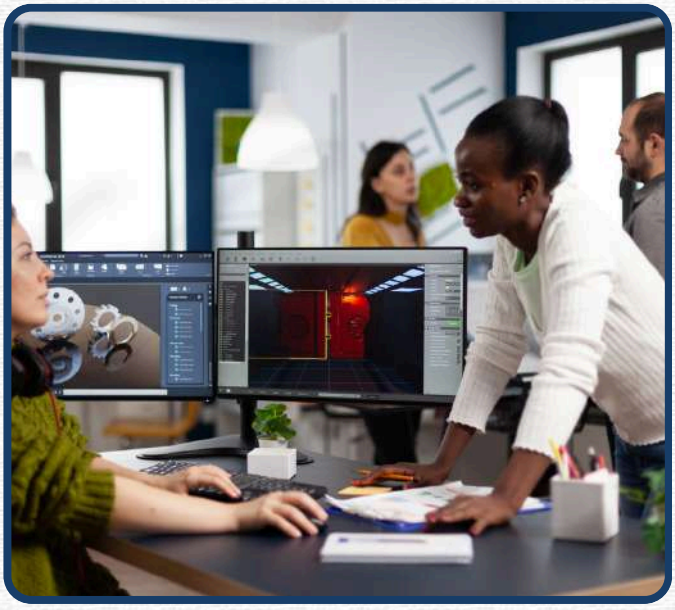
AL FALFL Profile

AL-FALFL

MACHINES & AUTOMATION'S

INDUSTRIAL TRAINING PROGRAM

Website



www.falfl.com +966 509843117 asugpy@falfl.com

AL-FALFL
MACHINES & AUTOMATION'S

COMPANY PROFILE

Name	AL FALFL **Industrial Training Program**
Address	Unit #2, Al Thawn, Al Khobar-34632, KSA
Tele fax	+966509843117, +966544023605
Mail ID	asugpy@falfl.com office@falfl.com
URL	www.falfl.com

AL-FALFL

MACHINES & AUTOMATION'S

About US

AL FALFL CNC established in the year 2015, is being an extremely agile and vigorous organization providing manufacturing solutions to various Automobile and Aerospace industries.
The team comprises of highly motivated competent & passionate people with vast experience in the spectrum of the computer aided manufacturing & engineering domains. The CNC programmers supported by Mastercam software, help meet customer expectations & project deadlines in most efficient manner. The processes & methodologist followed are customized to ensure that delivery model is flexible, scalable & extremely cost effective.

AL FALFL CNC has successfully trained and placed over students all over in Dammam, Saudi Arabia CNC, CAD-CAM, Automation, Robotics domain. AL FALFL prides itself on the quality of training that is provided to the students.

With Certified and dedicated trainers, AL FALFL ensures quality training is provided to each and every student, enhancing their skill level and confidence for the future endeavors.

www.falfl.com +966 509843117 asugpy@falfl.com

AL-FALFL

MACHINES & AUTOMATION'S

Industrial Training Program

TRAINING OVERVIEW

- **CNC Programming**
- **Machine Service Training**
- **AutoCAD Course**
- **CAD/CAM/CAE Training**
- **Robotics Training**
- **Automation Training**

Become an industry ready professional with in Dammam, Saudi Arabia First Orientation Course, incorporating number of Virtual Industrial Tours within a given sector along with its respective business aspects, designed as per New Education Policy.

www.falfl.com +966 509843117 asugpy@falfl.com

CNC programming and Operations

CNC programming, or Computer Numerical Control programming, is the process of creating instructions for CNC machines to perform precise tasks and transform raw materials into finished products. CNC machines are automated manufacturing tools that can perform a variety of operations, including cutting, milling, and drilling.
Training in CNC PROGRAMMING AND CNC MACHINING

Course Overview

This course will make one familiar with the operating process, manual programming, computer assisted programming, tool & work setting and Product machining.
CNC (Computer Numerical Control) programming and operations courses teach students how to use computer-driven software to control automated machinery, such as mills, lathes, and cutting machines. CNC programming courses cover a range of topics, including:

- **Blueprint reading:** Students learn how to read complex design blueprints.
- **Machine setup:** Students learn how to set up CNC machines.
- **Programming:** Students learn how to program CNC machines using CAM software.
- **Machine operation:** Students learn how to operate CNC machines to produce precise parts.
- **CNC machine types:** Students learn about different types of CNC machines.
- **CNC machine uses:** Students learn about other uses for CNC machines beyond machining.
- **Programming concepts:** Students learn about programming concepts such as word addresses, G and M codes, and tool movement commands.
- **Machine parts:** Students learn about the structural parts of a CNC program, including work and tool-holding devices, cutting tools, and CNC turning machines.

