

## ABSTRACT QUESTIONNAIRE

**Please fill out all fields of this questionnaire according to the requests  
 (Except the one for the Organizing Committee).**

ABSTRACT Ref.:\* \_\_\_\_\_

\* Only for use by the Organizing Committee

Abstract Title:						
Presenting author:						
Type of Presentation:	Oral	<input type="checkbox"/>	Poster	<input type="checkbox"/>	No Option	<input type="checkbox"/>
Are you interested in participating in the “Best Presenting Awards”? <span style="color: red; font-size: small;">(Only for authors up to the age of 30)</span>	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>		

**Conference Topics: (Please mark all the options that better fit your work)**

**1) Hydrogen.**

- a) Production (chemical, electrochemical, photoelectrochemical).
- b) Purification (physical and chemical processes).
- c) Storage and transportation.
- d) Integration with renewable source energies.
- e) Environmental and social impacts.


**2) Fuel Cells.**

- a) Low and high temperature FCs.
- b) Applications of the different types of FCs.
- c) Development of components and materials.
- d) Mechanisms of FCs deterioration.
- e) Device integration.


**3) Advanced Batteries.**

- a) The different types of batteries (lithium, sodium, etc.).
- b) Redox flow batteries.
- c) Supercapacitors.
- d) Electrochromic energy storage devices.


**4) Other Relevant Topics**

- a) Electrolysis and CO<sub>2</sub> electroreduction.
- b) Modelling and simulation.


Does your work contain any modelling approach? (Mark only if Yes)

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An abstract for Hyceltec2017, formatting & layout. Please respect the left/right margins and convert to "pdf" before submitting (**style Title – Calibri 16**).

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**Keywords:** FCs, Hydrogen, Modelling, Simulation (**style Keywords – Calibri 9**)

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## 1. Introduction (**style – Calibri bold 10**)

The Organizing Committee of Hyceltec 2017 - VI Symposium on Hydrogen, Fuel Cells and Advanced Batteries, has the pleasure of inviting you to come to Porto (Portugal), to participate in this scientific meeting, which will be held from June 20<sup>th</sup> to June 23<sup>th</sup>, 2017.

The Hyceltec Symposium series started in 2008, in Bilbao-Spain, and continued in Vila-Real - Portugal (2009), Zaragoza - Spain (2011), Estoril - Portugal (2013) and Tenerife - Spain (2015). Initially targeting especially the Iberian region, Hyceltec 2017 became truly international. This edition will be hosted in Porto, the worldwide known "Port Wine" city. We are sure that the event will live up to your expectations.

Hyceltec 2017 aims at covering topics related to fuel cells, hydrogen and batteries, bringing together scientists from academic research, applied research and industry. We strongly believe in the great opportunity that all participants will have to meet each other, exchange ideas and, hopefully, initiate collaborations.

The scientific program will feature plenary lectures given by distinguished researchers from Academia&Industry, keynote lectures, oral and panel presentations. Also a special session devoted to the presentation of some leading international projects in the area will be allocated. In addition, decision makers from the EU Commission and Companies will also be invited. The oral sessions will be organized according to selected topics, each one introduced by a keynote lecture. To encourage poster contributions, a flash oral presentation will be organized and a continuous poster session will stimulate discussions throughout the conference. A number of awards for young presenters will be attributed to the best oral and poster contributions.

As usual in the Hyceltec conference series, selected papers will be published in special issues of the "Electrochimica Acta" and "International Journal of Hydrogen Energy" Journals.

Finally, we are strongly committed to complement the scientific program with an appealing social programme, either for the delegates or for the accompanying persons, to provide you with a taste of the genuine Portuguese hospitality and make your stay in Porto a remarkable experience. (**style – Calibri 10**).

## 2. Experimental

### 2.1 Topics (**style – Calibri italic 10**)

Our society is nowadays experiencing a great transformation, creating new paradigms. Among others, there is a strong feeling of urgency for moving towards carbon-free forms of energy, namely to renewable sources. According to the Intergovernmental Panel on Climate Change (IPCC) there is 50 % chance that we spend the entire carbon budget for keeping the planet below 1.5 °C of global temperature increase within 10 years. Fuel Cells, Hydrogen and Battery science and technology are part of the great worldwide endeavor to make the energy from renewable sources economically competitive and HYCELTEC 2017 will provide ground to facilitate fruitful exchanges of ideas, results and technology knowledge. It is our goal for this 6<sup>th</sup> edition of HYCELTEC to offer an overview of the most advanced studies and recent trends in the topics under discussion, highlighting the multidisciplinary approaches and the emerging areas. The conference will focus on the following topics:

1. Production (chemical, electrochemical, photoelectrochemical). Purification (physical and chemical processes). Storage and transportation. Integration with renewable energy sources. Environmental impacts.
2. Low and high temperature FCs. Applications of the different types of FCs. Development of components and materials. Mechanisms of FCs deterioration. Device integration.
3. Alkaline, alkaline-earth and transition metal batteries. Redox flow batteries. Supercapacitors. Electrochromic energy storage devices.
4. Electrolysis and CO<sub>2</sub> electroreduction. Modelling and simulation.

