ACCOMMODATION

Special Prices were arranged at Hotel Ibis Porto S. João (5 minutes walking distance from INESC Porto), Hotel D. Henrique (down town) and Hotel Infante Sagres (down town).

Please contact directly:

Hotel Ibis (Porto S. João) ***
Phone: +351 22 551 31 00
Fax: +351 22 551 31 01
Single and *double room*: €55€
(Breakfast not included)
http://www.ibishotel.com

Hotel D. Henrique **
Phone: +351 22 340 16 16
Fax: +351 22 340 16 65
Single room: €68 (breakfast included)
Double room: €78 (breakfast included)
http://www.oportohoteldomhenrique.com/

Hotel Infante Sagres***
Phone: +351 223 398 500
Fax: +351 223 398 599
Single room: €99 (breakfast included)
Double room: €109 (breakfast included)
http://www.hotelinfantesagres.pt/

When making a reservation please mention

"INESC Porto EES-UETP"

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 EUR**
Industry non members of the EES-UETP: **1500 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

Mrs. Paula Castro
+351 22 2094230

INFORMATION, REGISTRATION AND COURSE LOCATION

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Electric Energy Systems
University Enterprise Training Partnership
http://www.ees-uetp.com/

2014 Course Program

Microgrids – the building block of a smarter grid

June 2nd - 4th, 2014

INESC Porto
Campus da FEUP
Rua Dr. Roberto Frias, 378
4200 - 465 Porto

Organized by
INESC Porto

OBJECTIVES

The deployment of Smart Grid (SG) implies major changes in the operation and planning of distribution systems, particularly in the Low Voltage (LV) networks. The majority of small scale Distributed Energy Resources (DER) – Electric Vehicles (EV), microgeneration, storage units and flexible loads – are connected to LV networks, requiring local control solutions to mitigate technical problems resulting from its integration.

Simultaneously, LV DER can be aggregated in small cells in order to globally provide new functionalities to system operators. Microgrids enable the optimal integration of consumers and the grid through the integration of variable renewable energy resources with dynamic demand strategies from demand response and electric vehicle recharging services, while reducing peak demand and stabilizing the electricity system.

The coordination of MG local resources, through an appropriated network of controllers and communication system, endows the LV system with sufficient autonomy to operate interconnected to the upstream network or autonomously – emergency operation. Autonomous operation became a matter of utmost interest since in this way an increase on the resilience of the electric grid can be obtained, allowing self-healing following disturbances on the grid and capacity to feed consumers following natural disasters.

COURSE DURATION

Three days - 2nd to 4th June 2014, Porto, Portugal

CONTENTS / SCHEDULE

Monday, June 2

9:00 – 9:15 - Course Opening (João Peças Lopes and Carlos Moreira)
9:15 – 10:30 - Microgrids – a general overview (Nikos Hatziargyriou)
10:30 – 11:00 - Coffee-break
11:00 – 13:00 - Multi-energy microgrids (Pierluigi Mancarella)
13:00 – 14:30 - Lunch
14:30 – 16:00 - Advanced Models and Algorithms for Demand Participation in Electricity Markets (Joel Soares)
16:00 – 16:30 - Coffee-break
16:30 – 18:00 - Demand response management and storage integration in microgrid environment (Federico Silvestro)

Tuesday, June 3

9:00 – 11:00 - Power converters modelling and operation (Miguel Castilla)
11:00 – 11:30 - Coffee-break
11:30 – 13:00 - Microgrids islanding operation (Clara Gouveia)
13:00 – 14:30 - Lunch
14:30 – 16:30 - DC Microgrids (Josep Guerrero)
16:30 – 17:00 - Coffee-break
17:00 – 18:30 - Extending the concept: multi-microgrids (André Madureira)

Wednesday, June 4

9:00 – 10:30 - Smart Grids Communications Architectures and Solutions (David Rua)
10:30 – 11:00 - Coffee-break
11:00 – 12:30 - Development of a microgrid laboratory (Clara Gouveia, David Rua)
13:00 – 14:30 - Lunch
14:30 – 16:30 - Microgrid operation and control under interconnected and islanding conditions – live demonstration in the laboratory (Clara Gouveia, David Rua)
16:30 – 17:00 - Final discussion and course closure (João Peças Lopes and Carlos Moreira)

INSTRUCTORS

Frederico Silvestro
University of Genova

Josep Guerrero
University of Aalborg

Nikos Hatziargyriou
National Technical University of Athens

Pierluigi Mancarella
University of Manchester

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The number of attendees is limited.