



1. [Conference Timetable & Presentation Schedule](#)

	SEB'2011	Sustainability in Energy and Buildings	Timetable
8		Thursday 2 June 2011	Friday 3 June 2011
8 -45	Wednesday	Registration	Registration
9.00		Conference Opening Welcome	
9.30		Plenary Keynote Talk(9.30-10.30)	Plenary Keynote Talk
10.00		Prof Ali Sayigh ; (WREC / WREN)UK Title: Innovative Technology and Research Priority in Renewable Energy	Dr John R Littlewood Department of Architectural Studies, University of Wales Institute Cardiff, UK Title: To Follow
10.30		Coffee break	Coffee break
		Oral Paper Presentation Sessions (11.00 - 3.00) (6 papers/ session)	Oral Paper Presentation Sessions (11.00 - 13.00) (6 papers/ session)
		Parallel Sessions A, B &C:	Parallel Sessions G, H & I:
13 :00		Lunch	Lunch
14 :00		Plenary Keynote Talk (14.00 - 15.00)	Plenary Keynote Talk (14.00 - 15.00)
		M. Boussak & A. Naamane Generators and Power Electronics for Wind Energy	Nora Cherifa Abid Title: Thermal solar collectors and their applications
15.30		Coffee break	Coffee break
		Oral Paper Presentation Sessions (15.30 -17.30) (6 papers/ session)	Oral Paper Presentation Sessions (15.30 - 17.30) (6 papers/ session)
		Parallel Sessions D, E & F	Parallel Sessions I, K, L
18 :00	19.30 pm Welcome Drinks Reception	19.30 pm Conference Dinner La Nautique <a href="http://www.lanautique.com/restaurnt-societe-nautique-marseille-snm.asp">http://www.lanautique.com/restaurnt-societe-nautique-marseille-snm.asp</a> (Tickets Required)	Closing Ceremony  <b>SUSTAINABILITY IN ENERGY AND BUILDINGS 2011</b>

## 1. [Keynote Speakers](#)

- Chair : R. I. Howlett co chairs A. Naamane and N.K. M'Sirdi
- 9.30 - 10.30 **Plenary Keynote Talk** Thurs 2d June  
Prof Ali Sayigh: Innovative Technology and Research Priority in Renewable Energy
- 14.00 - 15.00 **Plenary Keynote Talk** Thurs 2d June  
Mohamed Boussak & A. Naamane: Generators and Power Electronics for Wind Energy
- 9.30 - 10.30 **Plenary Keynote Talk** Fri 3 June  
Dr John R Littlewood: Mechanisms for assessing the environmental performance of dwellings through the interaction of Universities and SMEs
- 14.00 - 15.00 **Plenary Keynote Talk** *Fri 3 June*  
Nora Cherifa Abid : Thermal solar collectors and their applications

## 2. [PROGRAM: General Track Sessions, Invited sessions](#)

### **Session : Wind energy control** *Thurs 2d June 11.00-13.00*

Chair: Prof Fernando Tadeo Co Chair: Nora C. Abid

SEB11-015- Variable speed drive of wind turbine based on synchronous generator

Dr Aissaoui abdel Ghani, Dr Nollet

SEB11-024 Control of the output voltage of asynchronous wind turbine with variable speed using a static VAR compensator (SVC)

M. ELHafyani, M. Oukili, A. Rabhi; M. Seddik, S. Zouggar

SEB11-032 Fuzzy control of variable speed wind turbine using permanent magnet

N. Essounoubli, A. Hamzaoui, F. Nollet

\*SEB11-034 Optimization of the photovoltaic installation structure

N. Essounoubli, A. Hamzaoui, F. Nollet

SEB11-069 Academic development as a vehicle to deliver sustainability education

*Holdsworth, Thomas*

### **Session : Sustainable Building** *Thurs 2d June 11.00-13.00*

Chair: Robert Howlett Co Chair: Y. Burtshell

SEB11-002 Exploring the complexity of understanding, managing and marketing codes for sustainability in the current economic climate issues for the small builder

Erik Geelhoed

SEB11-006 A sustainable housing unit for emergency areas

MEng PhD Martina Basciu

SEB11-010 Market Responses to the Sustainability and Energy Performance of Commercial Property

Mr Aidan Parkinson

SEB11-066 Is the recession jeopardizing the 2016 zero carbon homes in the UK?

