

PANASONIC
ACADEMY 2022
SYSTEMS & SOLUTIONS





Benefit from our expertise

At the Panasonic Industry Europe Academy we provide our customers with the skills they need to use our products effectively. Given the vast array of functions and features, it is important to train your employees so that they can get the most out of our solutions.

The Panasonic Industry Europe Academy is our service for enabling your employees to achieve the best possible results with our products.

”

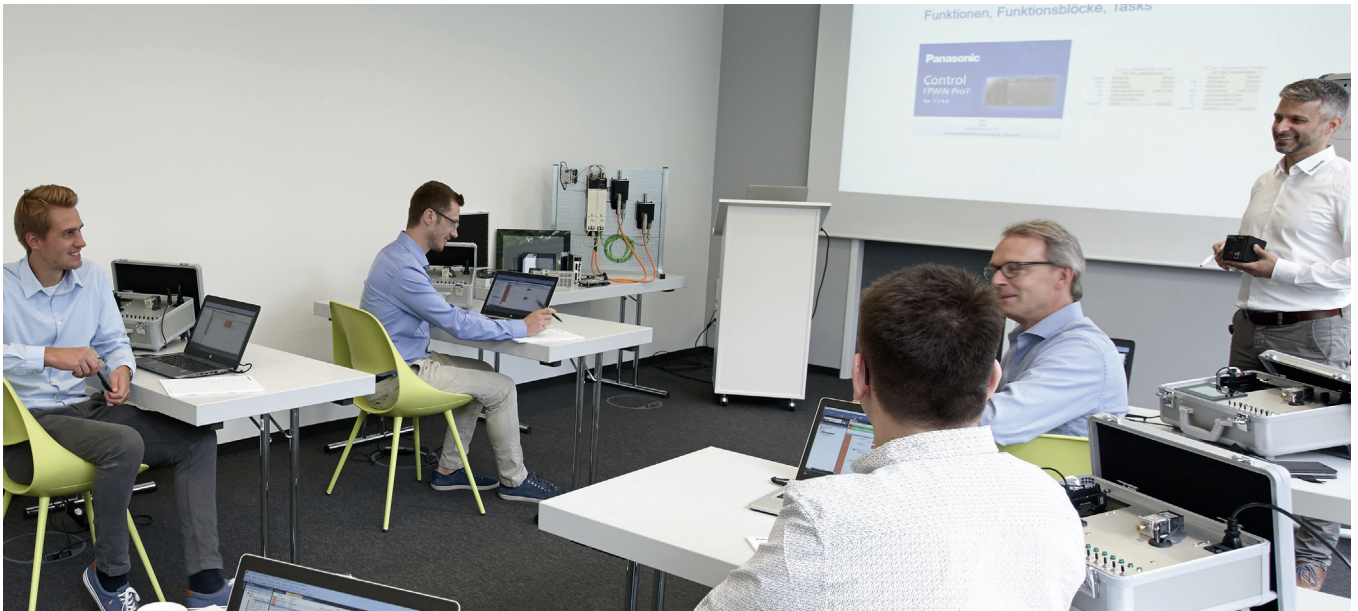
An investment in knowledge pays the best interest.”

Benjamin Franklin

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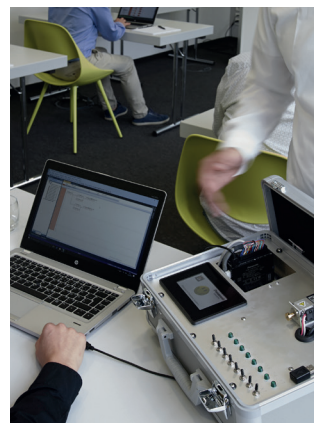
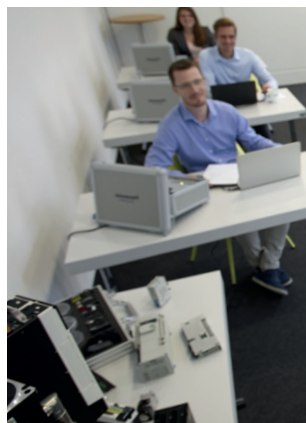
Customised training for real added value



Practical training for maximum efficiency

The Panasonic Industry Europe Academy offers a diverse and compact training programme. Our experienced trainers provide courses in modern factory automation with a focus on sensors, PLCs, drive technology, operating terminals, cloud technology and measurement and safety technology. By means of theoretical and practical exercises, we show our customers how to quickly and effi-

ciently use Panasonic automation components. Our customers also have the opportunity to discuss best practices with other training participants. The aim is to share knowledge with our customers, thereby improving efficiency in their everyday work.



