

Technical education

Learning solutions for water management



The blue path to green skills

Your way to sustainability training



Water sustainability largely depends on diligent management and use.

Industry challenge: Attract and qualify enough workers to engineer, deploy, maintain, and operate water and wastewater systems and infrastructures.



Digitalization changes skills requirements.

Modernization of infrastructures through the integration of new technologies and IT accentuates the skills gap.

The integration of Industry 4.0 methodologies and technologies is revolutionizing water management, giving rise to **Water 4.0**.



WorldSkills: An investment in a more sustainable future

Festo is committed to preserving water. We are the lead sponsor of the competition equipment for the “Water technology” (skill 55) competition.



Prepare workers to make optimal use of water, in the industry and beyond.

We can help you build skills in **key skills areas**, especially for:

- Process and chemical technicians/engineers
- Water technicians/engineers
- Electrical technicians/engineers
- Plant operators
- And more

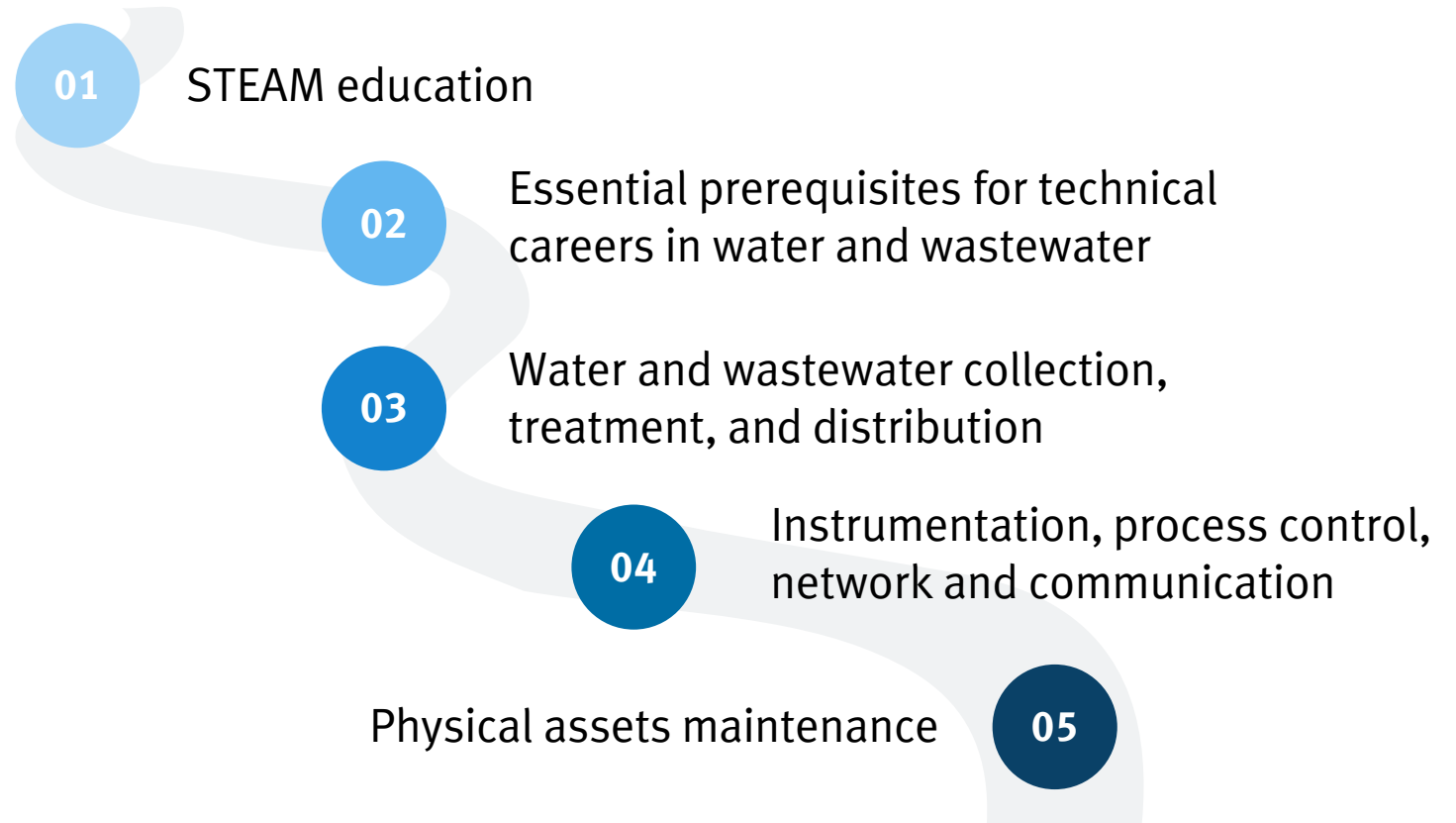


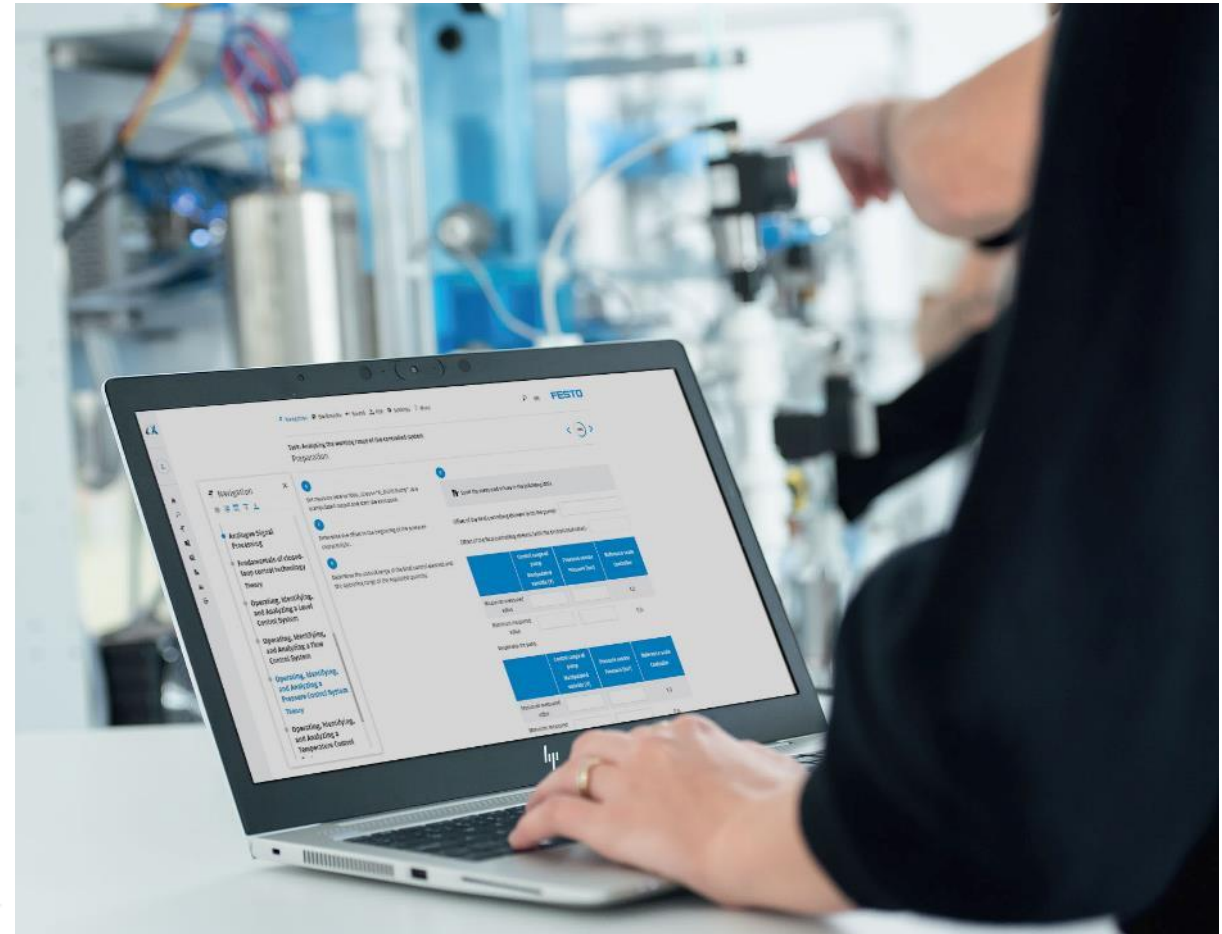
Chart customized learning paths.