CNC MACHINE COMPONENTS

- Major parts of CNC machines (spindle, control panel, bed, etc.)
- Functions of each component
- Overview of CNC control systems (Fanuc, Siemens, etc.)
- Safety features and protocols

UNDERSTANDING CNC CODES AND PROGRAMMING

- Introduction to G-codes and M-codes
- Basic CNC programming concepts
- Writing simple CNC programs for basic operations
- Loading and interpreting CNC programs on the machine

MACHINE SETUP AND OPERATION

- Steps to safely set up a CNC machine
- Workpiece mounting and alignment
- Tool selection and installation
- Setting tool offsets and work offsets
- Adjusting machine settings (spindle speed, feed rate, etc.)
- Running and monitoring CNC operations
- Troubleshooting common errors

TOOLING AND WORKHOLDING

- Overview of cutting tools and tool holders
- Tool types: drills, end mills, inserts, etc.
- Importance of correct tool selection and maintenance
- Workholding techniques (clamps, vices, fixtures)

www.falfl.com +966 509843117 asugpy@falfl.com

CNC MACHINE MAINTENANCE AND TROUBLESHOOTING

- Daily, weekly, and monthly maintenance checklists
- Lubrication, cleaning, and calibration procedures
- Common machine faults and troubleshooting
- Preventive maintenance best practices

QUALITY CONTROL AND MEASUREMENT

- Importance of precision and accuracy in CNC operations
- Introduction to measuring instruments (calipers, micrometers, etc.)
- How to inspect workpieces for quality assurance
- Techniques to ensure consistent quality in production

SAFETY PRACTICES FOR CNC OPERATORS

- CNC machine safety protocols
- Personal protective equipment (PPE) requirements
- Emergency procedures and shutdown operations
- Understanding and preventing workplace hazards

PRACTICAL HANDS-ON TRAINING

- Real-time CNC machine operation with instructor guidance
- Practice on different CNC machines (lathe, milling, etc.)
- Performing simple to complex machining tasks
- Live troubleshooting and adjustments on the shop floor

www.falfl.com +966 509843117 asugpy@falfl.com

AutoCAD Course

Explore the world of AutoCAD with our comprehensive course, designed to equip you with the essential skills for efficient 2D drafting and precise 3D modeling. This AutoCAD course offers a thorough understanding of the software, covering everything from basic functionalities to advanced features. Enroll now to gain hands-on experience and receive a valuable certificate upon completion. Elevate your expertise with our AutoCAD online course with a certificate, providing accessibility across desktop, cloud, and mobile platforms. Join us to unlock the full potential of AutoCAD and enhance your drafting capabilities.

Scope of Course

Mechanical CAD skills offer numerous career opportunities. With AutoCAD being a popular CAD tool in the industry, the demand for the skills exists all the time. Students well versed in training in AutoCAD Mechanical are placed in industries as:

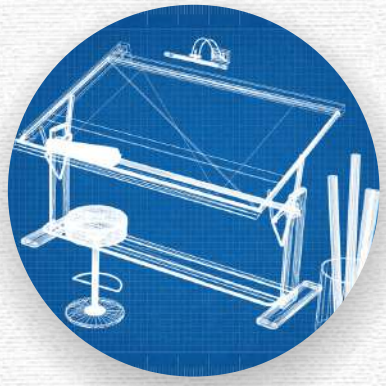
- AutoCAD interface
- Draw, edit and duplicate entities
- Managing layers and object properties
- Productivity tools
- Layout management
- Plot settings
- Create and manage dimensions
- 3D modeling

INTRODUCTION TO AUTOCAD

- Overview of AutoCAD and its applications.
- Navigating the user interface.
- Customizing workspaces and toolbars.
- Understanding basic drawing commands.

