4th INTERNATIONAL HYBRID POWER SYSTEMS WORKSHOP

BACKGROUND INFORMATION

Crete, Greece
May 2019

CONTACT

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4th International Hybrid Power Systems Workshop

After three successful workshops in Hawaii (2014), Puerto Rico (2016) and Tenerife (2018), we would like to introduce you to the 4th International Hybrid Power Systems Workshop planned for May 2019 in Crete, Greece.

Purpose

The main objective of the workshop is to discuss the challenges that arise with the integration of high shares of renewables (wind, solar, hydro) into isolated/island power systems/micro-grids in combination with batteries/flywheels and conventional power generators.

Finding viable combinations of conventional and renewable energy is one key solution for the efficient and sustainable running of these types of power systems. International experts will convene for the 4th International Hybrid Power Systems Workshop to share their project experiences and to detect areas in need of improvement.

Background

One challenge of island grids and micro-grids is to maintain the balance between production and consumption. Diesel generators are still frequently used for this task. Due to the unavoidable dependence on fuel price and delivery options, and the environmental impact, alternatives are being sought. Wind and solar power are independent of imported fuels and environmentally friendly, and therefore the logical choice for island and micro-grids. However, these renewable energies are dependent on variable resource availability; hence their maximum production capacity is subject to natural fluctuations. It is therefore important to develop strategies for how to align production and consumption in the best possible way and to find the perfect combination of conventional and renewable energy.
Advisory Committee of the Hybrid Power Systems Workshop

The Workshop Advisory Committee consists of currently 31 members. Besides giving general advice for content and topics of the workshop, and working as reviewers of submitted abstracts during the Call for Paper process, they are acting as multipliers for the workshop idea and date.

All members receive the paper/digital leaflets and support the workshop communication.

- Tom Acker | Northern Arizona University, USA
- Thomas Ackermann | Energynautics, Germany
- Miguel Aires Martins | EDA Renewables, Azores/Portugal
- Francisco Boshell | IRENA, Germany
- Peter W. Christensen | Vestas, Denmark
- Edward Coster | Stedin, Netherlands
- Bernhard Ernst | Bernhard Ernst Energy Consulting, Germany
- Alain Forcione | Hydro Québec/IREQ, Canada
- Jens Fortmann | HTW Berlin, Germany
- Daniel Fraile | WindEurope, Belgium
- Michael Nørtoft Frydensbjerg | Vattenfall, Denmark
- Jutta Hanson | Technical University of Darmstadt, Germany
- Bo Hesselbæk | Vestas, Denmark
- Philipp Kunze | OneShore Energy, Germany
- Peter Lilienthal | HOMER Energy, USA
- Julija Matevosyan | ERCOT, USA
- Nickie Menemenlis | Hydro Québec/IREQ, Canada
- Terji Nielson | SEV, Faroe Islands
- Lise Nielson | Linie P, Denmark
- Barbara O’Neill | NREL, USA
- Eckard Quitmann | ENERCON, Germany
- Nigel Schofield | University of Huddersfield, United Kingdom
- Dezso Sera | Aalborg University, Denmark
- Charles Smith | ESIG, USA
- Poul Ejnar Sørensen | DTU, Denmark
- Derek Stenclik | GE Power, USA
- Pieter Tielens | Tractebel (ENGIE), Belgium
- Adrian Timbus | ABB, Switzerland
- Helge Urdal | Urdal Power Solutions, United Kingdom
- Julio Usaola | University Carlos III Madrid, Spain
- Éric Vales | Vergnet, France
Focus of the Conference

The 4th International Hybrid Power Systems Workshop offers a prime opportunity to discuss the future of hybrid power systems. Participants will look at applications in a variety of locations and operating environments with a focus on system design, operating experience, business models, economics, and implementation issues.

The workshop therefore addresses a wide audience:

- system planners and designers
- operators of small systems
- project developers and consultants
- universities and research institutes
- regulators and NGOs
- technology vendors of distributed variable generation & storage technology

The selection of topics also highlights the balancing act isolated systems pose for all stakeholders:

- Power Systems Design Options
- Hybrid System Technologies
- Project Experience
- Storage Design and Sizing
- System Modelling and Simulation
- Remote Mining Application
- Intelligent Control and Grid Stabilization
- Resource Assessment and Forecasting
- Managing Variability and Uncertainty
- Mini-/Micro-Grid System Design
- Economic Development
About the Organizer

This conference is being organized by Energynautics, Germany. It is a partner event of the renowned Solar and Wind Integration Workshops and the E-Mobility Power Systems Integration Symposium organized annually by Energynautics as well. As an expert in isolated power systems with a high share of renewable energies, Energynautics brings extensive knowledge and project experience to the table. For instance, they have developed a sophisticated grid code for the Barbados Light & Power Company (BLPC) and have successfully concluded an impressive grid study for the World Bank and the Government of the Seychelles.

