



energynautics
solutions for sustainable development


Welcome to...

**3rd International
Hybrid Power Systems Workshop**

8 - 9 May 2018
Tenerife, Spain 


by Thomas Ackermann
Energynautics, Germany

www.energynautics.com



energynautics
solutions for sustainable development

Biography Thomas Ackermann



Diplom Wirtschaftsingenieur

- (MSc in ME and MBA) - Berlin, Germany

MSc in Physics

- New Zealand

Ph.D. Electrical Engineering (Power System Deregulation and Distributed Generation)

- Stockholm, Sweden

Worked as a consultant in the Energy and Renewable Energy Industry for the past 25 years

- Germany, Sweden, China, New Zealand, Australia, India, Denmark, Japan, Costa Rica, Guatemala, Kenya, Seychelles, Barbados, Estonia, Vietnam, Indonesia, Philippines and USA

Involved in Design of Hybrid Power Systems since 1994

Currently CEO of Energynautics, a German-based research and consulting company in the field of renewable generation and power systems

- e-Mail: t.ackermann@energynautics.com

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Energynautics Team at the Workshop





Dr. Eckehard Tröster
CEO of energynautics

- Dr.-Ing. Electrical Engineering, TU Darmstadt



Peter-Philipp Schierhorn
Electrical Engineer R&D at energynautics

- Electrical Engineering with focus on Power Systems at the TU Darmstadt



Dr. Nis Martensen
Senior Research Engineer at energynautics

- Dr.-Ing. in Energiesystemtechnik, TU Clausthal

Energynautics



The Workshop Team:



Uta Betancourt



Ines Drewianka



Anke Ost

The entire Energynautics Team:



Selected Energynautics Clients & Partners




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PUC


CEC


Sterlite Power


BSES


LIGHT & POWER


prognos


energie


PK EBA NET


minae


GREENPEACE


WWF


Federal Ministry for the Environment, Nature Conservation and Nuclear Safety


Federal Ministry for Economic Affairs and Energy


Rheinland-Zeit


MINISTRY OF NEW AND RENEWABLE ENERGY


MINISTRY OF POWER


MINISTRY OF ECONOMIC AFFAIRS AND COMMUNICATIONS


Ministry of the Environment and Conservation, Agriculture and Consumer Protection of the State of North Rhine Westphalia


MINISTRY OF PUBLIC INFRASTRUCTURE, SEA AND SHIPPING


PUBLIC SERVICE REGULATORY COMMISSION OF THE REPUBLIC OF LATVIA


Energynautics Areas of Expertise



SUSTAINABLE DEVELOPMENT FOR POWER AND ENERGY

Renewable Energies	Distribution Systems	Electromobility
Smart Grids	Combustion Engine Power Plants	Electricity Markets
Grid Codes	Island & Hybrid Power Systems	Transmission Systems