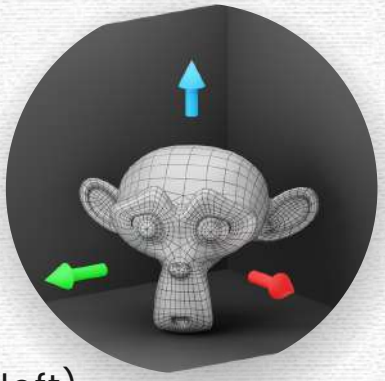
2D DRAFTING ESSENTIALS

- Drawing basic shapes and geometries (lines, circles, arcs, etc.).
- Modifying objects (trim, extend, fillet, etc.).
- Precision drawing techniques using grids, snaps, and dynamic input.
- Organizing projects using layers and properties.



ADVANCED 2D DRAFTING TECHNIQUES

- Creating and managing blocks and symbols.
- Annotating drawings with dimensions, text, and leaders.
- Working with hatching and gradients.
- Using object snaps and tracking for precise alignment.



INTRODUCTION TO 3D MODELING

- Understanding the 3D workspace in AutoCAD.
- Creating 3D objects (extrude, revolve, sweep, and loft).
- Modifying 3D models (chamfer, fillet, and shell).
- Navigating and visualizing models using viewports and perspectives.

www.falfl.com +966 509843117 asugpy@falfl.com

ADVANCED 3D MODELING AND EDITING

- Creating complex 3D models using Boolean operations.
- Working with surfaces, meshes, and solids.
- Applying materials and lighting for realistic renderin
- Introduction to 3D printing and exporting models.

PROJECT MANAGEMENT AND WORKFLOW OPTIMIZATION

- Best practices for managing large projects.
- Using external references (Xrefs) for collaborative work.
- File management, version control, and backup strategies.
- Introduction to dynamic blocks and parametric constraints.

PLOTTING, PRINTING, AND PRESENTATION

- Preparing drawings for print (layouts, scaling, and viewports).
- Plotting 2D drawings to PDF and other formats.
- Configuring plot styles and settings.
- Creating professional presentations using AutoCAD's tools.

AUTOCAD CUSTOMIZATION AND AUTOMATION

- Understanding the 3D workspace in AutoCAD.
- Creating 3D objects (extrude, revolve, sweep, and loft).
- Modifying 3D models (chamfer, fillet, and shell).
- Navigating and visualizing models using viewports and perspectives.

www.falfl.com +966 509843117 asugpy@falfl.com

CAD/CAM/CAE

CAD/CAM/CAE Training Institute in Dammam, Saudi Arabia, Saudi Arabia offering Instructor-Led Online courses in CAD/CAM/CAE with 100% Placement Assistance to fresh Mechanical Engineers. Our career programs portfolio includes Advance Diploma in CAD, Advance Diploma in CAD/CAM, Advance Diploma in CAD/CAE, Al FALFL Career Program in CAD/CAE & ALFALFL Certified Design Engineer Program. Course Curriculum for Advance Diploma / Diploma and Career Programs have been designed to prepare fresh Mechanical Engineers for industrial requirements.

Prerequisites

- Instructor-Led Sessions through Zoom, Webex, Goto Meeting, Microsoft Teams or any other similar Platform
- Individual Authorised Training Center Certification from Autodesk, Dassault Systemes, Siemens PLM Software and ANSYS.
- Industry need based course curriculum
- 100% placement assistance. Placement assistance is continued after course completion as well.
- Industrial projects on CAD/CAE Softwares
- Engineering Fundamentals Training
- Virtual Sessions / Webinars from Industry Experts
- Soft Skills Online Training
- Industry interaction

Robotics

Robotics is a branch of engineering focused on the design, development, and implementation of robots, or autonomous machines meant to replicate human effort. At its core, robotics combines computer science with mechanical and electrical engineering to accomplish a variety of tasks. This encompasses everything from the design of neural networks and algorithms that program robots to product development and testing.

The field continues to grow with the advent of big data and the Internet of Things (IoT). Machines are now capable of processing large quantities of data and learning with minimal human interaction.

