

International Symposium on Sustainable Energy in Buildings and Urban Areas

Pine Bay Holiday Resort, Kusadasi, Turkey
14 – 20 October, 2012

SUNDAY OCTOBER 14, 2012

15:30-18:00 REGISTRATION

MONDAY OCTOBER 15, 2012

8:30 - 9:00 REGISTRATION

9:00 - 9:30 WELCOMING REMARKS Prof. Emilia Mladin/Prof. Faruk Arinç

SESSION 1 - ENERGY EFFICIENT ARCHITECTURE

Chair: Emilia Mladin

9:30 -10:30 Keynote: THE INTEGRATION OF ENGINEERING AND ARCHITECTURE FOR
SUSTAINABLE BUILDINGS
M. P. Menguc

10:30 - 11:00 Coffee Break

11:00 - 11:30 SUSTAINABILITY THROUGH ARCHITECTURAL MORPHOLOGY
H. Tundrea, M. Budescu, M. Vasilache, G. Taranu

11:30- 12:00 EFFECT OF MOISTURE ON THE ENERGY CONSUMPTION OF BUILDINGS
I. Remache, N. Djermane

12:00-12:30 REHABILITATION PROJECT FOR A CULTURAL BUILDING ACCORDING THE
PRINCIPLES OF SUSTAINABLE DEVELOPMENT
Mariana Fartatescu, Raluca Manoliu, Calin Corduban, Dorina Isopescu and
Nicolae Taranu

12:30 - 15:00 BREAK

SESSION 2 - BUILDING MODELS AND ENERGY EFFICIENCY

Chair: Javier Rey

15:00-15:30 STUDY CONCERNING THE EFFECTS OF THERMAL REHABILITATION OF A BLOCK OF FLATS

Irina Bliuc, Irina Baran, Radu Pescaru, Aurora Irina Dumitrascu

15:30-16:00 ENERGY AND COMFORT. ANALYSIS OF INTEGRATED "LOW EX" SOLUTIONS

Javier Rey, Jon Zubiaurre and David Irusta

16:00-16:30 COMMON ERRORS IN ASSESSING ENERGY PERFORMANCE BASED ON DESIGN

EC Mladin, T. Prisecaru

16:30 - 17:00 Coffee Break

SESSION 3 (Cancelled)

19:00-20:00 WELCOME COCKTAIL

TUESDAY OCTOBER 16, 2012

SESSION 4 - BUILDING EFFICIENT ENERGY MANAGEMENT SYSTEMS

Chair: Michael Adolph

- 9:30-10:30 Keynote: MODEL-BASED CONTROL FOR IMPROVED ENERGY EFFICIENCY
Dimitrios Rovas
- 10:30-11:00 Coffee Break
- 11:00-11:30 ROOM TEMPERATURE CONTROL WITH ADAPTIVE ALGORITHMS
Adolph Michael, Kopmann Nina, Lupulescu Bruno and Müller Dirk
- 11:30-12:00 DEMAND-SHIFTING USING MODEL-ASSISTED CONTROL
G. Kontes, G. Giannakis, E. Kosmatopoulos, D. Rovas
- 12:00-12:30 Hardware-in-the-Loop Simulation for Home Energy Systems
Kan Chen, Dirk Müller
- 12:30-13:00 THERMAL COMFORT MONITORING IN COMMERCIAL BUILDINGS
Jiří Vass, Jiří Rojíček and Jana Trojanová
- 13:00-15:00 BREAK

SESSION 5 - TECHNOLOGIES FOR SUSTAINABLE USE OF ENERGY IN BUILDINGS

Chair: Chadi MAALOUF

- 15:00 - 15:30 STUDY OF COUPLED HEAT AND MOISTURE TRANSFER WITHIN A VEGETAL
FIBRE MATERIAL FOR BUILDING ENVELOPE
Chadi MAALOUF, Mohammed LACHI and Ton Hoang MAI, Etienne WURTZ
- 15:30 - 16:00 ON THE IMPACT OF COOL ROOFS IN ITALIAN RESIDENTIAL BUILDINGS:
EXPERIMENTAL ASSESSMENT OF SUMMER AND WINTER PERFORMANCE
Anna Laura Pisello, Federico Rossi and Franco Cotana
- 16:00 -16:30 INTEGRATION OF SOLAR ENERGY RECOVERY SYSTEMS IN URBAN DWELLINGS
Cristian C-tin Ungureanu, Tudor Gradinaru and Aurora Irina Dumitrascu
- 16:30 - 17:00 COFFEE BREAK AND **WORK-IN-PROGRESS POSTER SESSION**

