Training School | 01 | WINERCOST

Advances in Wind Energy Technology

Department of Construction
& Property Management
University of Malta

COST Action TU1304 - WINERCOST

Wind Energy Reconsideration to Enhance the concept of Smart Cities

1st Training School - Advances in Wind Energy Technology

Aims

WINERCOST is glad to announce the 1st Training School "Advances in Wind Energy Technology"on the following topics:

- Flow simulations and measurements for wind-energy harvesting.
- Pre-design of large supporting structures for wind convertors.
- Building integration, societal acceptance.

Chairman

Prof Dr.-Ing. Charalampos BANIOTOPOULOS, Chairman COST Action TU1304
University of Birmingham, Birmingham, United Kingdom

Scientific Secretariat

Dr. Ruben Paul Borg
Department of Construction and Property Management
Faculty for the Built Environment
University of Malta, Malta.
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Local Organising Committee

Ruben Paul Borg	Faculty for the Built Environment, University of Malta
Cyril Spiteri Staines	Faculty of Engineering, University of Malta
Tonio Sant	Faculty of Engineering, University of Malta
Daniel Micallef	Faculty for the Built Environment, University of Malta

TU1304 WINERCOST Action

TU1304 COST Action aims to merge the efforts of the COST countries research groups working on the Wind Energy Technology and design the pathways to introduce it by means of robust applications to the urban and suburban built environment, thus enhancing the concept of Smart Future Cities. This Action revisits safe and cost-effective wind energy technology for consideration in the development of the future urban and suburban habitat and which are acceptable to society.

The principal objectives of WINERCOST is to collect the existing expertise on the Built environment Wind energy Technology (BWT) recently developed as a follow-up of the Onshore/Offshore Wind Energy Technology (ON/OFF-WET) and to investigate effective adoption methods for enabling the concept of Smart Future Cities.

In addition, the utmost important issue of the social acceptance strategy will be scrutinized in close collaboration with municipality authorities, industry, manufacturers as well as the international wind energy organizations.

For further information visit: http://winercost.com/

Objectives of the TU1304 WINERCOST Action

There are two main objectives of the WINERCOST COST Action. The first is to foster and accelerate long-term enhancement of Built environment Wind energy Technology (BWT) in Europe by scrutinizing the wealth of knowledge on Wind Energy Technology (WET) accumulated during the last decades. The second is to investigate and propose strategies of societal acceptance for the acceleration of the application of such BWT systems.

For more information about the COST action please refer to the project website http://winercost.com/

The 1st Training School "Advances in Wind Energy Technology"

The 1st Training School provides advanced professional training. The Training School consists of lectures, tutorials and hands-on activities. The lectures will cover the following main fundamental aspects of wind energy including turbulent flow in the urban environment and structural analysis of bearing elements, sustainability, building integration and societal acceptance. The previous topics include:

1. Turbulent flow and turbulent boundary layer.
2. Fundamentals of Computational Fluid Dynamics (CFD) of atmospheric boundary layer.
3. Fundamental of wind tunnel testing of atmospheric flow.
4. Flow in urban environment.
5. Basic principles of design of supporting structures for wind energy converters.
6. Resistance on towers and foundations.
7. Resistance of in-situ connection.
8. Sustainability aspects of structures for wind towers.
9. Sustainability issues and the built environment
10. Architectural design and building integration
11. Impact on the built environment and Societal Acceptance

The workshops will show how to accurately prepare a CFD simulation of wind flow around buildings and through a vertical wind turbine (VAWT) and how resistance of traditional towers are proven by hand calculation methods and FEA.

The workshops further provide an opportunity for the trainees to participate in the assessment of indicators which support the strategic frameworks for built environment considerations and societal acceptance.

The Lecturers and Workshop coordinators

The Training School shall be led by experts in the fields of wind energy. The lecturers in alphabetical order (refer to separate document for bio-notes of the lecturers) are:

1. Prof. Charalampos BANIOTOPOULOS (University of Birmingham, UK)
2. Prof. Bert BLOCKEN (Eindhoven University, Netherlands)
3. Dr. Ruben Paul BORG (University of Malta, Malta)
4. Dr. Neveen HAMZA (Newcastle University, UK)
5. Dr. Hassan HEMIDA (University of Birmingham, UK)
6. Ms. Stefanie HUBER (ENCO, Switzerland)
7. Prof. Carlos REBELO (University of Coimbra, Portugal)
8. Dr. Marko PAVLOVIC (University of Belgrade, Serbia)
9. Prof. Cyril SPITERI STAINES (University of Malta, Malta)
10. Prof. Ted STATHOPOULOS (Concordia University, Canada)

GRANT

Upon completion of the training, the trainee will receive a lump sum of €800 as a contribution to cover the relevant expenses and costs.

Eligibility

Trainees are expected to be either students in the final year of their master degree or young researchers with/without a PhD degree.

Selection Criteria

The COST-H2020 Vademecum (www.cost.eu/Vademecum) and MoU TU1304 (http://winercost.com/) criteria will be considered in the selection of the successful candidates.

Registration

Eligible candidates should fill in the registration form and send it to:
Dr. Ruben Paul Borg ruben.p.borg@um.edu.mt .

Training School Application Deadline

The deadline for the submission of the application is **Monday 23rd February, 2015 (24:00 CET)**. Applications sent after this date will not be considered.

Venue and Date

The Training School will be hosted by the Department of Construction and Management of the **University of Malta**, from 26th to 31th May 2015.

The Training School shall be held at:

University of Malta, Msida Campus, Malta: ICT Building

Room 1 Block B, Level -1

REGISTRATION FEES AND ACCOMODATION

Accomodation: Sundown Court Leisure Resort, close to the University of Malta Msida Campus. Further information can be obtained at: http://www.sundowncourt.com/default.asp.

(Rate per room: 44Euro per room & Buffet Breakfast at 5.75Euro / person.)

Reservations can be made as follows:

Sundown Court, Malta
Group Reference: **WINERCOST Training School**
Attn: Ms. Marcelle Borg, tel. (00356) 21385926
E mail: info@sundowncourt.com

Registration Deadline: **15th March 2015.**

Important Dates & Information

All Submissions are to be sent to the Scientific Secretariat and shall then be evaluated by the COST Action Core Group. Notification of Acceptance or otherwsie, shall be sent by the **27th February 2015**.

Please not that the deadline for Hotel Registration is **Friday 15th March 2015**. If no registration is done by this date the candidate will lose the grant and the place in the Training School.

For more information, contact the Scientific Secretariat:

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