

Panasonic Academy

Systems & Solutions

Overview 2024

A photograph of a man and a woman in a factory setting. The man, wearing a green sweater, is leaning over a machine, and the woman, wearing a blue sweater and glasses, is looking at the machine with a smile. The machine is a complex piece of industrial equipment with various components and wires. The background shows a factory floor with other equipment and a whiteboard.

**IN Empowering
People**



Benefit from our expertise

At the Panasonic 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 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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WHAT DOES THE PANASONIC ACADEMY OFFER?

Customized training for real added value



Practical training for maximum efficiency

The Panasonic 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, touch terminals, cloud technology and measurement and safety technology. By means of theoretical and practical exercises, we show

our customers how to quickly and efficiently 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.



TR1: Programming with Control FPWIN Pro7 (basic training)

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 Control FPWIN Pro7 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 units • Use of various IEC 61131-3 programming languages with a focus on the languages function block diagram and ladder diagram • Performing digital operations • Backup and restore of PLC projects • Programming simple exercises on training setups • Changing the program while the PLC is in RUN mode • Comparing projects
PREREQUISITE:	None

DATES

Inhouse trainings:
February 13, 2024
June 11, 2024
September 17, 2024
December 03, 2024

Online trainings:
By arrangement

TRAINING TIMES:

1 day: 9 am to 5 pm

NUMBER OF PARTICIPANTS:

At least three people

COURSE FEE:

515 € plus VAT

The following discounts apply to participants from the same company:
25% discount for the second person
50% discount from the third person onwards

TRAINING LOCATION

Inhouse trainings:
In Ottobrunn, Germany.
Other locations by arrangement

Online trainings:
Via MS Teams

→ [BOOK ONLINE](#)

TR2: Programming with Control FPWIN Pro7 (advanced training)

TARGET GROUP: Programmers, developers, plant and machine manufacturers

TRAINING GOALS: You gain in-depth technical knowledge of the application and programming according to IEC 61131-3 using the Control FPWIN Pro7 programming software. You can read and write even complex programs.

CONTENT:

- Using structured data types confidently
- Using functions and function blocks for structured programming
- Competent handling of timers, arrays and loops
- Tasks and interrupts
- Organization of storage areas
- Analog value processing
- Using and creating your own libraries
- Safely using version control with Tortoise SVN
- Sequential control
- Programming simple and more complex exercises on training setups

PREREQUISITE: Completion of *TR1: Programming with Control FPWIN Pro7 (basic training)* recommended

DATES

Inhouse trainings:
February 14, 2024
June 12, 2024
September 18, 2024
December 04, 2024

Online trainings:
By arrangement

TRAINING TIMES:

1 day: 9 am to 5 pm

NUMBER OF PARTICIPANTS:

At least three people

COURSE FEE:

515 € plus VAT

The following discounts apply to participants from the same company:
25% discount for the second person
50% discount from the third person onwards

TRAINING LOCATION

Inhouse trainings:
In Ottobrunn, Germany.
Other locations by arrangement

Online trainings:
Via MS Teams

→ [BOOK TRAINING](#)

TR10: Programming with GM Programmer and GM1 EtherCAT Motion Controller (basic training)

TARGET GROUP:	Commissioning, service and maintenance specialists, beginners in motion control
TRAINING GOALS:	<p>As a participant, you are provided with an overview of features of the GM1 EtherCAT motion controller.</p> <p>You gain technical knowledge in handling GM Programmer software.</p> <p>You are able to program a simple motion program, using EtherCAT as drive protocol.</p> <p>You can back up and maintain PLC projects and implement minor program changes.</p>
CONTENT:	<ul style="list-style-type: none"> • Hardware, features & expansion units • User interface and project settings of GM Programmer • Datatypes, variable classes and syntax according to IEC 61131 • Hardware configuration: adding & addressing of expansion units & single motion axes • Ladder diagram, function block diagram and structured text according to IEC 61131 • Trace configuration, recording and monitoring of variables • Functions and function blocks for structured programming • Using the EtherCAT motion libraries in GM Programmer • Arrays and loops • Creating a user library • Backup and restore of a GM1 project • Exercises
PREREQUISITE:	None

