

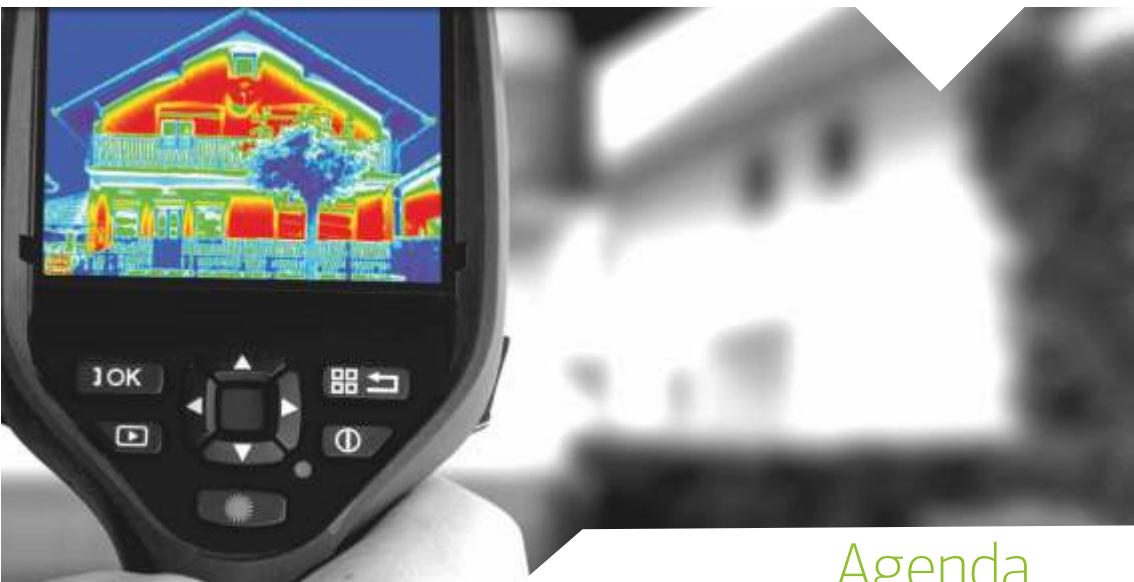
ΔΙΕΘΝΕΣ ΣΥΝΕΔΡΙΟ BEE RES 2014 CONFERENCE

Buildings Energy Efficiency
& Renewable Energy Sources

ΕΝΕΡΓΕΙΑΚΗΣ ΑΠΟΔΟΣΗΣ ΚΤΙΡΙΩΝ
& ΑΝΑΝΕΩΣΙΜΩΝ ΠΗΓΩΝ ΕΝΕΡΓΕΙΑΣ

2014

www.bee-res.gr



Agenda



Υπό την Αιγίδα του
Υπουργείου Περιβάλλοντος,
Ενέργειας & Κλιματικής Αλλαγής

ΤΕΙ Δυτικής Μακεδονίας, Κοζάνη | 01/06/2014 - 03/06/2014
ΤΕΙ of Western Macedonia, Kozani | 01/06/2014 - 03/06/2014

www.peebpe.eu



Municipality of Prespes



Здружение за одржлива градежна развој
АРХИТЕКТУРА И АМБИЕНТ
APXAM Битола



PEEBPE
Promotion of Energy Efficiency in Buildings
& Protection of the Environment

ΠΡΟΣΚΛΗΣΗ


Το ΤΕΙ Δυτικής Μακεδονίας θα πραγματοποιήσει
στις 01-03 Ιουνίου 2014 στις κτιριακές του εγκαταστάσεις
στην Κοζάνη (Αμφιθέατρο Σπύρος Αρσένης) το:

1^ο ΔΙΕΘΝΕΣ Συνέδριο με τίτλο:

*«Ενεργειακή Απόδοση Κτιρίων
& Ανανεώσιμες Πηγές Ενέργειας»*

Δημήτριος Στημονιάρης

(Πρόεδρος της Οργανωτικής Επιτροπής του Συνεδρίου)



Για περισσότερες πληροφορίες
στην επίσημη ιστοσελίδα του συνεδρίου:

www.bee-res.gr



Languages

All Sessions and speeches are held at the Spyros Arsenis Hall (Big Amphitheater).

