INVENTATEQ

MASTER HYPERMESH
COURSE With Placement

Become a Future-Ready Engineering Professional with Real-Time Hands-on Hypermesh Training

WHY YOU'LL LOVE THIS COURSE

COURSE HIGHLIGHTS

- Live Online Classes + Recorded Videos for Lifetime Access
- Industry-Standard Curriculum Designed by Experts
- Industry-Recognized Certification on Completion
- 100% Dedicated Placement Support with Top Hiring Companies

18 +	500 +	25K	10K
Hours of Training	Hiring Partners	Students Trained	Placements

Course Offerings **FREE** Career Counselling — Call +91 93870 33670

STARTS HERE !

ARE YOU FACING THESE CHALLENGES ?

- Still learning the basics from outdated, generalized courses?
- Worried about how fast-changing industry technologies will affect your career?
- Struggling to secure a job even after completing your training?
- Feeling overwhelmed by the vast amount of information and not knowing what to learn next?
- Lacking practical experience with industry-standard tools?

Move Forward Faster, Smarter, and Stronger with Us

Industry-Ready Skills

Career Growth Opportunities

Access to Industry Professionals

Confidence & Clarity

Expert Mentorship & Guidance

Real-World Project Experience

Lifelong Learning Support

Job Placement Assistance

Interview Preparation

ABOUT INVENTATEQ

Transforming Learning Through Technology

Inventateq is a leading IT training and placement company committed to transforming learners into industry-ready professionals.

Our Mission

To empower learners with practical, industry-focused skills that bridge the gap between education and employment.

Our Vision

To become a trusted learning partner known for excellence, innovation, and successful career outcomes.

Why Thousands Choose Inventateq?

5 +	500 +	25,000 +	15,000 +
Years Of Experience	Hiring Partners	Students Trained	Students Placed

We Collaborate With

Deloitte. Capgemini HP amazon INFOSYS. TECH MAHINDRA

WHY LEARN HYPERMESH ?

HyperMesh is a high-performance finite element pre-processor used by professionals to mesh, simulate, and optimize complex engineering models efficiently.

CAREER OUTCOMES OF HYPERMESH

- Automotive Industry Engineer — ₹4–8 LPA
- Aerospace Simulation Analyst — ₹5–10 LPA
- CAE Engineer — ₹3–7 LPA
- Structural Analysis Engineer — ₹4–9 LPA
- Cross-Industry Opportunities — ₹3–6 LPA
- Higher Study Career Growth — ₹6–12 LPA
- Research & Development Engineer — ₹5–10 LPA
- Manufacturing Engineer — ₹3–6 LPA
- Mechanical Design Engineer — ₹3–6 LPA
- Automotive R&D Engineer — ₹5–10 LPA

COURSE & CLASSROOM VIDEOS

Student Classroom Feedback

Practical Training Session

Placement Story

Interview Skills & Growth

Basic Online Support - Non-Working Hours Access - Per Class Monthly

~~₹5,000~~

₹5,000 - ₹10 LPA

WHY INVENTATEQ ?

Because we're not trainers with slides. We're engineers who've been in your shoes.

EXPERT ACADEMICS

- 100% Placement Assistance Support
- Hands-On Training Sessions
- Resume & Linkedin Optimization
- Mock Interviews & Feedback
- Communication Soft Skills Development

INDUSTRY EXPERTS

- Flexible Schedule Weekend Batches
- Live Interactive Learning
- Industry-Standard Curriculum
- Real-Time Projects
- Certification Preparation
- Lifetime Access to Recorded Sessions

CLASSROOM VIDEOS

- Student Classroom Feedback
- Practical Training Session
- Placement Story
- Interview Skills & Growth

Join Our Community

Be Interviewing, Your Success is Our Mission !

GUARANTEED PLACEMENT SUPPORT

Because it isn't enough to get trained, we get you the real outcome!

- Aptitude Training
- Technical Training
- Mock Interviews
- Resume & Profile Preparation
- Personality Development
- Career-oriented Preparation
- Linkedin Profile Optimization
- Soft Skills Training
- Placement Drives & Hiring Events

OUR PLACEMENT STATS

Our unique placement assistance program has helped thousands of students secure jobs in their dream companies.

10,000 +	500 +	95%	41PR
Students Placed	Hiring Partners	Success Rate	Highest Package

View Our Recent Placements

CAREER PROGRESSION

Our placement partners, technical companies and businesses that hire our graduates.