DATES

Inhouse trainings:
February 20, 2024
June 18, 2024
September 24, 2024
December 10, 2024

Online trainings:
By arrangement

TRAINING TIMES:

1 day: 9 am to 5 pm

NUMBER OF PARTICIPANTS:

At least three people

COURSE FEE:

515 € plus VAT

The following discounts apply to participants from the same company:
25% discount for the second person
50% discount from the third person onwards

TRAINING LOCATION

Inhouse trainings:
In Ottobrunn, Germany.
Other locations by arrangement

Online trainings:
Via MS Teams

→ [BOOK TRAINING](#)

TR11: Programming with GM Programmer and GM1 EtherCAT Motion Controller (advanced training)

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 GM Programmer software. You can read and write complex programs. You can handle cam functionalities and interpolation by using G-Code. You are able to use EtherNet/IP, Modbus TCP/IP, OPC UA and CODESYS protocol for connecting various devices.

CONTENT:

- Analog value processing
- Using structured data types confidently
- Handling a master slave application (synchronous control), using EtherCAT
- Changing cams on the fly
- Phase correction
- Gearing
- Handling a two/three dimensional application using G-Code
- Exercises

PREREQUISITE: Completion of *TR10: Programming with GM Programmer and GM1 EtherCAT Motion Controller (basic training)* recommended

DATES

Inhouse trainings:
February 21, 2024
June 19, 2024
September 25, 2024
December 11, 2024

Online trainings:
By arrangement

TRAINING TIMES:

1 day: 9 am to 5 pm

NUMBER OF PARTICIPANTS:

At least three people

COURSE FEE:

515 € plus VAT

The following discounts apply to participants from the same company:
25% discount for the second person
50% discount from the third person onwards

TRAINING LOCATION

Inhouse trainings:
In Ottobrunn, Germany.
Other locations by arrangement

Online trainings:
Via MS Teams

→ [BOOK TRAINING](#)

TR20: Handling FPOH and Control FPWIN Pro7 with RTEX

TARGET GROUP: Programmers, developers, plant and machine manufacturers

TRAINING GOALS: You obtain an in-depth insight into Panasonic drives using the RTEX network.
You are able to program, commission and optimize an application, using the FPOH RTEX motion control module.

CONTENT:

- Wiring and commissioning of a MINAS A6 RTEX drive
- Using PANATERM software to optimize motion control
- Introduction to the Panasonic RTEX library
- Creating an application program with Control FPWIN Pro7 programming software
- Competent handling of the table configurator, using Control FPWIN Pro7 and FPOH RTEX motion control module
- Implementing homing operation, manual operation, automatic operation, master/slave synchronous operation effectively
- Electronic clutch, gear and master/slave operation
- Replicating and resolving typical error situations in an application

PREREQUISITE: Completion of *TR1: Programming with Control FPWIN Pro7 (basic training)* as well as *TR100: Drive technology (basic training)* recommended

DATES

Inhouse trainings:
By arrangement

Online trainings:
By arrangement

TRAINING TIMES:

1 day: 9 am to 5 pm

NUMBER OF PARTICIPANTS:

At least three people

COURSE FEE:

515 € plus VAT

The following discounts apply to participants from the same company:
25% discount for the second person
50% discount from the third person onwards

TRAINING LOCATION

Inhouse trainings:
In Ottobrunn, Germany.
Other locations by arrangement

Online trainings:
Via MS Teams

→ [BOOK TRAINING](#)

