Mechanical Skill Konnect – Industry Ready Engineer Program

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Industry Ready Engineer Program

“From Design to Manufacturing – Become Job Ready”

What You Will Achieve

- Become a job-ready mechanical engineer
- Learn complete Design → Manufacturing → Inspection workflow
- Gain hands-on practical knowledge
- Work on a real industry-level project

Tools Covered

- SOLIDWORKS (3D Modeling & Sheet Metal)
- AutoCAD (2D Drafting)
- GD&T (Geometric Dimensioning & Tolerancing)
- Basics of AI for Engineers

What Makes This Program Unique

- Industry-based training approach
- Exposure to real manufacturing processes
- Industry visits (CNC, fabrication, metrology)
- Final design-to-manufacturing project

Career Opportunities

- Design Engineer
- Sheet Metal Design Engineer
- Production Engineer
- CAD Engineer
- Quality Engineer

Who Can Join

- Diploma (Mechanical)
- BE / B.Tech (Mechanical)
- ITI Students
- Freshers & Job Seekers

Important Note

This is a practical, industry-oriented training program. Learning outcomes depend on student practice, involvement, and consistency.

MECHANICAL SKILL KONNECT

Syllabus

Module 1 – Engineering & Industry Foundation

- Role of Mechanical Engineers (Design / Production / Quality)
- Industry Workflow: Design Manufacturing Inspection Dispatch
- Engineering Drawing Reading
- Introduction to Bill of Materials (BOM)
- Career Awareness & Industry Expectations

Module 2 – SolidWorks Core + Sheet Metal

- Sketching & Design Intent
- 3D Modeling (Extrude, Revolve, Sweep, Loft)
- Assemblies & Mating Techniques
- Drawing Generation from 3D Models
- Sheet Metal Tools & Flattening Concepts
- Weldments Basics, Configurations, Design Tables
- Equations & Global Variables

Module 3 – GD&T; Fundamentals

- Datums & Datum Reference Frames
- Feature Control Frame Structure
- Position Tolerance & MMC/LMC Concepts
- Runout & Profile Basics

Module 4 – AutoCAD Professional

- 2D Drafting & Editing Commands
- Layer Management & Drafting Standards
- Dimensioning & Annotation Techniques
- Blocks & Attributes
- Layout Creation & Plotting
- Mechanical Drawing Practice

Module 5 – Materials & Manufacturing

- Material Selection for Industry
- Casting, Machining & Forming Processes
- Heat Treatment Overview
- Metal Finishing Processes
- Machine Awareness: Lathe, VMC, EDM, 5-Axis CNC

Module 6 – Electronics & Mechatronics Basic

- Fundamentals of voltage, current & power
- Industrial Motors (Induction, Servo, Stepper)
- Common Industrial Sensors
- CNC Control System Awareness
- Mechanical + Electrical System Integration Basics.

Module 7 – AI & Prompt Engineering Basics

- Fundamentals of Artificial Intelligence
- AI Tools for Students & Engineers
- Prompt Engineering
- AI in Mechanical Engineering Applications
- AI for Projects & Productivity

Industry Exposure

- Industry visits to fabrication, CNC machining and metrology units
- Hands-on exposure to real manufacturing workflow

Final Industry Project

- Complete Design & 3D Modeling
- 2D Drawing Preparation with GD&T;
- Material & Manufacturing Process Selection
- Basic Cost Estimation and BOM Preparation
- Final Technical Presentation