WEDNESDAY OCTOBER 17, 2012

SESSION 6 - SUSTAINABLE ENERGY SOURCES FOR BUILDINGS

Chair:Ismail TAVMAN

9:30-10:30 Keynote: SMART ENERGY BUILDINGS AND NEIGHBORHOODS: WHICH
INFRASTRUCTURES AND PLATFORMS TO USE?
Christoph Grimm

10:30 - 11:00 Coffee Break

11:00-11:30 EXERGETIC ANALYSIS OF A THERMAL STATION IN A DISTRICT HEATING
SYSTEM
Untea, Al. Dobrovicescu, T. Prisecaru, E.C. Mladin, M. Prisecaru

11:30-12:00 PERFORMANCE INVESTIGATION OF GEOTHERMAL DISTRICT HEATING
Yildiz Kalinci, Ismail Tavman, and Arif Hepbasli

12:00 - FREE AFTERNOON

THURSDAY OCTOBER 18, 2012

SESSION 7 - SmartCoDe– EC Project

Chair: Peter Neumann

- 9:30-10:30 Keynote: POWER GRID STABILITY DESPITE RENEWABLE INSTABILITY
Holger Hermanns
- 10:30-11:00 Coffee Break
- 11:00-11:30 HIGHLY-INTEGRATED MICROELECTRONIC DEVICES FOR ENERGY
MANAGEMENT
Thomas Herndl
- 11:30 - 12:00 FROM THEORY TO PRACTICE: REAL WORLD DEMONSTRATORS FOR SMART
GRID APPLICATIONS
Roland Kopetzky
- 12:00-15:00 BREAK

SESSION 8 – PEBBLE – EC Project

Chair: Dimitrios Rovas

- 15:00 – 15:30 CONCEPT AND ENERGY MANAGEMENT IN THE NEW E.ON ENERGY BUILDING
Johannes Futterer
- 15:30 - 16:00 Coffee Break
- 16:00 – 16:30 SIMULATION USING MODELICA
Constantin Ana, Fütterer J., Streblow R., Müller D., Kontes G.D., Rovas D.V.
- 16:30 - 17:00 IMPACT OF RETAIL RATE AND RES -E SUPPORTING STRUCTURES ON THE
ECONOMICS OF LOCAL OPTIMIZATION IN BUILDINGS
Fremont C., Duplessis B., Adnot J.
- 20:00-22:30 GALA DINNER

FRIDAY OCTOBER 19, 2012

SESSION 9—AGILE, DESIMAX, BaaS— EC Projects

Chair: Emilia Mladin

9:30 - 10:00 MULTISCALEMODELLING TO MAXIMISE DEMAND-SIDE MANAGEMENT
Aristides Kiprakis

10:00 - 10:30 BAAS PROJECT: COVERING THE BUILDING DESIGN- AND
OPERATIONAL-PHASE INTEROPERABILITY GAP
Cesar Valmaseda, Dimitrios Rovas

10:30 – 11:00 Coffee Break

11:30 – 12:30 ROUND TABLE
COST OPTIMAL APPROACH FOR LONG TERM ENERGY EFFICIENCY
MEASURES FOR BUILDINGS

12:30 END

WORK-IN-PROGRESS POSTER PRESENTATIONS

Tuesday, October 16

16:30 – 17:30

P1

EFFECT OF HEATING LOCATION ON STABILITY OF NATURAL CONVECTION IN A SQUARE ENCLOSURE

Debbah Djoubeir, Kholai Omar and Boudebouze Saadoune

P2

DETERMINATION OF THE PARAMETERS THAT CONTROL THE LAMINAR MIXED CONVECTION IN A SQUARE CAVITY ($Pr = 0.015$)

Boulkroune Sofiane, Kholai Omar and Boudebouze Saadoune

P4

COMMON ERRORS IN ASSESSING ENERGY PERFORMANCE BASED ON DESIGN

Bong Il park, Pil Hyong Lee and Sang Soon Hwang