Training Curriculum

- Selection Of Robots
- Mechanical Construction Industries
- Program Creation & Selection
- Robot Mechanical Structure
- Robot Controller Parts
- Coordinate Systems
- Tool Center Point (TCP) Setting
- Teaching Of Joint / Linear / Circular Motions
- Frequently Used Programming Instructions
- Various Applications Of Robot
- Simulation Using Robo – Guide Software
- Video Exposure To Our Product Line–Up And Our Advanced Manufacturing Facility

Automation Course

An Industrial Automation Course includes PLC Training, PAC Training, DCS Training, SCADA Training, HMI Training, VFD Training, etc. Just learning the programming of these technologies does not mold you into an Industrial Automation Engineer. During the Automation course, our Engineers give training in a customized way, starting from programming- Communication-Interfacing-Panel Building-Hardware Configuration- Assembly-Wiring-Channel Configuration-Testing-Troubleshooting, etc. All this training is provided during the Automation course by considering the goal that when you complete the training you will be able to do all the kinds of Industrial Automation jobs in any of the leading companies in the world.

Training Curriculum

- Programming - PLC | PAC
- Programming | SCADA | HMI
- Programming VFD
- DCS
- PLC/PAC/DCS Channel Configuration, Communication & Interfacing
- Panel Designing and Wiring
- Pneumatic & Field Instruments
- IIoT(Industial Internet of Things)
- Testing & Troubleshooting

PLC - PROGRAMMABLE LOGIC CONTROLLER

Learn most used plc brands in the Marine and Industrial Sector. Interfacing, Real-time scenarios, Troubleshooting. PLC to PLC

DCS - DISTRIBUTED CONTROL SYSTEM

Worlds only Institute Using Honewell C-300 for Training, Real-time training in DCS.

PAC - PROGRAMMABLE AUTOMATION CONTROLLERS

Interfacing PAC with SCADA, Connecting to VFD & HMI

INDUSTRIAL ROBOTICS

Vehicle automated assembly line, 3 axis and 6 axis Operation.

PROCESS AUTOMATION

Control the process variables and Implement Systems as per the current scenario.

SENSORS & VISION SYSTEMS

The final stage of automation systems, fault analyzer, packing, track changer. Use of Sensors, Camera.

www.falfl.com +966 509843117 asugpy@falfl.com

SCADA - SUPERVISORY CONTROL AND DATA ACQUISITION

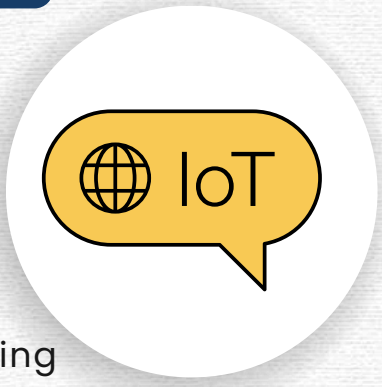
Learn the most used SCADA brands in the Marine and Industrial sectors. Interfacing with PLC, Real-time scenarios, Troubleshooting.

HMI & VFD - VARIABLE FREQUENCY DRIVE

Learn HMI, Learn VFD, Program VFD, and Control Panel Designing with VFD. VFD Interfacing.

IOT & IIOT - INDUSTRIAL INTERNET OF THINGS

Internet Connectivity to control the devices, Remote Support implementation.



CONTROL SYSTEM DESIGNING & TROUBLESHOOTING

Design control panel from basic drawings and deploying to process operations.

PLANT & FACTORY AUTOMATION

From Conveyor System to Control Process variables, Packing Systems.

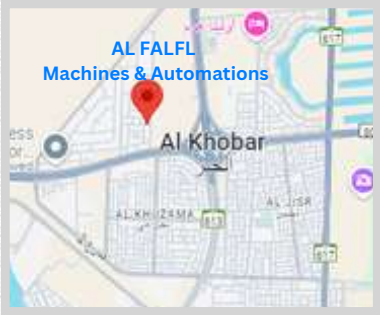
SUBSTATION AUTOMATION

Control MSB units, Ensure Security, Failover Switching, HT, and LT operations, Cabling Technology.

www.falfl.com +966 509843117 asugpy@falfl.com

Thank You

Our Office Locations



Unit #2, Al Thawn, Al Khobar-34632, KSA

yazeed bin malik st, Al Khalidiyah Ash Shamaliyah, Dammam 32211, KSA

Rail Complex Center Showroom 21, Aljamal area, Rehab street, Riyadh, KSA

AL-FALFL
MACHINES & AUTOMATION'S

INDUSTRIAL TRAINING PROGRAM

www.falfl.com +966 509843117 asugpy@falfl.com