PLC Module 1: PLC Programming Course to IEC61131-3, Basic Level

TARGET GROUP:	Commissioning, service and maintenance specialists
TRAINING GOALS:	As a participant, you are provided with an overview of the Panasonic PLC product portfolio. You also gain technical knowledge of the diagnostic options of the FPWIN Pro 7 programming software. You are able to back up and maintain PLC projects and implement minor program changes.
CONTENT:	<ul style="list-style-type: none"> • Overview of the Panasonic PLC product portfolio • Explanation of the IEC 61131-3 standard • Setting up a PLC, project settings, project download & upload • Competent handling of tools for diagnosing the process data of Panasonic PLCs • Presentation of variables & data types, POU's (program, function block, function), tasks, holding variables, simple data structures • Addressing of I/O modules • Use of various IEC 61131-3 programming languages with a focus on the FBD and LD languages • Performing digital operations • Backup and restore of PLC projects • Programming simple exercises on training set-ups
PREREQUISITE:	None

DATES

For presence seminars:
 8 March 2022
 7 June 2022
 6 September 2022
 6 December 2022

For online seminars:
 By arrangement

For Pay-As-You-Go trainings:
 By arrangement

TRAINING TIMES:

1 day: 9 am to 5 pm

NUMBER OF PARTICIPANTS:

A minimum of three persons is required for presence seminars and online seminars

COURSE FEE:

For presence seminars:
 490€ plus VAT

For online seminars:
 490€ plus VAT

For Pay-As-You-Go trainings:
 120€ per hour, plus VAT

TRAINING LOCATION:

Ottobrunn, Germany
 (Other locations also by arrangement)

→ [BOOK ONLINE](#)

PLC Module 2: PLC Programming Course to IEC 61131-3, Advanced Level

TARGET GROUP:	Programmers, developers, plant and machine manufacturers
TRAINING GOALS:	You gain in-depth technical knowledge of the application and programming to IEC 61131-3 using the FPWIN Pro 7 programming software. You can read and write even complex programs.
CONTENT:	<ul style="list-style-type: none"> • Using structured data types confidently • Using functions and function modules for structured programming • Competent handling of timers, arrays and loops • Tasks and interrupts • Organisation of storage areas • Analogue value processing • Using and creating your own libraries • Sequential control • Programming simple and more complex exercises on training set-ups
PREREQUISITE:	Completion of <i>PLC Module 1: PLC Programming Course to IEC 61131-3, Basic Level</i>

DATES

For presence seminars:
 9 March 2022
 8 June 2022
 7 September 2022
 7 December 2022

For online seminars:
 By arrangement

For Pay-As-You-Go trainings:
 By arrangement

TRAINING TIMES:

1 day: 9 am to 5 pm

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 490€ plus VAT

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 120€ per hour, plus VAT

TRAINING LOCATION:

Ottobrunn, Germany
 (Other locations also by arrangement)

→ [BOOK ONLINE](#)

Drives Module 1: Fundamentals of Panasonic Drive Technology

TARGET GROUP:	Commissioning, service and maintenance specialists
TRAINING GOALS	You obtain a comprehensive overview of Panasonic drive technology components. You can competently handle the diagnostic tools for fault localisation. You are able to select the right drive for the required application.
CONTENT:	<ul style="list-style-type: none"> • Overview of the entire Panasonic drive technology portfolio • Theoretical background knowledge of the internal structure of drive controllers and servo motors • Wiring and commissioning of a MINAS A6 servo drive • The importance of EMC-compliant wiring • Auto-tuning using the PANATERM set-up support software • Using diagnostic tools and creating traces with PANATERM • Configuring Panasonic servo motors with MSELECT • Using the Panasonic Product Finder • Case study: Which drive controller and motor do I need for my application?
PREREQUISITE:	None

DATES:

For presence seminars:
 10 March 2022
 9 June 2022
 8 September 2022
 8 December 2022

For online seminars:
 By arrangement

For Pay-As-You-Go trainings:
 By arrangement

TRAINING TIMES:

1 day: 9 am to 5 pm

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TRAINING LOCATION:

Ottobrunn, Germany
 (Other locations also by arrangement)

→ [BOOK ONLINE](#)

Drives Module 2: Planning and Motion Control for Drives with EtherCAT

TARGET GROUP:	Commissioning, service and maintenance specialists, project developers and programmers
TRAINING GOALS:	You obtain an in-depth insight into Panasonic drives with EtherCAT control. You are able to program, commission and optimise an application.
CONTENT:	<ul style="list-style-type: none"> • Wiring and commissioning of a MINAS A6 EtherCAT drive • Using the PANATERM software to optimise motion control • Introduction to the Panasonic EtherCAT library • Creating an application program with GM programmer • Implementing homing operation, manual operation, automatic operation, master/slave synchronous operation effectively • Introduction to and use of electronic transmission, clutch and line shaft • Replicating and resolving typical error situations in an application
PREREQUISITE:	Completion of <i>Drives Module 1: Fundamentals of Panasonic Drive Technology</i> recommended.

