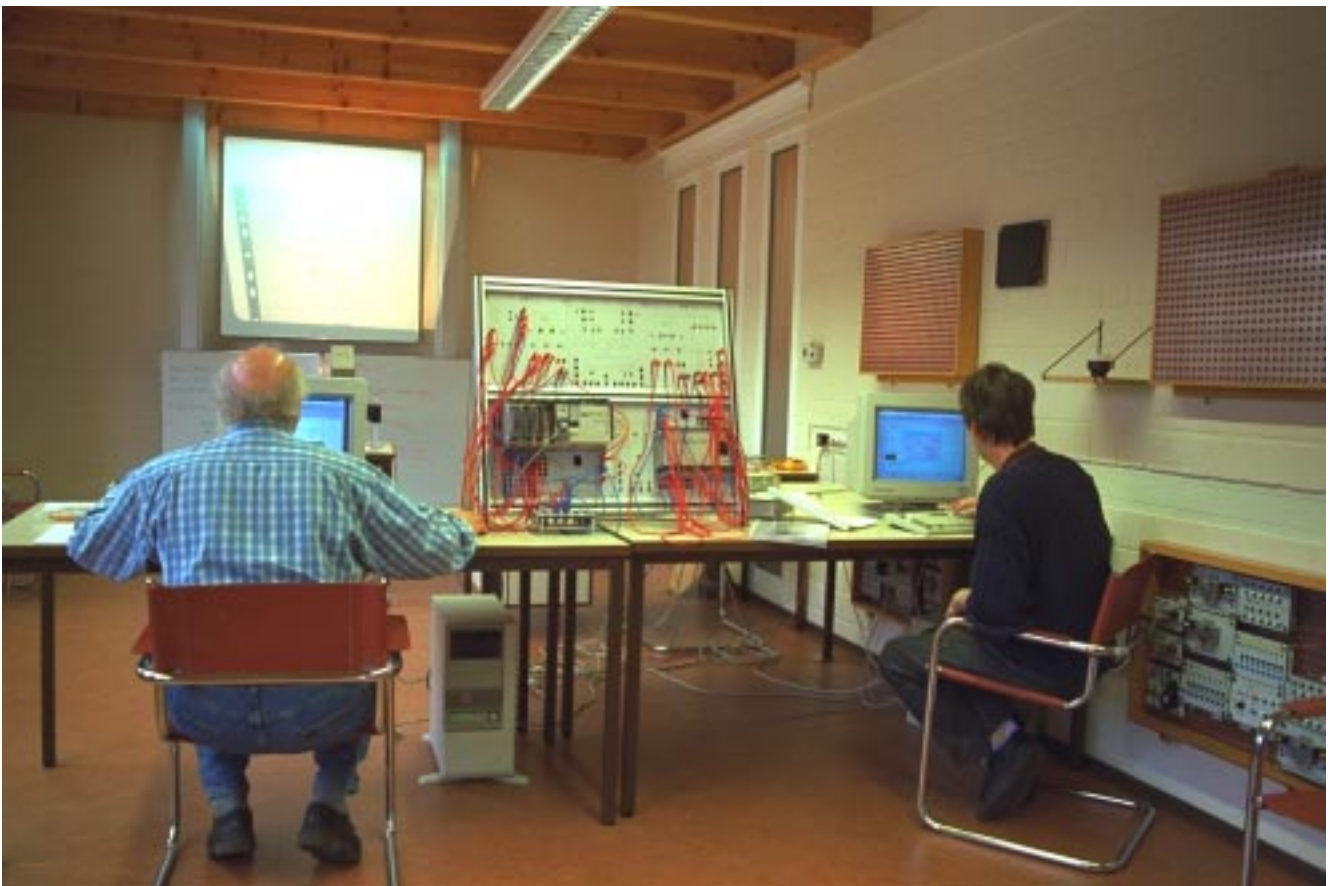


Trainings for Control-technology



Technical changes reserved
Catalogue Seminars 01/12

IDV - Seminar's

Good training's for your personal is the best presupposition for good know how in pneumatic's, hydraulic's and PLC-control technology. It's doesn't matter, if you are work's in the industry, trade or in the education.

IDV - Seminar's can help you for this.

With modern teaching equipment, f.e. transparency's, control unit's, examination page's, Video's, we are teached the theoretical things in a easy learning principles and control that in praxis on modern trolley's for a easy learning by doing.

