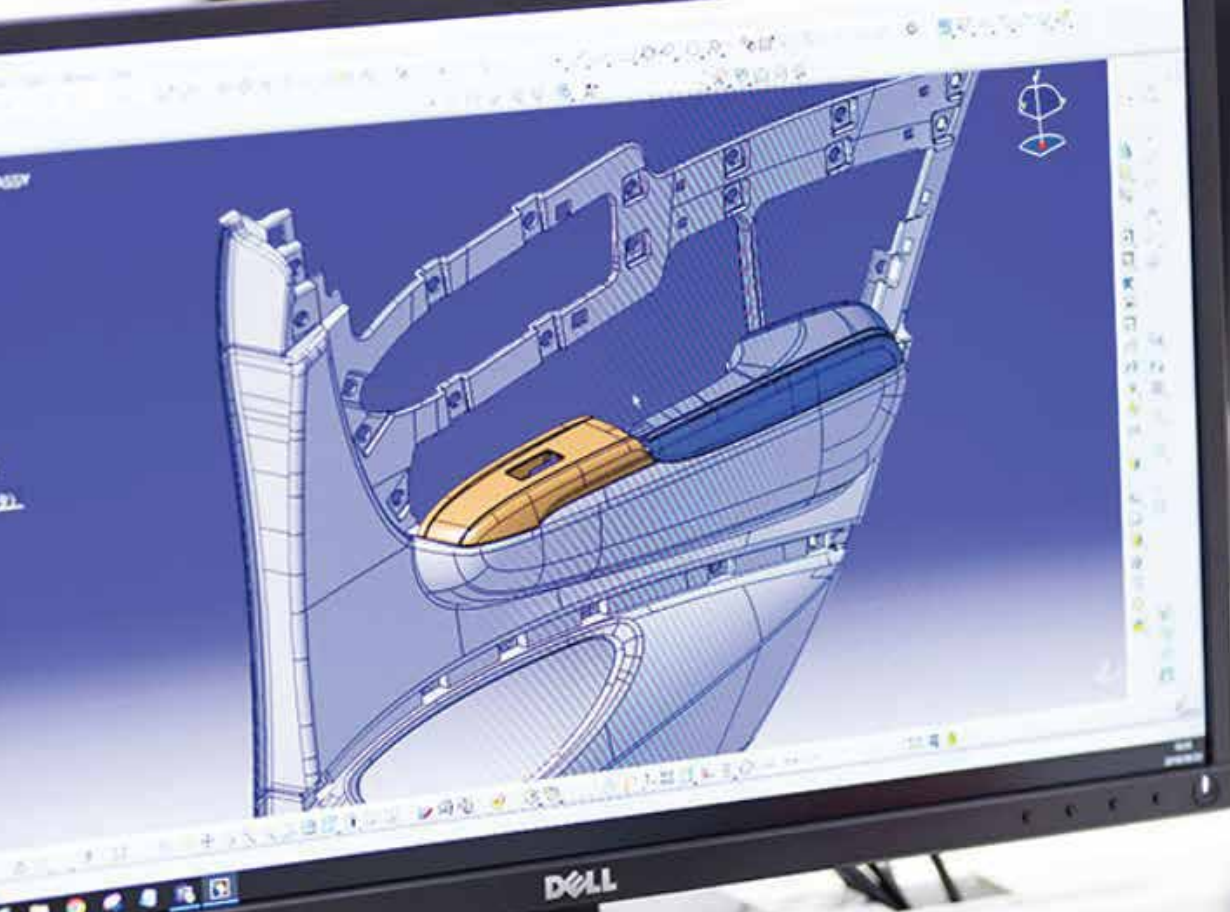


No Cost EMI



SKILL YOURSELF **ANYTIME, ANYWHERE**

With quality content delivered at your screen, you can up-skill yourself anytime, anywhere. It could be during evening coffee, at night before bed, morning tea, during daily transit, you choose when to learn.



CAD & CAE

The demand placed on today's engineers goes above and beyond the job description. Products have become complex and engineers are more frequently asked to leave specialized roles and to take on a wide variety of tasks that are beyond their traditional responsibilities. These tasks are centered on form, fit, and function. Engineers need to factor in broader concerns such as cost, procurement, sustainability, manufacturability, and serviceability. Their role has moved away from an individual responsibility to working as part of a collaborative engineering team, executing tradeoffs with both engineering and business stakeholders to meet project goals. These trends have forced today's engineers to broaden their skillset to be successful.

Engineers today are required to be on the cutting edge of design innovation. This means not only understanding engineering principles that govern the title and role, but also perfecting the toolsets needed to design and develop products.

Through this Professional Master's Certification Program, you'll learn the foundations of applying computer aided design (CAD), computer aided engineering (CAE), and manufacturing principles while developing your technical skills within Autodesk Fusion 360.

Every Professional Master's Certification Program includes a hands-on project. You'll need to successfully finish the project(s) to complete the program and earn your certificate.

Looking for Autodesk Fusion 360 certification prep courses? Check out additional learning resources to help you uplevel your skills.

