**“PRESSURE VESSEL TRAINING COURSE”**

***SYLLABUS:***

**ASME BPVC CODE AND PVELITE SOFTWARE TRAINING**

1. Pressure vessels

* Definitions and basics
* Various units, its conversion and significance.
* Manual Problem solving

1. Introduction to ASME BPVC codes.
2. Material Of constructions
3. Vessel Component design

* Minimum thickness requirements
* Various types of loadings
* Thickness calculations

1. Nozzle Evaluation and Design
2. Wind And Seismic analysis
3. PWHT requirements of code
4. Impact testing requirements of code, it’s significance and procedure.
5. Post forming requirements of code
6. Various types of welding figures and its applications
7. Flange Design
8. Hydrotest and Pneumatic test significance and requirements
9. Introduction to WRC 107,297
10. PvElite for Pressure Vessel design
11. Heat Exchanger design

* Introduction to various types of Shell and Tube Heat exchanger
* Introduction to ASME UHX and design procedure for tubesheet.
* TEMA classes of heat exchanger

1. PvElite for Heat exchanger design

* Introduction to PvElite software for Heat exchanger design.
* Modelling of Fixed tubesheet heat exchanger
* Floating head heat exchanger (AES type) in PvElite, expansion joint.
* Tubesheet modelling as per UHX and TEMA
* Calculation of Thermal Expansion of various parts.
* Analysing and understanding of report.
* Customizing and generation of 3D model and report

1. Design of non-circular vessels as per Appendix 13
2. Design of Non circular flange
3. Bolt torque selections and calculations