TR30: Handling FPOH and Control FPWIN Pro7 with pulse train outputs

TARGET GROUP:	Commissioning, service and maintenance specialists, project developers and programmers
TRAINING GOALS:	You are able to set up, program and optimize an application with Control FPWIN Pro7 software, using pulse train outputs. You are able to control a MINAS A6 servo drive system, using pulse/direction control.
CONTENT:	<ul style="list-style-type: none"> • Wiring and commissioning of a MINAS A6 pulse/ direction drive • Using the PANATERM software to optimize motion control • Introduction to the Panasonic pulse/direction library • Creating an application program with Control FPWIN Pro7 programming software • Competent handling of the table configurator, in combination with FPOH PLC • Implementing homing operation, manual operation and automatic operation effectively • Replicating and resolving typical error situations in an application
PREREQUISITE:	Completion of <i>TR1: Programming with Control FPWIN Pro7 (basic training)</i> as well as <i>TR100: Drive technology (basic training)</i> recommended

DATES

Inhouse trainings:
By arrangement

Online trainings:
By arrangement

TRAINING TIMES:

1 day: 9 am to 5 pm

NUMBER OF PARTICIPANTS:

At least three people

COURSE FEE:

515 € plus VAT

The following discounts apply to participants from the same company:
25% discount for the second person
50% discount from the third person onwards

TRAINING LOCATION

Inhouse trainings:
In Ottobrunn, Germany.
Other locations by arrangement

Online trainings:
Via MS Teams

→ [BOOK TRAINING](#)

TR40: Handling FPOH with Modbus RTU, using block operation

TARGET GROUP:	Commissioning, service and maintenance specialists, project developers and programmers
TRAINING GOALS:	You are able to control and optimize an application via Modbus RTU, using the FPOH PLC. You are able to control a MINAS A6 drive system, using block operation functionality.
CONTENT:	<ul style="list-style-type: none"> • Wiring and commissioning of a MINAS A6 drive with block operation functionality • Using the PANATERM software to optimize motion control • Introduction to the MINAS A6 library for control of the block operation table via Modbus RTU • Creating an application program for the FPOH PLC with the Control FPWIN Pro7 programming software • Implementing homing operation, manual operation and automatic operation effectively • Replicating and resolving typical error situations in an application
PREREQUISITE:	Completion of <i>TR1: Programming with Control FPWIN Pro7 (basic training)</i> as well as <i>TR100: Drive technology (basic training)</i> recommended

DATES

Inhouse trainings:
By arrangement

Online trainings:
By arrangement

TRAINING TIMES:

1 day: 9 am to 5 pm

NUMBER OF PARTICIPANTS:

At least three people

COURSE FEE:

515 € plus VAT

The following discounts apply to participants from the same company:
25% discount for the second person
50% discount from the third person onwards

TRAINING LOCATION

Inhouse trainings:
In Ottobrunn, Germany.
Other locations by arrangement

Online trainings:
Via MS Teams

→ [BOOK TRAINING](#)

TR100: Drive technology (basic training)

TARGET GROUP: Commissioning, service and maintenance specialists, project developers and programmers

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:

- 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 Setup support software
- Using diagnostic tools and creating traces with PANATERM
- Configuring Panasonic servo motors with M-SELECT
- Using the Panasonic Product Finder
- Case study: Which drive controller and motor do I need for my application?

PREREQUISITE: None

DATES

Inhouse trainings:
February 15, 2024
June 13, 2024
September 19, 2024
December 05, 2024

Online trainings:
By arrangement

TRAINING TIMES:

1 day: 9 am to 5 pm

NUMBER OF PARTICIPANTS:

At least three people

COURSE FEE:

515 € plus VAT

The following discounts apply to participants from the same company:
25% discount for the second person
50% discount from the third person onwards

TRAINING LOCATION

Inhouse trainings:
In Ottobrunn, Germany.
Other locations by arrangement

Online trainings:
Via MS Teams

→ [BOOK TRAINING](#)