Every time, we are used this practical-trolley's or other demonstration models for a good result. Also we can train the specially problem's for find the error's in a circuit.

For teacher's we are give extra Tips and stimulations for train the students and other trainer's.

The contents in the Seminars are orientated on the practical things in the different jobs from the students and we are works every time to organize the actual value's in the technic and transformed that in our seminars.

We are guaranteed for very good teachers in technic and didactic experience.

Finishing, the students become a certificate for the different seminars.

Target group's for all Seminar's: Teacher's, Instructor's, Trainer's for education;
Developer's, Student's.



Picture: After PLC / Robotics - Training in Mukah (Malaysia)

Seminar overview

Pneumatic's

P 01

P 02

WF 01

Electro-Pneumatic's

EP 01

EP 02

EPR 01

Hydraulic's / Electro-Hydraulic's / Proportionaltechnic's

H 01

H/EH 02

EH/PH 03

PLC

PLC 01

PLC 02

PLC 03

PLC 04

Fieldbustechnology

FBT 01

Mechatronic's

MT 01

MT 02

The Seminar-duration is between 3 and 5 day's. Also, you can combine different module's from different seminar's.

We teach all PLC-seminars with five different PLC-types: SIEMENS S5, S7 also SIEMENS S7-200; MITSUBISHI and OMRON.

Basic's in Pneumatic's

P 01

Presupposition	Common understanding
Contents	<ul style="list-style-type: none">- Properties and Application Areas- Basic physical principles- Compressed Air as an energy source- Pneumatic drives- Pneumatic control Elements- Piping, Fittings, Accessories- Basic pneumatic circuits (theoretic and practice working)
Seminarequipment	Map with <ul style="list-style-type: none">- Drawing template- Theoretical book Pneumatic's (BIBB)- Practice book (BIBB)- Questions map (BIBB)
Connectionseminar	P 02, EP 01



Pneumatic's - Advanced

P 02

Presupposition	P 01
Contents	<ul style="list-style-type: none">- Special devices- Characteristic Dimensions and Layout of Installations- Fundamentals of digital technology- Pneumatic sequential control- Specially pneumatic control Elements- Cascade technology- Advanced pneumatic circuits (theoretic and practice working)
Seminarequipment	Map with <ul style="list-style-type: none">- Drawing template- Theoretical book Pneumatic's (BIBB)- Practice book (BIBB)- Questions map (BIBB)
Connectionseminar	EP 01

Basic's in Electropneumatic's

EP 01

Presupposition	P 01
Contents	<ul style="list-style-type: none">- Properties and Application Areas- Basic physical principles of electronic's- Protective measures- Equipment for electropneumatic controls- Electrical control, operating and signalling devices- Analogue and digital signal's- Basic electropneumatic circuits (theoretic and practice working)
Seminarequipment	Map with <ul style="list-style-type: none">- Drawing template- Theoretical book Pneumatic's (BIBB)- Practice book (BIBB)- Questions map (BIBB)
Connectionseminar	EP 02



Electropneumatic's - Advanced

EP 02

Presupposition	EP 01
Contents	<ul style="list-style-type: none">- Properties and Application Areas- Electropneumatics devices- Standardisation- Control technology (Gray-Code)- Electrical control, operating and signalling devices- Analogue and digital signal's- Advanced electropneumatic circuits (theoretic and practice working)
Seminarequipment	Map with <ul style="list-style-type: none">- Drawing template- Theoretical book Pneumatic's (BIBB)- Practice book (BIBB)- Questions map (BIBB)
Connectionseminar	PLC 01

Maintenance + Error searching

WF 01

Presupposition

Seminar P 01, EP 01

Contents

- Pressure-air preparation: Air-quality, Humidity, Consumption off Actor´s and valve´s, Dimensioning off pipe´s and tube´s
- Ecological damage
- Soft-start valve´s, controlling of soft start valve´s, Working areas for Soft-start valve´s, Spare parts and accessories, Catalogue working
- Spare parts and reparation, Preparation, Dismantling and mantling off a valve with substitution of the spare parts
- Basics in control technology
- Function chart- and Way-Step-Diagrams
- systematicly development of controls with more then one actor
- Practical constructions
- Practical constructions and systematicly serching for faults, Different type´s of faults and the avoiding