DATES:

For presence seminars:
By arrangement

For online seminars:
By arrangement

For Pay-As-You-Go trainings:
By arrangement

TRAINING TIMES:

1 day: 9 am to 5 pm

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120€ per hour, plus VAT

TRAINING LOCATION:

Ottobrunn, Germany
(Other locations also by arrangement)

→ [BOOK ONLINE](#)

Drives Module 3: Planning and Motion Control for Drives with RTEX

TARGET GROUP:	Commissioning, service and maintenance specialists, project developers and programmers
TRAINING GOALS:	You obtain an in-depth insight into Panasonic drives with RTEX control. You are able to program, commission and optimise an application.
CONTENT:	<ul style="list-style-type: none"> • Wiring and commissioning of a MINAS A6 RTEX drive • Using the PANATERM software to optimise motion control • Introduction to the Panasonic RTEX library • Creating an application program with the FPCWIN Pro 7 programming software • Competent handling of the table configurator, in combination with the FPXH-RTEX motion controller • Implementing homing operation, manual operation, automatic operation, master/slave synchronous operation effectively • Introduction to and use of electronic transmission, clutch and line shaft • Replicating and resolving typical error situations in an application
PREREQUISITE:	Completion of <i>Drives Module 1: Fundamentals of Panasonic Drive Technology</i> recommended.

DATES:

For presence seminars:
By arrangement

For online seminars:
By arrangement

For Pay-As-You-Go trainings:
By arrangement

TRAINING TIMES:

1 day: 9 am to 5 pm

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For online seminars:
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TRAINING LOCATION:

Ottobrunn, Germany
(Other locations also by arrangement)

→ [BOOK ONLINE](#)

Drives Module 4: Planning and Motion Control for Drives with Pulse/Direction Signals

TARGET GROUP:	Commissioning, service and maintenance specialists, project developers and programmers
TRAINING GOALS:	You obtain an in-depth insight into Panasonic drives with pulse/direction control. You are able to program, commission and optimise an application.
CONTENT:	<ul style="list-style-type: none"> • Wiring and commissioning of a MINAS A6 pulse/direction drive • Using the PANATERM software to optimise motion control • Introduction to the Panasonic pulse/direction library • Creating an application program with the FPDWIN Pro 7 programming software • Competent handling of the table configurator, in combination with the PLC FPDH • Implementing homing operation, manual operation and automatic operation effectively • Replicating and resolving typical error situations in an application
PREREQUISITE:	Completion of <i>Drives Module 1: Fundamentals of Panasonic Drive Technology</i> recommended.

DATES:

For presence seminars:
By arrangement

For online seminars:
By arrangement

For Pay-As-You-Go
trainings:
By arrangement

TRAINING TIMES:

1 day: 9 am to 5 pm

NUMBER OF PARTICIPANTS:

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COURSE FEE:

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For online seminars:
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TRAINING LOCATION:

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(Other locations also by arrangement)

→ [BOOK ONLINE](#)

Drives Module 5: Planning and Motion Control for Drives in Block Operation Mode

TARGET GROUP:	Commissioning, service and maintenance specialists, project developers and programmers
TRAINING GOALS:	You obtain an in-depth insight into the MINAS A6 drive with block operation functionality. You are able to control and optimise an application via Modbus RTU as well as via I/Os.
CONTENT:	<ul style="list-style-type: none"> • Wiring and commissioning of a MINAS A6 drive with block operation functionality • Using the PANATERM software to optimise motion control • Introduction to the MINAS A6 library for control of the block operation table via Modbus RTU • Introduction to control of the block operation table via digital I/Os • Creating an application program with the FPWIN Pro 7 programming software, in combination with the PLC FP0H • Implementing homing operation, manual operation and automatic operation effectively • Replicating and resolving typical error situations in an application
PREREQUISITE:	Completion of <i>Drives Module 1: Fundamentals of Panasonic Drive Technology</i> recommended.

DATES:

For presence seminars:
By arrangement

For online seminars:
By arrangement

For Pay-As-You-Go trainings:
By arrangement

TRAINING TIMES:

1 day: 9 am to 5 pm

NUMBER OF PARTICIPANTS:

A minimum of three persons is required for presence seminars and online seminars

COURSE FEE:

For presence seminars:
490€ plus VAT

For online seminars:
490€ plus VAT

For Pay-As-You-Go trainings:
120€ per hour, plus VAT

TRAINING LOCATION:

Ottobrunn, Germany
(Other locations also by arrangement)

→ [BOOK ONLINE](#)

Drives Module 6: Planning and Motion Control for MINAS BL Drives

TARGET GROUP:	Commissioning, service and maintenance specialists, project developers and programmers
TRAINING GOALS:	You obtain an in-depth insight into MINAS BL drives. You are able to control an application using the proprietary MINAS BL protocol, as well as via digital I/Os or the digital keypad.
CONTENT:	<ul style="list-style-type: none"> • Wiring and commissioning of a MINAS BL drive • Using the PANATERM BL software to optimise motion control • Introduction to the MINAS BL library • Introduction to MINAS BL control via digital I/Os • Introduction to MINAS BL control via the digital keypad • Creating an application program with the FPWIN Pro 7 programming software, in combination with the PLC FP0H • Implementing homing operation, manual operation and automatic operation effectively • Replicating and resolving typical error situations in an application
PREREQUISITE:	Completion of <i>Drives Module 1: Fundamentals of Panasonic Drive Technology</i> recommended.

