



## **Course Objectives :**

*Plumbing Systems Design* course aims to teach engineers to design different water systems from water supply through drainage till water pools & fountains. The course covers all piping sizing and pumps types and everything related to plumbing design. During the course we will teach you how to search the International codes to get the correct design of the system. You will be a designer by the end of this course.

## **Outline:-**

### **( Introduction )**

- project Staff
- project steps
- Cold Water System types
- Cold water distribution system

### **(Hot water systems)**

- hot water systems type
- hot water distribution system
- Circulating Pump
- Pipe sizing
- Electrical W. heater
- Water storage heater
- Instantaneous or
- semi-inst. Heaters

### **(Waste & Vent systems)**

- Industrial waste system
- Chemical waste system
- Vent Systems
- Water Velocity in pipe and Pipe Diameters.
- Elite Software

### **(Cold water systems)**

- Design of Risers
- Daily W. Requirement
- Load Values W.F.U.
- Pipe sizing
- Types of pumps

### **( Water tanks )**

- tank size calculation for water systems
- building water demand

### **(Drainage)**

- Codes and Standards
- Drainage Systems
- Gravity one pipe system
- Gravity two pipe system

### **(Storm)**

- Storm drainage system
- Storm drainage pipe sizing
- Sump and ejector pumps
- Codes
- Tender Documents (Specs)
- Tender Documents
- BOQ
- Method of measurements
- List of manufactures

## **Notes :-**

- Courses are documented from the international codes & Standards.
- Presentations are provided with illustrative videos & pictures.
- Soft copy of codes catalogues project samples & other useful materials will be provided.