Review 2018

129 participants from 30 countries joined us for the workshop 2018 in Tenerife, Spain. A total of 55 presentations were given during this 2-day event.
The 4th International Hybrid Power Systems Workshop

- Date: May 2019
- Location: Crete, Greece
- Expected number of participants: >120

Preliminary Timetable:

<table>
<thead>
<tr>
<th>Day</th>
<th>Schedule</th>
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<tbody>
<tr>
<td>Day 1</td>
<td>Hybrid Power Systems Workshop – Day 1</td>
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<td>Evening: Dinner</td>
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<tr>
<td>Day 2</td>
<td>Hybrid Power Systems Workshop – Day 2</td>
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<td>Day 3</td>
<td>Field Trip</td>
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For further details visit: www.hybridpowersystems.org
Your Benefits as Sponsor

Being sponsor of the Hybrid Power Systems Workshop not only raises awareness for your company among participants but also gives you the following two main advantages:

**MEET YOUR FUTURE EMPLOYEES & PARTNERS**

- Find highly qualified students & professionals among participants
- Network with potential candidates at your company roundtable
- Display your job announcements in our workshop material & on rollups
  - Meet potential partners for new projects

**FREE PROFESSIONAL TRAINING FOR YOUR TEAM**

- Train your employees on specific topics about the integration of RE
  - Share & receive fresh ideas about current issues
- Find solutions for your ongoing projects in industry & academia
  - Have serious discussions with worldwide experts
Sponsor Packages “Hybrid Power Systems Workshop”

- **Small** company logo on Hybrid Power Systems Workshop website, newsletters, flyers, rollups etc.
- **One** participant of the sponsor can join the Hybrid Power Systems Workshop for free (incl. dinner/excl. tutorials)
- Up to **three** additional workshop proceedings (on flash drive)
- **One** page advertisement in color in the proceedings (on flash drive)
- One rollup during the workshop
- Distribution of flyers during the workshop

Sponsorship fee: Please contact us!  Mega Sponsor

- **Large** company logo on Hybrid Power Systems Workshop website, newsletters, flyers, rollups etc.
- **Three** participants of the sponsor can join the Hybrid Power Systems Workshop for free (incl. dinner/excl. tutorials)
- Up to **five** additional workshop proceedings (on flash drive)
- **One** page advertisement in color in the proceedings (on flash drive)
- **One** rollup during the workshop
- Distribution of flyers in delegate bags

Sponsorship fee: Please contact us!  Giga Sponsor

- **Large** company logo on Hybrid Power Systems Workshop website, newsletters, flyers, rollups etc.
- **One special additional logo arrangement** (see page 8 for all options)
- **Five** participants of the sponsor can join the Hybrid Power Systems Workshop for free (incl. dinner/excl. tutorials)
- **Corporate roundtable** for technical discussions, networking & recruiting during breaks and poster session
- Up to **two** rollups or **one** display during the workshop
- Up to **five** additional workshop proceedings (on flash drive)
- Distribution of flyers and inserts in delegate bags
- **Content box** in one workshop newsletter issue

Sponsorship fee: Please contact us!  Tera Sponsor
Hybrid Power Systems Workshop Options for the “Tera Sponsor” Package

Use this opportunity to get a higher visibility at the workshop by choosing one of the following options to be included in your “Tera Sponsor” package. Further options can be booked for an additional charge. Please contact us for a quote.

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<td>Logo on displays during dinner</td>
<td>“Dinner Sponsor”</td>
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<td>Logo on coffee table displays</td>
<td>“Coffee Break Sponsor”</td>
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<td>Logo on displays at the wardrobe</td>
<td>“Wardrobe Sponsor”</td>
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<td>Logo on internet registration webpage</td>
<td>“Internet Sponsor”</td>
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<td>Logo &amp; wording in event app</td>
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<td>Logo on lanyards worn by participants</td>
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<td>Advertisement in the workshop guide</td>
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Embedding your Logotype

See here some examples from the 3rd International Hybrid Power System Workshop on where your logotype could be positioned.
Sponsors & Supporters of the 3rd Hybrid Power Systems Workshop, 2018

<table>
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<tr>
<th>Co-Sponsor</th>
<th>Mega Sponsors</th>
<th>Supporters</th>
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<td>2018</td>
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## Sponsors & Supporters of previous Partner-Workshops: “Wind Integration Workshop”

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