DATES:

For presence seminars:
By arrangement

For online seminars:
By arrangement

For Pay-As-You-Go trainings:
By arrangement

TRAINING TIMES:

1 day: 9 am to 5 pm

NUMBER OF PARTICIPANTS:

A minimum of three persons is required for presence seminars and online seminars

COURSE FEE:

For presence seminars:
490€ plus VAT

For online seminars:
490€ plus VAT

For Pay-As-You-Go trainings:
120€ per hour, plus VAT

TRAINING LOCATION:

Ottobrunn, Germany
(Other locations also by arrangement)

→ [BOOK ONLINE](#)

Drives Module 7: Planning and Commissioning for Panasonic Linear Drives

TARGET GROUP:	Commissioning, service and maintenance specialists, project developers and programmers
TRAINING GOALS:	You obtain an in-depth insight into MINAS linear drive controllers. You are able to commission and optimise a third-party linear motor with our drive controllers.
CONTENT:	<ul style="list-style-type: none"> • Wiring and commissioning of a MINAS A6 EtherCAT linear drive controller with a linear motor • Using the Motor Auto Setup Tool software to optimise motion control • Using the PANATERM software to optimise motion control • Introduction to the Panasonic EtherCAT library • Creating an application program with the FPWIN Pro 7 programming software, in combination with the PLC FP7 • Implementing homing operation, manual operation and automatic operation effectively • Replicating and resolving typical error situations in an application
PREREQUISITE:	Completion of <i>Drives Module 1: Fundamentals of Panasonic Drive Technology</i> recommended.

DATES:

For presence seminars:
By arrangement

For online seminars:
By arrangement

For Pay-As-You-Go trainings:
By arrangement

TRAINING TIMES:

1 day: 9 am to 5 pm

NUMBER OF PARTICIPANTS:

A minimum of three persons is required for presence seminars and online seminars

COURSE FEE:

For presence seminars:
490€ plus VAT

For online seminars:
490€ plus VAT

For Pay-As-You-Go trainings:
120€ per hour, plus VAT

TRAINING LOCATION:

Ottobrunn, Germany
(Other locations also by arrangement)

→ [BOOK ONLINE](#)

HMI Module 1: HMI Programming Course GT Series, Basic Level

TARGET GROUP:	Commissioning, service and maintenance specialists
TRAINING GOALS:	As a participant, you are provided with an overview of the Panasonic HMI product portfolio. You also gain technical knowledge of the functionality of the GTWIN programming software. You are able to back up and maintain HMI projects and implement minor program changes.
CONTENT:	<ul style="list-style-type: none"> • Main features of the GT series operating terminals • Basic-level programming • Connection between operating terminal and PLC controllers of the FP family • Project structure • Object library • Page structure and organisation • Documentation, backup and management of programs
PREREQUISITE:	None

DATES:

For presence seminars:
By arrangement

For online seminars:
By arrangement

For Pay-As-You-Go trainings:
By arrangement

TRAINING TIMES:

1 day: 9 am to 5 pm

NUMBER OF PARTICIPANTS:

A minimum of three persons is required for presence seminars and online seminars

COURSE FEE:

For presence seminars:
490€ plus VAT

For online seminars:
490€ plus VAT

For Pay-As-You-Go trainings:
120€ per hour, plus VAT

TRAINING LOCATION:

Ottobrunn, Germany
(Other locations also by arrangement)

→ [BOOK ONLINE](#)

HMI Module 2:

HMI Programming Course HM Series, Basic Level

TARGET GROUP:	Commissioning, service and maintenance specialists
TRAINING GOALS:	As a participant, you are provided with an overview of the Panasonic HMI product portfolio. You also gain technical knowledge of the functionality of the HMWIN programming software. You are able to back up and maintain HMI projects and implement minor program changes.
CONTENT:	<ul style="list-style-type: none"> • Main features of the HM series operating terminals • Basic-level programming • Connection between operating terminal and PLC controllers of the FP family • Project structure • Widget library • Page structure • Organisation of cross-references • Documentation, backup and management of programs
PREREQUISITE:	None

DATES:

For presence seminars:
 15 March 2022
 14 June 2022
 13 September 2022
 13 December 2022

For online seminars:
 By arrangement

For Pay-As-You-Go trainings:
 By arrangement

TRAINING TIMES:

1 day: 9 am to 5 pm

NUMBER OF PARTICIPANTS:

A minimum of three persons is required for presence seminars and online seminars

COURSE FEE:

For presence seminars:
 490€ plus VAT

For online seminars:
 490€ plus VAT

For Pay-As-You-Go trainings:
 120€ per hour, plus VAT

TRAINING LOCATION:

Ottobrunn, Germany
 (Other locations also by arrangement)

→ [BOOK ONLINE](#)

HMI Module 3: HMI Programming Course HM Series, Advanced Level

TARGET GROUP:	Commissioning, service and maintenance specialists
TRAINING OBJECTIVES:	As participant, you gain an in-depth insight into all the functions of the HMWIN Studio programming software. You are able to independently create HMI projects and to adapt them to customer requirements.
CONTENTS:	<ul style="list-style-type: none"> • User management • Alarms/events/error messages • Data logging • Trends/diagrams • FTP server & client • Recipes • Audit trail/reports • Custom widgets / user library
REQUIREMENT:	Completion of <i>HMI 2 Module: HM Series HMI Programming Course, Basic Level</i> recommended

DATES:

For presence seminars:
By arrangement

For online seminars:
On request

For Pay-As-You-Go trainings:
On request

TRAINING TIMES:

1 day: 9 am to 5 pm

NUMBER OF PARTICIPANTS:

A minimum of three persons is required for presence seminars and online seminars

COURSE FEE:

For classroom seminars:
490€ plus VAT

For online seminars:
490€ plus VAT

For Pay-As-You-Go trainings:
120€ per hour, plus VAT

TRAINING LOCATION:

Ottobrunn, Germany
(Other training locations on request)

→ [BOOK ONLINE](#)

Sensors Module 1: Fundamentals of Optical and Measurement Sensors

TARGET GROUP:	Commissioning, service and maintenance specialists
TRAINING GOALS:	You obtain a comprehensive overview of the components of Panasonic optical and measurement sensors. You can operate various sensors and measurement systems and make explicit settings. You are able to select the right sensor and measurement system for the required application.
CONTENT:	<ul style="list-style-type: none"> • Overview of the entire optical and measurement sensors portfolio • Theoretical background knowledge of the internal structure of optical and measurement sensors • Wiring and commissioning of optical and measurement sensors • Use and application of background and foreground suppression (BGS/FGS) • Benefits of using polarising filters for metallic reflective surfaces • Use and application of laser distance measurements in practice • Benefits of using measurement sensors for distance measurement • Applications
PREREQUISITE:	None

DATES:

For presence seminars:
By arrangement

For online seminars:
By arrangement

For Pay-As-You-Go trainings:
By arrangement

TRAINING TIMES:

1 day: 9 am to 5 pm

NUMBER OF PARTICIPANTS:

A minimum of three persons is required for presence seminars and online seminars

COURSE FEE:

For presence seminars:
490€ plus VAT

For online seminars:
490€ plus VAT

For Pay-As-You-Go trainings:
120€ per hour, plus VAT

TRAINING LOCATION:

Ottobrunn, Germany
(Other locations also by arrangement)

→ [BOOK ONLINE](#)

Sensors Module 2: Operation of Fibre Optic Sensors

TARGET GROUP:	Commissioning, service and maintenance specialists
TRAINING GOALS:	You obtain a comprehensive overview of the components of Panasonic fibre optic sensors. You can operate various fibre optic sensors and make explicit settings. You are able to select the right fibre optic sensor for the required application.
CONTENT:	<ul style="list-style-type: none"> • Overview of the entire Panasonic fibre optic sensors portfolio • Theoretical background knowledge of the internal structure of fibre optic sensors • Structure and functions of fibre optic amplifiers • Versions and accessories • Wiring and commissioning of various fibre optic sensors • Applications
PREREQUISITE:	Completion of <i>Sensors Module 1: Fundamentals of Optical and Measurement Sensors</i> recommended.

DATES:

For presence seminars:
By arrangement

For online seminars:
By arrangement

For Pay-As-You-Go
trainings:
By arrangement

TRAINING TIMES:

0.5 days

NUMBER OF PARTICIPANTS:

A minimum of three persons is required for presence seminars and online seminars

COURSE FEE:

For presence seminars:
245€ plus VAT

For online seminars:
245€ plus VAT

For Pay-As-You-Go
trainings:
120€ per hour, plus VAT

TRAINING LOCATION:

Ottobrunn, Germany
(Other locations also by arrangement)

→ [BOOK ONLINE](#)

Sensors Module 3: Basic Training – Laser Optic Sensors

TARGET GROUP:	Commissioning, service and maintenance specialists
TRAINING GOALS:	You obtain a comprehensive overview of the components of Panasonic laser optic sensors. You can operate various laser optic sensors and make explicit settings. You are able to select the right laser sensor for the required application.
CONTENT:	<ul style="list-style-type: none"> • Overview of the entire Panasonic laser optic sensors portfolio • Theoretical background knowledge of the internal structure of laser optic sensors • Structure and functions of laser optic amplifiers • Versions and accessories • Wiring and commissioning of various laser optic sensors • Applications
PREREQUISITE:	Completion of <i>Sensors Module 1: Fundamentals of Optical and Measurement Sensors</i> recommended.

