EXPRESS
ENGINEERING
SOLUTIONS

PRESSURE VESSEL
DRAFTING & DETAILING
MASTERCLASS



No one can de-code the code like us...!

+91 9921229232

training@express-engg.com

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Course Content

Drafting & Detailing Masterclass (40 hrs)

Lecture No	Topics CLICK ONTOPICSFOR DETAILS
1	Introduction to pressure vessels and engineering drawings
2	Pressure vessel components and construction
3	Materials, fittings and standard components
4	Nozzles, manways and attachments
5	Supports and vessel accessories
6	AutoCAD for mechanical drafting
7	General Arrangement (GA) drawing preparation
8	Component and fabrication detail drawings
9	Welding, fabrication and inspection requirements
10	BOM, documentation and drawing quality control

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Drafting & Detailing Masterclass (40 HRS)

1 Introduction to pressure vessels and engineering drawings

- Types and applications of pressure vessels.
- Basic terminology and principal components.
- How to read GA and fabrication drawings.
- Introduction to ASME Section VIII, Division 1.
- Drawing standards, projections, sections and views.

2 Pressure vessel components and construction

- Shells, shell courses and seams.
- Ellipsoidal, torispherical, hemispherical and conical heads.
- Nozzles, manways and openings.
- Reinforcement pads, stiffening rings and attachments.
- Internal components and common construction arrangements.

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Drafting & Detailing Masterclass (40 HRS)

3 Materials, fittings and standard components

- Material specifications, grades and product forms.
- Plate, pipe, forgings and common pressure vessel materials.
- Flanges, fittings, gaskets and bolting.
- ASME B16.5, B16.9, B16.11 and B16.47: scope and relevant dimensions.
- Standard dimensions, component descriptions and material callouts.

4 Nozzles, manways and attachments

- Nozzle necks, projections and orientations.
- Flange orientation and bolt-hole arrangements.
- Nozzle-to-shell and nozzle-to-head details.
- Manway covers, davits and hinge arrangements.
- Reinforcement pads, clips, lifting lugs and trunnions.
- Nozzle schedules and attachment identification.

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Drafting & Detailing Masterclass (40 HRS)

5 Supports and vessel accessories

- Skirt, saddle, leg and lug supports.
- Base plates, base rings and anchor bolt arrangements.
- Support attachments and foundation interfaces.
- Support component details and drawing conventions.

6 AutoCAD for mechanical drafting

- Drawing setup, units, layers and precision.
- Drawing and editing commands used in mechanical drafting.
- Coordinates, snaps and construction geometry.
- Orthographic views, sections, hatching and centerlines.
- Dimensions, annotations, leaders and weld symbols.
- Blocks, templates, layouts, plotting and PDF generation.

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Drafting & Detailing Masterclass (40 HRS)

7 General Arrangement (GA) drawing preparation

- Reading approved design inputs and reference data.
- Selecting suitable drawing views and sections.
- Overall vessel dimensions and elevation references.
- Nozzle locations, orientations and projections.
- Support arrangement, orientation and interfaces.
- Nozzle schedule, drawing notes and GA checking.

8 Component and fabrication detail drawings

- Shell course and head details.
- Nozzle and manway assembly details.
- Reinforcement pad and support details.
- Attachment and lifting lug details.
- Dimensions, weld representations and fabrication notes.
- Assembly drawings versus individual component drawings.

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Drafting & Detailing Masterclass (40 HRS)

9 Welding, fabrication and inspection requirements

- Weld symbols and common joint representations.
- Edge preparation and bevel details where specified.
- Fabrication tolerances and fit-up considerations.
- NDE, PWHT and testing notes as specified by engineering.
- Distinguishing design, fabrication and inspection requirements.

10 BOM, documentation and drawing quality control

- BOM preparation and item numbering.
- Material descriptions and quantities.
- Title blocks, revisions and drawing registers.
- Checking dimensions, views, schedules and cross-references.
- Common drafting errors and drawing release checks.

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About Us

Why Choose Us

With vast domain experience, highly capable & equipped Engineering Team we are specialized in providing the most professional Engineering services with fast turn around time. We also help businesses meet their goals with our cutting edge Engineering & Training services.

Mission

Our mission is to deliver world-class engineering solutions with simplicity, precision, and speed, while empowering professionals through comprehensive training that meets global industry standards.

Vision

To create a future where our cutting-edge expertise in engineering solutions and professional training empowers both clients and the industry, making us an indispensable partner in their success.

Our Core Values

1) INNOVATION

We consistently challenge the status quo by exploring new ideas & technologies to solutions.

2) INTEGRITY

We operate with unwavering honesty & transparency, building lasting trust with every client and partner.