Motivation for the Workshop





energynautics
solutions for sustainable development

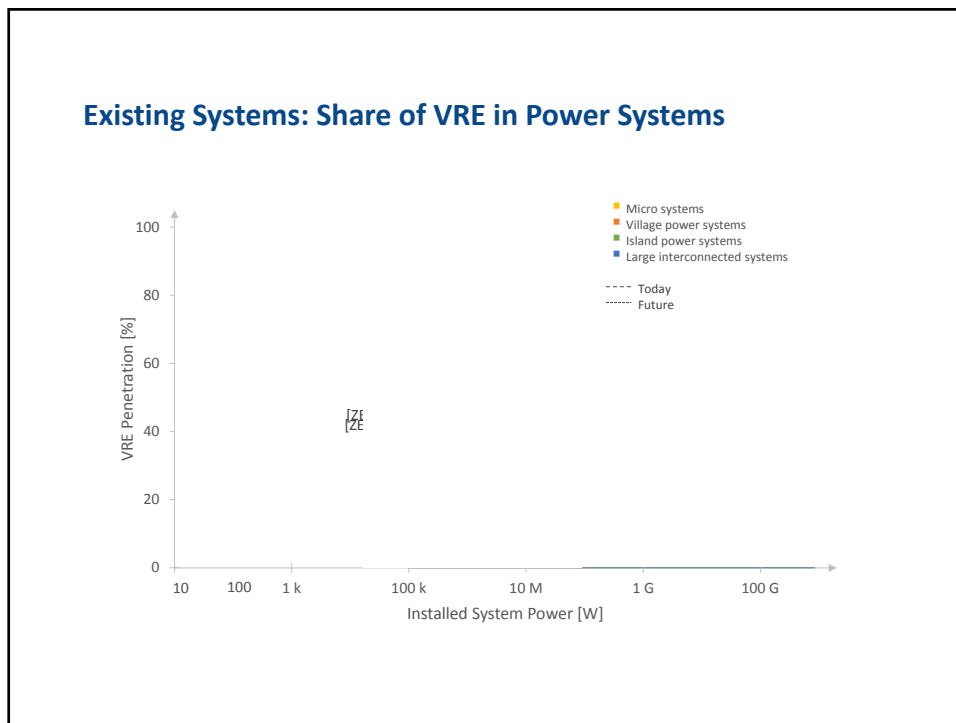
3rd Hybrid
Power Systems
Workshop

Tenerife
Spain

8 - 9 May 2018


→


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Number of Participants of the 3rd Hybrid Power Systems Workshop



Country	Number	Country	Number
Germany	42	Gambia	2
Spain	21	Zambia	2
United States of America	9	Niger	2
France	6	Latvia	2
Belgium	4	Cameroon	2
Netherlands	4	Madagascar	2
Portugal	3	United Kingdom	2
Japan	3	Mauritania	2
Netherlands Antilles	2	Canada	2
Switzerland	2	Cape Verde	2
Denmark	2	Kenya	2
Greece	2	Other Countries *	7
		TOTAL	129

* Cyprus, Faroer Islands, Austria, Italy, Nigeria, Sweden, Burkina Faso

We thank our...



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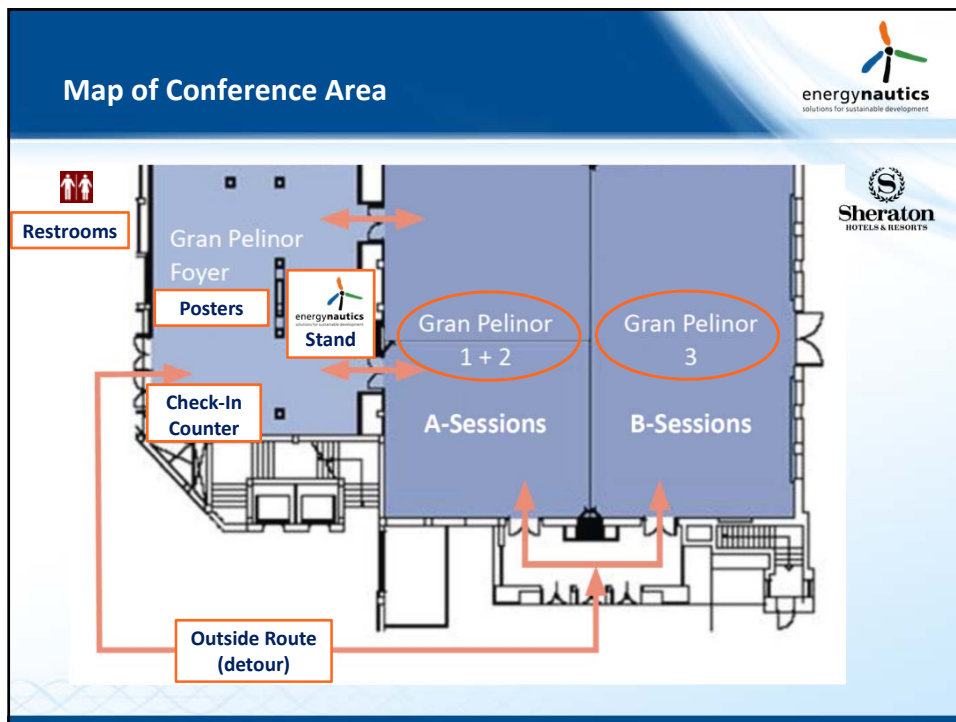


Supporters



Media Partners





Program – Tuesday, 8 May (Morning)

09:00 - 09:10	
<u>Gran Pelinor 1-3</u>	
Opening WELCOME AND INTRODUCTION	
09:10 - 10:50	
<u>Gran Pelinor 1-3</u>	
Session 1 KEYNOTE SESSION – CANARY ISLAND EXPERIENCE	
10:50 - 11:20	
Coffee Break (30 Min.) & Poster Session	
11:20 - 13:00	
<u>Gran Pelinor 1+2</u>	<u>Gran Pelinor 3</u>
Session 2a PROJECT EXPERIENCE I	Session 2b SIMULATION TOOLS
13:00 - 14:00	
Photo Session & Lunch (1 h)	

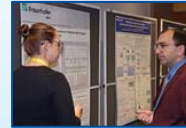
Coffee Break & Poster Sessions



Location: La Glorieta

>>> Please follow the signs to the location

Poster presentations in the foyer will take place during coffee breaks!