TR110: Commissioning and operation of the series MINAS A6 Multi

TARGET GROUP:	Commissioning, service and maintenance specialists, project developers and programmers
TRAINING GOALS:	<ul style="list-style-type: none"> You are able to set up a MINAS A6 Multi drive system using the PANATERM for MULTI software You are able to set up a safety function program with PANATERM for SAFETY software You are able to control a MINAS A6 MULTI system with the GM Programmer Software, using EtherCAT network
CONTENT:	<ul style="list-style-type: none"> Wiring and commissioning of a MINAS A6 MULTI EtherCAT drive system Using PANATERM for MULTI software to optimize motion control Using PANATERM for SAFETY software to create a safety function program Introduction to GM Programmer software Creating a simple application program with GM Programmer Implementing homing operation, manual operation, automatic operation Replicating and resolving typical error situations in an application
PREREQUISITE:	Completion of <i>TR10: Programming with GM Programmer and GM1 EtherCAT Motion Controller (basic training)</i> recommended

DATES

Inhouse trainings:
By arrangement

Online trainings:
By arrangement

TRAINING TIMES:

1 day: 9 am to 5 pm

NUMBER OF PARTICIPANTS:

At least three people

COURSE FEE:

515 € plus VAT

The following discounts apply to participants from the same company:
25% discount for the second person
50% discount from the third person onwards

TRAINING LOCATION

Inhouse trainings:
In Ottobrunn, Germany.
Other locations by arrangement

Online trainings:
Via MS Teams

→ [BOOK TRAINING](#)

TR120: Commissioning of 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 optimize 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 optimize motion control • Using the PANATERM software to optimize motion control • Introduction to the Panasonic EtherCAT library • Creating an application program with the programming software Control FPWIN Pro7 or GM Programmer • Implementing homing operation, manual operation and automatic operation effectively • Replicating and resolving typical error situations in an application
PREREQUISITE:	Completion of <i>TR100: Drive technology (basic training)</i> recommended

DATES

Inhouse trainings:
By arrangement

Online trainings:
By arrangement

TRAINING TIMES:

1 day: 9 am to 5 pm

NUMBER OF PARTICIPANTS:

At least three people

COURSE FEE:

515 € plus VAT

The following discounts apply to participants from the same company:
25% discount for the second person
50% discount from the third person onwards

TRAINING LOCATION

Inhouse trainings:
In Ottobrunn, Germany.
Other locations by arrangement

Online trainings:
Via MS Teams

→ [BOOK TRAINING](#)

TR200: Programming course for the GT series

TARGET GROUP:	Commissioning, service and maintenance specialists, project developers and programmers
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 touch 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

Inhouse trainings:
By arrangement

Online trainings:
By arrangement

TRAINING TIMES:

1 day: 9 am to 5 pm

NUMBER OF PARTICIPANTS:

At least three people

COURSE FEE:

515 € plus VAT

The following discounts apply to participants from the same company:
25% discount for the second person
50% discount from the third person onwards

TRAINING LOCATION

Inhouse trainings:
In Ottobrunn, Germany.
Other locations by arrangement

Online trainings:
Via MS Teams

→ [BOOK TRAINING](#)

TR210: Developing HMI projects with HMWIN and the FP series (basic training)

TARGET GROUP: Commissioning, service and maintenance specialists, project developers and programmers

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:

- Main features of the HM series touch 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

Inhouse trainings:
February 27, 2024
June 25, 2024
October 1, 2024
December 17, 2024

Online trainings:
By arrangement

TRAINING TIMES:

1 day: 9 am to 5 pm

NUMBER OF PARTICIPANTS:

At least three people

COURSE FEE:

515 € plus VAT

The following discounts apply to participants from the same company:
25% discount for the second person
50% discount from the third person onwards

TRAINING LOCATION

Inhouse trainings:
In Ottobrunn, Germany.
Other locations by arrangement

Online trainings:
Via MS Teams

→ [BOOK TRAINING](#)

TR211:**Developing HMI projects with HMWIN and the FP series
(advanced training)**