3) CUSTOMER FOCUS

We are committed to understanding our clients' unique challenges & providing tailored, value-driven solutions.

4) ETHICS

We collaborate & support one another, believing our collective strength drives the best results for our clients.

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Know The Trainer

Deepak Babar

With over **20 years of comprehensive experience in mechanical engineering, CAD design, drafting and detailing, product design, GD&T, and static equipment engineering**, Deepak brings a strong combination of practical engineering expertise and industry-oriented technical knowledge to professional training.

His experience spans multiple engineering domains, including **static equipment detail engineering, oil and gas projects, control valve design, manufacturing drawings, sheet metal and product design, piping layouts, and industrial equipment.** Having worked on Oil & Gas projects for organizations like Halliburton and international clients across the USA and Italy, he brings valuable exposure to engineering practices, design requirements, and project execution in both domestic and international environments.

As a trainer, his approach focuses on **bridging the gap between theoretical concepts and actual industry requirements.** He emphasizes drawing interpretation, component detailing, material and manufacturing considerations, applicable standards, engineering documentation, and the preparation of accurate, practical, and production-ready drawings. **His objective is to help aspiring engineers and working professionals develop the technical competence and practical confidence required to execute drafting and detailing assignments in real engineering projects.**

Throughout his career, he has been involved in the complete engineering workflow, from project initiation and 3D modelling to detailed drawing preparation, manufacturing documentation, engineering revisions, and final delivery.

Throughout his career, he has been involved in the complete engineering workflow, from project initiation and 3D modelling to detailed drawing preparation, manufacturing documentation, engineering revisions, and final delivery.

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Who Should Do This Course?

How We Can Help..!

- Mech. Engg Graduates, Diploma, ITI
- Mechanical Draftsmen and CAD Engineers
- Fabrication and Production Engineers
- Pressure Vessel and Static Equipment Professionals
- Quality Control and Inspection Professionals
- Project Engineers and Professionals Seeking a Career in Pressure Vessel Detailing

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Design Services

About Us

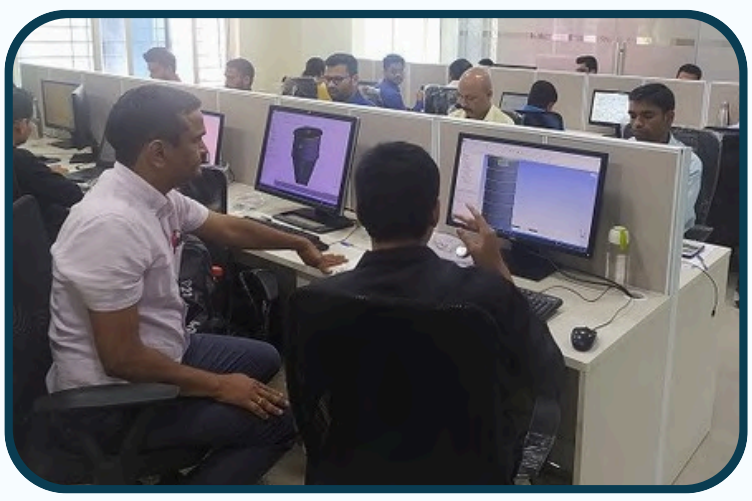
With vast experience in Static Equipment Engineering, we offer the best, cost-efficient solutions to our customers. Our Engineering team is capable to deliver Design of Pressure Vessel, Heat Exchanger, Condenser, Reactor, Column, Storage Tank, and other static equipment, as per various national and international codes and standards.

The team is well experienced and trained to deliver Design as per ASME Sec VIII Div-1, Div-2, PED, ADMerk Blatter, PD5500, AS1210, GOST, TEMA, API 660, API 650, API 620, IBR, EN13445, etc.

We have successfully completed many ASME U- stamp audits and worked on hundreds of U-stamp vessels closely with many certifying agencies.









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Training Services

About Us

Our training program offers a unique and professional platform for engineers to master their skills to meet the demanding requirements of industries. As an Authorized Training Provider for ASME, we stand firmly behind our mission: **“No one can decode the code like us.”** This expertise is rooted in our deep understanding of various national and international standards, delivered by **seasoned industry veterans** who are currently active in their fields to bridge the gap between theory and real-world application.Drawing on extensive multi-disciplinary expertise, we provide **comprehensive** courses tailored to the rigorous demands of today’s market. In a remarkably short time, our **commitment to excellence** has established us as the most trusted and preferred training partner for leading corporations and ambitious individuals globally.



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Corporate Training

Onsite Corporate Trainings

We have been instrumental in developing the workforce for organizations through our onsite training under our corporate training program. These training has helped the corporates to develop the skills and knowledge of their resources and as a result increase the output with better and optimized design of equipment.















