

2nd PALENC Conference and 28th AIVC Conference

Building Low Energy Cooling and Advanced Ventilation Technologies in the 21st Century

27-29 September 2007, Crete island, Greece

PROGRAM

Organisers



International Energy Agency
Energy Conservation in
Buildings and Community
Systems Programme



Under the auspices of



International Network for
Information on Ventilation and
Energy Performance



UNION INTERNATIONALE DES ARCHITECTES
INTERNATIONAL UNION OF ARCHITECTS
AIAA INTERNATIONAL WORK PROGRAMME
ARCHITECTURE AND RENEWABLE ENERGY SOURCES

GENERAL INFORMATION

SCIENTIFIC COMMITTEE

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P. WOUTERS, Air Infiltration and Ventilation Centre (AIVC)

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K. XANTHOPOULOS, University of Patras
S. ZEREFOS, Architect

¹National Technical University of Athens

²Technological Educational Institute of Crete

SCOPE

The joint 2nd Palenc and the 28th AIVC Conference aims to focus on the advanced low energy cooling and ventilation technologies for buildings.

Increase of the living standards, deterioration of the thermal conditions in the urban environment and non-appropriate architecture design, has caused huge penetration of air conditioning in many parts of the world and not only in hot climates. Such a condition has a very serious impact on the peak electricity demand of the countries and the corresponding energy consumption. Intensive research carried out during the last years, has permitted to develop new technologies, components, materials and techniques that permit to decrease seriously or even eliminate the cooling demand of buildings. In parallel, very low energy consumption for cooling new generation buildings have been realized and monitored.

Ventilation in buildings permits to decrease the cooling

demand, improve comfort conditions and decrease indoor pollution. A wide range of research activities carried out over the last years, has permitted to develop advanced ventilation systems that highly satisfy the above requirements.

There is in many countries increased interest in regulations to cover the issue of summer comfort, air conditioning and peak power control, e.g. the European Energy Performance of Buildings Directive, asks from the Member States to undertake all the necessary measures in order to decrease the energy consumption caused by air conditioning and improve indoor environmental conditions (air quality, summer comfort, etc). Passive and low energy cooling strategies provide interesting options.

The scope of this Conference includes all aspects of technology and building design, dealing with ventilation and passive cooling techniques able to improve the environmental performance of buildings. Papers related on ventilation, solar control, thermal mass, thermal comfort, urban microclimate landscaping, low energy architecture, innovative components and materials, standardization and legislation, advanced and alternative air conditioners, demand side management, etc. are welcomed.

The main aims are to present and discuss the state of the art of research and applications, dealing with ventilation and cooling and also to assess the results achieved almost two years after the application of the European Energy Performance of Buildings Directive.

LANGUAGE

The official language of the conference is English.

VENUE

The conference takes place at the Aldemar Knossos Royal Village Conference Center located in the outskirts of Hersonissos village in Crete, Greece. The nearest international airport is Heraklion (HER) at a distance of 23km.

LOCATION

Crete is the largest of all the Greek islands and is considered to be one of the most prosperous areas in Greece. It has

1,100 km of coastline, a total surface of 8,336 sq m and approximately 600,000 inhabitants. Crete is renowned for its long sandy beaches and the breath-taking mountains. Development on the island has been favoured by its geographical location, climate and diverse natural beauty, as well as, its unique cultural and historical heritage.

Hersonissos lies 25 km east of Heraklion, the major city and capital of the island Crete. It is the one of the first places in Crete that was discovered and developed by the tourism business back in early 60s. Today, it is a modern and a very busy holiday resort with numerous hotels, bars, restaurants, night clubs, a large range of shops selling souvenirs, furs, jewels, clothing, but also banks and super markets. The harbour is the center of the famous night life of the area. Hersonissos has an easy access to many tourist attractions such as small islets and beaches in the area, museums and monuments of Heraklion and the neighbouring and beautiful district of Lassithi.

REGISTRATION

Registration Fees	Till 31 Jan 2007	1 Feb 2007 to 30 Apr 2007	1 May 2007 - on site
Participant	420	540	590
Student	210	270	295
Dinner	50	50	50
Guest	25	25	25

Rates in Euro

Participant / Student fee includes:

Attendance of all conference sessions, The conference material, A CD with the conference proceedings, All lunches and refreshment breaks, The welcome reception, Certificate of attendance.

Guest fee grants access to the welcome reception.

Conference dinner

A conference dinner will be held on 29 September 2007 in the evening at a cost of 50 Euro per person.

PAYMENT

The payment for the registration fees and the accommodation cost should be made in Euro, in advance to the conference to Heliotopos Conferences, by bank transfer or credit card (Visa, Mastercard). On site registrations are paid in cash or by credit card.

CANCELLATIONS & REFUNDS

All conference cancellations received in written by 31 August 2007 will receive a full refund less a 50 Euro administrative fee. No refunds will be made after 31 August 2007. No refunds are given for no-shows.

