



TECHHUB SOLUTIONS

...be step ahead in your field

CAM COURSE

Module 1: Introduction to CAM in Civil Engineering

- Concept of CAD & CAM
 - Importance of CAM in Civil Projects
 - Integration of CAD and CAM
 - Overview of CNC and Automation in Civil works
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Module 2: CAM Software Overview

- Introduction to popular CAM software:
 - AutoCAD CAM
 - Revit with CAM integration
 - SolidWorks CAM (for mechanical-civil coordination)
 - CNC interface tools for civil use (laser cutting, 3D printing)
 - Basic interface and setup
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Module 3: 2D & 3D Modeling for Civil Components

- Creating 2D layout for civil structures
 - Converting 2D design to 3D models
 - Working with layers, dimensions, and materials
 - Modeling beams, columns, slabs, and foundations
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Module 4: Simulation & Toolpath Generation

- Introduction to toolpaths in CAM
 - Setting up simulation for structure manufacturing
 - Material removal simulation
 - Analyzing toolpath efficiency
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Module 5: CNC Machine & Automation Basics

- Types of CNC Machines used in Civil works (cutting, milling, routing)
 - Machine setup & operation basics
 - Material handling and safety protocols
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Module 6: 3D Printing in Civil Engineering

- Role of Additive Manufacturing (3D Printing)
 - Concrete 3D printing process
 - Applications in model making & rapid prototyping
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Module 7: Project & Practical Training

- Hands-on practice with CAM software
- Simulation of real-life civil component (e.g., column base plate or slab mold)
- Exporting toolpath for CNC/3D Printer
- Final mini project presentation