

#### Technical education

# Learning solutions for sustainable manufacturing





# The blue path to green skills

Your way to sustainability training





#### **Resource optimization and footprint reduction as guiding principles**

Industry challenge: Rising energy costs and tighter environmental regulations are driving manufacturing companies to develop more sustainable production processes.







#### Green manufacturing changes skills requirements.

Workers with the right skills are critical to reducing the  $CO_2$  footprint and transitioning to sustainable production processes.

They must understand **energy flows and key data**, which will aid in selecting and applying **optimization strategies** for sustainable action as well as identifying, planning, implementing, and evaluating **efficiency measures**.





## WorldSkills: An investment in a more sustainable future

Festo recognizes the significance of transitioning towards sustainable production. As the lead equipment sponsor, task designer, and Skills Competition Manager for WorldSkills Mechatronics (Skill 04) and Industry 4.0 (Skill 48), we are committed to incorporating sustainability topics into these competitions.











#### Prepare workers to drive down waste and energy consumption.

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

Extension of existing job profiles:

- Electronics technician/engineer
- Mechatronics technician/engineer
- Emergence of new job profiles further education:
- Sustainability manager
- Energy manager
- Energy efficiency expert



in learning factory environments



## 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 **<u>lx.festo.com</u>** 





#### A sample of relevant courses







## Foundational knowledge and skills

#### **Electrical drives**



Electric Drives 1 
eLearning course by Festo
Didactic

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Fluid power

Basics of Electropneumatics eLab course by Festo Didactic

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Basics of Electrohydraulics eLab course by Festo Didactic

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#### **Basics of manufacturing/mechatronics**





Plant Control and Commissioning with MES eLab course by Festo Didactic

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Industrial Communication with PROFINET eLab course by Festo Didactic

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**Smart Sensors for Smart Systems** 

eLab course by Festo Didactic



based on TP 201 electro-pneumatics



based on TP 601 electro-hydraulics



based on MPS 400 or CP Lab







## **Basics of energy efficiency and smart grid**

#### **Digitalization in pneumatics**

Coming soon



#### **Topics Covered**

Increasing overall equipment effectiveness

- Efficient maintenance based on condition monitoring
- Reduction of scrap in production
- Based on TP 260





Digitalization in Hydraulics eLab course by Festo Didactic

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#### **Topics Covered**

- Increasing overall equipment effectiveness
- Efficient maintenance based on condition monitoring reduction of scrap in production
- Based on TP 660

## Tec2Screen



Pneumatics Courses

Energy-efficient movement Energy-efficient clamping Energy-efficient lifting Energy-efficient gripping

#### Simulation



#### EiSLab®

Smart Grid Learning Software

- Simulation of production, storage and consumption of energy
- Hybrid mode: simulated and real consumers



# Advanced skills for managing compressed air and thermal efficiency



pneumatic consumers

e.g. TP 201

Thermal efficiency

Compressed air preparation

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- Condition monitoring ٠
- Flow measurement and flow resistance •
- Effect of leaks ٠
- Pressure losses in distribution networks



# Energy monitoring and management in learning factory environments





#### Workforce development: Specialized training for current workers

Leverage our training expertise to up- or reskill workers in a wide range of topics, like:

Energy efficiency for industrial customers, pneumatics for construction, safety in pneumatics and electropneumatics for construction, introduction to electric drive technology, IIoT sensors, basics of value stream mapping and design...

Contact your Festo local company to learn about the training offering in your country.





## Start planning your path.

Discuss your training requirements regarding green skills development.

Contact us: didactic@festo.com