DATES:

For presence seminars:
By arrangement

For online seminars:
By arrangement

For Pay-As-You-Go trainings:
By arrangement

TRAINING TIMES:

0.5 day

NUMBER OF PARTICIPANTS:

A minimum of three persons is required for presence seminars and online seminars

COURSE FEE:

For presence seminars:
245€ plus VAT

For online seminars:
245€ plus VAT

For Pay-As-You-Go trainings:
120€ per hour, plus VAT

TRAINING LOCATION:

Ottobrunn, Germany
(Other locations also by arrangement)

→ [BOOK ONLINE](#)

Safety Module 1: Fundamentals of Panasonic Safety Technology

TARGET GROUP:	Commissioning, service and maintenance specialists
TRAINING GOALS:	You obtain a comprehensive overview of Panasonic safety technology components. You can operate various safety components and make explicit settings. You are able to select the right safety component for the required application.
CONTENT:	<ul style="list-style-type: none"> • Overview of the entire Panasonic safety components portfolio • Introduction to DIN EN ISO 13855 "Protective devices" • Structure and functions of safety switching devices • Background knowledge of the internal structure of safety light curtains • Structure and functions of safety controllers • Practical applications
PREREQUISITE:	None

DATES:

For presence seminars:
By arrangement

For online seminars:
By arrangement

For Pay-As-You-Go
trainings:
By arrangement

TRAINING TIMES:

0.5 days

NUMBER OF PARTICIPANTS:

A minimum of three persons is required for presence seminars and online seminars

COURSE FEE:

For presence seminars:
245€ plus VAT

For online seminars:
245€ plus VAT

For Pay-As-You-Go
trainings:
120€ per hour, plus VAT

TRAINING LOCATION:

Ottobrunn, Germany
(Other locations also by arrangement)

→ [BOOK ONLINE](#)

Safety Module 2:

Basic Training – Panasonic Safety Light Curtain SF4D

TARGET GROUP:	Commissioning, service and maintenance specialists
TRAINING GOALS:	You obtain a comprehensive overview of the components of the Panasonic SF4D safety light curtain series. You can operate the safety light curtain and make explicit settings. You are able to select the right safety light curtain for the required application.
CONTENT:	<ul style="list-style-type: none"> • Function and application of the SF4D • Set-up and assembly of the SF4D • Operating modes • Versions and accessories • Commissioning • Diagnostics and troubleshooting • Applications
PREREQUISITE:	Completion of <i>Safety Module 1: Fundamentals of Panasonic Safety Technology</i> recommended.

DATES:

For presence seminars:
By arrangement

For online seminars:
By arrangement

For Pay-As-You-Go trainings:
By arrangement

TRAINING TIMES:

0.5 day

NUMBER OF PARTICIPANTS:

A minimum of three persons is required for presence seminars and online seminars

COURSE FEE:

For presence seminars:
245€ plus VAT

For online seminars:
245€ plus VAT

For Pay-As-You-Go trainings:
120€ per hour, plus VAT

TRAINING LOCATION:

Ottobrunn, Germany
(Other locations also by arrangement)

→ [BOOK ONLINE](#)

Safety Module 3: Basic Training – Panasonic Safety Controller SF-C21

TARGET GROUP:	Commissioning, service and maintenance specialists
TRAINING GOALS:	You obtain a comprehensive overview of Panasonic safety controllers. You can operate the safety controller and make explicit settings. You are able to evaluate safety components with the safety controller SF-C21.
CONTENT:	<ul style="list-style-type: none"> • Function and application of the SF-C21 • Set-up and assembly of the SF-C21 • Operating modes • Versions and accessories • Commissioning • Diagnostics and troubleshooting • Applications
PREREQUISITE:	Completion of <i>Safety Module 1: Fundamentals of Panasonic Safety Technology</i> recommended.

DATES:

For presence seminars:
By arrangement

For online seminars:
By arrangement

For Pay-As-You-Go
trainings:
By arrangement

TRAINING TIMES:

0.5 days

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A minimum of three persons is required for presence seminars and online seminars

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245€ plus VAT

For online seminars:
245€ plus VAT

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trainings:
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TRAINING LOCATION:

Ottobrunn, Germany
(Other locations also by arrangement)

→ [BOOK ONLINE](#)

