



## **International Summer School on:**

# PEM FUEL CELLS APPLICATIONS and INTEGRATION

## July 19-23 Istanbul, Turkey

#### **Summer School Objective**

The Summer School is organised by the European Commission Joint Research Centre (JRC), Institute for Energy (IE), in cooperation with the UNIDO International Centre for Hydrogen Energy Technologies (ICHET)

The Summer School, as part of the JRC Enlargement and Integration Action, has strategic objectives of:

• Helping the Candidate Countries and Potential Candidate Countries in dealing faster with the "EU acquis" in areas of JRC competence

 Contributing to the development of the European Research Area (ERA)

The technical objective is to provide researchers and engineers with the required knowledge of theoretical and application aspects related to Proton Exchange Membrane Fuel Cell (PEMFC).

#### Topics

The summer school will address science and fundamentals of material science and electrochemistry applied to PEM fuel cells. Particular attention will be given to applications and system integration.

#### **Target audience**

This is a lecture series addressing researchers, PhD students and research fellows working in the fuel cell research and applications.

#### Lectures

A selection of international experts from Academia, Industry and Research Centres will provide the audience with technical lectures.

#### Venue

Istanbul Technical University (ITU) The official language will be English

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## INTERNATIONAL CENTRE FOR HYDROGEN ENERGY TECHNOLOGIES







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	Monday July 19,2010	Tuesday July 20,2010	Wednesday July 21,2010	Thursday July 22,2010	Friday July 23,2010
9:15-10:00	Registration & Welcome	Material Development (Non-precious catalysts; HT membranes,)	Water Management	Application based system integration	Market Analysis
10:00-10:45	Hydrogen in Energy Research	MEA Preparation	Heat Management	Fuel Cell Vehicles	Hydrogen Infrastructure
11:00-12:00	Electrochemistry and Fuel Cell Basics	FC Diagnostics and Testing	Modeling	Renewable Integrated Fuel Cell Systems	Codes and Regulations
12:00-13:30	Lunch	Lunch	Lunch	Lunch	Lunch
13:30-14:15	Thermodynamics	ICHET Lab Tour	Stack Development	TUBITAK MAM Tour	Gas Diffusion Layers & Bipolar Plates
14:15-15:00	Fuel Cell Catalysts		Fuel Cell System Integration		Analytical Equipment for Component Testing
15:30-16:15	Fuel Cell Membranes		Fuel Cell Degradation		
16:15-17:00	Discussion on lectures		Discussion on lectures		

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