Seminar equipment

Map with

- Practical book "Searching for faults"
- Working papers

Electropneumatical close loop´s

EPR 01

Presupposition

Seminar EP 01

Contents

- Applications with variable pressure
- Close loop basic´s: Behaviar (P, I, D), Deadtime
- Proportional controls
- Pilot control´s
- Optimizing off close loop´s
- Applications: Pressure-, Force-, Volume-, Positioning-, Rotation-, Torque-, Velocity-close loop´s
- Practical constructions, konventionell and, dependce of Education grades with PLC
- Digital controlling, Fieldbus

Seminar equipment

Map with

- Practical book "EPR"
- Working papers

Connecting seminar

PLC 01, FBT

Basic´s in Hydraulic´s

H 01

Presupposition

Common understanding

Contents

- Properties and Application Areas
- Basic physical principles (Hydraulic law´s)
- Pumps, Electro-motor, Hydraulic-motor
- Hydraulic drives
- Hydraulic control Elements
- Piping, Fittings, Accessories
- Basic hydraulic circuits (theoretic and practice working groups A - D)

Seminarequipment

Map with

- Drawing template
- Theoretical book Pneumatic´s (BIBB)
- Practice book (BIBB)
- Questions map (BIBB)

Connectionseminar

H / EH 02



Hydraulic´s - Advanced

H / EH
02

Presupposition

H01

Contents

- Flow differential´s
- Differential circuit´s
- Valve´s with pilot function
- Pressure controls (analog, digital)
- Hydraulic motor circuit´s
- Accumulator´s
- Basic´s in electrohydraulics
- Advanced hydraulic circuits (theoretic and practice working groups E - Z)

Seminarequipment

Map with

- Drawing template
- Theoretical book Pneumatic´s (BIBB)
- Practice book (BIBB)
- Questions map (BIBB)

Connectionseminar

EH / PH 03

Electro- and Proportionalhydraulic seminar

EH / PH
03

Presupposition

H 02

Contents

- Accumulator circuits with electric
- Difference's between conventional- and proportional-Hydraulic
- Proportional - way-, pressure- and flow valve's
- Force and stroke open-loop controlled Magnetic's
- close-loop controlled Magnetic's
- Pilot controled Proportional valve's
- Electronic for Proportional - Valve's (Amplifier, Ramp's, Dither)
- Proportional hydraulic circuits (theoretic and practice working)

Seminarequipment

Map with

- Drawing template
- Theoretical book Pneumatic's (BIBB)
- Practice book (BIBB)
- Questions map (BIBB)

Connectionseminar

PLC 01

Basic's in PLC

PLC 01

Presupposition

P 01, EP 01

Contents

- Pneumatic and electric System's
- Symbols and Normation
- Basics in control technology
- System components for PLC
- Digital technology
- Hardware and Software - Principles
- Basic programs (theoretic and practice working groups)

Seminarequipment

Map with

- Fibel for Programmer
- Book "Basics in PLC programming with Pneumatics

Connectionseminar

PLC 02

PLC - Advanced

PLC 02

Presupposition	PLC 01
Contents	<ul style="list-style-type: none">- Simply and advanced Circuit's- Scan - Time showing- Kind's of drawing (Ladder, Instructionlist, etc.)- Sequenz stepping with different subroutine's: Auto/Hand, Emergency Stop, etc.- Timer's and counter's and the integration to a sequenz stepping control program- advanced programs (theoretic and practice working groups)
Seminarequipment	Map with <ul style="list-style-type: none">- Fibel for Programmer- Book "Sequenz control technology"
Connectionseminar	PLC 03



PLC - Seminar for Simulator's

PLC 03

Presupposition	PLC 02
Contents	<ul style="list-style-type: none">- selectiv and parallel sequenz control program's- Program development for a stepper motor- BCD-Code and program integration- differnt simulator's for traffic lights- advanced programs (theoretic and practice working groups)
Seminarequipment	Map with <ul style="list-style-type: none">- Fibel for Programmer- Book "Sequenz control technology"- Exercise book for simulator's
Connectionseminar	PLC 04

PLC - Word - Programming

PLC 04

Presupposition

PLC 04

Contents

- PLC - Flag programming
- Compare and transfer
- Math - function's
- Decrement, Increment
- Special function's
- Programming for special Function-Simulator's (S-460 - S-490)

