

WORKSHOP

TRENDS AND CHALLENGES FOR WIND ENERGY HARVESTING

30 | 31 March 2015

Department Civil Engineering, University of Coimbra,
Coimbra, Portugal

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Organization



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STRATEGIC WORKSHOP
TRENDS AND CHALLENGES FOR WIND ENERGY HARVESTING
 COIMBRA, 30 & 31.03.2015

30 MARCH - MONDAY

11:00 – 11:20	COST TU1104 Smart Energy Regions	Christofis Koroneos
11:20 – 11:40	COST TU1205 Building Integrated Solar Thermal systems	Laura Aelenei
SW – PART I STATE OF THE ART OF THE WIND CHARACTERISTICS IN DISTURBED AND NON-DISTURBED ENVIRONMENT		
11:40 – 12:10	Wind flow in urban environment	Janet Barlow
12:10 – 12:30	The flow around high-rise building for the purpose of wind energy harvesting	Hassan Hemida
12:30 – 14:00	Lunch	
14:00 – 14:20	Experimental assessment of small size wind turbines	Luisa Pagnini
14:20 – 14:40	Urban electricity networks for Smart Cities: The application of wind climate knowledge to accommodate renewable (distributed) generation optimisation within cities	Keith Sunderland
14:40 – 15:00	Experimental and numerical investigations of the flow above a tilted roof house and industrial building for urban wind energy harvesting	Anina Sarkic
15:00 – 15:20	CFD simulation of wind environmental conditions over natural complex terrain	Bert Blocken
15:20 – 15:40	An Experimental and Numerical study of the airflow around university buildings in Tübingen	Asmae El-Bahlouli
15:40 – 16:10	Coffee break	
16:10 – 16:30	Wind resource assessment on a multi-storey building	Andreas Fuerholz
16:30 – 16:50	Investigation of wind characteristics at urban scale through scaled model wind tunnel tests	Paolo Schito
16:50 – 17:10	Inflow Uncertainty Quantification within urban environments: wind fields and dispersion patterns	Clara Garcia Sanchez
17:10 – 18:00	Discussion	

31 MARCH - TUESDAY

SW – PART II STATE OF THE ART OF THE WIND ENERGY STRUCTURES AND EMERGING APPLICATIONS		
9:00 – 9:20	Onshore towers	Milan Veljkovic
9:20 – 9:40	Offshore towers	Peter Schaumann
9:40 – 10:00	Monitoring techniques for the detection of fatigue damages at wind energy converters	Rüdiger Höffer
10:00 – 10:20	Integrated analysis software for wind turbines	Paul Thomassen
10:20 – 10:40	Nonlinear wave loads and dynamic response of wind turbine systems	Enzo Marino
10:40 – 11:10	Coffee break	
11:10 – 11:30	Aerodynamic Losses of Transport Systems as an emerging wind energy application	Tommaso Morbiato
11:20 – 11:40	A review of Power Converters for Wind Energy Systems	Ciril Spyteri
11:40 – 12:00	Discussion	
SW-PART III SOCIETY ACCEPTANCE AND RELATED ISSUES		
12:00 – 12:20	A Review of non-technical issues of wind power and smart cities	Stefanie Huber
12:20 – 12:40	A Review of Environmental Impact Analysis of Wind Turbines	Ruben Borg
12:40 – 14:00	Lunch	
14:00 – 14:20	Rural and idyllic nostalgia: community perceptions on engagement with wind energy in a rural community in the north of England	Neveen Hamza
14:20 – 14:40	Smart cities - The role of local authorities in the engagement of small wind turbines in urban areas	Christos Efstathiades
14:40 – 15:00	Analysis of environmental, economic, social factors and efficiency of wind turbines in Lithuania	Mantas Marciukaitis
15:00 – 15:20	Planning and environmental considerations for the development of wind energy in the urban environment.	Conor Norton
15:20 – 15:30	Discussion	
15:30 – 16:00	Coffee break	
16:00 – 17:00	WGs Presentations-Conclusions	WG Chairs