TARGET GROUP:	Commissioning, service and maintenance specialists, project developers and programmers
TRAINING GOALS:	As a 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.
CONTENT:	<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
PREREQUISITE:	Completion of <i>TR210: Developing HMI projects with HMWIN and the FP series (basic training)</i> recommended

DATES

Inhouse trainings:
 February 28, 2024
 June 26, 2024
 October 2, 2024
 December 18, 2024

Online trainings:
 By arrangement

TRAINING TIMES:

1 day: 9 am to 5 pm

NUMBER OF PARTICIPANTS:

At least three people

COURSE FEE:

515 € plus VAT

The following discounts apply to participants from the same company:
 25% discount for the second person
 50% discount from the third person onwards

TRAINING LOCATION

Inhouse trainings:
 In Ottobrunn, Germany.
 Other locations by arrangement

Online trainings:
 Via MS Teams

→ [BOOK TRAINING](#)

TR212: Developing HMI projects with HMWIN and the GM1 EtherCAT Motion Controller

TARGET GROUP: Programmers, developers, plant and machine manufacturers

TRAINING GOALS: You are able to exchange data between the GM1 EtherCAT Motion Controller and an HM touch terminal using the protocols EtherNet/IP, Modbus TCP/IP, OPC UA and CODESYS.

CONTENT:

- Theoretical basics of the communication protocols CODESYS, OPC UA, Modbus TCP/IP and EtherNet/IP
- Implement a data exchange between a GM1 EtherCAT Motion Controller and an HM touch terminal using the protocols CODESYS, OPC UA, Modbus TCP/IP and EtherNet/IP

PREREQUISITE: Completion of *TR10: Programming with GM Programmer and GM1 EtherCAT Motion Controller (basic training)* recommended

DATES

Inhouse trainings:
By arrangement

Online trainings:
By arrangement

TRAINING TIMES:

1 day: 9 am to 5 pm

NUMBER OF PARTICIPANTS:

At least three people

COURSE FEE:

515 € plus VAT

The following discounts apply to participants from the same company:
25% discount for the second person
50% discount from the third person onwards

TRAINING LOCATION

Inhouse trainings:
In Ottobrunn, Germany.
Other locations by arrangement

Online trainings:
Via MS Teams

→ [BOOK TRAINING](#)

TR300: Optical and measurement sensors (basic training)

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

Inhouse trainings:
By arrangement

Online trainings:
By arrangement

TRAINING TIMES:

1 day: 9 am to 5 pm

NUMBER OF PARTICIPANTS:

At least three people

COURSE FEE:

515 € plus VAT

The following discounts apply to participants from the same company:
25% discount for the second person
50% discount from the third person onwards

TRAINING LOCATION

Inhouse trainings:
In Ottobrunn, Germany.
Other locations by arrangement

Online trainings:
Via MS Teams

→ [BOOK TRAINING](#)

TR303: Operation of distance sensors HG-C and HG-F

TARGET GROUP:	Commissioning, service and maintenance specialists
TRAINING GOALS:	You obtain a comprehensive overview of the Panasonic distance sensors HG-C and HG-F. You can operate various setups and make explicit settings for your required application.
CONTENT:	<ul style="list-style-type: none"> • Overview of the Panasonic HG-C and HG-F distance sensors • Theoretical background knowledge of the internal structure of Panasonic distance sensors • Structure and functions • Versions and accessories • Wiring and commissioning • Applications
PREREQUISITE:	Completion of <i>TR300: Optical and measurement sensors (basic training)</i> recommended

DATES

Inhouse trainings:
By arrangement

Online trainings:
By arrangement

TRAINING TIMES:
4 hours

NUMBER OF PARTICIPANTS:
At least three people

COURSE FEE:
258 € plus VAT

The following discounts apply to participants from the same company:
25% discount for the second person
50% discount from the third person onwards

TRAINING LOCATION
Inhouse trainings:
In Ottobrunn, Germany.
Other locations by arrangement

Online trainings:
Via MS Teams

→ [BOOK TRAINING](#)