Entry Positions	Mid-Level Positions (3–5 Years)	Senior Positions (5+ Years)
Graduate Engineer Trainee	Design Engineer / Analyst	Senior Design Engineer / Analyst
Engineering Trainee	Simulation Engineer	Lead Simulation Engineer
Junior Apprentice Engineer	Lead Experimental and Laboratory Design Engineer	Principal Experimental and Laboratory Design Engineer

SKILLS ROADMAP

Progress From Core Foundations to Industry-Ready Professional

Beginner	Intermediate	Advanced
Mastering Hypermesh GUI and workspace customization	Developing custom Hypermesh templates and automation scripts	Creating custom API and automation tools for Hypermesh
Efficient 2D geometry cleanup and preparation	Developing custom Hypermesh templates and automation scripts	Meshing Optimization, Checking and quality improvement
Hypermesh Interface Components	Implement Advanced Quality Checks, Mesh Optimization and Batch Processing	Implement Quality Checks using custom Hypermesh templates and automation scripts
Efficient 2D Geometry Preparation	Implement Advanced Quality Checks, Mesh Optimization and Batch Processing	Automated Hypermesh workflows for repetitive tasks
Hypermesh Interface Components	Implement Advanced Quality Checks, Mesh Optimization and Batch Processing	Automated Hypermesh workflows for repetitive tasks

DETAILED MODULE PLAN

Fully customizable based on your learning goals

Module 1 : CAE and Pre-Processing Foundations

- Basic Engineering Mechanics: Statics, strength of materials, and dynamics
- Understanding the geometry, mesh, loads, and boundary conditions in the pre-processing workflow
- Basics of Hypermesh: Interface, GUI components, and workspace customization
- Using engineering training programs and problem-solving models

▶ Lesson 1.1

▶ Lesson 1.2

▶ Lesson 1.3

Module 2 : Interface and Model

- Hypermesh Interface: Menus, toolbars, collectors, components, and entities
- Importing and exporting geometry files (IGES, STEP, Parasolid, native CAD formats)
- Navigation, display control, and setup options for efficient workflow
- Geometry cleanup: Identifying and fixing gaps, overlaps, and duplicate surfaces

▶ Lesson 2.1

▶ Lesson 2.2

▶ Lesson 2.3

Module 3 : Geometry Cleanup and Preparation

- Cleaning up faces, face merging, removing defects, and preparing CAD for meshing
- Creating and managing collectors, components, and entities for organized workflow
- Defeaturing techniques: Removing small holes, fillets, and unnecessary details
- Checking geometry tolerances and fixing issues that affect mesh quality

▶ Lesson 3.1

▶ Lesson 3.2

▶ Lesson 3.3

Module 4 : 2D Meshing Fundamentals

- Creating shell meshes, choosing element types, and controlling mesh density
- Mesh quality criteria: Aspect ratio, skewness, warpage, and Jacobian
- Automesh vs. manual meshing: When to use each approach
- Improving mesh connectivity for reliable solver behavior
- Understanding engineering problems and how to solve them using meshing

▶ Lesson 4.1

▶ Lesson 4.2

▶ Lesson 4.3

Module 5 : 3D Meshing and Solid Preparation

- Tetrahedral meshing: Automesh settings, element size, and transition control
- Preparing solid geometry for meshing: Cleanup, defeaturing, and surface repair
- Understanding the different 3D meshing approaches and when to use each
- Meshing quality control for 3D models: Checking and improving mesh quality

▶ Lesson 5.1

▶ Lesson 5.2

▶ Lesson 5.3

Module 6 : Quality Checks and Model Improvement

- Mesh quality checks: Aspect ratio, skewness, warpage, and Jacobian explained
- Improving mesh quality: Smoothing, node adjustment, and element editing
- Reading batch reports to identify issues
- Fixing failed elements
- Improving convergence
- Improving simulation speed

▶ Lesson 6.1

▶ Lesson 6.2

▶ Lesson 6.3

Module 7 : Properties, Materials, and Connections

- Assigning properties: materials, thicknesses, and element orientations
- Creating and managing materials: isotropic, orthotropic, and user-defined properties
- Preparing for assembly: Setting up mating surfaces and alignments
- Bonding options: rigid, deformable, and contact
- Spot welds and connectors

▶ Lesson 7.1

▶ Lesson 7.2

▶ Lesson 7.3

Module 8 : Loads, Boundary Conditions, and Solver Setup

- Applying loads: point loads, distributed loads, and loads acting on entire components
- Supports and constraints: Fixed, pinned, and custom boundary conditions
- Load cases: Setting up multiple scenarios for comprehensive analysis
- Exporting the model ready for the solver (OptiStruct, Nastran, Abaqus, LS-DYNA)

▶ Lesson 8.1

▶ Lesson 8.2

▶ Lesson 8.3

Module 9 : Solver Deck and Industry Workflow Awareness

- Running your first solve and monitoring convergence
- Reading and understanding solver output files and error messages
- Common solver errors and how to fix them
- Setup validation and pre-solve checks
- Overview: Industrial applications of meshing and pre-processing work
- Career Opportunities

▶ Lesson 9.1

▶ Lesson 9.2

▶ Lesson 9.3

Module 10 : Real-Project Workflow

- Applying the full workflow to a real-world project: Import to mesh, ready-solve deck
- Building industry-standard meshes, and model diagnostics and repair
- Preparing engineering-style reports for reviews or portfolios
- Industry-standard meshing practices and quality benchmarks
- Career Opportunities

▶ Lesson 10.1

▶ Lesson 10.2

▶ Lesson 10.3

REAL - WORLD PORTFOLIO PROJECTS

Build a Strong Portfolio with Industry-Relevant Projects

Project 1 : CAD Engineer Trainee

What You'll Do: Import and prepare CAD geometry for meshing, perform basic defeaturing, and create simple 2D and 3D meshes.