Languages of the Conference: **English** and **Greek** (Translation services are available)

Sunday, 01 June 2014

21:00 Registration

19:00 - 21:00 Standing dinner

Monday, 02 June 2014

09:30 - 11:30 - Session1: **Buildings CO₂ Footprint Estimation**

(Chair: Prof Stelios Maropoulos)

1) **"Estimation of Embodied CO₂ in Electro-Mechanical Installations for an Urban Hellenic Dwelling"**,

D.G. Koubogiannis¹, A. Lavoutas¹, A. Lekkas¹ and C.A. Balaras²,

¹-Dept. of Energy Technology Engineering, Technological Educational Institute of Athens, Agiou Spyridonos Str, Aigaleo, GR 12210, Athens, Greece.

²-Institute for Environmental Research and Sustainable Development, National Observatory of Athens, I. Metaxa & Vas. Pavlou, P. Penteli, GR 15236 Athens, Greece.

2) **"Preliminary Study on the Thermal Mass Characteristics of Stone Buildings in Crete, Greece"**, M.

Sanoudaki, N. Papamanolis.

School of Architectural Engineering, Technical University of Crete, Chania, Greece.

3) **"Results from Preliminary Energy Audit in the Faculty of Technical Sciences - Bitola"**,

Vladimir Mijakovski*, T. Geramitcioski, V. Mitrevski, G. Trombev, R. Risteovski,

Faculty of Technical Sciences - Bitola, University "St. Kliment Ohridski", Bitola, MK 7000, The former Yugoslav Republic of Macedonia.

4) **"Blower door test - Measurement protocol"**,

V. Mitrevski, T. Geramitcioski, G. Trombev, V. Mijakovski, I. Andreevski,

Faculty of Technical Sciences - Bitola, University "St. Kliment Ohridski", Bitola, MK 7000, The former Yugoslav Republic of Macedonia.

5) **"Energy performance analysis of pre- and post- retrofit households in Greece"**, T. Papadopoulos¹, D.

Tampakis¹, G. Papagiannis¹, G. Christoforidis².

¹-School of Electrical & Computer Engineering, Aristotle University of Thessaloniki, Thessaloniki, Greece.

²-Dept of Electrical Engineering, Technological Educational Institute of West Macedonia, Kozani, Greece

6) **"Energy Audits in Public Buildings"**, Dimitrios Stimoniaris, Dimitrios Tsiमितros, V. Zacharakis, T. Kottas, S.

Maropoulos¹, M. Stefanovski, Z. Stepanovski, I. Milosovska², N. Susevski, K. Micalovski³, V. Karagiannis, K. Zarmakoupis⁴.

¹ – Dept of Electrical Engineering, Technological Educational Institute of West Macedonia, Kozani, Greece

² – ARCHAM Association, Bitola, The former Yugoslav Republic of Macedonia.

³ – Resen Municipality, , The former Yugoslav Republic of Macedonia

⁴ – Prespes Municipality, Greece.

11:30 - 12:00 Coffee break

12:00 - 12:30 Welcome speeches

12:30 – 13:10 Modern Issues on Renewable Energy Sources

"Reliability and Security Issues Of Modern Electric Power Systems With High Penetration Of Renewable Energy Sources", Prof Evaggelos Dialynas, School of Electrical and Computer Engineering, National Technical University of Athens (GREECE)

"The EU 2030 framework for energy and climate policies", Dr Athanasios Dagoumas, Special Advisor to the Minister of the Hellenic Ministry of Environment, Energy and Climate Change (GREECE)

"Strategies for a flexible biogas production for the integration into smart grid concepts", Dr-Ing Stefan Junne, Chair of Bioprocess Engineering, TU-Berlin (GERMANY)

13:10 - 14:10 Standing Lunch

14:10 – 15:30 Speeches by the Invited Speakers

"The residence in Ancient Greece", Dr-Archaeologist. Mrs Georgia Karamitrou-Mentessidi.

