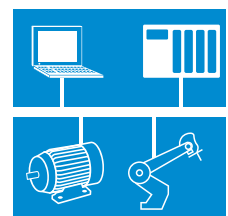


IPA Industrial Process Automation

From the automatic control of single controlled systems to flexible full-scale process automation

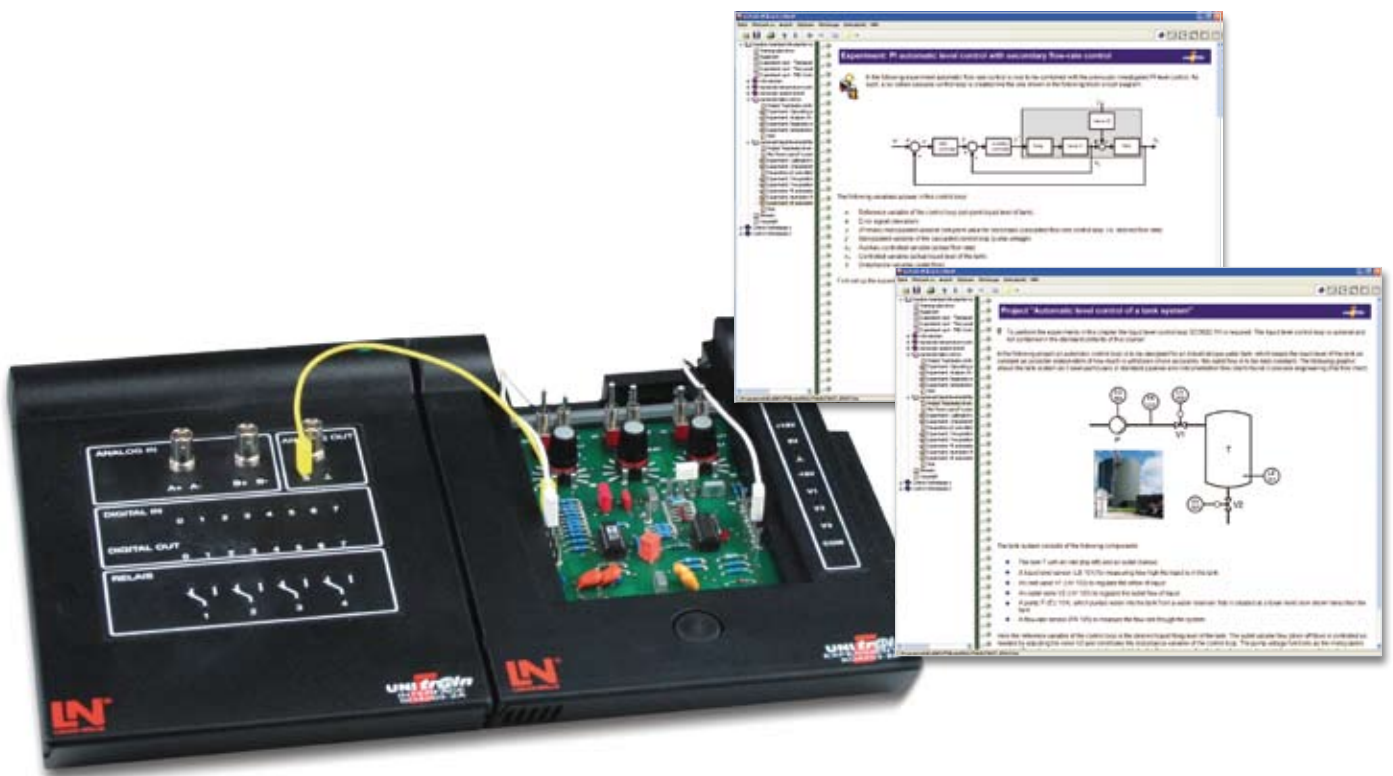


The new compact station on process automation

Learning the fundamentals of automatic control technology with UniTrain-I

The fundamentals, principles and properties of components used in automated processes and production lines are explored in depth with the aid of animations and numerous experiments performed on real systems. Many experiments on controlled systems and lines investigate such topics as measuring step responses and optimising control loops. Training is conducted on how to use important tools such as Bode and locus plots in real experiments.

The IPA stations can be connected directly to the UniTrain-I controller to carry out control operations and system investigations.