*M. Osmani*

SEB11-059 Evaluation of Wireless Home Automation Technologies for Smart Mining Camps in Remote Western Australia

Rathnayaka Podar

### **Invited Session : Microgrids with Hybrid Energy Systems and Control System**

*Thurs 2d June 11.00-13.00*

Chair: Prof Fernando Tadeo and Co Chair: Prof Nacer K M'Sirdi

\*SEB11-054 Investigation on the excitation capacitor for a wind pumping plant using induction generator

Ouali, Chaabene, Kamoun MBA

SEB11-050 Battery Models for estimation of State Of Charge by Sliding Mode Observer

M'Sirdi, A. Belhani, A. Naamane

SEB11-042 Pitch Angle Control for Variable Speed Wind Turbine equipped with a Permanent Magnet Synchronous Generator (PMSG)

Salazar Salas, Tadeo

SEB11-041 H $\infty$  Tracking Observer-Based Control of the Buck Power Converters

A. Rabhi, M. Chadli, N.K. M'Sirdi

SEB-033 Energy Management Strategy for Commercial Buildings Integrating PV and Storage Systems

Zhang, Colas, Davigny, Poste, Robyns, Sproonten

### **Plenary Keynote Talk** *Thurs 2d June 14.00 - 15.00*

**Mohamed Boussak & A. Naamane: Generators and Power Electronics for Wind Energy**

### **Session : Renewable Energy Technology** *Thurs 2d June 15.30-17.30*

Chair: Maxime Nicolas

Co Chair: R. Laffont

\*SEB11-073 A triple-cell concentrator PV system with no current-matching and no lattice-matching constrains

M. Mokhri, M. Emziane

\*SEB11-081 Performance Evaluation of a Flywheel Energy-Storage System Associated to a Variable-Speed Wind Generator

A. Mansour

\*SEB11-022 Neural Control Of The Self-Excited Induction Generator For Variable-Speed Wind Turbine Generation

S. Zouggar, M. ELhafyani, T. Ouchbel, M. Seddik, Zidani

SEB11-008 Synchronization of a renewable energy inverter with the grid

*Anani, Al-Araji, Al-Kharji ALAli, AL-Qutayri, Ponnappalli*

SEB11-045 An Intelligent System for Real Time Fault Detection in PV Plants

*Ciampi, Appice, Malerba, Muolo*

### **Session : Smart Building** *Thurs 2d June 15.30-17.30*

Chair: Y. Burtshell

*J.R Littlewood*

SEB11-012 Sustainable Housing In Australia: Monitored Trends In Energy Consumption

*Saman, Halawa, Mudge, Whaley*

- SEB11-013 Solar Community Model: a smart strategy for historic centres sustainable renovation  
*Argiolas, Loggia*
- SEB11-018 An Emergency Response System for Intelligent Buildings  
*Filippoupolitis, Gelenbe*
- SEB11-029 Adaptive buildings for sustainable architecture  
*Tramontin, Basciu, Loggia, Saddi*
- SEB11-011 A Simple Way to Assess & Compare the Thermal Efficacy in Elongated Building Designs  
*Architect PhD, Physc Alberto J. Fernández de Trocóniz*

**Invited Session : Assessment & Monitoring The Environmental Performnce Of Buildings**

*Thurs 2d June 15.30-17.30*

Chair: Dr John R Littlewood

- SEB11-072 The Low-Carbon Retrofit Of A Uk Conservation Area Terrace:  
Introducing A Pattern Book Of Energy-Saving Details.  
Mr Jon Moorhouse, Dr John Littlewood
- SEB11-063 In-Construction Testing Of The Thermal Performance Of Dwellings  
Using Thermography  
Mr Tim Taylor, Dr John Littlewood, Prof. Steve Goodhew, Prof. Andrew Geens, Mr John Counsell, Ms Joanne Hopper
- SEB11-062 New Concepts Of Post Occupancy Evaluation (Poe) Utilizing Bim  
Benchmarking Techniques And Sensing Devices  
Mr Stephen (P) Coates, Dr Yusuf Arayici, Mr Zafer Ozturk
- SEB-061 The Monitoring And Assessment Of Indoor Environment And Domestic Electricity Use In A  
Preliminary Post-Occupancy Case Study  
Miss Jia (M) Cui, Prof. Steve Goodhew, Prof. John Chilton
- SEB11-030 Post Occupancy Evaluation of Decentralised Energy Systems  
Mr. Oliver (J.) Martin-Du Pan, Prof. Dino Bouchlaghem, Prof. Philip (C.) Eames, Mr. Alasdair Young, Mr. Zachary Gill
- SEB11-044 Sustainability And Heritage Conservation. Assessment Of Environmental Performance And Energy  
Management For Historic Churches  
Miss Magdalini Makrodimitri, Dr James (W.P.) Campbell, Professor Koen Steemers
- SEB11-055 Modelling And Control Of Hvac System According To Energy Efficiency And Comfort Criteria  
Mr. Carlos Blasco, Mr. Javier Monreal, Mr. Ignacio Benítez, Mr. Andrés Lluna

