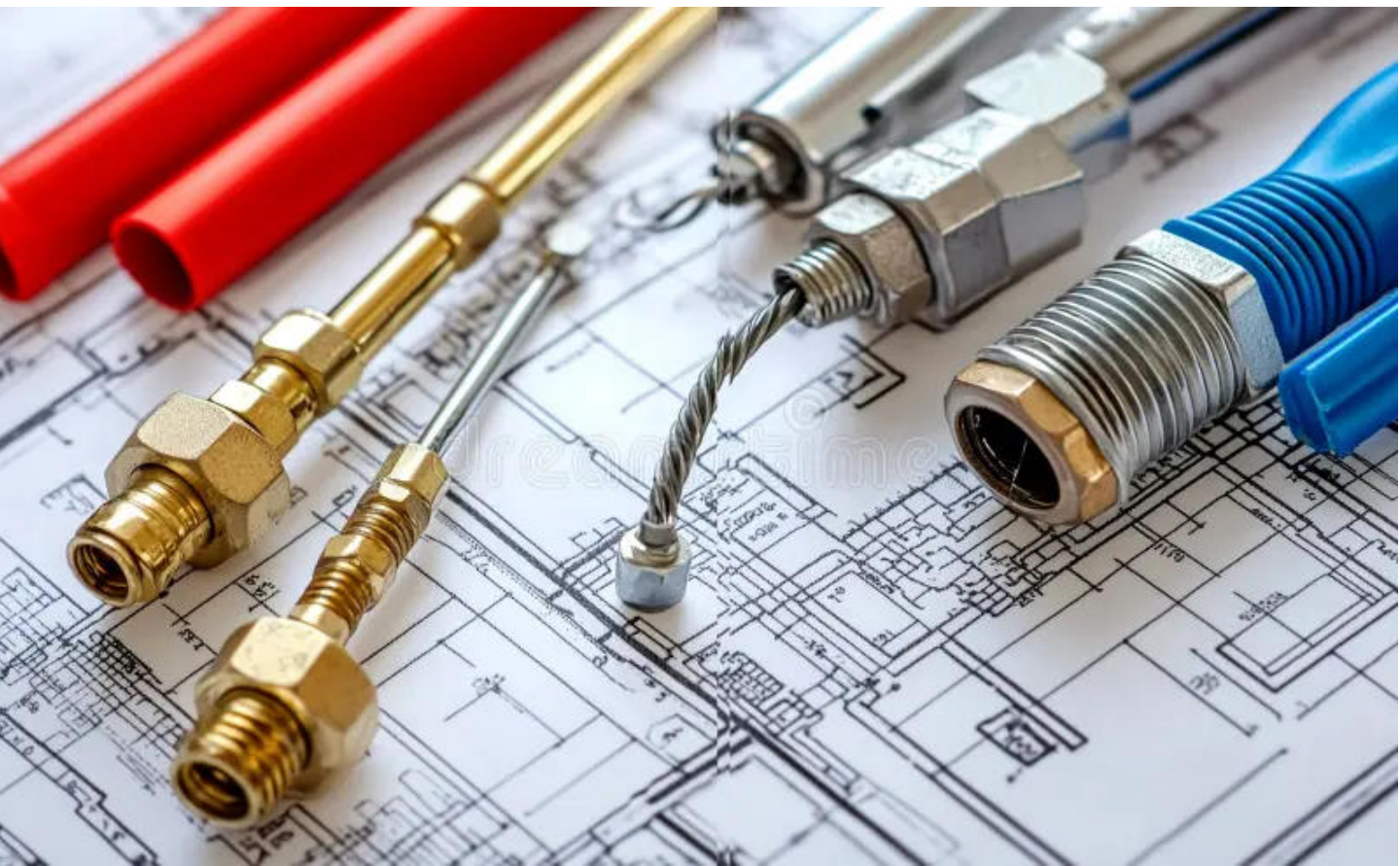


# PLUMBING

## DESIGN & DRAFTING TRAINING

Empowering Engineers for Real-World MEP Projects



# Ready to Power Up Your Career?

Visit : [www.kgmech.in](http://www.kgmech.in)

Call : +91 97006 40034

 +91 99890 61778



## PROGRAMME DESCRIPTION

### PLUMBING Design & Drafting for the Construction Industry

KG-MECH Pvt. Ltd. with inception has been diversified its business in different service sectors such as Contracting, Real time training, Technical Services.

