

Order = Best remote teaching to worse

E-Learning only solution: ITZ (A bit older looking, but great courses)

https://www.labvolt.com/solutions/8_e_learning_and_technology/98-47900-00_industrial_training_zone_itz_eseries_courses

- AC/DC Motors and Drives
- Advanced Hydraulics
- Brushless DC Motors
- Diesel Engines
- Electrical Theory
- Gas Turbine Engines
- Industrial Electrical
- Industrial Hydraulics
- Industrial Mechanical
- Industrial Pneumatics
- Industrial Safety
- Marine Diesel Engines
- Mobile Electrical
- Mobile Hydraulics
- PLC Fundamentals
- Pneumatic Specialist
- Weld Academy
- Weld Academy Instructor
- Quality Control
- Safety Awareness
- Mobile Electrical

Courses that can almost totally be done online: Mix of e-learning + online simulation software

Electromechanical Training System

LVSIM-EMS, 8006 system e-series **FREE FOR 90 DAYS**. Other exercises available from pdf books, which are integrated in lvsim.

https://www.labvolt.com/solutions/6_electricity_and_new_energy/98-8970-00_electromechanical_systems_simulation_software_lvsim_ems
www.lvsim.labvolt.com

To access lvsim go to www.lvsim.labvolt.com and enter your code (if you have one)

https://www.labvolt.com/solutions/2_electronics/50-8980-E0_electromechanical_training_system_eseries

DC and AC Power Circuits Training System

LVSIM-EMS 8010-10 system e-series **FREE FOR 90 DAYS**. Other exercises available from pdf books.

https://www.labvolt.com/solutions/6_electricity_and_new_energy/98-8970-00_electromechanical_systems_simulation_software_lvsim_ems
www.lvsim.labvolt.com

To access lvsim go to www.lvsim.labvolt.com and enter your code (if you have one)

https://www.labvolt.com/solutions/8_e_learning_and_technology/50-21001-E0_dc_and_ac_power_circuits_training_system_eseries

Industrial Controls Training System and Simulation Software

Simulation software integrated in MindSight. NEEDS TO DO A SPECIFIC EXERCISE, it's not a "generic" simulator. This includes basic controls, PLC, DC drive and Variable Frequency Drive

https://www.labvolt.com/solutions/8_e_learning_and_technology/50-3161-J0_industrial_controls_training_system_and_simulation_software_eseries

Free version of "EasySoft", a PLC software that includes simulation:

<http://trcsupport.eaton.com/Automation/PLC/79497071/Can-I-download-a-free-version-of-easySoft.htm>

Youtube lessons about EasySoft by Jim Pytel, one of our customers in Oregon:

<https://www.youtube.com/watch?v=0kex3uAekaE>

Industrial Controls Training System

This one requires hardware. Simulation software integrated in MindSight in the version above

https://www.labvolt.com/solutions/8_e_learning_and_technology/50-3161-E0_industrial_controls_training_system_eseries

Courses that can almost totally be done online: Mix of e-learning + installable simulation software

Hydraulics Fundamentals

LVSIM-Hydraulics 30 days free trial. Windows needs to be set to "small fonts". Installing LVSIM Hydraulics&Pneumatics gives you 30 trial days total, while installing for example LVSIM Pneumatics for 30 days and then installing LVSIM Hydraulics for 30 days give you 60 days of "fluid power" (30 days of each). After the trial has expired, software still works but measurements are disabled.

https://www.labvolt.com/solutions/8_e_learning_and_technology/80-6386-E0_hydraulics_fundamentals_eseries
<https://www.labvolt.com/downloads/LVSimHyd14001.zip>

Advanced Hydraulics

LVSIM-Hydraulics 30 days free trial. Windows needs to be set to "small fonts". Installing LVSIM Hydraulics&Pneumatics gives you 30 trial days total, while installing for example LVSIM Pneumatics for 30 days and then installing LVSIM Hydraulics for 30 days give you 60 days of "fluid power" (30 days of each). Although the e-series course includes electro-hydraulics, PLC applications, hydraulics servo control and sensors, only fundamentals and electro-hydraulics are in the simulation software.

https://www.labvolt.com/solutions/8_e_learning_and_technology/80-6386-10_advanced_hydraulics_eseries
<https://www.labvolt.com/downloads/LVSimHyd14001.zip>