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Our Customers

Our Corporate Customers

We have been instrumental in developing the workforce for organizations through our onsite training under our corporate training program. These training has helped the corporates to develop the skills & knowledge of their resources & as a result increase the output with better & optimized design of equipment.

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Our Track Record

How We Have Been Doing..!

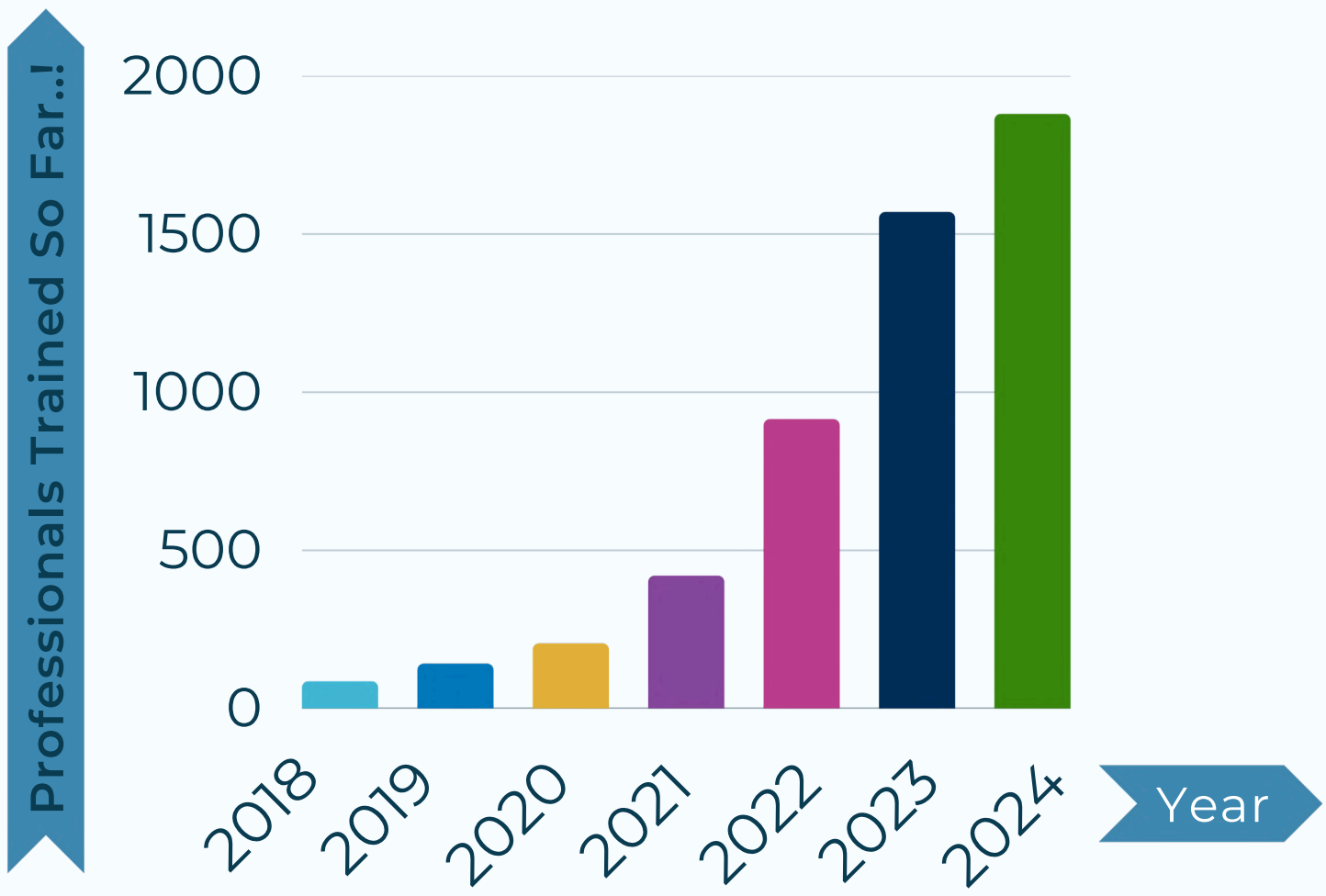
100+ Corporate Customers

4000+ Satisfied Trained Individual
Online & Offline Combined

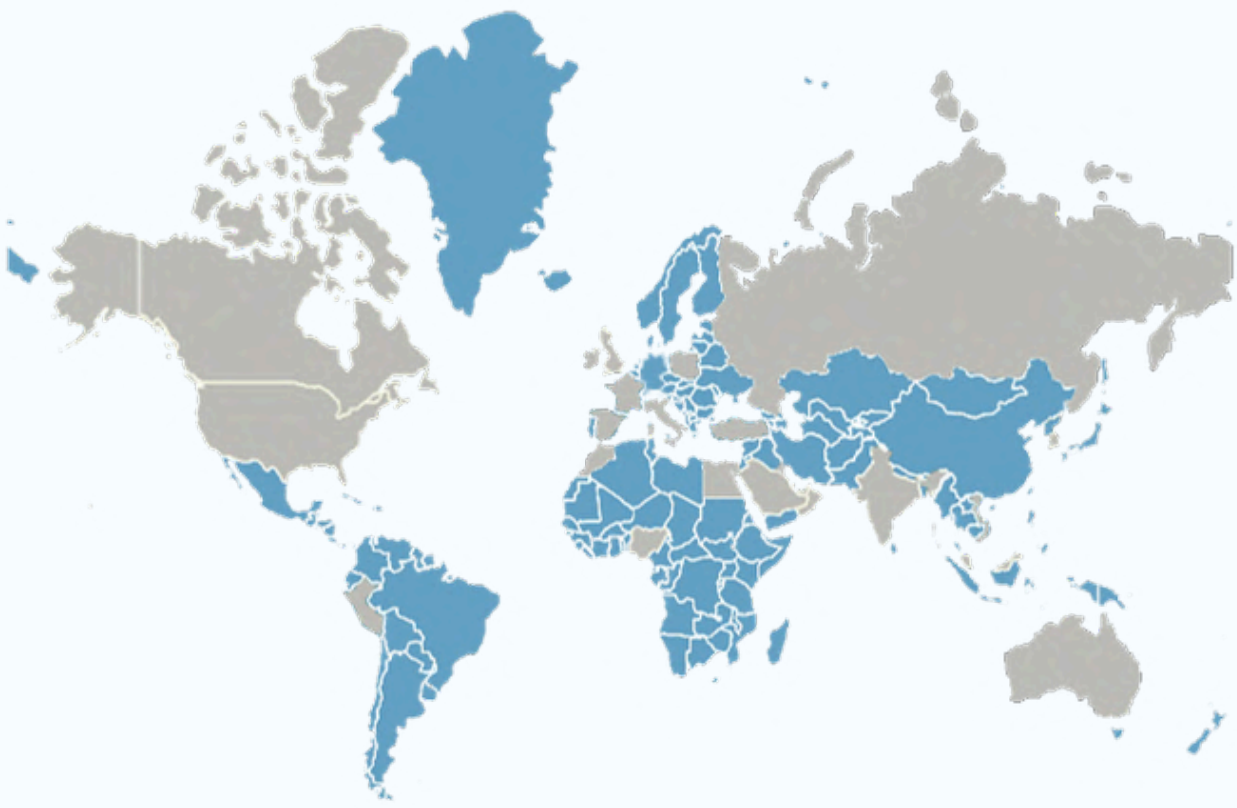
20+ Countries With Beneficiaries
Across The Globe

0-28 Experience Range Of
Engineers Trained

Over The Year...!



Beneficiaries Across The Globe



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About Training Platform

Mobile & Laptop/ Desktop

Expert and Professional training available at your convenience, with our Mobile & Desktop application.