**Plenary Keynote Talk**

Fri 3 June 9.30 - 10.30

**Dr John R Littlewood: Mechanisms for assessing the environmental performance of dwellings through the interaction of Universities and SMEs**

**Session G : Techniques for power Energies**

*Fri 3June 11.00-13.00*

*Chair: M. Boussak*

*Co Chair: F. Tadeo*

**Session : Energy Resource Management**

*Fri 3June 11.00-13.00*

*Chair:R. Howlett*

*Co Chair: Catalyna Spataru*

- SEB11-051 Is sustainability in the commercial property industry just best practice management?  
*Warren-Myers*
- SEB11-053 Sustainability Patterns in the Traditional Residential Fabric of Tabriz  
*Nassehzadeh Tabriz, Aliyev, Mahdavi Tabatabaei Fard*
- SEB11-058 Energy Resource Management in Smart Home: State of the Art and Challenges Ahead  
*Rathmayaka, Potdar*
- SEB11-079 Supervisory Control Of Indoor Environment Systems To Minimise The Carbon Footprint Of Airport  
Terminal Buildings ? A Review  
*Mambo, Eftekhari*
- SEB11-078 -Analysis of an Airport Ecosystem from Emissions Perspective  
*Lo, Potdar, Wardell-Johnson*

**Session: People Tracking and Activity Recognition within Intelligent Buildings**

Chair Dr Catalina Spataru

*Fri 3 june 11.00-13.00*

- SEB11-071 Mapping occupants thermal discomfort responses in households using SenseCam by Stephanie (M.) Gauthier
- SEB11-070 Investigating the Effects of Incorporating Seasonal Variation in a Domestic Active Occupancy Model  
Amir Fazeli and Mark Gillott
- SEB11-048 From People Activity to Smart Buildings  
Fernando Martinez and Chris Greenhalgh

SEB11-052 Using a RTL System based on RFID technology for monitoring occupants domestic energy use and behaviour

Catalina Spataru and Mark Gillott

SEB11-083 A framework for intelligent information systems? Reengineering energy consumption in buildings to reduce carbon footprint

Jai-Persad Jones

**Plenary Keynote Talk**

*Fri 3 June 14.00 - 15.00*

**Nora Cherifa Abid : Thermal solar collectors and their applications**

**Session J : Performance of Wind energy**

*Fri 3 June 15.30-17.30*

*Chair: A. Aitouche*

*Co Chair: Nora Cherifa Abid*

SEB11-001 Fault Tolerant Control of Wind Energy Conversion Systems Subject to Sensor Faults

*KAMAL, AITOUCHE, BAYART*

SEB11-080 Transformerless 3-phase PV Inverter simulation for efficient building installations

*Fetfatzis, Alafodimos, Kallousis, Kofinas, Stergiou*

SEB11-065 Real-time implementation Control for Multi-source energy system

*A. Mehdary*

SEB11-007 A proposed methodology for estimating the performance of small wind turbines in urban areas

*Gagliano, Capizzi, Galesi, Nocera, Patania*

\*SEB11-009 Influence Of A Wall On The Flow Field Around A Savonius Rotor.

*Chauvin, Abid, Belouaggadia, Kamoun*

SEB11-068 RF Front-End Receiver with Tunable Image Reject Filter for Smart Grid Applications

*V. Rahajandraibe, F. Haddad, R. Laffont*

**Invited Session : Solar energy**

*Fri 3 June 15.30-17.30*

*Chair: Dr. Mahieddine Emziane*

*Co Chair: Nora Cherifa Abid*

SEB11-005 Calcium ion-exchanged zeolite 13X: properties measurement and potential usage in solar adsorption cooling systems

*K.C. Chan, Christopher Y.H. Chao.*

SEB-025 Analysis of Harmonics and Common-Mode Voltage in Transformerless AC Modules Integrated in PV Systems

*T. Salmi, M.Bouzguenda, A.Gastli and A.d Masmoudi*

SEB11-084 Optimization of the photovoltaic installation structure

*Lafi Al-otaibi1, F.Nollet, N. Essounbouli,*

SEB11-060 BIPV applications in the GCC region: A comparative study on the key parameters

*A.Asghar and M. Emziane*

SEB11-082 A Solar Drainpipe for Water Heating

*G. Notton, C.Cristofari, F.Motte, JL Canaletti*