

Hydrogen and fuel cell infrastructure

15-19 June 2009, Ajaccio, Corsica, France



Forthcoming courses 2009/2010 for your diary:

No.5: Hydrogen production and storage

19-23 October 2009, Belfast, UK

No.6: Regulations, codes, and standards

25-29 January 2010, Belfast, UK

No.7: Hydrogen and fuel cell technologies and case studies

25-30 April 2010, Belfast, UK

No.8: Hydrogen vehicles and infrastructure

14-18 June 2010, Ajaccio, Corsica, France



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HySAFER

H2safety@ulster.ac.uk

Hydrogen Safety Engineering and Research Centre, **University of Ulster**

Technical Programme

Monday 15th June 2009

AM Antonio Ruiz (US Department of Energy):
State-of-the-art of hydrogen infrastructure in USA and demonstration projects
PM Herbert Wancura (Joint Technology Initiative):
JTI strategy towards hydrogen infrastructure development in Europe

VENUE:
Coralia Club Porticcio
Marina Viva Hotel,
Ajaccio, Corsica, France

Tuesday 16th June 2009

AM Herbert Wancura (Joint Technology Initiative):
Hydrogen and fuel cell demonstration projects in Europe
PM Hans Pasman (Delft University of Technology, The Netherlands):
I. Land planning for the hydrogen infrastructure: What is it, why is it done and how
II. Land planning for the hydrogen infrastructure : European basis and various national approaches

ACCOMMODATION:
5 nights accommodation at the course venue is included in fee
(PM: 14/06/09 - AM: 19/06/09)
Please contact us if you wish to make your own arrangements

Wednesday 17th June 2009

AM Hans Pasman (Delft University of Technology, The Netherlands)
I. Land use planning for the hydrogen infrastructure: Risk assessment methods
II. Land use planning for the hydrogen infrastructure: Hydrogen specifics and future perspective
PM Jay Keller (Sandia National Laboratories, USA)
The role of hydrogen safety science and engineering for the hydrogen infrastructure

COURSE FEES:
£1600* course fee and 5 nights half board accommodation (breakfast + lunch)
£375* 1 day attendance plus 1 night half board accommodation (breakfast + lunch)
£250* 1 day attendance + lunch

Thursday 18th June 2009

AM Jay Keller (Sandia National Laboratories, USA):
Regulations, codes and standards - Sandia's underpinning research
PM Antonio Ruiz (US Department of Energy):
Hydrogen infrastructure in USA: short, medium and long term goals

PGD/MSc HSE:
NO FEE for materials and attendance of lectures and round table discussions
Equivalent to 20 CATS points
£850* accommodation, breakfast, lunch, course dinner, welcome reception

Friday 19th June 2009

AM Herve Barthelemy (Air Liquide, France):
Advancement in pressure vessels and accessories for the hydrogen infrastructure
PM Herve Barthelemy (Air Liquide, France):
Hydrogen storage technologies: compatibility of materials with hydrogen

QUERIES:
H2safety@ulster.ac.uk
Please contact us if you have any questions

* Course fees include access to sessions, incl. round table discussions, course materials, refreshments, welcome reception and course dinner

Reduce your fee - register for the World's first MSc course in Hydrogen Safety Engineering (HSE) at:
<http://campusone.ulster.ac.uk/potential/postgraduate.php?cid=C514PJ>

REGISTRATION FORM (Please complete in BLOCK CAPITALS and tick a box where appropriate)

SURNAME: FIRST NAME: TITLE (PROF/DR/MR/MISS/MS/MRS):

JOB TITLE: ORGANISATION:

ADDRESS:

TELEPHONE: FAX: EMAIL:

ANY SPECIAL REQUIREMENTS

COURSE FEES

Full course attendance fee £1600 (5 days)* One day fee £375 ** One day fee of £250*** Number of days

*includes course, half board accommodation i.e. breakfast and lunch (from Sun. night 14th June - Fri. 18th June)

** includes 1 night half board accommodation i.e. breakfast and lunch

*** includes lunch

Please contact us for accommodation prices for accompanying persons or if you need assistance in booking extra nights

10% Discount on 5 days and 1 days fees for members of the Institution of Fire Engineers

Attendance and materials free for PGD/MSc HSE students (prepaid as part of payment for the course, equivalent to 20 CATS points, i.e. £380)

Optional fee for PGD/MSc HSE students accommodation as above, welcome reception, lunches, refreshments, course dinner £ 850

METHODS OF PAYMENT

- Cheques** in Pounds Sterling should be made payable to the "University of Ulster" and crossed.
- If you wish to be **invoiced** please supply: name, organisation, address for invoice, post code, order no., phone no. & contact person.
- Payment may be made by **credit/debit card** using VISA, or MASTERCARD credit card or by SWITCH, MAESTRO and VISA Electron debit cards only. If you wish to pay by one of the above cards please complete the following in full:

TOTAL COST £ VISA MASTERCARD SWITCH MAESTRO VISA Electron

NAME ON CARD: EXPIRY DATE:

ADDRESS (Billing address):

Charge to my credit/debit card:

ISSUE No. (SWITCH only): VALIDATION CODE (only required if no signature):

