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ICEER2016 - a review & ICEER2017 - a preview

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1. Introduction

This volume of Energy Procedia serves as proceedings of ICEER2016, the 3rd International Conference on Energy and Environment Research, 7-9 September 2016, Barcelona, Spain. The ICEER2016 conference was organized by BarcelonaTECH (Universitat Poltècnica de Catalunya), assisted by University Research Institute for Sustainability Science and Technology, ISEP (School of Engineering of Polytechnic of Porto), Birla Institute of Technology and Science (BITS), Pilani – Dubai Campus, Universidad Autónoma Metropolitana-Azcapotzalco (UAM), México, Prairie View A&M University, USA, KIT (Korea National Institute of Technology) and it belongs to the Energy and Environment Research series of conferences from the SCIence and Engineering Institute (SCIEI).

2. Conference topics

ICEER conference series has focused in a broad scope of energy and environment issues in all sectors, specifically those that respect to production, distribution and use of renewable and non-renewable sources of energy. ICEER2016 reflects the most actual topics in the world, which may be organized under five main topics:

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- Energy and environment;
- Renewable energy;
- Fuels and combustion;
- Advanced energy technologies;
- Education for sustainability.

Specifically, ICEER2016 papers covered 6 themes, each of them forming one conference session:

- Electrical equipment improvement & modeling and simulation;
- Fuels and combustion;
- Bioenergy & energy development;
- Renewable energy & energy storage in batteries;
- Environmental pollution and management;
- Power & grid systems.

3. Organizing and scientific committees

As ICEER2016 Conference and Program chairs we would like to express our deepest thanks to the local organizing and scientific committees. The structure of organization was as follows:

4. Conference statistics

Conference statistics related to the number of papers in each theme, can provide some insight to the hot topics researchers and practitioners are working on at present (Fig. 1). All of the 6 themes had a significant number of participants (at least 10%). The biggest number of contributions was related to Renewable energy & energy storage in batteries, whereas the smallest one corresponded to Bioenergy & energy development.

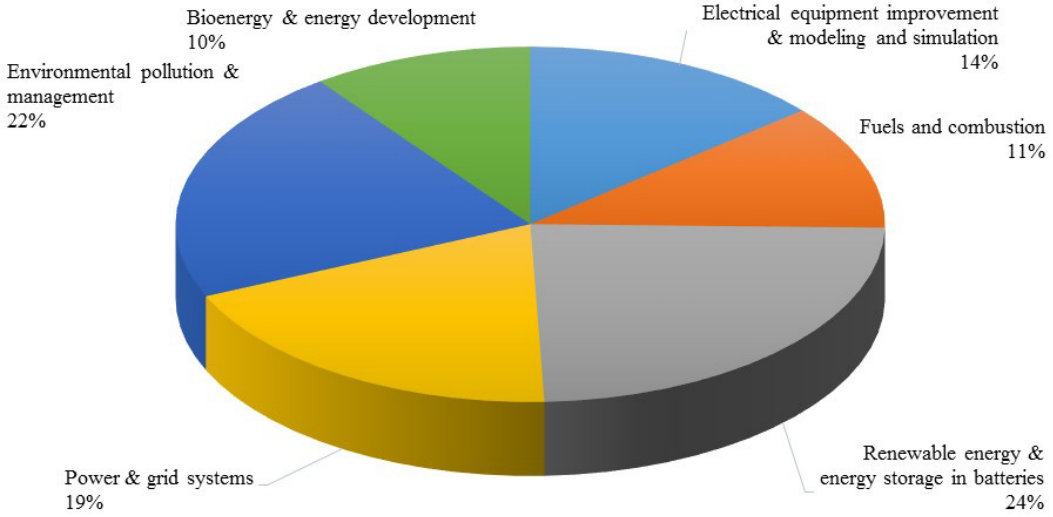

Fig. 1. Distribution of conference papers.

Besides this, also the multiculturality of the conference can be demonstrated by the number of participant countries. ICEER2016 registered a total of 25 countries, from 5 continents, which justifies the increasing high internationalization of this conference series.