WATCH FREE LECTURE VIDEOS

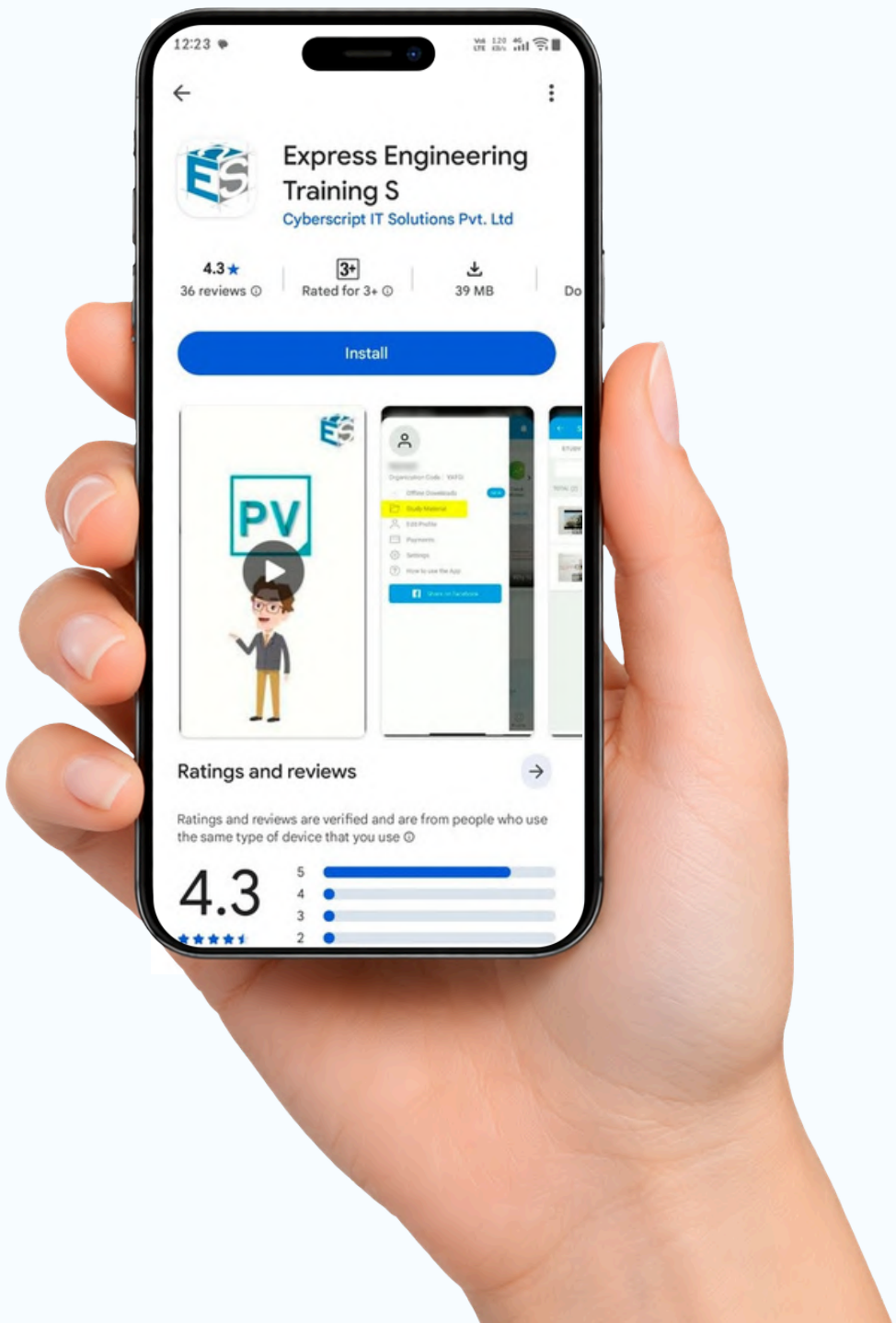
GET IT ON Google Play

Download on the App Store

PLAYSTORE

IOS APP

use organization code yatgi