SIGNATURE: DATE:



HYDROGEN AND FUEL CELL INFRASTRUCTURE, 15-19 June 2009, Ajaccio, Corsica, France

Monday, 15 June 2009

- 09:00 - 09:45 *Registration*
09:45 - 10:00 *Opening*
10.00 - 10.45 **Antonio Ruiz (US Department of Energy): State-of the-art of hydrogen infrastructure in USA and demonstration projects 1**
10.45 - 11.10 *Coffee*
11.10 - 11.55 **Antonio Ruiz (US Department of Energy): State-of the-art of hydrogen infrastructure in USA and demonstration projects 2**
11.55 - 12.05 *Comfort break*
12.00 - 12.35 *Round table discussion*
12.35 - 13.55 *Lunch*
13.55 - 14.40 **Herbert Wancura (Joint Technology Initiative): Joint Technology Initiative strategy towards hydrogen infrastructure development in Europe 1**
14.40 - 14.50 *Comfort break*
14.50 - 15.35 **Herbert Wancura (Joint Technology Initiative): Joint Technology Initiative strategy towards hydrogen infrastructure development in Europe 2**
15.35 - 16.00 *Coffee*
16.00 - 16.30 *Round table discussion*
18.00 - 20.00 *Welcome reception*

Tuesday, 16 June 2009

- 10.00 - 10.45 **Herbert Wancura (Joint Technology Initiative): Hydrogen and fuel cell demonstration projects in Europe 1**
10.45 - 11.10 *Coffee*
11.10 - 11.55 **Herbert Wancura (Joint Technology Initiative): Hydrogen and fuel cell demonstration projects in Europe 2**
11.55 - 12.05 *Comfort break*
12.05 - 12.35 *Round table discussion*
12.35 - 13.55 *Lunch*
13.55 - 14.40 **Hans Pasman (Delft University of Technology, The Netherlands): Land use planning for the hydrogen infrastructure: What it is, why it is done and how**
14.40 - 14.50 *Comfort break*
14.50 - 15.35 **Hans Pasman (Delft University of Technology, The Netherlands): Land use planning for the hydrogen infrastructure: European basis and various national approaches.**
15.35 - 16.00 *Coffee*
16.00 - 16.30 *Round table discussion*

Wednesday, 17 June 2009

- 10.00 - 10.45 **Hans Pasman (Delft University of Technology, The Netherlands): Land use planning for the hydrogen infrastructure: Risk assessment methods**
10.45 - 11.10 *Coffee*
11.10 - 11.55 **Hans Pasman (Delft University of Technology, The Netherlands): Land use planning for the hydrogen infrastructure: Hydrogen specifics and future perspective**
11.55 - 12.05 *Comfort break*
12.05 - 12.35 *Round table discussion*

12.35 - 13.55 *Lunch*
13.55 - 14.40 **Jay Keller (Sandia National Laboratories, USA): The role of hydrogen safety science and engineering for the hydrogen infrastructure 1**
14.40 - 14.50 *Comfort break*
14.50 - 15.35 **Jay Keller (Sandia National Laboratories, USA): The role of hydrogen safety science and engineering for the hydrogen infrastructure 2**
15.35 - 16.00 *Coffee*
16.00 - 16.30 Round table discussion

Thursday, 18 June 2009

10.00 - 10.45 **Jay Keller (Sandia National Laboratories, USA): Regulations, codes and standards – Sandia’s underpinning research 1**
10.45 - 11.10 *Coffee*
11.10 - 11.55 **Jay Keller (Sandia National Laboratories, USA): Regulations, codes and standards – Sandia’s underpinning research 2**
11.55 - 12.05 *Comfort break*
12.05 - 12.35 Round table discussion
12.35 - 13.55 *Lunch*
13.55 - 14.40 **Antonio Ruiz (US Department of Energy): Hydrogen infrastructure in USA: short, medium and long term goals 1**
14.40 - 14.50 *Comfort break*
14.50 - 15.35 **Antonio Ruiz (US Department of Energy): Hydrogen infrastructure in USA: short, medium and long term goals 2**
15.35 - 16.00 *Coffee*
16.00 - 16.30 Round table discussion
20.00 - 23.00 *Course dinner*

Friday, 19 June 2009

10.00 - 10.45 **Herve Barthelemy (Air Liquide, France): Advancement in pressure vessels and accessories for the hydrogen infrastructure 1**
10.45 - 11.10 *Coffee*
11.10 - 11.55 **Herve Barthelemy (Air Liquide, France): Advancement in pressure vessels and accessories for the hydrogen infrastructure 2**
11.55 - 12.05 *Comfort break*
12.05 - 12.35 Round table discussion
12.35 - 13.55 *Lunch*
13.55 - 14.40 **Herve Barthelemy (Air Liquide, France): Hydrogen storage technologies: compatibility of materials with hydrogen 1**
14.40 - 14.50 *Comfort break*
14.50 - 15.35 **Herve Barthelemy (Air Liquide, France): Hydrogen storage technologies: compatibility of materials with hydrogen 2**
15.35 - 16.00 *Coffee*
16.00 - 16.30 Round table discussion
16.30 - 17.30 *Farewell*