Pneumatics Fundamentals

LVSIM-Pneumatics 30 days free trial. Windows needs to be set to "small fonts". Installing LVSIM Hydraulics&Pneumatics gives you 30 trial days total, while installing for example LVSIM Pneumatics for 30 days and then installing LVSIM Hydraulics for 30 days give you 60 days of "fluid power" (30 days of each).

https://www.labvolt.com/solutions/8_e_learning_and_technology/80-6486-10_advanced_pneumatics_eseries
<https://www.labvolt.com/downloads/LVSimPneu13001.zip>

Advanced Pneumatics

LVSIM-Pneumatics 30 days free trial. Windows needs to be set to "small fonts". Installing LVSIM Pneumatics&Pneumatics gives you 30 trial days total, while installing for example LVSIM Pneumatics for 30 days and then installing LVSIM Hydraulics for 30 days give you 60 days of "fluid power" (30 days of each). Although the e-series course includes electro-pneumatics, PLC applications, pneumatics servo control and sensors, only fundamentals and electro-pneumatics are in the simulation software.

https://www.labvolt.com/solutions/8_e_learning_and_technology/80-6486-E0_pneumatics_fundamentals_eseries
<https://www.labvolt.com/downloads/LVSimPneu13001.zip>

Courses that can "partly" be done in software, to be installed:

Grid-Tied Systems with Simulator

Simulation software integrated in MindSight, but a large part of the course is about the 46120 Solar-Wind hardware system.

https://www.labvolt.com/solutions/8_e_learning_and_technology/17-46549-10_grid_tied_systems_for_simulator_eseries

Grid-Tied Systems for Simulator

For customers that already have the simulation software installed, and a large part of the course is about the 46120 Solar-Wind hardware system.

https://www.labvolt.com/solutions/8_e_learning_and_technology/17-46549-10_grid_tied_systems_with_simulator_eseries

Grid-Tie Training System

Hardware based only. This is about a different system.

https://www.labvolt.com/solutions/8_e_learning_and_technology/17-46546-E0_grid_tie_training_system_eseries

Programmable Logic Controller - Basic Programming

Hardware/software mix. Can partly be done with the following free downloads from Rockwell (Allen-Bradley): RSMicroLite 8.3 (prog soft), RSEmulate (PLC emulator) and RSLinx (communication between programming soft and plc or plc emulation)

https://www.labvolt.com/solutions/8_e_learning_and_technology/80-3280-E0_programmable_logic_controller_basic_programming_eseries
<https://theautomationblog.com/how-to-get-a-free-copy-of-rslogix-emulate-500/>

But please also see "Industrial Controls" section above

Automation and Robotics

STEM. Hardware/software. Robocim and FluidSim for Meclab can do a part of it. Not on the website. No free version.

CNC Lathe

STEM. Hardware LabVolt Series Lathe. Simulation mode available for those that already have the Lab-Volt "Level 5" software. No free version.

Course is not on the www.labvolt.com.

https://www.labvolt.com/solutions/98-5560-00_cnc_lathe_software

CNC Mill

STEM. Hardware. Simulation mode available for those that already have the Lab-Volt "Level 5" software. No free version. Course is not on the www.labvolt.com.

https://www.labvolt.com/solutions/98-5660-00_cnc_mill_software

Computer-Aided Design

STEM. Requires Solidworks (we don't sell it, but if customer already has it...)

Course is not on the www.labvolt.com.

Applied Robotics

STEM. Hardware/Software combo. Robocim 5250 Simulation mode for those that already have the Lab-Volt "ROBOCIM 5250" software.

https://www.labvolt.com/solutions/8_e_learning_and_technology/19-4604-70_applied_robotics_eseries
https://www.labvolt.com/solutions/98-5251-00_robocim_5250_software

TP 101 Basic Pneumatics (Americas)

FluidSim Trial version (Free for 30 days). A special price for a 90 days license is under way. No one to one correspondance with the exercises.

<https://www.festo-didactic.com/us-en/learning-systems/software-e-learning/fluidsim/fluidsim-5.htm?fbid=dXMuZW4uNTc5LjE3LjE4LjU5MS43OTc1>

Link from https://www.labvolt.com/solutions/8_e_learning_and_technology/98-21016-00_elearning_courses doesn't work

TP 201 Electropneumatics (Americas)

FluidSim Trial version (Free for 30 days). A special price for a 90 days license is under way. No one to one correspondance with the exercises.