**“KG MECH was founded with an idea of bridging the gap between the talented, yet unpolished resources and the employers for better hiring and achievement of the goals.”**

KG-MECH offers leadership and training programs for the advancement of Engineer's technical excellence, promotes to incorporate code of ethics in their way of life and place of work. The high level of expertise they deliver makes sure that the student learns the concept and performs it with high caliber.

**“80% Practical Training & 20% Theoretical Training”**

At KG MECH, we term Real Time Training as a methodology and practice instituted upon the trainees to improve their skills and match the job requirements. Our trainees are been made to work on the Gulf-oriented projects rigorously with expert supervision to build a bridge between the theoretical knowledge and the practical job work.

This program introduces the full range of PLUMBING Systems topics from the definitions, Basic Calculations-manual & software, Codes & Standards, Drafting and Installation Procedures. Each topic is presented so as to demonstrate the “real world” impact of design decisions on resulting system performance. (See the **“Course Outline” section for details of topics.**)

This Training Programme gives comprehensive knowledge of PLUMBING Design, Drafting & Installation of Building Service. The Programme focuses on the real time work related concepts, issues, which is enhanced by the inputs of the instructor's practical experience.

#### WHO SHOULD ATTEND

Mechanical Engineers/ Designers/ Draftsman's who are responsible for design, drafting, installation, estimation and maintenance of HVAC system for Building & Facilities.

MEP Engineers/ Managers including Electrical, Instrumentation Engineers who wish to understand/ supervise Electro-Mechanical Projects.

Mechanical Engineers at entry or senior level, who wish to streamline their existing knowledge to make a career in HVAC Engineering for Building System.

#### WHAT YOU WILL LEARN

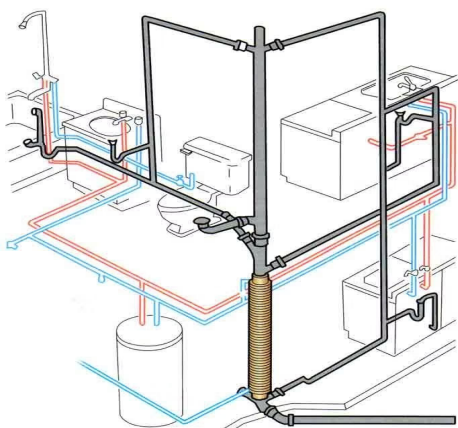
Learn how Plumbing systems “work,” how to design, draft, install and maintain Plumbing systems.





Achieve complete understanding of Plumbing System components, international standards, Design Calculation, drafting standards, Procedures & Plumbing drawings.

**“Complete AUTO CAD Training”**



## MODULE 01 – PLUMBING INTRODUCTION

- Plumbing Introduction
- Plumbing - Codes & Standards
- Fundamentals of Plumbing System

### Plumbing System

- Water Supply System
- Sanitary Drainage System
- Storm Drainage System

## MODULE 02 – WATER SUPPLY SYSTEM

### Introduction to Water Supply System

- Fundamental of Water Supply System
- Sources of Water
- Potable Water Standard
- Water Storage & Consumption
- Domestic Hot and Cold Water Supply
- Water Supply – Commercial & Industrial
- Water Supply Fixtures
- Supply Piping System
- Materials for Piping & Fitting
- Water Supply Controlling Equipment

### Water Supply System Designing

- Fixture Load as per Codes & Standard
- Hot & Cold Water load
- Water Supply Fixture Unit- WSFU
- Fixture Water Requirement- GPM
- Hot & Cold Water Pipe Size
- Water Distribution – Pipe Routing
- Pipe Joining methods
- Water Supply Demand Calculation
- Storage Tank Types
- Tank Size Calculation
- Selection of Booster Pump





Achieve complete understanding of Plumbing System components, international standards, Design Calculation, drafting standards, Procedures & Plumbing drawings.

