

COURSE 2 : THERMAL & MECHANICAL DESIGN OF HEAT EXCHANGER

Course Fees : Rs 30000/-

Duration :- 50 Hrs

➤ **INTRODUCTION:-**

Heat exchangers play an important role in processing oil and gas. They are used in the refining process in cracking units as well as in the liquefaction of natural gas.. An industrial heat exchanger is a device that is specially designed for heat transfer between different media. One medium is process fluid and the other is a heat-absorbing coolant comprised of chilled liquid or gas.

The majority of Heat Exchangers found in oil and gas facilities belongs to the static equipment group, Some examples are Shell & Tube Heat Exchangers, Thermosiphon Reboilers, Reflux Condensers, Hair Pin Exchangers, Double Pipe Exchangers, Air Cooled heat Exchangers etc. .

➤ **COURSE OBJECTIVES :-**

- Build the competitive workforce in static equipment design domain by providing through knowledge of International Codes & Standards
- Improve competency, performance, career advancement and employability of Mechanical / chemical engineers.
- Learn to perform process equipment design calculations manually/With Engineering tools (Industrial accepted Software's Like HTRI (For Thermal Design) PVElite, Codecal, Compress,(For Mechanical Design).

➤ **WHO SHOULD ATTEND:**

- Mechanical / Chemical Engineering Graduates & working Professionals
- Anyone who is interested to build their career in Oil & gas Industry as Static Equipment Design Engineer

➤ **TRAINING COURSE METHODOLOGY:**

- This training course will combine the presentation, interactive classes, examples, supported with soft copy of training course booklet.

➤ **COURSE CONTAIN :-**

- Overview of Engineering Basics
- Classification of heat Exchangers
- Types of Heat exchangers & It's Constructions.
- Heat exchanger Design Procedure
- Shell & Tube heat Exchangers Design
- Selection of Heat Exchangers & their Components
- Introduction to Air Cooled heat Exchangers
- Enhanced Surface Heat Exchangers
- Practical Considerations in Shell & Tube heat Exchangers
- Practical Considerations in Air Cooled Heat Exchangers
- Introduction to Engineering Materials – ASME Section II (Part A / B / D)
- Mechanical Design of Shell & Tube Heat Exchanger Design – UHX method
- Introduction to TEMA Requirements in Heat Exchanger Design
- Introduction to concept MDMT, PWHT, Impact Testing etc.
- Introduction to Concept like Vapour Belt, Expansion Bellow etc.
- Introduction to Industrial Accepted Software's like PVElite, Codecal, Compress etc
- Practical Heat exchanger Model Preparation in PV Elite Software.

Notes: -

- Evaluation test will be conducted after completion of each Course.
- Courses will be conducted on Weekends i.e. Saturday & Sunday or Regular
- Interested Candidates can registered for Free Session