

ACCOMMODATION

Special prices have been arranged at the following recommended hotel nearby the main station in Dortmund. From there public transportation is available to TU Dortmund University. Please contact directly:

Address: NH Hotel Dortmund,
Königswall 1,
44137 Dortmund

Phone: +49 (0)30 2238 0233
+800 0115 0116

E- mail: reservierungen@nh-hotels.com

Web: www.nh-hotels.com

Prices: single room € 87.00 (including breakfast). City tax (7,5 %) is not included. Please present a proof that you are on business trip on the day of your arrival and city tax will not be raised.

Please book rooms by phone or email directly with the NH Hotel. Room reservations must be made by August 24th. Please quote "EES-UETP". Reservation requests after that date will be based on space and rate of availability.

COURSE FEES

The course fees include lectures attendance, documentation (cd and binder), coffee breaks and lunches.

Members of the EES-UETP: **367.50 EUR**
University non-members of the EES-UETP: **900.00 EUR**
Industry non-members of the EES-UETP: **1500.00 EUR**

The Course Secretariat will send an invoice/receipt to each registered participant, after the reception of the filled Registration Form, together with the bank transfer.

Other information can be found at:

<http://www.ees-uetp.com/>

or by phone

Dr. Ulf Häger
+49 (0)231 9700 980

INFORMATION, REGISTRATION AND COURSE LOCATION

Course coordinators:

Prof. Christian Rehtanz and Dr. Ulf Häger
Institute of Energy Systems, Energy Efficiency and Energy Economics,
Technische Universität Dortmund
Email: ulf.haeger@tu-dortmund.de
Phone: +49 (0)231 9700 980
Fax: +49 (0)231 755 2694

Course location:

ZEDO
f+e office block
Joseph-von-Fraunhofer-Straße 20
44227 Dortmund



Electric Energy Systems University
Enterprise Training Partnership

<http://www.ees-uetp.com/>

2016 Course Program

**Planning of smart
distribution grids**



September 21st - 23rd, 2016

ZEDO
f+e office block
Joseph-von-Fraunhofer-Straße 20
44227 Dortmund
Germany

Organized by
TU Dortmund University
in cooperation with ZEDO e.V.

OBJECTIVES

Distribution grids for electrical energy are facing numerous new requirements and challenges caused by increased amount of installations of distributed generation as well as new loads. Besides the general fact that these devices increase (and DGs even reverse) the power flows significantly causing the need for grid extensions in the distribution grid, another aspect is that fluctuating energy sources make the power flows highly volatile. New technologies become available which provide new opportunities to face these challenges. All these aspects can be summarized under the label "Smart Grids". Related to Smart Grids there are so called "Smart Market" activities, which create values by managing loads and DG to provide market products.

The first objective, which will be dealt with on the first day of the course, is to understand the impact of new Smart Grid technologies and Smart Market activities on distribution grid planning and to learn how to model these devices/activities in the planning process. The second objective (day two) is to learn about modern planning tools that consider the new challenges of distribution grid planning. The third objective of this course (day three) is to understand how planning of new grids should be combined with asset management to gain mutual benefits from the investments in new grid infrastructure.

COURSE DURATION

Three days - 21st to 23rd September 2016, Dortmund, Germany

CONTENTS / SCHEDULE

Wednesday, September 21

09:00 - 09:15	Registration
09:15 - 09:30	Opening Session
09:30 - 11:00	State of the art in Distribution Grid Planning (EWZ)
11:00 - 11:30	Coffee break
11:30 - 13:00	Modelling of Smart Grid Devices and their impact on DG-planning (Andreas Underbrink, ABB)
13:00 - 14:30	Lunch
14:30 - 15:30	Modelling of Distributed Generation and its impact on DG-planning (Christian Wagner, TU Dortmund)
15:30 - 16:00	Coffee Break
16:00 - 17:00	Modelling of Smart Markets and E-Vehicles and its impact on DG-planning (Stefan Kippelt, TU Dortmund)

Thursday, September 22

09:00 - 10:30	Agent-based distribution grid planning (Jan Kays, Amprion)
10:30 - 11:00	Coffee Break
11:00 - 12:30	Distribution grid planning based on time-series simulation (Andreas Ulbig, Adaptricity AG)
12:30 - 14:00	Lunch
14:00 - 15:30	On exploring the game in distribution system planning under uncertainty (Gerardo Blanco, FPUNA)
15:30 - 15:45	Coffee Break
15:45 - 17:30	Mapping the investment strategies options in distribution system planning under uncertainty (Gerardo Blanco, FPUNA)

Friday, September 23

09:00 - 11:00	Techno-economic modelling and assessment of smart, multi-energy
---------------	---

11:00 - 11:30

11:30 - 12:30

12:30 - 13:30

13:30 - 15:00

15:00 - 16:00

districts and microgrids (Nicholas Good, University of Manchester)

Coffee Break

Condition-based Asset Management (Lars Jendernalik, Westnetz)

Lunch

Integrated Grid Planning and Asset Management (Christoph Engels, FH Dortmund)

Final Discussion

INSTRUCTORS

Prof. Dr. Gerardo Blanco,
Universidad Nacional de Asunción,
Paraguay

Prof. Dr. Engels
FH Dortmund, Germany

Dr. Nicolas Good
Uni Manchester, United Kingdom

Prof. Dr. Jendernalik
Westnetz, Germany

Dr. Jan Kays
Amprion, Germany

Stefan Kippelt
TU Dortmund University, Germany

Dr. Andreas Ulbig
Adaptricity AG, Switzerland

Andreas Underbrink
ABB, Germany

Christian Wagner
TU Dortmund University, Germany