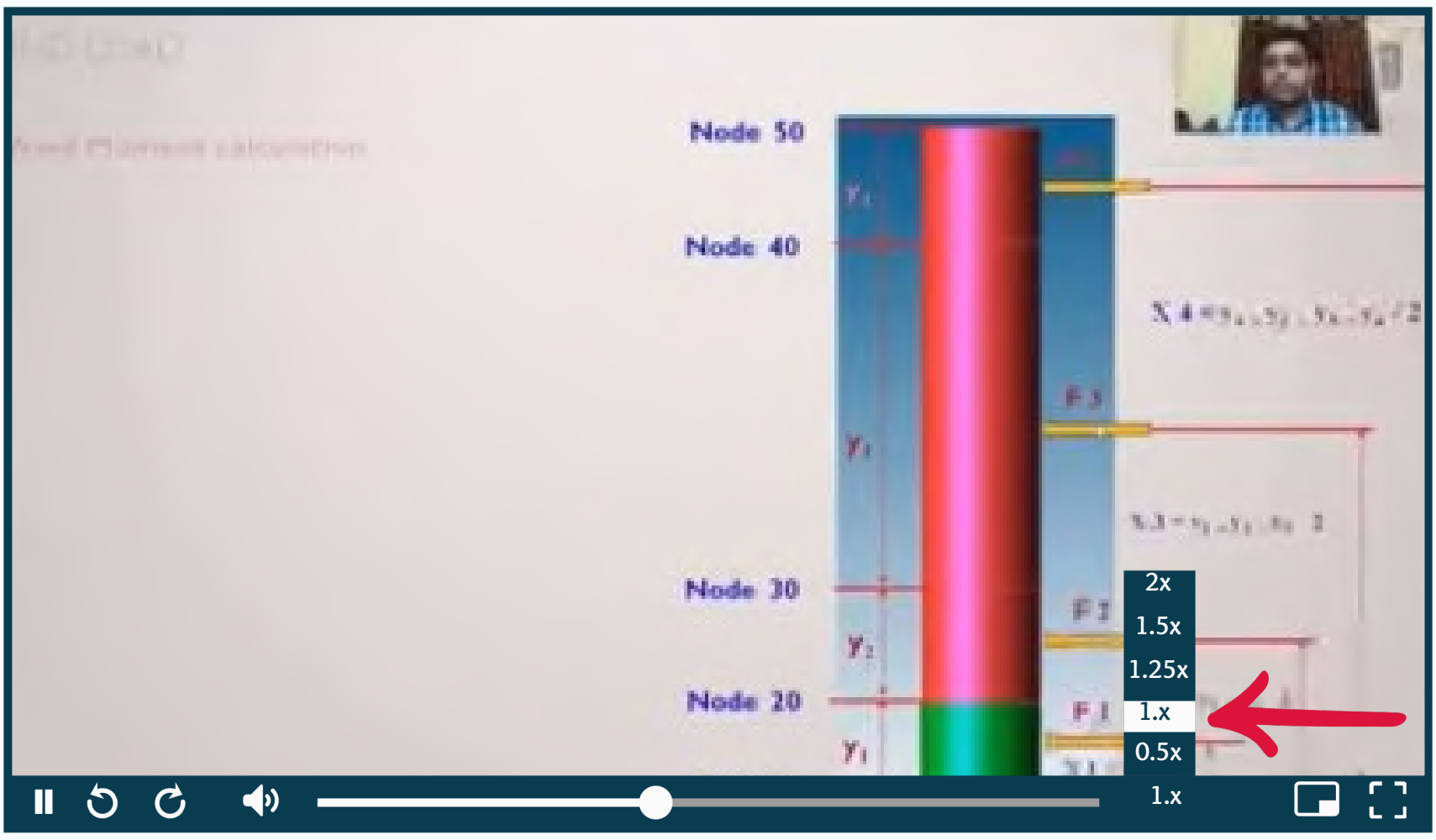


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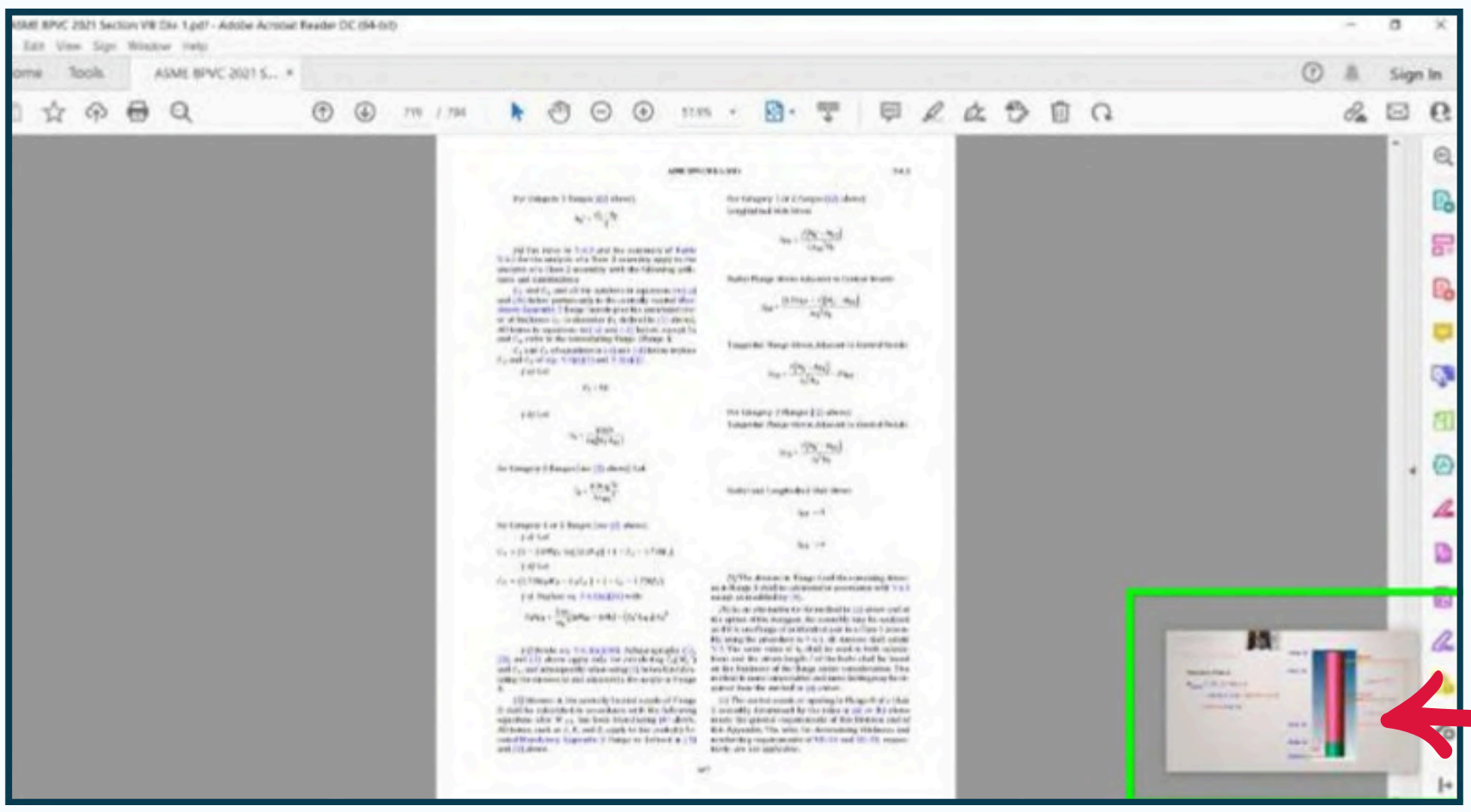
About Training Platform