Measurement Systems Module 1: Fundamentals of Optical and Measurement Sensors

TARGET GROUP:	Commissioning, service and maintenance specialists
TRAINING GOALS:	You obtain a comprehensive overview of the components of Panasonic optical and measurement sensors. You can operate various sensors and measurement systems and make explicit settings. You are able to select the right sensor and measurement system for the required application.
CONTENT:	<ul style="list-style-type: none"> • Overview of the entire optical and measurement sensors portfolio • Theoretical background knowledge of the internal structure of optical and measurement sensors • Wiring and commissioning of optical and measurement sensors • Use and application of background and foreground suppression (BGS/FGS) • Benefits of using polarising filters for metallic reflective surfaces • Use and application of laser distance measurements in practice • Benefits of using measurement sensors for distance measurement • Applications
PREREQUISITE:	None

DATES:

For presence seminars:
By arrangement

For online seminars:
By arrangement

For Pay-As-You-Go trainings:
By arrangement

TRAINING TIMES:

1 day: 9 am to 5 pm

NUMBER OF PARTICIPANTS:

A minimum of three persons is required for presence seminars and online seminars

COURSE FEE:

For presence seminars:
490€ plus VAT

For online seminars:
490€ plus VAT

For Pay-As-You-Go trainings:
120€ per hour, plus VAT

TRAINING LOCATION:

Ottobrunn, Germany
(Other locations also by arrangement)

→ [BOOK ONLINE](#)

Measurement Systems Module 2: Basic Training – Distance Sensor HG-C

TARGET GROUP:	Commissioning, service and maintenance specialists
TRAINING GOALS:	You obtain a comprehensive overview of the HG-C distance sensor. You can operate the HG-C laser distance sensor and make explicit settings. You are able to select the right distance sensor for the required application.
CONTENT:	<ul style="list-style-type: none"> • Function and application of the HG-C laser distance sensor • Set-up and assembly of the HG-C • Operating modes • Versions and accessories • Commissioning • Diagnostics and troubleshooting • Practical applications • HG-C goes IO Link
PREREQUISITE:	Completion of <i>Measurement Systems Module 1: Fundamentals of Optical and Measurement Sensors</i> recommended.

DATES:

For presence seminars:
By arrangement

For online seminars:
By arrangement

For Pay-As-You-Go
trainings:
By arrangement

TRAINING TIMES:

0.5 days

NUMBER OF PARTICIPANTS:

A minimum of three persons is required for presence seminars and online seminars

COURSE FEE:

For presence seminars:
245€ plus VAT

For online seminars:
245€ plus VAT

For Pay-As-You-Go
trainings:
120€ per hour, plus VAT

TRAINING LOCATION:

Ottobrunn, Germany
(Other locations also by arrangement)

→ [BOOK ONLINE](#)

Measurement Systems Module 3: Basic Training – Measurement Sensor HG-S

TARGET GROUP:	Commissioning, service and maintenance specialists
TRAINING GOALS:	You obtain a comprehensive overview of the HG-S distance sensor. You can operate the HG-S laser distance sensor and make explicit settings. You are able to select the right distance sensor for the required application.
CONTENT:	<ul style="list-style-type: none"> • Function and application of the HG-S laser distance sensor • Set-up and assembly of the HG-S • Operating modes • Versions and accessories • Commissioning • Diagnostics and troubleshooting • Practical applications
PREREQUISITE:	Completion of <i>Measurement Systems Module 1: Fundamentals of Optical and Measurement Sensors</i> recommended.

DATES:

For presence seminars:
By arrangement

For online seminars:
By arrangement

For Pay-As-You-Go trainings:
By arrangement

TRAINING TIMES:

0.5 day

NUMBER OF PARTICIPANTS:

A minimum of three persons is required for presence seminars and online seminars

COURSE FEE:

For presence seminars:
245€ plus VAT

For online seminars:
245€ plus VAT

For Pay-As-You-Go trainings:
120€ per hour, plus VAT

TRAINING LOCATION:

Ottobrunn, Germany
(Other locations also by arrangement)

→ [BOOK ONLINE](#)

Measurement Systems Module 4: Basic Training – Laser Measurement System HL-C2

TARGET GROUP:	Commissioning, service and maintenance specialists
TRAINING GOALS:	You obtain a comprehensive overview of the HL-C2 laser measurement system. You can operate the HL-C2 laser measurement system and make explicit settings. You are able to select the right laser measurement system for the required application.
CONTENT:	<ul style="list-style-type: none"> • Function and application of the HL-C2 laser measurement system • Set-up and assembly of the HL-C2 laser measurement system • Operating modes • Versions and accessories • Commissioning • Diagnostics and troubleshooting • Practical applications • Practical measurement exercises
PREREQUISITE:	Completion of <i>Measurement Systems Module 1: Fundamentals of Optical and Measurement Sensors</i> recommended.

