



## CALL FOR PAPERS

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Note: Evaluation for oral presentation has already started.

# 5<sup>th</sup> European PEFC & H<sub>2</sub> Forum

19<sup>th</sup> Conference in Series  
with Exhibition and Demonstration Area

## 30 June – 3 July 2015

Kultur- und Kongresszentrum  
Lucerne, Switzerland

Chairman of the Conference  
**Prof. Dr. sc. Frano Barbir**  
FESB University of Split  
Fellow IAHE

Featuring:

All HYDROGEN FUEL CELLS like PEFC, HTPEM, AFC, PAFC,  
DIRECT ALCOHOL FUEL CELLS like DMFC and  
MICROBIAL FUEL CELLS as well as  
HYDROGEN production, storage and infrastructure

- 300 technical and scientific presentations
- 500 participants from all over the world
- 30 FC & H<sub>2</sub> technology exhibitors and suppliers for material, testing, components

Organised by the European Fuel Cell Forum  
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# CALL FOR PAPERS

## 5<sup>th</sup> European PEFC & H<sub>2</sub> Forum 2015

Bringing Hydrogen Fuel Cells & Hydrogen, as part of our energy future, closer to deployment

Chairman of the Conference  
**Prof. Dr. sc. Frano Barbir**

Professor, FESB University of Split; Fellow, International Association for Hydrogen Energy IAHE

### Scope of the Forum

The 5<sup>th</sup> EUROPEAN PEFC & H<sub>2</sub> FORUM 2015 addresses issues of science, engineering, materials, systems, testing, applications and markets for all HYDROGEN FUEL CELLS like PEFC, HTPEM, AFC, PAFC, DIRECT ALCOHOL FUEL CELLS like DMFC and MICROBIAL FUEL CELLS as well as HYDROGEN production, storage & infrastructure (H<sub>2</sub>PSI). For the first time, also microbial fuel cells are included in this call. The Forum continues the strong tradition as a very recognized international meeting on H<sub>2</sub>FC and H<sub>2</sub>PSI science and technology. The Forum aims at a fruitful dialogue between researchers, engineers and manufacturers, between hardware developers and potential users, between academia, industry and decision makers. Business opportunities will be identified for manufacturers, commerce, consultants, decision makers and investors. Although a Europe-bound event, participation is invited from all continents. In 2013, the EUROPEAN PEFC & H<sub>2</sub> FORUM was Europe's largest event dedicated to Hydrogen Fuel Cells, Direct Alcohol Fuel Cells and Hydrogen exclusively and has evolved to the leading European meeting place. It provides an excellent opportunity for scientists, engineers and manufacturers to present recent technical progress and products, to establish new contacts in the appreciated networking events and to exchange scientific and technical information.

A Scientific Advisory Committee has been formed to structure the technical programme of the 5<sup>th</sup> EUROPEAN PEFC & H<sub>2</sub> FORUM. This panel exercises full scientific independence in all technical matters. All papers presented as lectures or posters will be collated in electronic proceedings, which will be distributed to all participants at the time of registration and later be available for stakeholders, libraries, research institutions and universities. Also, all participants will receive a Conference Agenda containing the Abstract of all orals and posters as well as essential conference information. The 5<sup>th</sup> EUROPEAN PEFC & H<sub>2</sub> FORUM is open to the below listed focuses and topics.

### Technical Programme

The three day technical conference will feature parallel lectures of invited and contributed papers and posters. Care will be taken by the Scientific Advisory Committee to ensure that all presentations are of consistent high quality, yet understandable to follow by participants with limited exposure to the subjects. The technical programme of the 5<sup>th</sup> EUROPEAN PEFC & H<sub>2</sub> FORUM focuses on:

- **HYDROGEN FUEL CELLS** like PEFC, HTPEM, AFC, PAFC
- **DIRECT ALCOHOL FUEL CELLS** like DMFC
- **MICROBIAL FUEL CELLS**
- **HYDROGEN – Sustainable PRODUCTION – STORAGE – INFRASTRUCTURE**

The following topics are called:

- FC catalysts
- FC membranes & other components
- Characterization of FC materials
- Durability and degradation mitigation strategies
- FC diagnostics & modelling
- Stack and system integration, operation strategies
- H<sub>2</sub> production with emphasis on electrolysis techniques, e.g. PEM and alkaline
- H<sub>2</sub> storage material and systems including theory and modelling
- H<sub>2</sub> infrastructure and demo sites systems, operation and costs
- Fuel processing and hydrogen purification
- FC power trains and vehicles
- Portable applications and early markets
- Combined heat and power
- Major regional & company developments
- Demonstration and deployment – success stories
- Assessment, applicability & education

### Forum Events

[www.EFCF.com/Events](http://www.EFCF.com/Events)