Special Features

It has never been so convenient to learn...! Check out some special features of our Training Platform. Adjust video speed from 0.5x to 2x to suit your requirement.



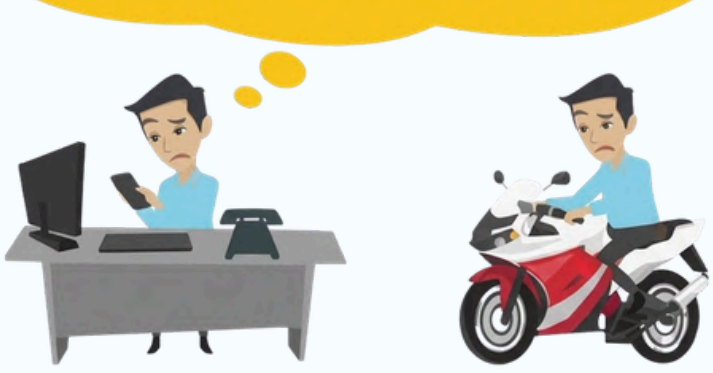
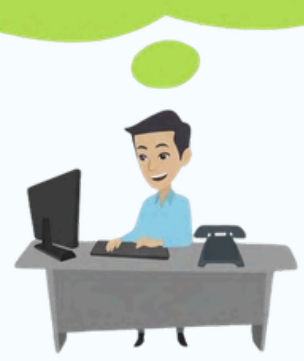
PIP mode enables you to work or practice simultaneously while watching the lectures.



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Advantages Over Offline Courses

Benefits Of Online Training

Offline	Online
No more compromise on work or personal schedule	
Getting late for the class. **Need to rush** or I'll miss the lecture.	I can **save travelling time** and **avoid stress** by watching lectures online **as per my convenience.**
	
Get answers on the go...!	
I am stuck in the Project. But this topic is scheduled after 4 weeks in the live class. **How can I solve it now?**	I was stuck..! But I **just watched this topic online** and bingo..! **the problem is solved.** I simply love this platform.
	
Live Q&A session every week	
The Classes are over. **Whom can I ask** the questions now?	My Course **validity is 18 months**. Also the **live Q&A** session is **twice a week.** I can get all the answers.
	

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Advantages Over Offline Courses