DATES:

For presence seminars:
By arrangement

For online seminars:
By arrangement

For Pay-As-You-Go
trainings:
By arrangement

TRAINING TIMES:

0.5 days

NUMBER OF PARTICIPANTS:

A minimum of three persons is required for presence seminars and online seminars

COURSE FEE:

For presence seminars:
245€ plus VAT

For online seminars:
245€ plus VAT

For Pay-As-You-Go
trainings:
120€ per hour, plus VAT

TRAINING LOCATION:

Ottobrunn, Germany
(Other locations also by arrangement)

→ [BOOK ONLINE](#)

Measurement Systems Module 5: Basic Training – Laser Measurement System HL-D3 2D

TARGET GROUP:	Commissioning, service and maintenance specialists
TRAINING GOALS:	<p>You obtain a comprehensive overview of the HL-D3 2D laser measurement system. You can operate the HL-D3 laser measurement system and make explicit settings.</p> <p>You are able to select the right laser measurement system for the required application.</p>
CONTENT:	<ul style="list-style-type: none"> • Function and application of the HL-D3 laser measurement system • Set-up and assembly of the HL-D3 2D laser measurement system • Operating modes • Versions and accessories • Commissioning • Diagnostics and troubleshooting • Practical applications • Practical measurement exercises
PREREQUISITE:	Completion of <i>Measurement Systems Module 1: Fundamentals of Optical and Measurement Sensors</i> recommended.

DATES:

For presence seminars:
By arrangement

For online seminars:
By arrangement

For Pay-As-You-Go trainings:
By arrangement

TRAINING TIMES:

0.5 day

NUMBER OF PARTICIPANTS:

A minimum of three persons is required for presence seminars and online seminars

COURSE FEE:

For presence seminars:
245€ plus VAT

For online seminars:
245€ plus VAT

For Pay-As-You-Go trainings:
120€ per hour, plus VAT

TRAINING LOCATION:

Ottobrunn, Germany
(Other locations also by arrangement)

→ [BOOK ONLINE](#)

Industry 4.0 Communication Module

Fundamentals of Panasonic Communications Technology

TARGET GROUP:	Planning, commissioning, service and maintenance specialists
TRAINING GOALS:	<p>You obtain a comprehensive overview of the Industry 4.0 communications technologies used by Panasonic.</p> <p>You can transfer data between controllers, operating terminals and cloud solutions. You can set up, test and use communication channels; you can troubleshoot and resolve errors.</p>
CONTENT:	<ul style="list-style-type: none"> • Overview of the entire data transfer portfolio for Panasonic control products • Theoretical background knowledge of data transfer via Ethernet and of data security • Communication between controllers and with external systems • Communication via OPC UA • IoT (Internet of Things) communication via MQTT • Data logging and data forwarding • Creating simple scripts • Secure remote maintenance/remote control via cloud services • Direct SQL database connection
PREREQUISITE:	Basic knowledge of networks

DATES:

For presence seminars:
By arrangement

For online seminars:
By arrangement

For Pay-As-You-Go trainings:
By arrangement

TRAINING TIMES:

1 day: 9 am to 5 pm

NUMBER OF PARTICIPANTS:

A minimum of three persons is required for presence seminars and online seminars

COURSE FEE:

For presence seminars:
490€ plus VAT

For online seminars:
490€ plus VAT

For Pay-As-You-Go trainings:
120€ per hour, plus VAT

TRAINING LOCATION:

Ottobrunn, Germany
(Other locations also by arrangement)

→ [BOOK ONLINE](#)



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General Training Conditions

APPLICATION AND INFORMATION

Secure your seminar place by applying early. The number of participants is limited. Applications will be considered on a first come, first served basis. If a course is overbooked, we will endeavour to offer a suitable alternative date.

If you have any questions concerning your booked training course, please contact us at:

Tel. +49 (0)89 45354-2748

E-mail: academy@eu.panasonic.com

You can apply by

→ sending a fax to +49 (0)89 45354-2553 or via

→ [BOOK ONLINE](#).

You can apply up to five working days before a course begins.



TRAINING DOCUMENTATION

The detailed training documents are an essential source of practical information.

PARTICIPATION REQUIREMENTS

Please check the prior knowledge required to participate in the respective training course. We will be pleased to advise you. Should it transpire during the training course that a participant does not have the required prior knowledge, it may not be possible to make allowance for this participant during the further course of the training.



TIMES

Our normal training times are Monday through Friday, from 9 am to 5 pm and include a lunch break of one hour. Changes are possible by agreement. Beverages and lunch are included during the training period.

ACCOMMODATION

We would be pleased to assist you with your hotel reservation. These two hotels are close to our training center. Please ask for our Panasonic company rate.

Hotel Aigner GmbH & Co. KG

www.hotelaigner.de
Distance from training center: about 3 km

Gasthof Schmuck, Arget

www.gasthof-schmuck.de/hotel/
Distance from training center: ca. 15 km

CANCELLATION

Once your application has been confirmed by us, cancellations can only be made in writing. A processing charge of 10% of the training fee shall apply in case of cancellations up to seven calendar days prior to the commencement of training. If notice of cancellation is received less than seven calendar days prior to the start of the event, or if participants fail to attend, 50% of the training fee shall be payable. Alternatively a substitute participant may be nominated.



Panasonic Academy

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Germany

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