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Lunch & Photo Session



Location: El Parador

Tuesday: 13:00 – 14:00 | Group picture before lunch!

Wednesday: 12:40 – 13:40



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Program – Tuesday, 8 May (Afternoon)



14:00 - 15:40	
<u>Gran Pelinor 1+2</u> Session 3a STORAGE ISSUES	<u>Gran Pelinor 3</u> Session 3b SYSTEM CONTROL ASPECTS
15:40 - 16:00	
Coffee Break (20 Min.) & Poster Session	
16:00 - 18:00	
<u>Gran Pelinor 1+2</u> Session 4a PPOJECT EXPERIENCE II	<u>Gran Pelinor 3</u> Session 4b ECONOMIC ISSUES
19:30	
WORKSHOP DINNER Sheraton La Caleta: Caney Outdoor	


Workshop Dinner




Location: Caney Indoor
Date: Tuesday, 8 May, 19:30


>>> Please follow the signs to the location



Program – Wednesday, 9 May (Morning)	
 energynautics solutions for sustainable development	
08:30 - 10:30	
<u>Gran Pelinor 1+2</u> Session 5a MODELLING ISSUES	<u>Gran Pelinor 3</u> Session 5b SYSTEM DESIGN ASPECTS I
10:30 - 11:00	
Coffee Break (30 Min.) & Poster Session	
11:00 - 12:40	
<u>Gran Pelinor 1+2</u> Session 6a FORECASTING & INTEGRATION ISSUES	<u>Gran Pelinor 3</u> Session 6b SYSTEM DESIGN ASPECTS II
12:40 - 13:40	
Lunch (1 h)	

Program – Wednesday, 9 May (Afternoon)	
 energynautics solutions for sustainable development	
13:40 - 15:40	
<u>Gran Pelinor 1+2</u> Session 7a STABILITY ISSUES	<u>Gran Pelinor 3</u> Session 7b MICRO GRID DESIGN ASPECTS
15:40 - 16:00	
Coffee Break (20 Min.) & Poster Session	
16:00 - 17:00	
<u>Gran Pelinor 1-3</u> Session 8 CLOSING SESSION	

Study Trip





LAST TICKETS
available at the
check-in counter

Location: Institute of Technology & Renewable Energies (ITER)
Date: Thursday, 10 May 2018
Meeting Point: 9:15 at hotel entrance

Guided tour at ITER:

- introduction to the park
- visit of the datacenter and the laboratory/ D-ALiX
- lunch pack will be provided
- stop at the close-by airport (TFS) on way back to the conference hotel between 13:30 and 15:00

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Workshop Guidelines I



You can change sessions while they go on, but ...

- Carry your **name tag** all the time
- Please set your **phone on silent mode**
- If necessary, speakers **must** update their presentation **at least 15 min. before the session or during coffee break**
- Please fill out **both** the session survey that you receive during sessions and the online-feedback form we will email to you
- **Go online** with Free WiFi > **See cards on your table** with login details
- Please **mark your bags**
- Please **deposit your luggage** at the day of your departure at your hotel. Storage space at the Sheraton reception is limited.



Alternative: Leave your bags in the back of the conference rooms.

Workshop Guidelines II



- **No video** recording during sessions
- If requested by the speaker, **photos** (using phone, tablet, photo camera, etc.) are also forbidden



International Advisory Committee



- | | | |
|--|--|---|
| <ul style="list-style-type: none"> ▪ 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
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SEV, Faroe Islands ▪ Lise Nielson
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Vergnet, France |
|--|--|---|

If you want to join the Advisory Committee next year, please contact Dr. Thomas Ackermann!

Taxi Service to Airport TFS



Date: Wednesday Evening, 9 May 2018
Price: 20 Euro



If you are interested, please sign up at the check-in counter!

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ENJOY THE WORKSHOP!



**Take part in the discussions &
read the papers on the USB**