Our digital learning portal, Festo LX, is the backbone for skills development.

A comprehensive collection of varied learning content enables learners to study precisely what they need, at their own pace, creating a stimulating learning experience adapted to the latest educational trends.

Browse the collection on lx.festo.com

Create your account



A sample of relevant courses

 Introduction to Water Cycle and Water Management eLearning course by Festo Didactic Show More	 Water Purification eLearning course by Festo Didactic Show More	 Water Supply eLearning course by Festo Didactic Show More	 Adsorption in Water Management eLearning course by Festo Didactic Show More	 Membrane Filter Process in Water Management eLearning course by Festo Didactic Show More	 Wastewater Treatment eLearning course by Festo Didactic Show More	 Wastewater Transport eLearning course by Festo Didactic Show More	 Mechanical Pre-Treatment for Wastewater eLearning course by Festo Didactic Show More	 Sand Filtration for Water Purification eLearning course by Festo Didactic Show More
 Introduction to Environmental Technology/Water eLab course by Festo Didactic Show More	 Hydropower Electricity Generation eLab course by Festo Didactic Show More	 Measurement – Pressure, Flow, and Level eLab course by Festo Didactic Show More	 Advanced Process Control eLab course by Festo Didactic Show More	 Fundamentals of Closed-Loop Control eLab course by Festo Didactic Show More	 Flow Primary Elements eLab course by Festo Didactic Show More	 Boiler Control eLab course by Festo Didactic Show More	 Multiple Pump Systems eLab course by Festo Didactic Show More	 Piping Fundamentals eLab course by Festo Didactic Show More

01

Raise young people's interest for water and process control.

Environmental technology/water

Students discover how the four disciplines connect as they perform standard water testing and treatment methods.



EduKit PA

Modular projects provide a simple and safe introduction to process engineering and closed-loop control.



02

Convey essential prerequisites for technical careers.

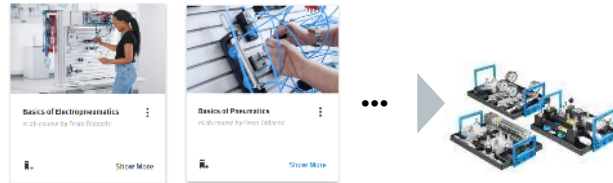
Safety

Power supply systems and protective measures

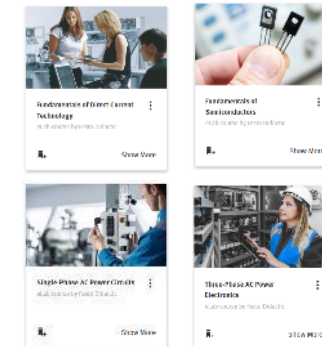


Pneumatics

Various training packages in pneumatics & electropneumatics basic and advanced level, digitalization in pneumatics, etc.



Electricity basics



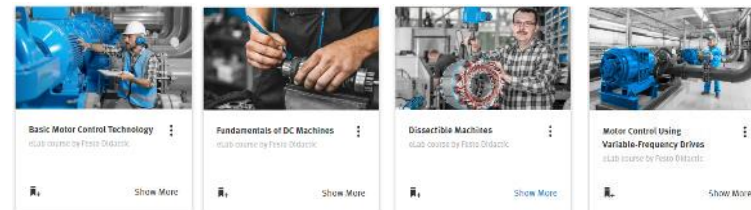
AC/DC (TP 8012 or EMS*, suitcase *), Electricity fundamentals (TP 1011)

PLC



Programming and troubleshooting with the EduTrainer PLCs or the Advanced PLC training*...

Motors and drives



Basic motor control (TP 1221), servo brake and drive system (TP 1410), variable-frequency drives*, dissectible machines*...

03

Learning water and wastewater collection, treatment, and distribution



Knowing the basics of the water circuit is a pre-requisite for anyone dealing with water for professional purposes.