**“Complete Shop Drawing Preparation along with BOQ”**



## **MODULE 03 – DRAINAGE SYSTEM**

### **Introduction to Drainage System**

- Fundamental of Drainage System
- Sanitary Drainage System – Soil Line
- Waste Water Drainage System – Waste Line
- Traps used for drainage system
- Stacks in Drainage System – Waste, Soil & Vent Stack
- Building Cleanout
- Drainage Pipe System
- Pipe Material for drainage
- Introduction to Sewerage line

### **Drainage System Designing**

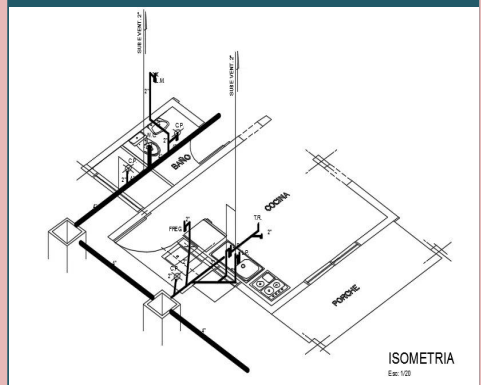
- Trap Sizing as per Codes & Standards
  - Selection of Trap for fixtures
  - Drainage System Pipe designing
  - Pipe Sizing as per Codes & Standards
  - Drainage System pipe routing
  - Waste water drainage piping routing
  - Vent pipe designing
  - Drainage System Pipe Joining methods
  - Selection of Drainage pipe fittings
  - Main Hole sizing
- 





Achieve complete understanding of Plumbing System components, international standards, Design Calculation, drafting standards, Procedures & Plumbing drawings.

**“Online & Class Room Training”**



## MODULE 05 – PLUMBING SYSTEM EQUIPMENTS

- Plumbing Fixtures
- Booster Pumps
- Submersible Pumps
- Boiler and Gaesser
- Water Storage Tanks



## MODULE 06 – PLUMBING DRAFTING AUTOCAD

- Water Supply Load Drawing
- WS - Single Line Drawing
- WS – Double Line Drawing
- Section & Schematic of Water Supply System
- Tank Detail Drawing
- Pump Room Detail Drawings
- Drainage Single Line Drawing
- Drainage Double Line Drawing
- Section & Schematic of Drainage System
- Invert Level of drainage pipe
- Piping Slope
- Scale Setting & Plotting
- Co-Ordination Drawing
- As-Built Drawing
- Model Management
- Layout Management
- Equipment Schedules
- International Drawings





**Mr. Syed Abdul Gaffar**  
M.Tech - HVAC, Design Specialist  
HRO – Education Director



**“Highly Experienced Trainers  
with GULF Experience”**



**INSTRUCTOR PROFILES**

Mr. Syed Abdul Gaffar, M.Tech – HVAC has over 12 years of experience in MEP systems including Design, Drafting, Installation & Maintenance of the MEP Systems with international Experience.

He has served to international projects of UAE, KSA, Qatar, USA & India, as Senior Mechanical Engineer & MEP Systems Manager. During his career, Mr. Syed Abdul Gaffar was involved in many prestigious projects like Residential, Commercial, Industrial & Schools Projects.

His Experience includes MEP Design for Building Services as per ASHRAE, SMACNA, NFPA, NEC, DEWA, ASME CODES.

Currently Mr. Syed Abdul Gaffar is a CEO, KG – MECH Electro-Mechanical LLC. He is also presiding the responsibilities as on Education Director, HRO (Human Rights Observers). He has successfully trained numerous Mechanical engineers from different nationalities for HVAC/MEP courses organized by KG – MECH.

Mr. Syed Abdul Gaffar is

- ❑ Education Director – HRO, Human Rights Observers, Hyderabad Cell.

Mr. Syed Abdul Gaffar is a member of

- ❑ NFPA – National Fire Protection Association
- ❑ ISHRAE – Indian Society of Heating Refrigeration & Air Conditioning Engineers
- ❑ IGBC – Indian Green Building Council
- ❑ IHRA – International Human Rights Association





Contact Us



**TRAININGS**

**SANTOSH NAGAR OFFICE:**

Address: 17-1- 380/E/42/A,  
1<sup>st</sup> Floor Opp. to Pillar No 63  
Santosh Nagar, Hyderabad

Mob:- +91 97006 40034  
+91 99890 61778

**MASAB TANK OFFICE:**

Address: 10-4/A/12/1,  
1<sup>st</sup> Floor, Above AlHabeeb Trust,Opp.  
to NMDC, Masab Tank,Hyderabad

Mob:- +91 97009 10004,

**We have Expert Faculties in this three  
Engineering Fields:**

**Upto 15yrs Exp MECHANICAL ENGINEERS**

**Upto 08yrs Exp ELECTRICAL ENGINEERS**

**Upto 07yrs Exp CIVIL ENGINEERS**