"KNX: The worldwide STANDARD for home and building control", Mr Vasileios Lourdas, KNX Association-Brussels (BELGIUM)

"The district heating grid of the Wider Region of Amyntaio", Mr Konstantinos Kyriakopoulos, Municipal District Heating Company of the Wider Region of Amyntaio (GREECE)

15:30 - 17:00 - Session2: Improvement of Buildings Energy Efficiency and Buildings Management Systems Application

(Chair: Assist. Prof George Christoforidis)

1) **"Optimization-based active techniques for Energy Efficient Buildings Control: Part I: Optimization Algorithms",** Iakovos Michailidis[1,2], Simone Baldi[1], Elias B. Kosmatopoulos[1,2], and Yiannis S. Boutalis[2].

¹-Information Technologies Institute, Centre of Research & Technology - Hellas (I.T.I.-CE.R.T.H.)
Thessaloniki, Greece

²-Department of Electrical and Computer Engineering, Democritus University of Thrace,Xanthi, Greece

2) **"Optimization-based active techniques for Energy Efficient Buildings Control: Part II: Real-Life Experimental Results"**, Iakovos Michailidis[1,2], Simone Baldi[1], Elias B. Kosmatopoulos[1,2], and Yiannis S. Boutalis[2].

¹-Information Technologies Institute, Centre of Research & Technology - Hellas (I.T.I.-CE.R.T.H.)
Thessaloniki, Greece

²-Department of Electrical and Computer Engineering, Democritus University of Thrace, Xanthi, Greece

3) **"Thermal Insulation Characteristics of the Building Shell according to the New Legislation for Decreasing Energy Consumption in Buildings in Greece"**, M. Davaki, N. Papamanolis.
School of Architectural Engineering, Technical University of Crete, Chania, Greece.

4) **"Energy Management System and Substitution of Fuels and Energy Sources in Public Buildings"**, I. Andreevski, G. Trombev, V. Mitrevski, V. Mijakovski, T. Geramitoski,
Faculty of Technical Sciences - Bitola, University "St. Kliment Ohridski", Bitola, MK 7000, The former Yugoslav Republic of Macedonia.

17:00 - 17:30 Coffee Break

17:30 - 19:00 Title: Application of Renewable Energy Sources in Buildings

Round Table

Hellenic Association of Electrical & Mechanical Engineers- West Macedonia Division & Technical Chamber of Greece-West Macedonia Division (TEE/TDM)

Tuesday, 03 June 2014

09:30 - 11:00 - Session3: Renewable Energy Sources 1

(Chair: Lecturer Adamos Stimoniaris)

1) **"DG and EV Penetrations for Future's Smart Network in Turkey"**, SITKI GUNER [1], Aydogan Ozdemir [2].

¹ - Department of Electrical & Electronics Engineering, Istanbul Arel University, Istanbul, Turkey.

² -Department of Electrical Engineering, Istanbul Technical University, Istanbul, Turkey.

2) **"An Advanced and Efficient Sun Tracking System based on a Novel Algorithm for Maximum Electrical Power Generation on Solar Array"**, S. Kouridakis.

Department of Electronic Engineering, School of Applied Sciences - ??? of Crete, Halepa Chania, Greece.

3) **"Implementation the tasks of the Renewable Energy Directive 2009/28/EC in EU Members and the former Yugoslav Republic of Macedonia as a country-candidate"**, T. Geramitoski, G. Trombev, V. Mitrevski, V. Mijakovski, I. Andreevski.

Faculty of Technical Sciences - Bitola, University "St. Kliment Ohridski", Bitola, MK 7000, The former Yugoslav Republic of Macedonia.

4) **"Supply-side Ancillary Services at a Microgrid-based Smart Grid Topology"**, D. Tsiamitros, D. Stimoniaris, N. Poulakis¹, and E. Dialynas²,

¹-Dept of Electrical Engineering, Technological Educational Institute of West Macedonia, Kozani, Greece

²-School of Electrical and Computer Engineering, National Technical University of Athens, Athens, Greece

11:00 - 11:30 Coffee break

11:30 – 14:00 Speeches by the Invited Speakers

"Role of Advanced Demand Response in Organizing Distributed Energy Resources as Virtual Power Plants", **Prof Aydogan Ozdemir**, Dept of Electrical Engineering, Istanbul Technical University (TURKEY).