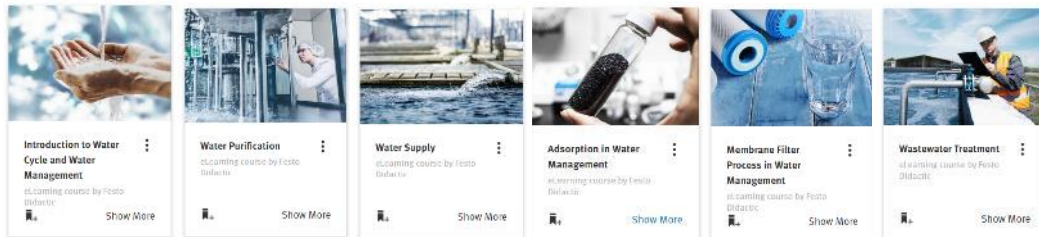
Water purification and supply, wastewater transport and treatment, sand and membrane filtration, energy optimization of equipment, and more...

03

Learning water and wastewater collection, treatment, and distribution

The **EDS Water Management** is a modular training system represents the core processes of a water and wastewater treatment plant. It demonstrates the water cycle from source to wastewater treatment plant, and back again.

- Comprehensive training courses
- Observation and practical experimentation



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Learning instrumentation, process control, network and communication



Any industrial process involving water needs monitoring of process variables like pressure, flow, temperature, pH, conductivity, etc.

This involves instrumentation and control devices, sensors, control strategies, energy transfer, PLC programming, distributed control systems, information transmission and storage, wireless communications, industrial communication protocols, IoT, cybersecurity, and more.

Learning instrumentation, process control, network and communication

PA fundamentals

MPS PA Compact workstation

Closed-loop control, level, flow, pressure, and temperature



MPS PA Stations/System

Filtration, mixing, reactor, and bottling processes



Instrumentation & process control*

Pressure, flow, level, temperature, heat exchanger, process dynamics, proportional & PID & cascade control...



Industrial PA

Process learning systems*

Industrial control systems for pressure, flow, level, temperature, pH, conductivity, air pressure/flow processes, fast heat exchanger, control strategies...



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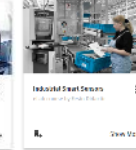
PlantPax DCS demonstrator*

Distributed control systems, Industrial instrumentation, control strategies...

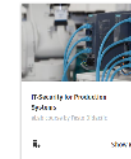


Also related...

Smart sensors (TP 1312)



Networks and IT security (TP 1333)



05

Learning physical assets maintenance

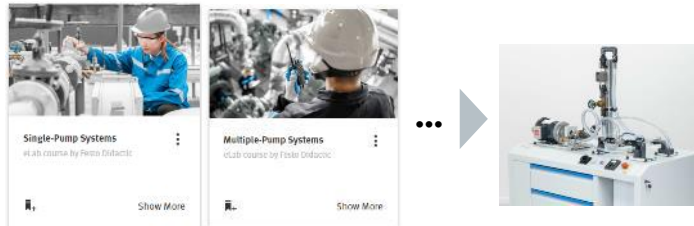


Operating and maintaining equipment and facilities requires several manual skills in installation, maintenance, replacement, and troubleshooting of a wide range of electromechanical and fluid power systems and components.

05 Learning physical assets maintenance

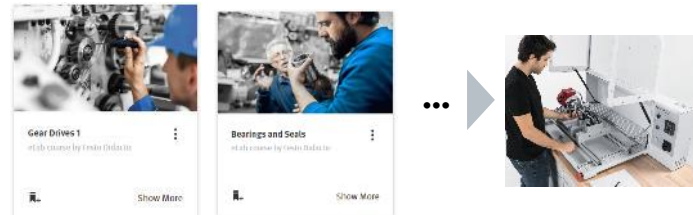
Industrial pumps

Pump installation, operation, maintenance, troubleshooting, fluid mechanics...



Mechanical drives

Belt, chain & gear drives, couplings, shaft alignment, bearings, seals, gearboxes, clutch-brake...



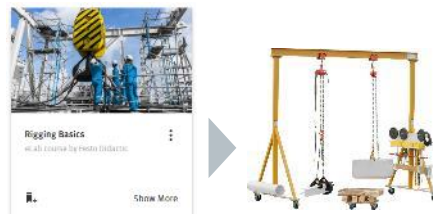
Industrial wiring

Enclosures and conduits, electrical panel, schematics, ...



Rigging*

Teach how to lift and move large, heavy, and unbalanced loads safely and efficiently.



Piping and pipefitting*

Pipes, fittings, valves, hangers, calculations preparation & assembly of circuits...



Start planning your path.

Discuss your training requirements regarding green skills development.

Contact us: didactic@festo.com

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