30 June 2015	09:00–16:00 10:00–17:00	Exhibition & poster set-up, 16:00 Registration, 18:00 "Welcome Reception" Fuel Cell and Hydrogen Tutorial
1 July 2015	09:00–18:00 18:30	Oral and Poster Sessions, Exhibition "Swiss Surprise" (optional, individual registration)
2 July 2015	09:00–18:00 19:30	Oral and Poster Sessions, Exhibition "Dinner on the Lake" steamboat excursion
3 July 2015	09:00–17:00	Oral and Poster Sessions, Exhibition, Schoenbein Medal Award, Closing Ceremony

### Exhibition

[www.EFCF.com/Exhibition](http://www.EFCF.com/Exhibition) registration on [www.EFCF.com](http://www.EFCF.com)

Adjacent to the auditorium a technical Fuel Cell & Hydrogen (FC&H<sub>2</sub>) exhibition will be held, to offer FC&H<sub>2</sub> industry, suppliers, test equipment providers and research laboratories the opportunity for presenting their latest accomplishments and products in fuel cell technology and related areas. Exhibitors from all parts of the world are invited to participate. Besides FC&H<sub>2</sub> developers, who show systems prototypes and related hardware, suppliers present new materials, stack and system components, control devices, production technology, qualification and test benches and diagnosis tools as well as research results etc.

## Organization

[www.EFCF.com/Conference](http://www.EFCF.com/Conference)

The 5<sup>th</sup> EUROPEAN PEFC&H<sub>2</sub> FORUM 2015 is organized by the European Fuel Cell Forum in Lucerne, which handles all administrative issues. The Scientific Organizing and Advisory Committee and its Chairman Prof. Frano Barbir of FESB University of Split are responsible for the scientific program. Please find details on [www.EFCF.com/Conference](http://www.EFCF.com/Conference).

## Venue

[www.EFCF.com/Lucerne](http://www.EFCF.com/Lucerne)

The 5<sup>th</sup> EUROPEAN PEFC&H<sub>2</sub> FORUM 2015 will be held traditionally at the Culture and Convention Centre Lucerne (KKL) in conjunction with the FC&H<sub>2</sub> EXHIBITION and a FC&H<sub>2</sub> TUTORIAL. The KKL conference centre is of fascinating architecture and located on the waterfront of the Lake Lucerne, one minute from the railroad station and within easy walking distance from the hotels.

## Call for Papers

[www.EFCF.com/AC](http://www.EFCF.com/AC)

Members of academic institutions, research organizations and industry are invited to submit papers for presentation at the 5<sup>th</sup> EUROPEAN PEFC&H<sub>2</sub> FORUM 2015. Technical papers dealing with above topics and emphasis on fundamentals, materials, systems and applications may be **submitted via Author Center by 30 November 2014**. The submission procedure is:

1. Download Abstract Template + Instructions from [www.EFCF.com/Download](http://www.EFCF.com/Download)
2. Follow the instructions and upload your one-page abstract at [www.EFCF.com/Upload](http://www.EFCF.com/Upload) by **30 November 2014**.  
Prior fill in your contact data as an author in the Author Center.
3. Get notification about acceptance in **February 2015** and submit then the **full-length manuscripts by 30 April 2015**.

For questions, please check [www.EFCF.com/FAQ](http://www.EFCF.com/FAQ) or email to [unisplit@efcf.com](mailto:unisplit@efcf.com). The 5<sup>th</sup> EUROPEAN PEFC&H<sub>2</sub> FORUM 2015 cannot provide financial support to authors of papers. Presenting authors should register for the Forum and pay the appropriate registration fee by 30 April 2015. Afterwards late registration charge applies.

**You MISSED the DEADLINE catch the last chance:**  
[www.EFCF.com/AC](http://www.EFCF.com/AC) Author Center - Become immediately a [New Author](#)  
and inform [unisplit@efcf.com](mailto:unisplit@efcf.com) when you submit.

## Publication Policy

[www.EFCF.com/PP](http://www.EFCF.com/PP)

All oral and poster presentations are published in Electronic Proceedings distributed to the participants. The manuscript abstract is printed in the "Conference Agenda".

A limited number of contributions will be invited to be included in a Special Issue in the Journal "Fuel Cells – From Fundamentals to Systems" published by Wiley-VCH. E.g.: The 2012 selected papers have been published in Volume 13, Issue 4 Pages 445–653 for reference.

The other contributions will be published as open accessible on-line publication on the EFCF web-site ([www.EFCF.com](http://www.EFCF.com)) with the number ISBN 978-3-905592-19-1. Authors who do not wish to be included in the web publication, e.g. due to publication elsewhere, can opt out. Their extended abstract will then be only available on the USB stick for the audience of the conference, which is not an officially recognised publication, i.e. the publication opportunities remain free for the authors.

Final Announcement, Programme and Registration details are distributed by letter post and announced on [www.efcf.com](http://www.efcf.com) in March 2015.

## Time Schedule

- 30 November 2014: Deadline for submission of abstracts. Send abstracts via website on [www.EFCF.com/Upload](http://www.EFCF.com/Upload). All abstract will be evaluated by the Scientific Advisory Committee and selected for oral or poster presentation. Authors are personally informed in February 2015. Late abstracts cannot be considered for oral presentation.
- 15 March 2015: Final Announcement with comprehensive oral and poster program, exhibitors and registration.
- 30 April 2015: Deadline for regular registration privileges and blocking of convenient hotels.