### 2.2 Organising Committee

José M. Sousa (Chair), University of Trás-os-Montes e Alto Douro (Portugal); Verónica Bermudez, University of Trás-os-Montes e Alto Douro (Portugal); Adélio Mendes, University of Porto (Portugal); Alexandra Pinto, University of Porto (Portugal); Bruna Pires, University of Porto (Portugal); Marta Boaventura, University of Porto (Portugal); Vânia Oliveira, University of Porto (Portugal).

### 2.3 Scientific Committee

Adélio Mendes (University of Porto, Portugal); Alexandra Pinto (University of Porto, Portugal); Angel Pierna (University of the Basque Country, Spain); Angelica Baena (Universidad Nacional de Ingeniería, Peru); Antonio Chica (ITQ, Polytechnic University of Valencia – CSIC, Spain); Barbara Mecheri (University of Rome Tor Vergata, Italy); Carmen RANGEL (LNEG, Portugal); David Marrero (University of Malaga, Spain); Diogo Santos (IST, Portugal); Duncan Fagg (University of Aveiro, Portugal); Edson Ticianelli (University of São Carlos, Brazil); Elena Pastor (University of La Laguna, Spain); Emilia Morallón (University of Alicante, Spain); Eva Chinarro (ICV – CSIC, Spain); Félix Barreras (LIFTEC – CSIC, Spain); Fernando Zinola (University of the Republic, Uruguay); Filipe Figueiredo (University of Aveiro, Portugal); Flaviano García (University San Pablo CEU, Spain); Gabriel Planes (Universidad de Río Cuarto, Argentina); Horacio Corti (National Commission of Atomic Energy, Argentina); Jorge Frade (University of Aveiro, Portugal); José Angel Peña (University of Zaragoza, Spain); José Cambra (University of the Basque Country, Spain); José García Fierro (ICP – CSIC, Spain); José Sousa (UTAD, Portugal); Juan Carlos Morales (University of Lima, Peru); Justo Lobato (University of Castilla-La Mancha, Spain); Maria Lázaro (ICB – CSIC, Spain); Manuela Silva (University of Minho, Portugal); María Martínez Huerta (ICP – CSIC, Spain); Miguel Peña (ICP – CSIC, Spain); Narcis Homs (University of Barcelona, Spain); Nicolas Alonso Vante (University of Poitiers, France); ...

## 3. Results

### 3.1 Payment Conditions

Payments must be made in Euros (EUR) and shall be free of any bank handling charges. All the fees include VAT.

Please make a copy of the documentation and send it by fax, post or attached in an e-mail to the Conference Secretariat. To enable us to identify your payment, please remember to use the reference "Hyceltec 2017 – Your Name(s) and Surnames(s)".

### 3.2 Important dates

Important dates are indicated in Table 1.

Table 1. Tables are presented as usual in papers (style Table caption – Calibri 9).

Date	Event (style table cell – Calibri 9)
January 16 <sup>th</sup> 17	Call for Abstracts and Registration Open.
March 3 <sup>rd</sup> 17	Deadline for Abstracts Online Submission.
April 3 <sup>rd</sup> 17	Notification of Abstract Acceptance.
April 24 <sup>th</sup> 17	Early Registration Deadline.
July 31 <sup>st</sup> 12	Deadline for Manuscript Submission in <i>Electrochimica Acta</i> and in <i>IJHE</i> .

## 4. Discussion

### 4.1 Porto: A World Heritage

Porto (or Oporto), also known as "Cidade Invicta", meaning "unvanquished city", is worldwide known by its Port Wine. Porto, located along the mouth of the Douro

river in northern Portugal, is the second largest Portuguese city with 300 thousand inhabitants and is the heart of a metropolitan area of great vitality, with a population of 1.7 million.

The social and trade relations that Porto has developed over time with Northern Europe, Mediterranean region, Africa, South America (Brazil) and Asia (India, China and Japan) are reflected in the city's rich cultural heritage. From the remains of Visigothic and Celtic villages, Roman roads, bridges and Castros to Romanesque and Gothic churches and cathedrals built during the Medieval Age, centuries of mankind-built heritage are to be discovered in and around Porto.

The recognition of Porto's Historical Centre by UNESCO in 1996 as a World Heritage City, and the nomination as European Capital of Culture in 2001, are undoubtedly a tribute to its wealth of over two thousand years of history.



Fig. 1. A glass of Port Wine.

Bitmap pictures should be at least 200 dpi (i.e., 8 d/mm) to appear crisp and sharp. This means at least 640-pixel wide. Figures are inserted into the text with their own paragraph style, before fig. caption. (style Figure caption – Calibri 9)

## 5. Conclusions

The friendly welcoming nature of the Portuguese people, highly professional and cost-effective services are a guarantee of a successful sojourn and will give you something more than pictures and memories to cherish.

### Acknowledgements

The Organizing Committee would like to acknowledge the time you spent in reading the instructions. Please feel free to contact us for any further information (hyceltec2017@fe.up.pt).

### References

- [1] X. Author, Y. Author, Z. Author, How to submit an abstract for Hyceltec, *Journal of Instruction*, 20 (2011) 1-5. (style References – Calibri 9)