<https://www.festo-didactic.com/us-en/learning-systems/software-e-learning/fluidsim/fluidsim-5.htm?fbid=dXMuZW4uNTc5LjE3LjE4LjU5MS43OTc1>

Link from https://www.labvolt.com/solutions/8_e_learning_and_technology/98-21016-00_elearning_courses doesn't work

TP 501 Basic Hydraulics (Americas)

FluidSim Trial version (Free for 30 days). A special price for a 90 days license is under way. No one to one correspondance with the exercises.

<https://www.festo-didactic.com/us-en/learning-systems/software-e-learning/fluidsim/fluidsim-5.htm?fbid=dXMuZW4uNTc5LjE3LjE4LjU5MS43OTc1>

Link from https://www.labvolt.com/solutions/8_e_learning_and_technology/98-21016-00_elearning_courses doesn't work

TP 601 Electrohydraulics (Americas)

FluidSim Trial version (Free for 30 days). A special price for a 90 days license is under way. No one to one correspondance with the exercises.

<https://www.festo-didactic.com/us-en/learning-systems/software-e-learning/fluidsim/fluidsim-5.htm?fbid=dXMuZW4uNTc5LjE3LjE4LjU5MS43OTc1>

Link from https://www.labvolt.com/solutions/8_e_learning_and_technology/98-21016-00_elearning_courses doesn't work

Courses that need hardware for the hands-on, but theory can be done online:

Complete FACET Module Curriculum Bundle (All 29 modules)

Hardware FACET. Some of it can probably be done in an electronics simulator (we don't have one)

Specific courses in FACET:

- Microcontroller System Development: Hardware FACET. Some exercises could be done with FlowCode simulator (may have a trial version, to be verified)
- Digital Signal Processor: Hardware FACET. Maybe some exercises could be done with a simulator?
- DC Fundamentals
- DC Network Theorems
- AC 1 Fundamentals
- AC 2 Fundamentals
- Semiconductor Devices
- Transistor Amplifier Circuits
- Transistor Power Amplifiers
- Transistor Feedback Circuits
- Power Supply Regulator Circuits
- FET Fundamentals
- Thyristor and Power Control Circuits
- Operational Amplifier Fundamentals
- Operational Amplifier Applications
- Digital Logic Fundamentals
- Digital Circuit Fundamentals 1
- Digital Circuit Fundamentals 2
- 32 Bit Microprocessor
- Analog Communications
- Transducer Fundamentals
- Magnetism and Electromagnetism
- Digital Communications 1
- Digital Communications 2
- Motors, Generators and Controls
- Fiber Optic Communications
- Power Transistors and GTO Thyristor
- Transmission Lines (for communications, not power)
- QPSK / OQPSK / DPSK

AC/DC Training System

Hardware 3351. Could be mostly done with a generic simulator (we don't have one)

Grid-Tie Training System

Hardware 46125 based (There is a "grid-tied" simulation software, but it is about a different system)

Advanced PLC Training System (Rockwell)

Hardware. Needs at least RSLogix 5000 and FactoryTalk, as well as hardware. To learn a little about the software, the Rockwell current version has a 7 day trial.

Advanced PLC Training System (Siemens)

Siemens has a lot of good training videos. There is also a trial version for TIAPortal (To Be Verified)

Refrigeration Training System

Hardware 3431

Radar Training System

Hardware 8096

Nacelle Operation and Maintenance

Hardware 46122 Wind Turbine

Solar Thermal Energy Training System

Hardware 46121 Solar-Heating

Solar/Wind Energy Training System

Hardware 46120 Wind-Solar

Mechanical Training System

Hardware 46101

Pumps Training System

Hardware 46106

Piping Fundamentals

Hardware 46105

Industrial Wiring Training System

Hardware 46102

Temperature Processes

Hardware 3531

Pressure, Flow, and Level Processes

Hardware 3531

Preparatory Electricity & Electronics Training System

Hardware PEET (obsolete)

Aerodynamics, Alternative Energy , Engineering and Stress Analysis, Environmental Technology/Water, Exploratory Electronics, Exploring Electricity, Exploring Mechanisms , Exploring Mechatronics, Fiber Optics and Lasers, Introduction to Process Engineering, Plastics. STEM. NEEDS HARDWARE.