## Forum Fee

[www.EFCF.com/Fee](http://www.EFCF.com/Fee)

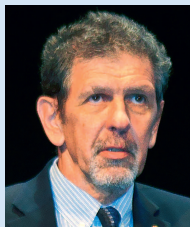
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| • Students, trainees and unemployed persons etc. with valid identification | 700 CHF incl. 8% VAT where applicable     |
| • Members of government, universities, consultants etc.                    | 1400 CHF incl. 8% VAT where applicable    |
| • Members of industry and commerce (700 CHF donation for student support)  | 2000 CHF incl. 8% VAT where applicable    |
| • Fuel Cell and Hydrogen Tutorial  | 500 CHF incl. 8% VAT where applicable     |
| • Late charge for registrations from 01 May 2015/for On-Site registration  | 100/250 CHF incl. 8% VAT where applicable |

One Swiss Franc ("CHF") is valued at about 0.83 EURO or 1.09 US Dollar (Sept 2014). The fees include access to conference and exhibition, Conference Agenda, USB stick with Proceedings of the 5<sup>th</sup> EUROPEAN PEFC&H<sub>2</sub> FORUM 2015 and other information, business lunches, refreshments, **Welcome Reception** on Tuesday with wine and beer and **Dinner on the Lake** (i.e. on paddle wheel steamer boat) on Thursday. Optional: **Swiss Surprise** on Wednesday (120 CHF pp).

## Chairman of the Conference

### Prof. Dr. sc. Frano Barbir

Faculty of Electrical Engineering, Mechanical Engineering and Naval Architecture  
University of Split, Croatia



**Frano Barbir** is Professor and Chair of Thermodynamics at Faculty of Electrical Engineering, Mechanical Engineering and Naval Architecture, University of Split, Croatia.

He has been actively involved in fuel cell technology R&D, engineering and applications since 1989, working in U.S. as a researcher and R&D manager in both industry (Energy Partners, Proton Energy Systems) and at universities (University of Miami, University of Connecticut), and in Turkey as the Associate Director of Science and Technology at UNIDO – International Centre for Hydrogen Energy Technologies.

His research interests include heat and mass transfer in PEM fuel cells, effects of operational conditions on fuel cell performance and durability, design of fuel cells and fuel cell stacks, fuel cell applications, and hydrogen energy concept and its role in energy future.

He has authored and/or co-authored more than 200 papers on hydrogen and fuel cells published in scientific and technical journals, books, encyclopaedias, and conference proceedings, as well as 7 U.S. patents on various aspects fuel cell stack and system design and operation. His book, PEM Fuel Cells: Theory and Practice, published by Elsevier/Academic Press in 2005 (2<sup>nd</sup> edition came out in September 2012), is being used as a textbook at many universities all over the world. He is the Emeritus Editor of the International Journal of Hydrogen Energy (after serving for 13 years as the Associate Editor), and he serves on the Board of Directors of the International Association of Hydrogen Energy.

Prof. Barbir holds a Dipl.-Ing. degree in mechanical engineering and an M.Sc. degree in chemical engineering both from University of Zagreb, Croatia, and a Ph.D. degree in mechanical engineering from University of Miami, Coral Gables, FL.

## Scientific Advisory Committee

[www.EFCF.com/SAC](http://www.EFCF.com/SAC)

- Dr. Naveed Akhtar, AFC Energy plc., UK
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- Dr. Angelo Esposito, EIFER, Germany
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- Prof. Huamin Zhang, Dalian China Institute, China

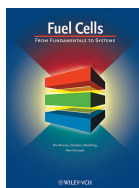
## Scientific Organising Committee [www.EFCF.com/SOC](http://www.EFCF.com/SOC)

- Prof. Frano Barbir, FESB, University of Split, Croatia (Chair)
- Prof. Gojmir Radica, FESB, University of Split, Croatia
- Dr. Ivan Tojč, FESB, University of Split, Croatia
- Prof. Daniel Hissel, FCLAB Uni de Franche-Comte, France
- Dr. Angelo Esposito, EIFER, Germany
- Dr. Joachim Scholta, ZSW, Germany

## International Board of Advisors [www.EFCF.com/IBoA](http://www.EFCF.com/IBoA)

### 5<sup>th</sup> European PEFC & H<sub>2</sub> Forum 2015 30 June – 3 July 2015 Lucerne, Switzerland

- This high-level international fuel cell event offers an honest presentation of the state-of-the-art technology in beautiful Switzerland
- About 300 technical contributions with full length manuscripts on USB-stick Proceedings
- Superb conference facilities with excellent services
- Excellent food and refreshments
- Unique networking events: "Welcome Reception", "Swiss Surprise", and "Dinner on the Lake"
- Pleasant walking from hotels to conference centre International Exhibition of fuel cell and hydrogen products and components



Official Carrier



Organised by the  
**EUROPEAN FUEL CELL FORUM**

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