PIPING WITH SOFTWARE TRAINING SYLLABUS

Module-1 Piping Design and Engineering (fundamentals)

- Introduction to piping designing & engineering – role of piping engineers in various industries.
- Evolution of piping
- Manufacturing methods
- Engineering flow diagrams – BFD, PFD, PUD etc.
- Piping & instrumentation diagram (P&ID'S)
- Piping codes & standards – (ASME,ISANSI,DIN,BS)
- Pipe Fittings
- Pipe class Components.
- Statutory Regulations in piping.
- Pipeline Sizing.
- Pumps & Compressors (All types)
- Process Instrumentation from Piping.

Module-2 Piping Materials:

- Piping Material & selection procedure
- Valve selection & specification
- (Fluids & Hydraulic)
- Pipe Supports & span calculations.
- Pipe fittings selection procedure
- Pipe Design Codes.
  - ➢ ASME B 31.3
  - ➢ ASME B 31.1
  - ➢ ASME B 31.4
  - ➢ ASME B 31.8

Module-3 Piping Design & Layout

Module-4 Process Design & Flow diagram

Module-5 Types of Valves & Functions

Module-6 Piping Insulation

Module-7 Heat Tracing

Module-8 Testing & Costing

Module-9- Input/output documents for Piping Routing

Module-10 Reinforcement Pad Calculation

- Reinforcement Pad & Requirements. R.Pad Calculations Formula As per ASME B 31.3 Stress & strain Diagram. Calculations for Various Cases

Module-11 Software:

E3D OR SP3D Software

- Equipment
- Piping
- Structure
- Electrical
- Hangers Supports
- Report (MTO)
- Spooler & ISO Draft
- Draft
- Commands.

Duration: 90 Hours