

HICADEMY SEMINAR



MODULE | 1

Fundamentals of high-voltage test technology

Date: 4 – 5 November 2025

Location: Hotel INNSIDE Dresden

INVITATION TO HICADEMY SEMINAR

It's a situation you're familiar with: high-voltage testing processes are becoming increasingly complex, and at the same time you are expected to achieve higher throughputs. In other words, you have to carry out the tests as precisely and quickly as possible. At the same time, however, you are always required to comply with relevant standards.

Do you find yourself confronted with these strict requirements? Would you like support with carrying out tests safely and effectively? Then make the most of the HICADEMY continuing education schemes.

At HIGHVOLT, we have decades of experience in the field of high-voltage testing technology, and we have been passing on that knowledge and expertise on training courses. The increasing demand for such courses has led us to further extend our training concept and make it available in the context of the HICADEMY.

What makes HICADEMY courses so special is their combination of theory and practice. You learn the basic theory of high-voltage technology and can apply your knowledge on real test systems in the practical section. Our experienced instructors follow a practical approach to pass on the testing experience they have gained on the job.

We have pleasure in inviting you to the HICADEMY seminar.

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We are looking forward to meeting you in Dresden.

The HICADEMY team

P.S.: Since the number of participants is limited you are recommended to register as soon as possible.

MODULE | 1 Fundamentals of high-voltage test technology

PROGRAMME



Tuesday, 4 November 2025 | Hotel INNSIDE

Basic principles of high-voltage testing technology

Introduction: Energy transmission, insulation coordination and testing technology

- High-voltage testing technique requirements for power transmission systems
- The International Electrotechnical Commission (IEC) and its standards
- Insulation coordination and its verification by high-voltage testing
- Tests and diagnostic measurements in the life cycle of power equipment

General principles of high-voltage testing technology

- Insulation in the electric field
- Voltage measurement and estimating measuring uncertainty
- Breakdown and withstand voltage, statistical analysis

Testing with AC voltage

- Voltage generation
- Testing procedures
- AC voltage measurement

Partial discharge measurement

- Phenomena and PD models
- Testing circuits
- Determination and evaluation of real PD and noise
- VHF/UHF measurement

Dielectric measurements

- Response measurements
- Loss factor measurement

Testing with DC voltage

- Voltage generation
- Testing procedures
- DC voltage measurement

Testing with lightning impulses and switching impulses

- Voltage generation
- Testing procedures
- Impulse voltage measurement

Dinner



Wednesday, 5 November 2025 | Hotel INNSIDE and HIGHVOLT

Morning:

Testing of electrical equipment used in high-voltage applications

Testing transformers
(power and distribution)

Testing cables

Testing GIS

- Trends in international standards (IEC/IEEE)
- Methods for testing in the factory and on-site
- Practice-based recommendations

Afternoon:

Practical workshop at HIGHVOLT

- Influence of test set-up, earthing
- Voltage measurement and calibration
- PD measurement

Evening:

Company tour (optional)

After the workshop, you have a chance to tour the company, visiting the HIGHVOLT production and high-voltage test halls.

MODULE | 1 Fundamentals of high-voltage test technology

Contents	<p>This seminar examines all the fields related to high-voltage testing and measurement technology for factory and on-site testing.</p> <p>You will learn the fundamental physics behind high-voltage technology and how these principles are correctly used during high-voltage testing.</p> <p>During the seminar, examples from practice will be discussed. Then, during the practical workshop at HIGHVOLT, some aspects will be run through in practice working on real test systems. The seminar will help you to perform high-voltage tests optimally.</p>		
Date	4 – 5 November 2025		
Location	Hotel INNSIDE DRESDEN – Salzgasse 4, 01067 Dresden, Germany		
Target group	<div>■ Managers and engineers of test bay facilities</div> <div>■ Service center employees and utilities companies</div> <div>■ Developers of high-voltage systems</div> <div>■ Employees of R&D centers</div>		
Language	English		
Recommended background knowledge	Participants should possess the fundamentals of electrical engineering		
Main instructor	<p>Main instructor of the seminar will be Dr. rer. nat. Ralf Pietsch. He joined HIGHVOLT in 2001 and is Consultant Technology & Science. He holds lectures and seminars on high-voltage engineering and the associated testing and measuring procedures at universities and scientific institutes at home and abroad. He was also chairman of the CIGRE study committee SC D1.</p>		

ATTENDANCE FEE

**Attendance Fee: EUR 1,890.00
(plus EUR 359.10 VAT)**

The attendance fee includes:

- theoretical and practical training
- training documents
- drinks, snacks during breaks and lunch
- dinner on 4 November 2025
- attendance certificate

REGISTRATION

Register online at: hicademy.highvolt.com

Registration is possible until 21 October 2025.

The number of attendees is limited to improve their learning outcome, so make sure to book a place as soon as possible.

For cancellation please send an e-mail to hicademy@highvolt.de

Cancellation fee:
Cancellation until 21 October 2025: 50% of the total costs
Cancellation after 21 October 2025: 100% of the total costs

ACCOMMODATION

Hotel rooms have been reserved for you at Hotel INNSIDE DRESDEN.

€ 135.00 per single room and night incl. breakfast
€ 150.00 per double room and night incl. breakfast

Please book your room online by 22 September 2025 using the following link https://events.melia.com/en/events/innside-dresden/HIGHVOLT_Hicademy

Phone: +49 351 795151007
E-mail: reservations.innside.dresden@melia.com

The costs for accommodation are not included in the attendance fee.

CONTACT US

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