ImageGrafix Academy

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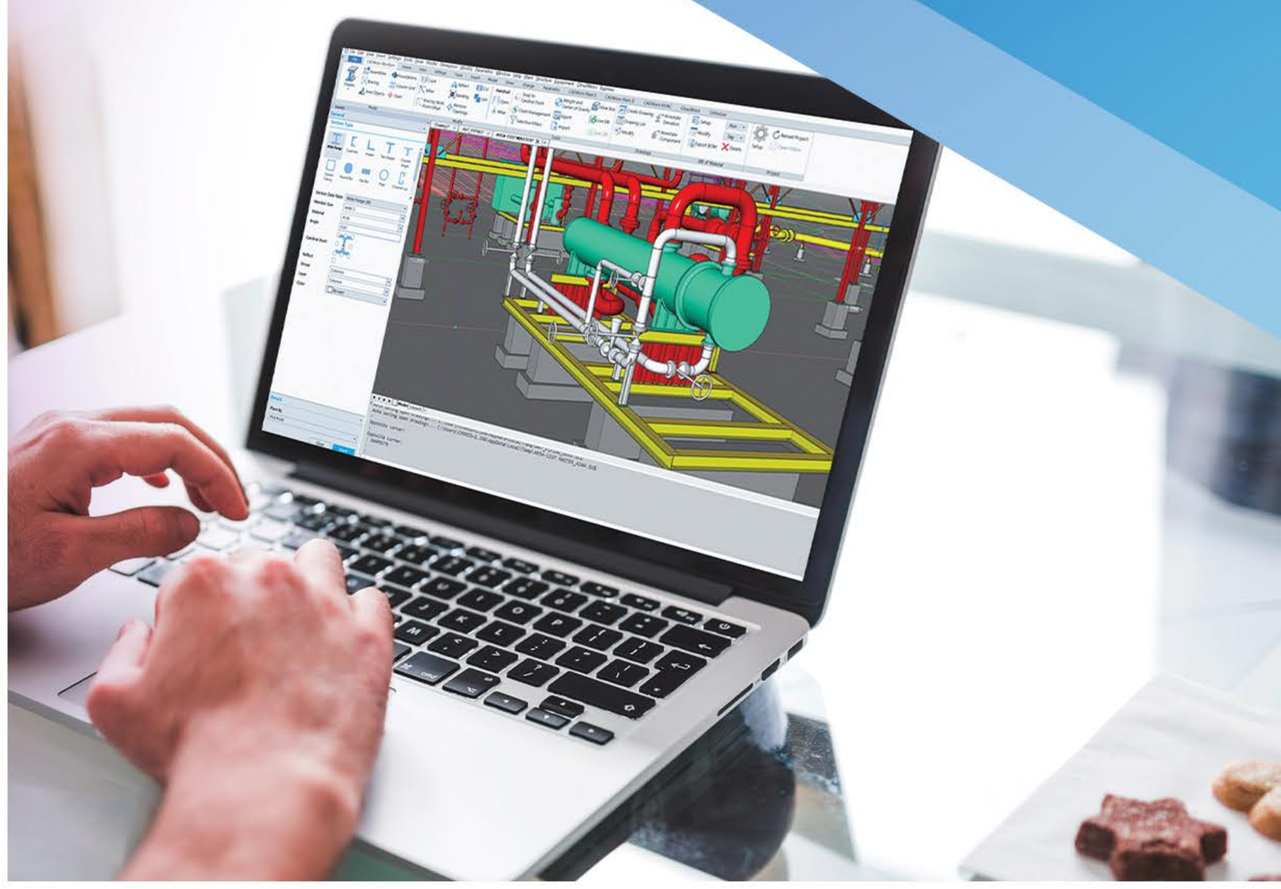
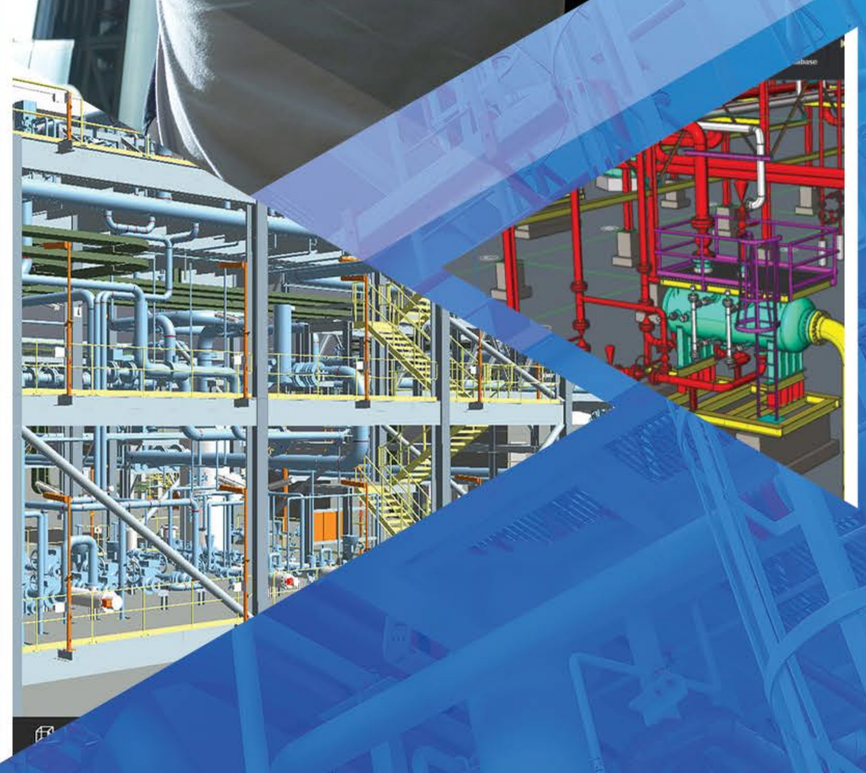
HEXAGON

Authorised Training Centre

Diploma

in Plant Design & Engineering





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Chaitanya “EXOTICA”, #51/24, 8A”,
Venkatanarayana Road, T.Nagar,
Chennai-600 017.