TR304: Operation of measurement sensor HG-S

TARGET GROUP:	Commissioning, service and maintenance specialists
TRAINING GOALS:	You obtain a comprehensive overview of the Panasonic contact measurement sensor HG-S. You can operate various setups and make explicit settings for your required application.
CONTENT:	<ul style="list-style-type: none"> • Overview of the Panasonic contact measurement sensor HG-S • Theoretical background knowledge of the internal structure of Panasonic contact measurement sensors • Structure and functions • Versions and accessories • Wiring and commissioning • Applications
PREREQUISITE:	Completion of <i>TR300: Optical and measurement sensors (basic training)</i> recommended

DATES

Inhouse trainings:
By arrangement

Online trainings:
By arrangement

TRAINING TIMES:

4 hours

NUMBER OF PARTICIPANTS:

At least three people

COURSE FEE:

258 € plus VAT

The following discounts apply to participants from the same company:
25% discount for the second person
50% discount from the third person onwards

TRAINING LOCATION

Inhouse trainings:
In Ottobrunn, Germany.
Other locations by arrangement

Online trainings:
Via MS Teams

→ [BOOK TRAINING](#)

TR305: Operation of laser measurement system HL-C2

TARGET GROUP:	Commissioning, service and maintenance specialists
TRAINING GOALS:	You obtain a comprehensive overview of the Panasonic laser measurement sensor HL-C2. You can operate various HL-C2 setups and settings. You are able to select the right sensor configuration for your required application.
CONTENT:	<ul style="list-style-type: none"> • Overview of the entire Panasonic HL-C2 portfolio • Theoretical background knowledge of the internal structure of the Panasonic laser measurement system. • Structure and functions • Versions and accessories • Wiring and commissioning • Applications
PREREQUISITE:	Completion of <i>TR300: Optical and measurement sensors (basic training)</i> recommended

DATES

Inhouse trainings:
By arrangement

Online trainings:
By arrangement

TRAINING TIMES:

4 hours

NUMBER OF PARTICIPANTS:

At least three people

COURSE FEE:

258 € plus VAT

The following discounts apply to participants from the same company:
25% discount for the second person
50% discount from the third person onwards

TRAINING LOCATION

Inhouse trainings:
In Ottobrunn, Germany.
Other locations by arrangement

Online trainings:
Via MS Teams

→ [BOOK TRAINING](#)

TR400: Safety technology (basic training)

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

Inhouse trainings:
By arrangement

Online trainings:
By arrangement

TRAINING TIMES:

4 hours

NUMBER OF PARTICIPANTS:

At least three people

COURSE FEE:

258 € plus VAT

The following discounts apply to participants from the same company:
25% discount for the second person
50% discount from the third person onwards

TRAINING LOCATION

Inhouse trainings:
In Ottobrunn, Germany.
Other locations by arrangement

Online trainings:
Via MS Teams

→ [BOOK TRAINING](#)

TR401: Operation of the 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 • Setup and assembly of the SF4D • Operating modes • Versions and accessories • Commissioning • Diagnostics and troubleshooting • Applications
PREREQUISITE:	Completion of <i>TR400: Safety technology (basic training)</i> recommended

DATES

Inhouse trainings:
By arrangement

Online trainings:
By arrangement

TRAINING TIMES:

4 hours

NUMBER OF PARTICIPANTS:

At least three people

COURSE FEE:

258 € plus VAT

The following discounts apply to participants from the same company:
25% discount for the second person
50% discount from the third person onwards

TRAINING LOCATION

Inhouse trainings:
In Ottobrunn, Germany.
Other locations by arrangement

Online trainings:
Via MS Teams

→ [BOOK TRAINING](#)

TR402: Operation of the 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 • Setup and assembly of the SF-C21 • Operating modes • Versions and accessories • Commissioning • Diagnostics and troubleshooting • Applications
PREREQUISITE:	Completion of <i>TR400: Safety technology (basic training)</i> recommended