Seminarequipment

Map with

- Book "SYSWIN"
- Exercise book for simulator's
- Book " Word control technology"

Connectionseminar



Fieldbus - Seminar

FBT 01

Presupposition

P, EP, PLC is a advantage

Contents

- Basic's in Digital technology, Archtictur of a PLC, single wiring
- Signal assignment, Protocols, Working, Topology
- Net struktur's und Hierachie, serial assignment
- Different Fieldbus systems via the topology
- Profibus DP: Device's and Systems
- VDS-System (Valve Driver System)
- Valve unit's, Contact bridges
- Other System's: Interbus, CAN-Open, Device-Net
- ASI (Aktor Sensor Interface)
- Practical exercises with S7-300-DP
- Pressure regulating valve as a Slave

Seminarequipment

Map with

- Book "Fieldbus technology"

Mechatronic - Seminar

MC 01

Presupposition

P01, EP01, SPS01-SPS04

Contents

- Actors and Sensors in Electro-technology
- Hydraulic's and Pneumatic's
- PLC-control solutions (Parallel, Serial)
- Problem describing for a station
- Developement of a function chart (Way-Step-Diagram)
- Ladder diagram, Programing and operation for a unit
- Mechanical qualities
- Practical working with our Mechatronic-System MK 500 - 690

Seminarequipment

- Map with Working book "Programing and operation of functional units"



Mechatronic - Seminar

MC 02

Presupposition

P01, EP01, SPS01-SPS04, MC01

Contents

- Completely realisation of a technological problem for one station (MK-900 - MK-940)
- Programing and substitution for extended units and options
- Mechanical qualities
- Connecting of a completely station with a second completely station
- Programing problems for "Hand shake" and "Emergency-OFF"-Implantation
- Complete putting into operation of the complete Mechatronic installation
- Practical working with our Mechatronic-System MK 1000 (MK-1100)

Seminarequipment

- Map with Working book "Programing and operation of stations and complete installations"

Organisation

Seminar-Town	Oldenburg Donnerschweer Str. 85 or in your Institute
Seminar duration	40 h
	Monday 10.00 - 16.00 Tuesday-Thursday 08.30 - 16.00 Friday 08.30 - 12.00
Registration	With the card on the backside of this catalogue. When you wish it, we can reserve a hotel room for you.
Cancellation	Cancel are free up to a one week before start of seminar. When you cancel later or when you don't visit the seminar after the registration, you have to pay Euro 300,00 Euro.
Overnight stay	When you wish it, we can reserve a hotel room for you (with shower/WC) in the Hotel Petershof in Rastede. That cost app. Euro 50,00 incl. breakfast.
Appointment	Shortly date's are possible
Questions	to Dipl.-Ing. Hermann de Vries

Special - Seminar´s

Extern Seminar´s

Additionally, we can give some seminar´s in your rooms. Ask for special questions.

When you need it, we bring along the necessary equipment for the training or teach you employees with your equipment.

Prepare for examination

We teach you´r employees on two intensive days for the examination in Electro- or Metall jobs for trainer´s or for the students.

Pick and place technic

In some different and specially seminar´s, we are teach you in the pick and place technic or for the new profession "Mechatronic".

Write us your specially problem. Then we give you a specially offer for a training with the different questions: How many students, how many days, next possible date, in your town or in our trainings center, with your or with our technic.

Seminar - Registration

Name _____ Profession _____

Name _____ Profession _____

<input type="checkbox"/>	P 01	from _____	<input type="checkbox"/>	EH / PH 03	from _____
<input type="checkbox"/>	P 02	from _____	<input type="checkbox"/>	PLC 01	from _____
<input type="checkbox"/>	EP 01	from _____	<input type="checkbox"/>	PLC 02	from _____
<input type="checkbox"/>	EP 02	from _____	<input type="checkbox"/>	PLC 03	from _____
<input type="checkbox"/>	WF 01	from _____	<input type="checkbox"/>	PLC 04	from _____
<input type="checkbox"/>	EPR 01	from _____	<input type="checkbox"/>	FBT 01	from _____
<input type="checkbox"/>	H 01	from _____	<input type="checkbox"/>	MC 01	from _____
<input type="checkbox"/>	H / EH 02	from _____	<input type="checkbox"/>	MC 02	from _____

Hotelreservation

Date _____

Company: _____

Date

Signature