Registration form - HySchool 2007

21 January - 26 January 2007

To be compiled and sent by fax or mail to:

HySchool 2007 Secretariat - Politecnico di Torino Dept. of Materials Science & Chemical Engineering Corso Duca degli Abruzzi, 24 - 10129 Torino (TO) Tel. +39-011-0904710 - Fax+39-011-0904699 VAT code: 00518460019

Name	 	
Surname		
Tel		
E-mail	 	

The school fee has been paid by bank swift to: **Unicredit Bank - Via D'Ovidio 6 - 10129 Torino - Italy** International Account number: **IT51N0200801160000002551101** Please indicate "HySchool Registration"

VAT code:....

School Fee

- The School fee is 480 € + VAT
- It includes all days participation to the school + coffee breaks and half-board accommodation at the four stars Hotel Rivè (www.hotelrive.it)

Conditions

- The maximum number of hotel places for students 80 either in double rooms.
- Attendants will be accepted on a first registered first served basis.
- The Organising Committee will try to locate additional requests beyond the scheduled limits but the same prices are not guaranteed.
- The deadline for Registration is January 15, 2007.
- 10 free grants are available for students coming from developing Countries.



Bardonecchia stands in the Alta Valle Susa at the centre of a sunny valley at an altitude of 1,312 m. It can be reached within 1 hour by train or car from Turin. The town unites five ex municipalities that are now outlying villages, each with its own past rich in history and art. The School will take place at the Sala del Consiglio Comunale of the Town Hall, which can be easily reached from wherever in town. The town has excellent snow pads (www.bardonecchiaski.com). It hosted the 2006 Winter Games and will host, as well, competitions of the 2007 Winter Universiade during the School days. Two free afternoons are left to students to take advantage of these opportunities.



"A winter school on state of art & future of Hydrogen & Fuel Cell Technologies"



Bardonecchia (Turin, Italy) Sala del Consiglio Comunale Piazza De Gasperi 1 January 21-26, 2007

First Announcement & Programme

Flame

An event within the training activities of the several EU-funded projects in the domestic, automotive, naval, portable power and safety fields:

RAN

Organizing Committee

Debora Fino (Politecnico di Torino) Suzana Nunes (GKSS, Geesthacht) Alessandro Graizzaro (HySyLAB, Torino) Jurgen Valldorf (VDI-VDE, Berlin) Marco Schembri (CETENA) Mario Carcassi (University of Pisa)

Aims of the School

The school aims at delivering to students the fundamentals of hydrogen and fuel cell technologies as well as the industrial perspectives of each of the main application opportunities that are currently under development. The teaching staff takes advantage of both academic and industrial experts each one bringing his peculiar vision.

Programme

January 21, 2007

17.30-20.00 Registration

January 22, 2007

Session 1. High Temperature Fuel Cells

9.00 Fundamentals of hydrogen production from fossil fuels

Prof. G. Saracco - Politecnico di Torino

- 10.00 Fundamentals of solid oxide fuel cells Prof. M. Calì - Politecnico di Torino
- 11.00 Coffee break
- 11.15 **Fundamentals of molten carbonate fuel cells** Prof. E. Arato - *Università di Genova*
- 12.15 Balance of plant and combustion-related components Prof. D.Trimis - University of Freiberg
- 13.00 Lunch break
- 14.00 Industrial vision on current status and future perspectives of MCFC fuel cells Dr. B. Marcenaro - Ansaldo Fuel Cells Genova
- 15.00 Industrial vision on current status and future perspectives of SOFC fuel cells
 Dr. G. Orsello GTT Siemens Torino
- 16.00 Micro-cogenerative units for domestic appliances : state of art and perspectives Dr. G. De Sanctis - *MTS Fabriano*
- 17.00 Naval applications of fuel cells : state of art and perspectives Ing. G. Cusano - CETENA Genova

January 23, 2007

Session 2. DMFC fuel cells and related applications

- 9.00 Fundamentals of polymer membranes for fuel cells Dr. S. Nunes - *GKSS Geesthacht*
- 10.00 Fundamentals of micro-reactor engineering Dr. T. Baier - *IMM Mainz*
- 11.00 Coffee break
- 11.15 Industrial vision on current status and future perspectives of micro- and portable-power generation via DMFCs Dr. G. Bollito - FIAT Research Centre Orbassano
- 12.15 Day by day industrial experience in handling hydrogen production and purification Dr. S. De Sanctis - SAPIO Monza
- 13.00 Lunch and Free Afternoon
- 20.00 Social Dinner

January 24, 2007

Session 3. PEM fuel cells and related applications

- 9.00 Fundamentals of hydrogen production from renewable energy sources
 Prof. M. Santarelli *Politecnico di Torino* 10.00 Bio-routes to hydrogen production
- Prof. B. Ruggeri *Environment Park Torino* 11.00 Coffee break
- 11.15 **Fundamentals of hydrogen storage**
- Dr. D. Damosso Hydrogen Systems Lab Torino 12.00 Fundamentals of PEM fuel cells Prof. P. Spinelli - Politecnico di Torino
- 13.00 Lunch break
- 14.00 Industrial vision on current status and future perspectives of PEM Fuel Cells
- Dr. A. D'Anzi Arcotronics Fuel Cells Bologna 15.00 **PEM fuel cells for automotive applications:**
- automotive powertrain
- Ing. G. Rovera, *FIAT Research Centre Orbassano* 16.00 **PEM fuel cells for automotive applications:**
 - auxiliary power
 - Dr. P. Ekdunge, VOLVO Gothenburg
- 17.00 Hydrogen systems based on PEM or alkaline cells for self-sufficient buildings Dr. M. Antonini - *HySyTech Torino*

January 25, 2007

- Session 4. Safety, environmental, market and socio- economical issues
- 9.00 Assessment of Fuel Cell Technologies using combined Life Cycle and Multi-criteria Methodologies Prof. M. Founti - NTUA Athens
- 10.00 Socio-economic and market perspectives of hydrogen and fuel cell technologies Dr. D. Hart - Imperial College London
- 11.00 Coffee break
- 11.15 **Fundamentals of safety of hydrogen systems** Prof. M. Carcassi - *Università di Pisa*
- 12.15 EU policies in the hydrogen and fuel cells perspectives
 - Dr. B. Coda EU Officer DG Research Brussels
- 13.00 Lunch and Free Afternoon

January 26, 2007

Session 5. Guided tour of Hydrogen & Fuel Cell facilities in Piedmont

- 9.00 Bus departure
- 10.00 Visit to GTT-Siemens in Settimo Torinese, Visit to Hydrogen Systems Laboratory in Torino
- 13.00 Lunch and trip back to Bardonecchia via Caselle Airport

Last-minute upgrades will be available at

http://www.flamesofc.org

for any request you may have please contact: Dr. Debora Fino Dept. of Materials Science & Chemical Engineering Corso Duca degli Abruzzi, 24 - 10129 Torino (TO) tel. +390110904710 email: debora.fino@polito.it

Acknowledgements



www.h2it.org www.h2roma.org

www.lswn.it www.h2forum.it