5. Keynote and plenary sessions of ICEER2016

Keynote and plenary sessions of ICEER2016 took place in the first day of the conference. The purpose of these, was to bring together all the participants from industry and academics, and break the ice, introducing the different topics of the conference, showing that they are all interrelated.

Jordi Segalàs (1967) works as associate professor at the UPC-Barcelona Tech. He is Director of the Research Institute of Sustainability Science and Technology and coordinates the Research Group on Sustainability Education and Technology. In his welcome message, Jordi Segalàs highlighted the importance of Sustainability themes in eigher education.

Didac Ferrer-Balas (1974) was appointed as the Coordinator of the Environment Plan of UPC in 2000. From 2005 to 2009, he was the director of CITIES (Interdisciplinary Center of Technology, Innovation and Education for Sustainability), and from 2009-2010 the technical director of the Institute of Sustainability (IS.UPC). He is currently the head of the Sustainable Management Office at UPC at UPC. In his plenary speech, he presented demonstrated how sustainability and energy efficiency can contribute to the reduction of energy costs.

Marc Alier Forment (1971) is an associate professor at UPC where he has been working in research and development related to the e-learning industry. His Keynote speech was about The Death Star Challenge: An Ambitious and Motivating Engineering Project to Promote Astronautics and Transform Society's Vision about Space Research.

J. Gordon Arbuckle, Jr. is Associate Professor with Department of Sociology, Iowa State University. His research and extension activities focus on improving the social and environmental performance of agriculture. Areas of interest include climate change and agriculture, water quality, non-operator landownership, natural resource-based rural development, and agri-environmental policy and practice in general. He is co-director of the Iowa Farm and Rural Life Poll. His plenary speech, focused on Understanding Farmer Perspectives on Climate Change to Inform Engagement Strategies for Adaptation (and Mitigation?).

Manuel Carlos Felgueiras (1963) started is professional activity in 1987 as electronic designer for automation systems. Later was invited to supervise a test laboratory for verifying the accomplishment of European Standards in thermoelectric household appliances. He started the teaching activity in 1994 as Assistant Professor and later on as Adjunct Professor and researcher with the Department of Electrical Engineering, School of Engineering, Polytechnic Institute of Porto (IPP), Porto, Portugal. His research interests include design for debug and test of mixed-signals, remote experimentation in e-learning and renewable energy sources. His keynote speech was about Sustainability in Buildings.

Helder Manuel Ferreira Santos started the teaching activity in 2000 as Assistant Professor and is today Adjunct Professor with the Mechanical Engineering Department, School of Technology and Management (ESTG), Polytechnic Institute of Leiria (IPL), Leiria, Portugal. His research interests include vehicle exhaust gas after treatment systems and waste heat recovery in automotive vehicles. His plenary speech was devoted to Automotive Vehicle Technologies for Internal Combustion Engine Exhaust Gas Thermal Energy Recovery.

Nídia de Sá Caetano (1964) started the teaching activity in 1992 as Assistant Professor and is today Coordinator Professor with the Chemical Engineering Department, School of Engineering (ISEP), Polytechnic Institute of Porto (IPP), Porto, Portugal. From March 2013 she is the director of the Master Course in Sustainable Energies of ISEP, in the Mechanical Engineering Department. Her keynote speech was about New Trends in Energy Production and Utilization.

6. Overview of the ICEER series

The International Conference on Energy and Environment Research (ICEER) series of conferences (http://www.iceer.net/) began in 2014 and is operated annually by international organizations:

- BarcelonaTECH (Universitat Poltècnica de Catalunya);

- Birla Institute of Technology and Science (BITS), Pilani – Dubai Campus;
- ISEP (School of Engineering of Polytechnic of Porto);
- Universidad Autónoma Metropolitana-Azcapotzalco (UAM), México;
- Prairie View A&M University, USA;
- KIT (Korea National Institute of Technology);
- The SCIence and Engineering Institute (SCIEI).