Plant Design & Engineering

Duration
20 Days (160 Hours)

Course Fee
USD 890

Mode of Training
Offline / Online

"**Be Industry ready** with a prolific in-depth knowledge about Plant Design & Engineering! This course will help you understand the CAD drawings in 2D & 3D, Process & Instrumentation Drawing (P&ID) with database, and 3D models for Equipment, Piping, Routing, HVAC, and Structure models.

Generate drawing output as General Arrangement (GA) drawings and Piping Isometric drawings to extract the data and details about Pipe, Pipe Support & Pipe inline components.

Fundamentals of Piping Theory

- Overview of Piping Industry
- Engineering & Pipe Engineer role to Industry
- Industry types & Projects Involved
- Documents Involved
- Pipe – Manufacturing methods, End types, Joining methods
- Pipe Materials – Importance & Selection Criteria
- Fittings – Importance & Selection Criteria
- Controls Involved – Importance, Types & Selection Criteria
- 2D Representation – Fittings & Valves
- Equipment – Importance & Selection Criteria
- Symbols – P&ID
- Isometric Symbols & Drawings
- Engineering Documents –Types & Application
- Calculations Involved – Line Sizing, Pressure Drop, Wall Thickness
- Codes & Standards – Importance, Selection & Application Tools used in Plant Design.

CAD for Pipers

Basic 2D

- Exploring BricsCAD GUI
- Understanding Quad Cursor
- Creating drawing objects
- Editing / modifying objects
- Manipulating objects Annotating drawings
- Hatching objects
- Drawing Organization and Inquiry commands
- Layer management and best practices
- Parametric with constraints
- Creating reusable content
- Drawing reference
- Dimensioning
- Creating tables
- Layouts and views
- Plotting and page setup

Advanced 3D

- Introduction to 3D Modelling
- Understanding axis & Plane
- Understanding Co-ordinate system in 3D
- Types of 3D models
- Concept of Work planes
- Creating 3D Solids & Surfaces
- Editing methods in 3D
- Advanced solid editing
- Creating customized piping components
- Associative Array
- Advanced transform methods
- Offset Edge
- Extracting wireframe geometry from Solids, Regions & Surfaces
- Viewing concept
- Parallel & perspective projections
- View Projections

Intelligent P&ID Creation Using

CADWorx P&ID

- CADWorx P&ID
- Creating a project
- Creating the line numbering system
- Defining the Spec
- Creating the process lines
- Placing inline piping components
- Creating the instrument lines
- Placing instruments
- Linking drawing
- Generating reports
- Creating loop drawings

Plant Design using

CADWorx Plant Professional

- Introduction to CADWorx Plant Professional
- Creating equipment and its library
- Pipe routing and placing inline components
- Pipe support library
- Creating Specifications & Catalog
- Creating custom shapes
- Generating Bill of materials
- Generating isometric drawings
- Generate GA drawings
- HVAC routings
- Creating Structural models using CADWorx Structure
- Creating structural library

Pipe Stress Analysis using

CAESAR II

- Introduction to Stress Analysis (Static)
- Modelling of Piping & its Components
- Building load cases based on the Analyis Code Requirements
- Reviewing of the Analysis results based on the Codes & Standards
- Generarion of Stress Isometric Reports
- CADWorx Plant Model Reference
- Loop Wizard in CAESAR II

Skillset covered under
Plant Design & Engineering Courses

- Consideration of Design standards and factors
- Piping standards and material
- Drafting and review of PI&D
- Piping Layout & Equipment layout
- Placing of equipments & Library creation
- Pipe routing & placing inline components
- Placing the pipe support
- Creation of Piping Specification & Catalog
- Generation of GA drawing
- ISO generation
- Placing Structural members
- Adding Structural Components & Library Creation
- Piping, Structural & HVAC BOM
- Building load cases based on the Analysis Code requirements
- Reviewing of the Analysis results based on the Codes & Standards
- Generation of Stress Isometrics

Our Forte

- With a succeeding legacy of 25 years in Engineering and Software solutions and more than a decade in the training industry, we offer a wide range of learning options for corporates, working professionals, and students.
- Our courses are meticulously structured to meet the industrial requirements and periodically revamped with the latest software releases.
- Competency-based curriculum.
- Highly skilled and industry-experienced faculties to deliver world-class training.
- Our training modality provides equal emphasis on both theory and practical sessions with succinct interactive training classes.
- Our Infrastructure comprises of latest in-demand technologies, virtual software access for practical sessions, library references, Noteworthy course materials and Digital Learning Management System - LMS, for online training.
- Global Certification benefit, with the authorized logo of software developer.
- Our job-oriented training help students meet the industry requirements and get the spotlight in the market.