1. HVAC - HEATING VENTILATION AND AIR CONDITIONING

2. ELECTRICAL DESIGNING & DRAFTING

3. FIRE FIGHTING

SYLLABUS

1. INTRODUCTION

2. HEAT

3. VENTILATION

4. AIR-CONDITIONING

5. TYPES OF AIR-CONDITIONING

6. HEAT LOAD CALCULATION

7. SELECTION OF INDOOR & OUTDOOR UNITS

8. AIR TERMINAL SYSTEM

9. AIR DISTRIBUTION SYSTEM

10. AIR DISTRIBUTION SYSTEM

11. BILL OF QuANTITY PREPARATION

12. DUCT MATERIAL CALCULATION

13. PIPE MATERIAL CALCULATION

14. STATIC PRESSURE CALCULATION

15. SPECIFICATION ON HVAC

16. SUPPORT AND ACCESSORIES IN HVAC

17. TESTING AND COMMISSIONING

18. SOFTWARE

19. REVIT - 3D DESIGN

20. FINAL PROJECT

2. ELECTRICAL DESIGNING & DRAFTING

1. INDUSTRIAL SAFETY

2. FIRE

3. ELECTRICAL DRESSING TECHNIQUES

4. WIRING

5. FUNDAMENTAL OF ELECTRICITY

6. EARTHING AND LIGHTING

7. SWITCH GEARS

8. BUSBARS

9. FUNDAMENTAL OF ELECTRICITY

10. FIRE FIGHTING DESIGN CRITERIA

11. DETAILS & DESIGN OF ZONE CONTROL VALVE

12. EXPLANATIONS OF NFPA CODES

13. FAN COIL UNIT

14. AIR HANDLING UNIT

15. FUNDAMENTAL OF ELECTRICITY

16. PIPE MATERIAL CALCULATION

17. PIPE MATERIAL CALCULATION

18. SOFTWARE

19. REVIT - 3D DESIGN

20. FINAL PROJECT

3. FIRE FIGHTING

1. BASICS OF FIRE FIGHTING

2. EXPLANATIONS OF NFPA CODES

3. CLASSIFICATION OF FIRE

4. DESCRIPTION OF FIRE HAZARD

5. TYPES OF SPRINKLER SYSTEM

6. DESCRIPTION OF SPRINKLER AND HOSE SYSTEM

7. DESCRIPTION OF SPRINKLER AND HOSE SYSTEM

8. FIRE EXTINGUISHERS DETAILS AND ARRANGEMENTS

9. DETAILS & DESIGN OF ZONE CONTROL VALVE

10. FIRE FIGHTING DESIGN CRITERIA

11. DESIGN OF FIRE SUPPRESSION SYSTEM

12. EXTERNAL FIRE FIGHTING DESIGN

13. DESCRIPTION OF FIRE FIGHTING LAYOUTS

14. FIRE PUMP ROOM DETAIL

15. FIRE PUMP CALCULATION

16. FIRE FIGHTING HYDRAULIC CALCULATION

17. FIRE FIGHTING TECHNIQUES

18. DESIGN OF FIRE FIGHTING SYSTEMS

19. LAYOUT PREPARATION PROCEDURES

20. GENERAL DRAWING PREPARATION PROCEDURES
5. REVIT MEP SYLLABUS

- Building information Modeling
- Building information Modeling(BIM)
- Revit MEP Basics Overview of the interface
- Standard Terminology
- Starting Projects
- Viewing Commands Basics Drawing & Editing Tools
- General Drawing Tools
- Editing Elements
- Standard Modifying Tools
- Helpful Editing Tools
- Starting MEP Projects
- Linking in Architectural Projects
- Introduction to Architecture
- Copying & Monitoring Objects
- Setting Up Levels
- Working with Views
- Duplicating Views
- Adding Callout Views
- Setting The View Display
- Creating Elevations
- Creating Sections
- Working With Ceilings
- Understanding Revit
- MEP Systems
- Working with Schedules
- Creating Schedules
- Working with Dimensions
- Working with Text
- Adding Detail Lines & Symbols
- Creating Legends
- Tag & Schedules
- Adding Tags
- Detailing in Autodesk
- About MEP Systems
- HVAC Systems
- About HVAC System
- Adding Air Terminals & Mechanical Equipment
- Adding Ductwork
- Creating Duct Systems
- Automatic Ductwork Layouts

4. PLUMBING DESIGNING

1. BASIC PLUMBING

2. HYDRAULIC PRINCIPLES
   a. Pascal’s law
   b. Volume/Velocity
   c. Backflow
   d. Backflow Responsibilities
   e. Types of backflow preventers

3. PATHOGENS
   a. Hippocrates
   b. Black plague
   c. Viral diseases
   d. Water borne diseases

4. PLUMBING FITTING
   a. Plastic Pipe

5. PLUMBING REPAIRS
   a. Toilets
   b. Showers
   c. Noises

6. DRAIN & VENTS

7. WATER DISTRIBUTION
   a. Rotary valves
   b. Type of pipes
   c. Distribution Fittings
   d. Water main installation