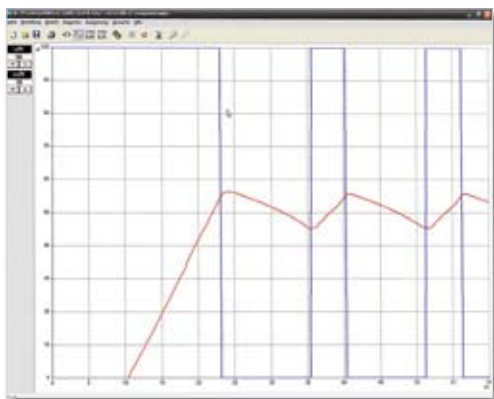


Training contents

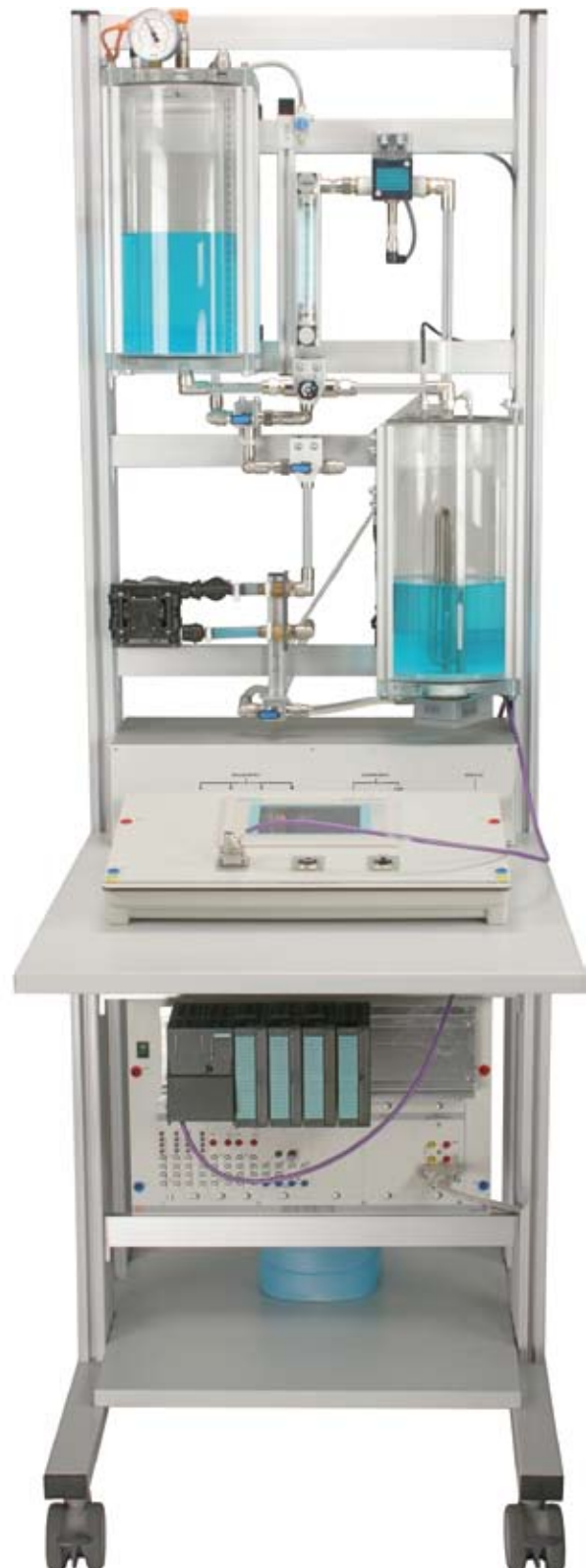
- Design, wiring and commissioning of a process engineering plant
- Selection, deployment and connection of different sensors
- Measurement of electrical and process-control variables like liquid level, flow-rate, pressure and temperature
- Deployment and connection of transducers
- Design, assembly and commissioning of control loops
- Analysis of controlled systems and control loops
- Putting continuous and discontinuous controllers into operation
- Setting parameters and optimising P-action, PI-action and PID-action controllers
- Design of open-loop and closed-loop programmes
- Operating and monitoring processes
- Inspection, maintenance and repair
- Networking process engineering systems

Professional automatic control of pressure, temperature, volumes and flow-rates

The compact station with 4 integrated controlled systems is the optimum solution for typical production processes in the most varied of industries. The system's modularity permits various configurations to be implemented in the safety of the laboratory environment.



Compact station with industrial open-loop control and touch panel.

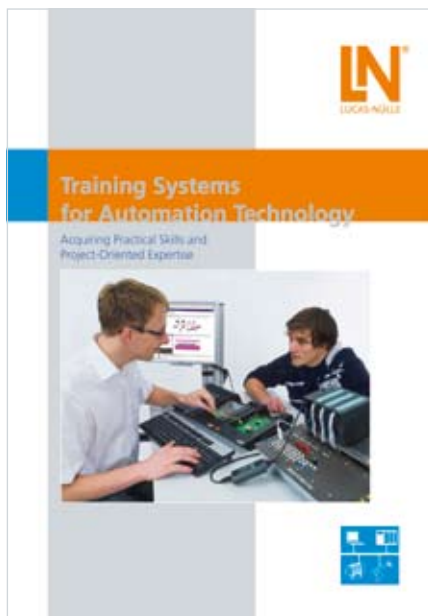


Your benefits

- Real hands-on practice thanks to the use of industrial components
- Typical process engineering sensors for temperature, liquid level, flow-rate and pressure
- Can be combined with any open-loop and closed-loop systems from industry and education
- Can be expanded using additional IPA stations: mixing, filling and corking
- Can be integrated into IMS® (Industrial Mechatronic System)
- Activation of the individual controlled systems simply by adjusting the ball valves
- Flexible pipe tubing system permits fast changes to the flow scheme or integration of other components
- Cascade control option
- Pump control direct or speed-controlled
- Separate operation of the 4 controlled systems possible
- Manual operation without additional devices direct or via simulation switch

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Additional information can also be found in our automation catalogue.



IMS® goes IPA

The IPA stations can be integrated into the entire IMS® product family. It is precisely this combination capability with IMS® stations that makes the IPA system so interesting for vocational and further education and training in many sectors.

LN[®]
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Cover picture: Thyssen Krupp