"Green procurement And Smart city suPport in the energy sector – the GRASP – MED project", **Prof Yorgos Stephanedes**, Dept of Civil Engineering, University of Patras (GREECE)

"Modelling the anaerobic methane production process: current developments and importance for an increased process flexibility", **Dr.-Ing. M. Nicolas Cruz Bournazou**, Chair of Bioprocess Engineering, TU-Berlin (GERMANY)

"The MARIE (Mediterranean Building Rethinking for Energy Efficiency Improvement) Strategic Project: Building a New Renovation Strategy around the Mediterranean area", **Mr Thanos Papotis**, Production and Management Engineer, Euroconsultants SA (GREECE)

"The Levelized Cost of Energy from PV's in Greece and Mediterranean: The PV-NET project", **Assist. Prof. George Christoforidis**, Dept of Electrical Engineering, TEI of West Macedonia (GREECE)

14:00 - 15:00 Standing lunch

15:00 - 16:30 Session4: Renewable Energy Sources 2

(Chair: Prof Paraskevi Mitliagka)

1) **"Comparative analysis of selection suitable feedstock for biodiesel production in the former Yugoslav Republic of Macedonia"**, M.Sc.Katika Belcheska Arizankoska.
ARHAM-Bitola, former Yugoslav Republic of Macedonia

2) **"Harmonic Behavior of Residential Low Voltage Appliances for Load Signatures Formulation"**, A. Bouchouras.
Dept of Electrical Engineering, Technological Educational Institute of West Macedonia, Kozani, Greece.

3) **"A.Q.M.E.I.S.: Air Quality Meteorological and Enviromental Information System in Western Macedonia, Hellas."**, I. Skodras [1], G. Fragulis [2] and A. Triantafyllou [1].

¹- Lab. of Atmospheric Pollution & Environmental Physics, Dept. of Geotechnology and Environmental Engineering, Technological Educational Inst. of Western Macedonia, Kozani, Greece.

²- Dept of Electrical Engineering, Technological Educational Institute of West Macedonia, Kozani, Greece

4) **“Control algorithm and infrastructure for smart grid topologies”**, D. Tsiamitros, D. Stimoniaris, T. Kottas, V. Zacharaki¹, and E. Dialynas²,

¹-Dept of Electrical Engineering, Technological Educational Institute of West Macedonia, Kozani, Greece

²-School of Electrical and Computer Engineering, National Technical University of Athens, Athens, Greece

16:30 - 17:00 Coffee break

17:00 - 18:30 Title:

Renewable Energy Sources based on Waste Management (Biomass-Biogas)

Round Table

Chair of Bioprocess Engineering - TU-Berlin & DIADYMA

20:00 Closing Dinner

Wednesday, 04 June 2014

Technical visit to Prespes

(In cooperation with GREEN-BOAT project – Solar boats)

or

Workshop

10:00 – 14:00 at the small Amphitheater:

- 1) **KNX tutorial:** Vasileios Lourdas – *KNX Association, Brussels*
- 2) **Operation and optimization of biogas plants: Basics of substrate preparation, operation and fertilizer generation,** Dr Stefan Junne, *Chair of Bioprocess Engineering, TU-Berlin.*
- 3) **Operation and optimization of biogas plants: Case study of a biogas plant in Greece,** Ms Anja Lemoine, *Chair of Bioprocess Engineering, TU-Berlin.*

www.peebpe.eu



For information about the project contact:

Dimitrios Stimoniariis

Scientific Responsible

e-mail: dstimoniariis@yahoo.gr

Tel: +30 24610-40161

Dimitrios Tsiamitros

Project Team Member

e-mail: dtsiamitros@gmail.com

Tel: +30 24610-40161

ΥΠΟΣΤΗΡΙΚΤΕΣ Conference Partners



Το έργο συγχρηματοδοτείται από την Ευρωπαϊκή Ένωση και Εθνικούς Πόρους των Συμμετεχουσών Χωρών
υπό το πρόγραμμα IPA Cross-Border Programme "Greece - The former Yugoslav Republic of Macedonia 2007-2013"

The Project is co-funded by the European Union and by National Funds of the Participating Countries
under the IPA Cross-Border Programme "Greece - The former Yugoslav Republic of Macedonia 2007-2013"

