PARADIGM TRAINING

COURSE TITLE:	**Autodesk Revit MEP 2017 Essentials**
DESCRIPTION:	Learn about Building Information Modelling and the tools for parametric MEP systems design and documentation using Autodesk Revit® MEP 2015. Begin the three-day guide by learning the fundamental features of Autodesk Revit MEP, then progressing through system design, system analysis and construction documentation.
LENGTH:	**3 Days**
OBJECTIVES:	To teach users the concepts of Building Information Modelling and introduces the tools for parametric engineering design and documentation using Autodesk Revit MEP 2015. Users should be able to complete their first Autodesk Revit MEP project after completing this class.
COURSE OUTLINE:	**Building Information Modelling** • Building Information Modelling for MEP Engineering • Introducing Revit as a BIM tool **UI Tour, Project Navigation and View Creation** • Exploring the User Interface • Placement & Properties of Grids, Levels & Dimensions • Working with Revit Elements and Families • Managing Views • Controlling Object Visibility • Working with Section and Elevation Views • Creating and Modifying 3D Views **Element Selection & Manipulation** • Element Properties & Manipulation • Instance & Type Parameters • Modify tools, Nodes & Snaps **Visibility Control & Categorisation** • Project Wide Settings • View Specific Overrides • Element Specific Overrides • Individual Line Overrides **Establishing a Project** • Project Units – Common, HVAC, Electrical & Piping • MEP settings, Symbols & Schematic Design • Project Commencement & Collaboration • Linking CAD & Revit Architecture • Coordination Review

Introduction to Building Elements

- Basic Wall definitions, floors, roofs & ceilings
- Sketching Rules and relating slabs to walls & supports
- Slabs slopes, Roof design and Ceiling definitions
- System Family editing

Equipment, Fixtures & Fittings

- Family Terminology
- Component Placement
- Selecting the correct Level
- MEP Workflow

Introducing Systems

- Setting up a Project Profile
- Main Systems
    - Mechanical
    - Electrical
    - Plumbing
- System Browser

Basic Schedules and Legends

- Scheduling Components
- Style Schedules
- Legends

Mechanical Systems

- Mechanical Settings
- Duct Types & fittings
- Creating duct & Piping systems
- Insulating & lining ductwork
- Plant & equipment
- Mechanical Pipework, flanges and fittings
- Checking and Fixing Interference Conditions

Electrical Systems & Circuits

- Equipment, devices & fixtures
- Wiring, cable tray and conduit modelling
- Circuits and Switch Systems

Plumbing Systems

- Plumbing settings
- Plumbing fixtures
- Creating plumbing systems
- Creating sanitary systems
- Domestic hot & cold water systems
- System browser

Spaces, Zones, Areas & Volumes

- Differentiate between Spaces, Zones, Areas & Volumes
- Defining spaces, bounding elements, tags & schedules
- Computation for areas and volumes
- Using Space data outside of Revit
- Colour schemes and Legends

	2D Drafting & Annotation • Introducing Annotation tools and component categories • Detail component libraries • Repeating Details • Lines & arcs • Text, Tags & Keynotes **Sheet Compilation & Publication** • Project browser organisation • Creating & populating sheets • Working with schedules • Publishing & document management
PRE-REQUISITES:	It is recommended that students have a working knowledge of the following: MEP engineering principles.
MATERIALS PROVIDED:	Autodesk Revit MEP 2017 Training Manual Exercise Files