COURSE DETAILS

06
SUBJECTS

80+
LECTURE HOURS

20+
CASE STUDIES

01
PROJECTS

SUBJECT 01

Introduction to Finite Element Analysis

- Benefits of CAE
- Software's used for CAE Tool
- Methods to Solve Engineering Problem
- Numerical Methods
- Product Design Cycle
- Why do we carry out meshing
- Types of Elements
- How to start Meshing
- How to decide element length
- Element Quality Check

SUBJECT 02

Hypermesh

- Hyperworks Module
- Hypermesh user interface
- Types of Solver(Optistruct, Radioss, LS-Dyna, Ansys)
- Basic Geometry Creation (Nodes, Lines, Surfaces, Solids)
- Geometry Clearing
- Creating basic geometric shape using Hypermesh
- Keyboard Scripting
- Element Types
- Quality Check
- How to start meshing
- 1D Mesh(Beam, Bar, Weld) Elementss
- 2D Mesh(Shell, Plastic) Automesh | Manual | Advance
- 3D Mesh(Solid) Tetra | Volume tetra | Brick
- Connections - Massess | Bold | Rigid | RBE3 | Springs | Gaps

SUBJECT 03

Analysis 1

- Deck Prepration using Hypermesh Solver as LS-Dyna
- Optistruct, Ansys
- Introduction to Linear Static Structural Analysis
- Modal Analysis
- Static Analysis with Inertia Relief
- Steady State & Transiet Thermal Analysis
- Fatigue Analysis
- Error Debugging

SUBJECT 04

Analysis 2

Types of Design
Types of Analysis - Implicit, Explicit, Quasi-Static
Element Formulation
Material
Types of Elements
Contacts
Control Cards

SUBJECT 05

Crashworthiness

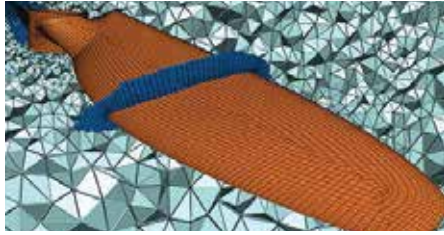
Basic of crash worthiness - Introduction to crashworthiness and global NCAP, Euroncap FMVSS regulations
Time Dependent
Load steps
Energy Curve Generation
Deck preparation using Hypermesh Solver
LS-Dyna
Post processing using LS-Prepost

SUBJECT 06

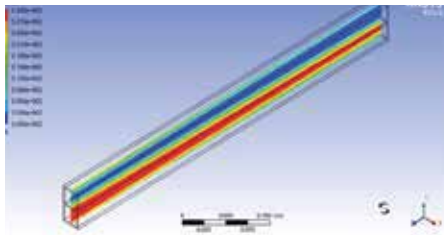
LS-DYNA

Introduction to LS-Prepost
Create a LS-DYNA input deck for Front Bumper Impact
LS-DYNA input deck for a ball impacting a plate
Rear under Run Protection Device of Heavy Vehicle

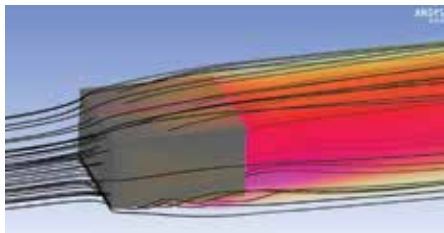
MAJOR CASE STUDIES



Rapid Meshing Technique for Plastic Parts



Parallel/Counter flow heat exchanger analysis using ansys workbench



Understand the temperature variation



Vehicle Crash Solver Deck

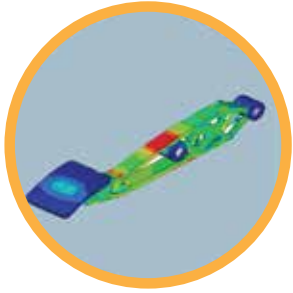
CASE STUDY

The course is filled with case studies at every unit, explaining real world scenarios and their solutions. The studies mentioned above are the major case studies, associated with which are multiple minor case studies to help you gain more insight into the industry,

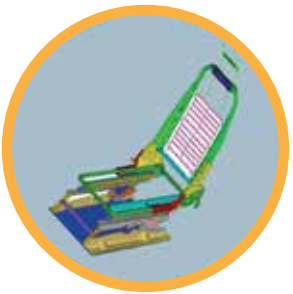


PROJECTS

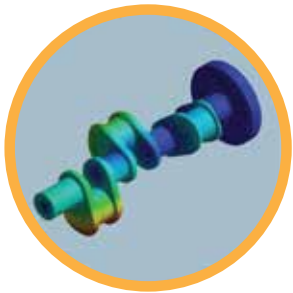
CHOOSE ANY ONE PROJECT



Linear Static Analysis - Brake Pedal



Modal Analysis - Frontal Seat



Fatigue Analysis - Crank Shaft

ELIGIBILITY



Graduates/ Post Graduates



Industry Professionals



**Entrepreneurs looking
for Startups**

PAYMENT OPTIONS

NO COST EMI

On following Banks Credit Card -

- American Express
- Yes Bank
- Standard Chartered Bank
- RBL Bank
- IndusInd Bank
- CITY Bank
- Axis Bank
- ICICI Bank
- Kotak Bank
- HDFC Bank
- Bank of Baroda



Wallets



Credit/ Debit Card



Net Banking



EMI

CERTIFICATE

ISIEINDIA GLOBAL CERTIFICATE



ASDC CERTIFICATE



REFER n EARN
UP TO
Rs. 5000 /Referral
IN YOUR BANK ACCOUNT



