Organising committee:

Prof. Rüdiger-A. Eichel, FZ Jülich GmbH

Prof. Søren Linderoth, DTU Energy Conversion Prof. Robert Steinberger-Wilckens, U Birmingham

Lecturers:

Dr. L.G.J. de Haart

Prof. Rüdiger-A. Eichel

Prof. Anke Hagen

Prof. Robert Steinberger-Wilckens

Prof. Tejs Vegge

Prof. Hans-Dieter Wiemhöfer

and others

Lecture language: English

Participation fee: 1.280,- €

[covers accommodation in single room (double room occupancy = 1.150,- €), full board, tuition fees, cof-

fee breaks, banquet, and excursion]

For updates and information, please go to our web site:

http://www.fz-juelich.de/iek/iek-9/EN/Aktuelles/aktuelles node.html

Secretariat for the organization:

Mrs. Chantal Hake Institute of Energy and Climate Research -IEK-9: Fundamental Electrochemistry Forschungszentrum Jülich GmbH D-52425 Jülich Germany

JESS @fz-juelich.de

Local organisation:

Panhellas Tourism & Congress **Branch Office Crete** Pediados 3 71306 Heraklion

Tel: +30 2810 300847 Fax: +30 2810 300848 Mail: manuela@panhellas.gr Website: www.panhellas.gr

Joint European Summer School on Fuel Cell, Electrolyser, and Battery **Technologies** 

**JESS 2014** 

21 – 27 September 2014

Pearl Beach Hotel. Rethymno, Greece



First Announcement

The Joint European Summer School JESS 2014 will be held in the beautiful city of Rethymno. Once again, it will provide highly condensed high level courses on selected topics.

The Summer School focuses on:

## Introduction to Fuel Cell, Electrolyser, and Battery Technologies

The increase in energy production from renewable sources creates a demand for energy storage technologies. Storage and conversion can be accomplished electrochemically, in batteries or chemically through electrolysis and fuel cells. Therefore, these technologies are predestined to play a major role in the energy production infra-structure of the near future.

During the Summer School, the main focus will be on the technological aspects. Starting from the fundamental principles of electrochemistry and thermodynamics the entire spectrum of materials, design and balance of plant will be covered both from an engineering point of view as well as from a modelling perspective. The technological courses will be augmented by more general lectures on energy policies and socio-economics.

In addition to the lectures, the participants will be asked to join in student projects where the content of the lectures can be applied to a case study to be presented at the end of the week.

All the lectures will be presented by highly acclaimed experts within the research fields from various universities, research centres and industry.

The Summer School targets students and young professionals within the fields of fuel cells and batteries.

## Programme Schedule

Introduction to SOFC / SOEC	Introduction to LTFC & Electrolysers	Introduction to Batteries
Introduction to Electrochemistry and Thermodynamics Introduction to Solid State Chemistry and Ionics		
electrolyte materials     anode materials     cathode materials     cell and stack     designs     manufacturing     characterisation     modelling     degradation     system technology      power to	•	<ul> <li>electrolyte materials</li> <li>anode materials</li> <li>cathode materials</li> <li>cell and stack designs</li> <li>manufacturing</li> <li>characterisation</li> <li>modelling</li> <li>degradation</li> <li>system technology</li> <li>beyond Li</li> <li>metal-air batteries</li> <li>all solid state batteries</li> </ul>