Skills You'll Gain: Hypermesh interface navigation, geometry cleanup, basic meshing techniques, and quality checks.

Tools Used: Hypermesh, CAD import tools, and basic meshing utilities.

Project 2 : Interface and Model

What You'll Do: Import and prepare CAD geometry for meshing, perform basic defeaturing, and create simple 2D and 3D meshes.

Skills You'll Gain: Hypermesh interface navigation, geometry cleanup, basic meshing techniques, and quality checks.

Tools Used: Hypermesh, CAD import tools, and basic meshing utilities.

Project 3 : Geometry Cleanup and Preparation

What You'll Do: Import and prepare CAD geometry for meshing, perform basic defeaturing, and create simple 2D and 3D meshes.

Skills You'll Gain: Hypermesh interface navigation, geometry cleanup, basic meshing techniques, and quality checks.

Tools Used: Hypermesh, CAD import tools, and basic meshing utilities.

Project 4 : Meshing Engineer

What You'll Do: Import and prepare CAD geometry for meshing, perform basic defeaturing, and create simple 2D and 3D meshes.

Skills You'll Gain: Hypermesh interface navigation, geometry cleanup, basic meshing techniques, and quality checks.

Tools Used: Hypermesh, CAD import tools, and basic meshing utilities.

Project 5 : Pre-Pro - Processing Associate

What You'll Do: Import and prepare CAD geometry for meshing, perform basic defeaturing, and create simple 2D and 3D meshes.

Skills You'll Gain: Hypermesh interface navigation, geometry cleanup, basic meshing techniques, and quality checks.

Tools Used: Hypermesh, CAD import tools, and basic meshing utilities.

Project 6 : Hypermesh Mesh Improvement

What You'll Do: Import and prepare CAD geometry for meshing, perform basic defeaturing, and create simple 2D and 3D meshes.

Skills You'll Gain: Hypermesh interface navigation, geometry cleanup, basic meshing techniques, and quality checks.

Tools Used: Hypermesh, CAD import tools, and basic meshing utilities.

Project 7 : Hypermesh Batch Automation

What You'll Do: Import and prepare CAD geometry for meshing, perform basic defeaturing, and create simple 2D and 3D meshes.

Skills You'll Gain: Hypermesh interface navigation, geometry cleanup, basic meshing techniques, and quality checks.

Tools Used: Hypermesh, CAD import tools, and basic meshing utilities.

Project 8 : Hypermesh Shell vs. Solid Expertise

What You'll Do: Import and prepare CAD geometry for meshing, perform basic defeaturing, and create simple 2D and 3D meshes.

Skills You'll Gain: Hypermesh interface navigation, geometry cleanup, basic meshing techniques, and quality checks.

Tools Used: Hypermesh, CAD import tools, and basic meshing utilities.

ASSESSMENT FRAMEWORK

Skills Validated at Every Stage of Learning

Assessment	Assessment Focus	Skills Validated
Module Quizzes	Concept understanding and terminology	Theoretical knowledge
Unit Assessments & Practice Reviews	Hands-on Hypermesh workflow and interface navigation	Practical application
Hands-On Mini Projects	Independent problem-solving and geometry preparation	Technical execution and workflow efficiency
Final Capstone Review	End-to-end Hypermesh implementation, meshing, and validation	Complete pre-processing workflow and quality control
Technical Mock Viva	Technical reasoning, troubleshooting, and industry readiness	Confidence, technical depth, and professional communication

RESUME, GITHUB & LINKEDIN

Your Professional Brand, Built Alongside Your Training

- Resume and Hypermesh portfolio highlighting pre-processing projects
- Detailed CAD designers, component engineers, and simulation engineers
- Practical documentation showcasing meshing, quality checks, and model preparation
- Technical documentation for clear communication with teams, managers, and stakeholders
- Professional online presence for networking and career opportunities

OUR STUDENT

Real Stories, Real Success

READ REVIEWS

"The best course to learn Hypermesh and prepare for interviews. The trainer explains concepts clearly and helps with practical doubts. Highly recommended!"

Ravi Kumar Hypermesh Learner

"Learning Hypermesh from professionals who've actually used it made the difference. Strong practical focus and real-time examples."

Priya Sharma Hypermesh Learner

WATCH VIDEOS

Successful Placement Stories of Hypermesh Trained Engineers

Watch Now

Live Classes for Hypermesh Training – Learn from Industry Experts

Watch Now

Live Hypermesh Interview Questions & Answers | Real Interview Experience

Watch Now

Hypermesh Placement Success Stories | Real Interview Experiences

Watch Now

Hypermesh Training Demo | Live Hypermesh Classes for Beginners

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CONTACT US

JOB HUNTING ENDS HERE

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