The ICEER conference series is an international conference series on energy and environment and it is meant to be a privileged space for debating topics or advances in this fields. The series is held on an annual basis, with planning and preparation from one month before the preceding conference.

7. Acknowledgements

Dear participant in ICEER 2016,

First of all, we would like to thank you for having participated in the Conference, and shared with all of us the results of your work.
We believe that the conference was a huge success due to your commitment.
We sincerely hope you have enjoyed your stay and the conference.

We would like to publicly thank the local organization Universitat Polytècnica de Catalunia, BarcelonaTECH, Spain(UPC), particularly for their efforts in hosting this event, in person of Prof. Jordi Segalas and Prof. Marc Alier – please extent our appreciation to the remaining staff.

We would also like to publicly thank the SCIEI organization, for their efforts and commitment to improve ICEER quality. Particularly the kind staff – Fiona, Cindy, Amanda and Dr. Xie.

We are now finishing the process of Editing the Conference Proceedings in Energy Procedia - a Scopus Indexed journal from Elsevier.
This was a major contribution from the organization team in order to rise the scientific importance of ICEER conferences.
You will soon receive an email devoted to this subject. We will need your fast cooperation again.

The next ICEER conference (ICEER 2017) will take place in the 3rd week of July 2017 @ ISET, in Porto, Portugal – Save the Date, please!
The next Conference Chair will be Prof. Nídia Caetano and the Program Chair will be Prof. Carlos Felgueiras.
We think you will just love your stay and participation in our future event – website will soon be available with details and news.

Thank you all.
Next event will be even better!!!
We hope to see you soon in ***ICEER2017@ISEP_Porto.***

The ICEER2016 Conference Chair,
Carlos
The ICEER2016 Program Chair,
Nídia
The ICEER2016 Local Chair,
Jordi

8. ICEER2017 @ ISEP (Porto, Portugal)

The 4th International Conference on Energy and Environment Research, ICEER2017, co-organised by the ISEP and SCIEI, will take place from 17-20 July 2017, at ISEP, School of Engineering of Polytechnic of Porto, Portugal.

Located along the Douro river estuary in northern Portugal, Porto (Fig. 2) is one of the oldest European centres,

and registered as a World Heritage Site by UNESCO in 1996. Its Latin name, *Portus Cale*, has been referred as the origin for the name “Portugal”, based on transliteration and oral evolution from Latin. In Portuguese the name of the city is spelled with a definite article as “o Porto” (English: the port). Consequently, its English name evolved from a misinterpretation of the oral pronunciation and referred to as “Oporto” in modern literature and by many speakers.

Fig. 2. Porto, UNESCO World Heritage.

Porto is one of the oldest tourist destinations in Europe and benefits from a privileged geographic location, complemented by a modern transport and communications network. The richness of its monumental and artistic heritage, Port Wine, numerous leisure facilities and its cultural and gastronomic attractions invite you to visit this contemporary and inspired city well-known for its hospitality, friendliness and cosmopolitan environment.

ISEP is one of the top schools of technology in Portugal, and has been pioneering education and research in Engineering since 1852 and is also a trademark of Porto. Its long history is well documented in the local museum. Fig. 3 shows a sample of ancient lab equipment.

Fig. 3. Samples of ancient equipment, property of ISEP Museum: left) Battery with 9 Leyde bottles. Discovered in 1746 by Musschenbroek, Alla man and Cuneus; right) Deprez and Carpintier Ammeter.

The ISEP goal is to contribute to the achievement of sustainable development, by creating and transmitting applied knowledge. This school has its own special long-established academic environment which has been revealed as an important success factor. The several taught subjects are strongly supported by experimental and practical classes. At the same time, students’ potential is channeled with the spirit of entrepreneurship, team work, out-of-box thinking and technical expertise, key skills for a successful international career.

ISEP offers a wide range of syllabus in different fields of Engineering, and it serves approximately 6500 students distributed by 14 undergraduate and 12 master courses, which partially justifies the large attraction of international students.

Save the date: 17-20 July, ICEER2017 @ ISEP