MODULE 1 Fundamentals of high-voltage test technology

Contents	This seminar examines all the fields related to high-voltage testing and measurement technology for factory and on-site testing. You will learn the fundamental physics behind high-voltage technology and how these principles are correctly used during high-voltage testing. 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.
Date	26 – 27 September 2017
Location	INNSIDE DRESDEN – Salzgasse 4, 01067 Dresden, Germany
Target group	■ Managers and engineers of test bay facilities ■ Service center employees and utilities companies ■ Developers of high-voltage systems ■ Employees of R&D centers
Language	English
Recommended background knowledge	Participants should possess the fundamentals of electrical engineering
Main instructor	Main instructor of the seminar will be Dr. rer. nat. Ralf Pietsch. He joined HIGHVOLT in 2001 and is head of the team 'Systems and Components'. 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 is also chairman of the CIGRE study committee SC D1.

ATTENDANCE FEE

Early bird price: € 750
Register by 24 July 2017

Normal price: € 790
Register by 24 August 2017

The attendance fee includes:
- theoretical and practical training
- training documents
- drinks, snacks during breaks and lunch
- evening events on 25 and 26 September 2017
- attendance certificate

When three people register from one company, they are granted a group discount of 10 %.

Prices do not include VAT.

REGISTRATION

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

Register online from 1 April at:
http://HICADEMY.highvolt.de

Registration is possible until 25 August 2017.

ACCOMMODATION

A limited number of rooms have been reserved for you at INNSIDE DRESDEN.

€ 109.00 per single room and night incl. breakfast
€ 129.00 per double room and night incl. breakfast

Please book your room by 25 August 2017 at:
reservations.innside.dresden@melia.com
mentioning "HICADEMY Seminar"

The costs of rooms are not covered by HIGHVOLT.

CONTACT US

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HICADEMY SEMINAR

MODULE 1

Fundamentals of high-voltage test technology

26 – 27 September 2017
Dresden, Germany

HICADEMY

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 fundamentals of high-voltage technology and can add to that knowledge by working on real testing systems in the practical unit. 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 launch event.

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26 – 27 September 2017

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.

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PROGRAMME

Monday, 25 September 2017

Welcome dinner

Tuesday, 26 September 2017

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

Evening event

Wednesday, 27 September 2017

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

Followed by

Company tour (optional)

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