

Eligibility : Degree/ Diploma in Mechanical / Chemical/ Production Engg. (Fresher/ Experienced)

SYLLABUS -

MODULE – 01- INTRODUCTION

- Introduction to SIT including Rules and Regulations, Session on Personality Development.
- Introduction to Oil & Gas Sector including their Plot Plan and various functions and need of engineers.
- Introduction to EPC companies and their departments and interfaces and need of engineers.
- Introduction to Welding and NDT
- Introduction to Engineering Drawing and Piping Drawing including Piping Component Drawing, Joints and Isometrics.

MODULE – 02 - PIPING COMPONENTS, INSTRUMENTS AND PIPE SUPPORTS.

- Understanding, Selection and Installation of Piping components for various services including Isometric Drawings
- Understanding, Selection and Installation of Valve for various services including Isometric Drawings
- Understanding, Selection and Installation of Special Part including Isometric Drawings
- Understanding and Installation of Instruments including Isometric Drawings
- Understanding, Selection and Marking of Pipe Supports

MODULE – 03 – CONVERTING P&ID IN TO PIPING LAYOUTS

- Understanding Process Equipment including their installation and Piping requirement.
- Understanding Utility Equipment including their installation and Piping Requirement.

MODULE – 04 - MATERIAL

- Understanding Metallurgy and its use in project including ASTM Standards
- Understanding Piping Components based on their material, Dimensional standards and selection criteria.
- PT Rating and Pipe thickness Calculations using ASME B 31.3
- Reinforcement Pad Calculations and Mitre Bend Calculations using ASME B 31.3
- Understanding and Writing VDS (Valve Data Sheets) for all Valve in Detail which is required for Designing and Construction
- Understanding Special Parts used in Piping for various Purposes including their selection Criteria.
- Understanding and Preparation of Piping Material Specification in detail.

MODULE – 05 – PLOT PLAN DEVELOPMENT

- Understanding requirement of various units and relevant standards and development of Overall Plot Plan as it is as per the Industrial Projects using statutory requirement.

MODULE – 06 – DISTILLATION COLUMN PIPING SETUP DESIGN

- Detailed Design of Distillation Column Setup, which one of the most important and most widely used almost in all the processing industry for separation of Liquids, including conceptual study, Equipment and Piping Layouts, Support Design, Nozzle Orientation, Construction Isometrics and final MTO based on Green Field and Brown Field Concept.

MODULE – 07 – STORAGE TERMINAL/TANK FARM DESIGN

- Detailed Design of Storage terminal including Understanding need of Tank Farm, and development of Equipment and Piping Layouts, Support Design, Nozzle Orientation and construction Isometrics based on Green Field and Brown field Concept.

MODULE – 08 – PIPE RACK DESIGN

- Detailed Design of Pipe Rack including Understanding need of Pipe Rack, Placing Lines, Width & Height Calculations, development of Pipe Rack Layouts and Isometric Preparation.

MODULE – 09 – REACTOR SETUP DESIGN

- Detailed design of Reactor Setup which is most widely used in chemical, FMCG, Pharmaceutical for chemical reaction, including conceptual study, Equipment and Piping Layouts, Support Design, Nozzle Orientation, Construction Isometrics and final MTO based on Green Field and Brown Field Concept.
- Overview Of Software's – E3D And Caesar II.

Note: SIT reserves right to change the Training Content at any time as per the current job requirement.

Key Benefits of Training Program:

- ❖ Exposure to working culture of Engineering, Procurement and Construction Companies.
- ❖ Thorough Knowledge provided to understand the project activities.
- ❖ Introduction of interactive methods within the departments.
- ❖ Understanding of Deliverables to function smoothly and quality output.
- ❖ Training of relevant soft-skills helps to improve attitude and efficiency.
- ❖ Acquire the knowledge of Advance technologies used currently in the Industry.
- ❖ Enrich the knowledge of International codes and standards for perfection in design.
- ❖ Enhance the knowledge of Current engineering practices used.
- ❖ Training in Personal Development to enhance the communication skills (wherever applicable).

After successful completion of Training Program you will have opportunity to work in EPC sector as:

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| • Design Engineer | • Construction Engineer | • Project Engineer |
| • Inspection and Testing Engineer | • Site Engineer | • Erection Engineer |
| • Installation & Commissioning Engineer | • Maintenance & Operation Engineer | • QA/ QC Engineer |

Together We Will Bring New Dimensions To Engineering Industry

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