

## ACADEMIC PROSPECTUS

### Commitment To Excellence

- **Global Competencies:** MEP Centre imparts knowledge blending global best practices with relevance to emerging economies, preparing future MEP leaders.
- **National Recognition:** Consistently ranked in the National Top 5 Training Institutes, based on student performance in the industrial world post-certification.

### Industrial Linkage

- **Industrial Exposure:** Collaborations with industry leaders, entrepreneurs, and faculty from leading business and MEP industries provide students with valuable exposure.
- **Relevance and Standards:** The programme is internationally relevant and delivered according to industrial standards, ensuring students are well-prepared for real-world challenges.

## CAREER DEVELOPMENT AND ALUMNI NETWORK

• **Career Advancement:** The academic programme guarantees minimal career interruptions and significant savings in opportunity costs, equipping students to take on challenging roles globally.

• **Extensive Alumni Network:** With over 10,000 alumni making their mark in various industries, students become part of a growing and influential network.

### WHAT WE DO

The MEP Centre integrates global MEP practices, emphasizing individual vision, teamwork, and pragmatic business focus, with strong industry partnerships, enabling students to excel in the global economy.

### BEST-IN-CLASS FACULTY

The faculty at the MEP Centre includes eminent industry intellectuals with research and teaching experience. The distinctive research of our faculty members ensures that our programmes offer content that is contemporary and global in its perspective.

### SOLUTIONS

The MEP Centre offers distinctive programmes focusing on entrepreneurship, technology's impact on MEP, and emerging Indian markets. Programmes include an Academic Programme, Executive Programme for senior executives, corporate training, executive workshops, and a Resource Fellowship, all ensuring relevance and international standards.



### Comprehensive Academic Programme

The Academic Programme in MEP and Piping at the MEP Centre is designed to uncover and develop leadership qualities while building a strong technical foundation. Students gain critical tools to tackle career challenges through the latest practices and trends in MEP & Piping education, with the flexibility to explore various interests.

### Innovative Teaching Methods

Teaching methods include industrial expertise, exposure, simulations, group projects, and independent work, with a special emphasis on team-based learning. Students are placed in diverse groups to enhance teamwork and leadership skills. Interactions with achievers from various fields through seminars, conferences, and workshops provide practical perspectives and insights from different industries.

### Diverse Learning Opportunities

Students engage in Executive Programmes and industrial collaborative initiatives, such as "Coffee with Experts," and benefit from real-time learning at the MEP Resource Centre. This diverse learning environment ensures a well-rounded educational experience, preparing students to excel in their careers.

# HVAC DESIGNING & DRAFTING

- **Prelude to HVAC**
  - Fundamentals
  - Modes of Heat Transfer
  - Sensible Heat and Latent Heat
  - Codes and Standards
- **Basic Components of Air-Conditioning and Refrigeration machines**
  - Basic Refrigeration System or Vapour
  - Compression Cycle
  - Pressure - Enthalpy Chart
  - Function & Types of compressor
  - Function & Types of Condenser
  - Function & Types of Expansion Valve
  - Function & Types of Evaporator
  - Accessories used in the System
  - Refrigerant and Brines
- **Classification of Air-Conditioning System**
  - Window A/C
  - Split A/C
  - Ductable Split A/C
  - Variable Refrigerant Volume (VRV)/Variable Refrigerant Flow (VRF)
  - Ductable Package A/C
  - Package Roof Top Units
  - Central Plant Chill Water System
- **Categories of Air Conditioning**
  - All air system
  - All water system
  - Air - water system
  - Direct Refrigerant system
- **Study of Psychometric Charts**
  - Dry Bulb Temperature
  - Wet Bulb Temperature
  - Dew point Temperature
  - Relative Humidity
  - Humidity Ratio
  - Processes
  - Heating
  - Cooling
  - Cooling and Dehumidification
  - Heating and Humidification
  - Finding Values Using the Chart
- **Load Calculation**
  - Survey of Building
  - Cooling Load Steps
  - Finding Temperature difference( $\Delta T$ ) (Wall, Glass, Roof , Partition)
  - Finding 'U' Factor (Wall, Glass, Roof, Partition)
- **Finding Ventilation requirement for IAQ**
- **Load Calculations (Manually using E-20 form)**
- **ESHF, ADP & Air Flow Rate(CFM)**
- **Calculation**
- **Air Distribution System**
  - Duct-Definition & Terminology
  - Duct Design Consideration
  - Duct Sizing Methods
  - Duct sizing as per Aspect Ratio
  - Finding Duct size using Ductulator
  - Calculation of Number of sheets for Duct
  - Gauge selection for Sheet Metal
  - Bill of Materials for Duct Network
  - Legends and symbols used in the HVAC
  - Industry
  - Selection of Diffusers and Grilles
  - Duct materials and insulation materials used in HVAC Industry
  - Study of Overseas Drawings
  - Duct Routing - Preparation of single line diagram (SLD)
  - Preparation of Layouts (Double line Diagram - DLD) as per SMACNA rules
  - Openings for Ducts passing through Wall
  - Sectional Drawing @ Duct supports
  - Concept of CAV & VAV
- **Static Pressure Calculation**
  - Selection of Motor HP
  - Selection Fan/Blower RPM
- **Hydronic System**
  - Classification of Water Piping
  - Pipe sizing for chill water system
  - Fittings used in the HVAC piping System
  - Valves used in the HVAC piping System
  - Function of Valves
  - Openings for CHW pipes passing through Wall
  - Sectional drawing @CHW pipe supports
  - Pump Head Calculation
  - Selection of Pump
- **Air Conditioning Concepts**
- **Fire Protection (Awareness)**
- **HVAC software's**
  - XL sheet for Load Calculation
  - Carrier Block Load for Load Calculation
  - Duct sizer for Duct sizing
  - Pipe sizer for Pipe sizing
  - Psychrometry Software
- **Project Work**
  - Two live projects have to be completed before getting the
  - Certificate and Placement Assistance

## PROGRAMME ENROLMENT

The MEP Centre helps you reinvent your career with unique, comprehensive, and globally oriented academic courses. By fostering diversity and selecting top applicants, we create a vibrant learning environment that enhances your skills and career trajectory.

## PLACEMENT ASSISTANCE:

1. Interviews will be provided across India & Aboard
2. Pre-requirement to get placement assistance will be passing exam conducted,
3. Completing the project work and submitting project report to faculty.
4. Fresher's CV would be shared with around 200+ clients.
5. Candidates who fail in multiple interviews will be counselled and advised to find areas of improvements.

## AUTHORISED TRAINING PARTNER FOR



## PROGRAMME CALENDAR

**HVAC Design & Drafting** : 6th & 21st of Every month

## ADMIN OFFICE:

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