DATES

Inhouse trainings:
By arrangement

Online trainings:
By arrangement

TRAINING TIMES:

4 hours

NUMBER OF PARTICIPANTS:

At least three people

COURSE FEE:

258 € plus VAT

The following discounts apply to participants from the same company:
25% discount for the second person
50% discount from the third person onwards

TRAINING LOCATION

Inhouse trainings:
In Ottobrunn, Germany.
Other locations by arrangement

Online trainings:
Via MS Teams

→ [BOOK TRAINING](#)

TR500: IIoT by using FP-I4C / HM series

TARGET GROUP:	Planning, commissioning, service and maintenance specialists
TRAINING GOALS:	You obtain a comprehensive overview of the Industry 4.0 communications technologies used by Panasonic. You can transfer data between controllers, touch terminals and cloud solutions. You can set up, check and use the communication channels. You can locate and analyze errors.
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

Inhouse trainings:
By arrangement

Online trainings:
By arrangement

TRAINING TIMES:

1 day: 9 am to 5 pm

NUMBER OF PARTICIPANTS:

At least three people

COURSE FEE:

515 € plus VAT

The following discounts apply to participants from the same company:
25% discount for the second person
50% discount from the third person onwards

TRAINING LOCATION

Inhouse trainings:
In Ottobrunn, Germany.
Other locations by arrangement

Online trainings:
Via MS Teams

→ [BOOK TRAINING](#)

TR600: Customer-specific training

TARGET GROUP:	Everyone
TRAINING GOALS:	You obtain the technical knowledge to successfully handle your application.
CONTENT:	<p>Subjects agreed upon by the participants. Participant can choose from various products:</p> <ul style="list-style-type: none"> ▪ Sensors for factory automation: IO-Link sensors, photoelectric sensors, safety light curtains and safety sensors, measurement sensors, fiber-optic sensors, fibers, inductive sensors ▪ Industrial motors and servo drivers: Series MINAS A6, MINAS A6 Multi, MINAS LIQI and MINAS A6V as well as using the software M-SELECT and PANATERM ▪ Programmable controllers (PLC): FP-X0, FP-XH, FPOH, FP0R, FP7 as well as how to program them using Control FPWIN Pro7. Usage of different bus systems such as IO-Link, EtherNet/IP, Modbus TCP, MEWTOCOL, PROFINET ▪ Motion Control: GM1 EtherCAT Motion Controller as well as how to program it with GM Programmer ▪ Communications technology: Using the FP-I4C as the communication gateway for your application ▪ Touch terminals: Series HMs, HMx, HM, HMe as high-end touch terminals as well as how to program them with HMWIN. The GT series as ultra-compact touch terminals and how to program them with GTWIN. ▪ Eco-Power Meters ▪ Ionizers
PREREQUISITE:	None

DATES:

Inhouse trainings:
By arrangement

Online trainings:
By arrangement

TRAINING TIMES:

By arrangement

NUMBER OF PARTICIPANTS:

Any

COURSE FEE:

126 € plus VAT

Per hour & participant
(billing in 15-min. intervals)

The following discounts apply to participants from the same company:

25% discount for the second person

50% discount from the third person onwards

TRAINING LOCATION

Inhouse trainings:
In Ottobrunn, Germany.

Other locations by arrangement

Online trainings:
Via MS Teams

→ [BOOK TRAINING](#)



General training conditions

APPLICATION AND INFORMATION

Secure your training 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 endeavor to offer a suitable alternative date.

We reserve the right to cancel a training if the minimum number of participants is not reached.

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 TRAINING](#)

Registration for a course ends five working days before the 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. Both hotels offer a Panasonic company rate. Please ask for this rate when booking a room.

Stay2Munich

www.stay2munich.de
Distance from training center: about 3 km

Gasthof Schmuck

www.gasthof-schmuck.de
Distance from training center: about 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

INDUSTRY



We are dedicated to the highest standards of global sustainability as **Your Committed Enabler**. Find out more on our [website](#).

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