Benefits Of Online Training

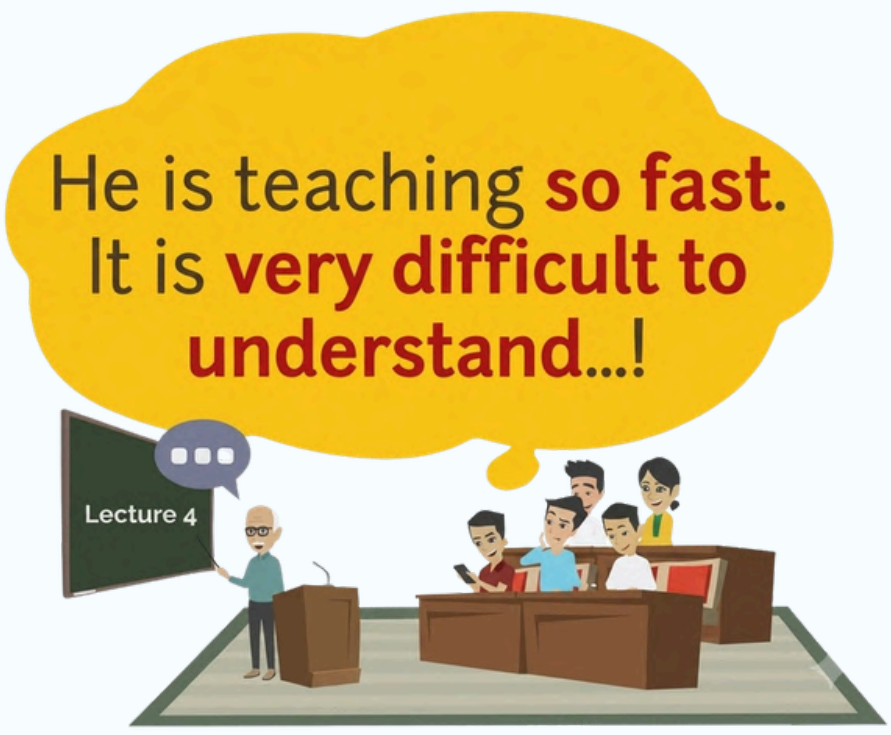
Offline | **Online**

Never Miss Out On Any Lectures



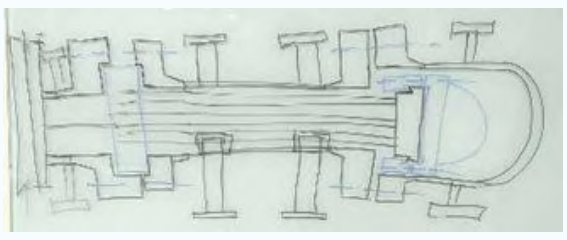


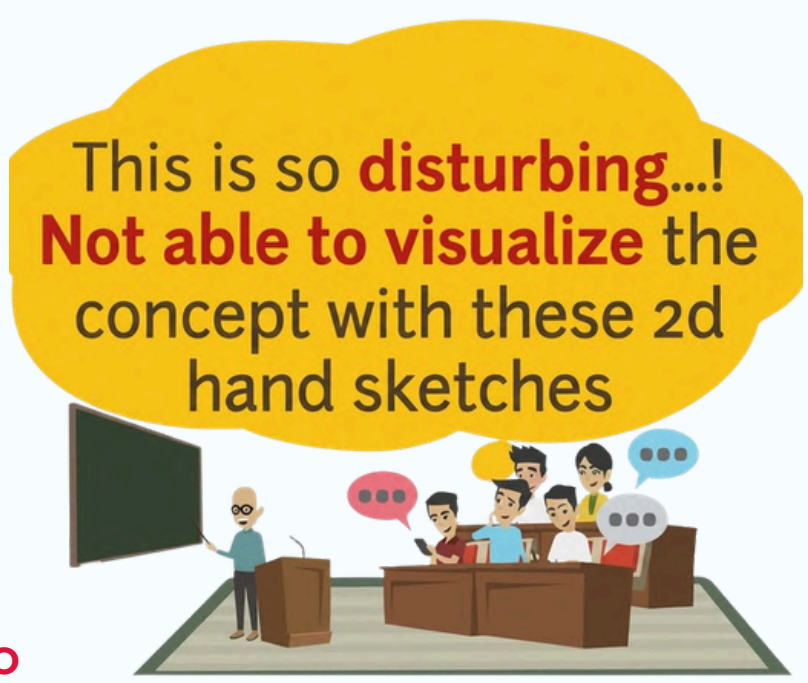
Learn At Your Own Pace





No Disturbances | Video Lectures | Animations







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Our Other Courses

(CLICK TO EXPLORE EACH COURSE)

STATIC EQUIPMENT DESIGN

- PRESSURE VESSEL DESIGN (DIV 1)
- PRESSURE VESSEL DESIGN (DIV 2)
- PREMIUM COMBO
- NOZZLE PRO FEA
- HEAT EXCHANGER DESIGN
- PV ELITE SOFTWARE
- DIV 1 & DIV 2 COMBO
- ASME PD442

PIPE STRESS ANALYSIS

- BASIC PIPE STRESS ANALYSIS
- ADVANCE PIPE STRESS ANALYSIS
- BURIED PIPELINE STRESS ANALYSIS
- COMBO PIPING & PIPELINE STRESS ANALYSIS

THERMAL DESIGN

- SHELL & TUBE HEAT EXCHANGER
- AIR COOLED HEAT EXCHANGER
- THERMAL DESIGN COMBO (STHE & ACHE)

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Our Other Courses

(CLICK TO EXPLORE EACH COURSE)

ROTARY EQUIPMENT DESIGN

- CENTRIFUGAL COMPRESSOR
- CENTRIFUGAL PUMPS
- ROTARY EQUIPMENT DESIGN COMBO

OTHER COURSES

- MS EXCEL
- GD&T (BASIC)
- GD&T (ADVANCE)

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Near Gaurav Path Road, Palanpore,
Surat, Gujarat - 395009

SCAN FOR WEBSITE

CLICK FOR WEBSITE