

ARCHITECTURAL AND CIVIL 2D DRAFTING WITH AUTOCAD

1. Name : ARCHITECTURAL AND CIVIL 2D DRAFTING WITH AUTOCAD

2. Sector : **Information & Communication Technology**

3. Code : **ICT 116**

4. Entry Qualification : SSC Passed

5. Terminal Competency : After completion of the training, participants would be able to:

- Do the work on 2D Engineering drafting for Architectural Visualization
- To apply this knowledge to understand the engineering design work flow Process in the Industry
- Acquire knowledge of basic 3D modeling concepts.

6 Duration : 300 Hrs

7. Contents : Given below

Practical Competencies	Underpinning Knowledge (Theory)
<ul style="list-style-type: none"> • Practise on Drawing basics ing Practise Creation Multi-view Orthographic projection. • Drafting views in First angle & Third angle Projection. • Creating Au•iliary views & Sections. • Freehand Sketching. • Representing Standard base 2D drafting. • Drawing Elementary CADD commamd □ Line, Polyline, Polygon, Circle, Polyline, arc, ellipse, Te•t- Single Te•t, Multite•t, Dte•t. • Modifying Elementary Commands □ Erase, Move, Copy , Mirror, Offset, Scale, Stretch, Chamfer, fillet & e•plode. • Making layers, line type & Lineweight. • Different menus of Auto-Cad, Function keys, Shortcut keys, Paper size. • Making Title Block, Writing it & inserting it in any drawing file with scale, angle & e•plode options. • Creating a new template file (.Dwt file) & applying it to every drawing file. • Drafting of building plan , Elevation , Section Views. 	<p>Introduction</p> <ul style="list-style-type: none"> • Principle of drafting, Terminology, & fundamentals. • Size & shape descriptions. • Geometric Construction. <p>Views</p> <ul style="list-style-type: none"> • Plan views, Au•iliary views, Section Views. <p>Projection</p> <ul style="list-style-type: none"> • Method of Projection. • Multi-view Orthographic Projection. • Projection Techniques. <p>Modeling</p> <ul style="list-style-type: none"> • Modeling Fundamental for Engineering design • Shape Modeling and it□s application. <p>CADD</p> <ul style="list-style-type: none"> • Introduction of CADD (Computer Aided Drafting & Designing). • Function keys, Shortcut keys, • Different sizes of paper. • Application of CADD □ Automatic Drafting , Geometric Modeling • Geometric Modeling □ Wire frame Modeling, Surface Modeling, and Solid Modeling.

<p>Applying dimensions to various views by using dimension style.</p> <ul style="list-style-type: none"> • Creating Revolved, Ruled, and Tabulated & Edge surfaces. • Creating Isometric drawing with the Isoplane (Left, Top & Right Plane) Shaded it from visual style. • Making Solid Model □ Bo•, Polysolid, Cylinder, Cone, Pyramid, Wedge, Torus. • Project □ Site Visit <p>Building Drawing Plan. Building Detailing. Building Model.</p>	<ul style="list-style-type: none"> • CADD Application & it□s feature • Introduction to Standard based 2D drafting (Based on International standard for representation & conformation) <p>3D Design</p> <ul style="list-style-type: none"> • Concept of 3D Design. • X, Y, Z Co-ordination System. <p>Documentation</p> <ul style="list-style-type: none"> • Manufacturing Process & Material Documentation.
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LIST OF TOOLS & EQUIPMENTS

1. Hardware 20 Workstations of suitable configuration

2. Software 20 licenses AutoCAD software