ORGANISERS

The Conference is jointly organised by:

- Air Infiltration and Ventilation Centre - AIVC
- International Energy Agency, ECBCS
- Heliotopos Conferences, Greece

CONFERENCE SECRETARIAT

Heliotopos Conferences

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Web Site: <http://heliotopos.conferences.gr>

Conference Web Site: <http://palenc2007.conferences.gr>

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DURATION OF PRESENTATIONS

Key note lectures should last 15 minutes including questions. **Presentations of papers** should last 10 minutes including questions

PREVIOUS CONFERENCE

PASSIVE AND LOW ENERGY COOLING FOR THE BUILT ENVIRONMENT International Conference

19 - 21 May 2005 - Santorini island, Greece

Conference Web Site: <http://palenc2005.conferences.gr>

THURSDAY, 27 SEPTEMBER 2007

08:00 - 09:00

Registration

Sessions

09:00 - 11:00

PLENARY SESSION

Room A

Chair Persons: P. Wouters and M. Santamouris

Short Welcome:

M. Santamouris: The PALENC Conference

P. Wouters: History and Role of the AIVC

Key Note Lecture:

O. Seppanen

Ventilation Strategies for Good Indoor Air Quality and Energy Efficiency

Key Note Lecture:

H. Akbari, S. Menon, A. Rosenfeld

Global Cooling: Effect of Urban Albedo on Global Temperature

Key Note Lecture:

S. Roaf and F. Nicol

Low Carbon Cooling for Buildings

11:00 - 11:15

Coffee Break at the lobby of the Conference Center

PARALLEL SESSIONS

	Room A	Room B - AIVC Sessions	Room C
THURSDAY, 27 SEPTEMBER 2007	Case Studies on Passive Cooling Chair Persons: H. Erhorn and B. Todorović Key Note Lecture: I. Meir, W. Motzafi-Haller, E.L. Kruger, L. Morhayim, S. Fundaminsky, L. Frenkel Towards a Comprehensive Methodology for Post Occupancy Evaluation (POE): A hot Dry Climate Case Study H. Wigo: Innovative Cooling Method in a School Environment. I. Farrou, M. Santamouris, I. Zervas, K. Zachakis, C. Toumbexis, P. Tzamalís: Retrofitting of the General Secretariat Information Systems G.L. Brunneti: Integrated Design Optimisation of School Pavilions – A Case Study in Milan V. Bulteau, R. Cantin, G. Guarraccino: Very Low Energy Buildings: Analyse of Two Case Studies in France P. Charvat, M. Jicha, J. Stetina: Passive Cooling of a Wood Frame House R. Albatici, F. Ioannone, A. Savorelli: Passive Natural Cooling Techniques for Wooden Buildings in Warm Climate: Case Study A. Spanaki: Comparative Studies on Different Type of Roof Ponds for Cooling Purposes: Literature Review M. Shokouhian, F. Soflaee, F. Nikkhhah: Environmental Effect of Courtyard in Sustainable Architecture of Iran (Cold Regions) (Case Study: Courtyard houses in Tabriz) J. Desmedt, H. Hoes: Monitoring Results of Aquifer Thermal Energy Storage System in a Belgian Hospital	Modelling Energy and Ventilation Systems and Techniques Chair Persons: M. Sherman and H. Poirazis Key Note Lecture: H. Yoshino, M. Fujikawa, R. Takaki, H. Okuyama, M. Hayashi, M. Sugawara Measurement Method of Multi-Zone Air Flow Rate Using Human Expiration T. Kim, B. Park, S.M.Lee, J.H. Lee, Y. Lee: Ventilation Systems to Minimize Food Odor Spreading in High Rise Residential Buildings P. Drach, F. Karam: Computational Analysis of Indoor Air Circulation and Heat Transfer in a House Ventilated by Wind-Catch Rong Li, A. Pitts, Mu Niu: The Effects of Roof Angle and Width of Adjacent Buildings on Wind-Induced Cooling Ventilation of Atrium Spaces M. Fournier, S. Berthault, F-R. Carrie: In Situ Measurement of window Air Tightness: Stakes, Feasibility, and First Results T. Endo, T. Kurabuchi, T. Nonaka, Y. Kadowaki, M. Ohba, T. Goto: Enhancement of Cross-Ventilation of a Detached House Using Roof Surfaces in Densely Populated Urban Areas. Part1: Wind Pressure Distribution by Wind Tunnel Experiment Y. Kadowaki, T. Kurabuchi, T Nonaka, T. Endo: Enhancement of Cross-Ventilation of a Detached House Using Roof Surfaces in Densely Populated Urban Areas. Part2: Numerical Investigation about the Effects of the Roof Surface use by CFD G. Oliveti, N. Arcuri, R. Bruno: Variable Flow Rate Summer Air-Conditioning Systems with Low Energy Consumption for Small Buildings	Cooling Load Solar Control and Internal Gains Chair Persons: A. Athienitis and P. Strachan Key Note Lecture: A. Tzembelikos, M. Bessoudo, A. Athienitis, R. Zmeureanu The Impact of Shading on Thermal Comfort Conditions In Perimeter Zones With Glass Facades K. Axarli, C. Vaitsi: Computational Investigation of the Performance of Window Blinds L. Doulos, A. Tsagrassoulis, F. Topalis: The Impact of Coloured Glazing and Spectral Response of Photosensors in the Estimation of Daylighting Energy Savings G. Kokogiannakis, P. Strachan: Modelling of Double Ventilated Facades According to the CEN Standard 13790 Method and Detailed Simulation C. Hobart, M. Wilson: Compact Fluorescent Lightbulbs: An Acceptability Study P. Wilkins: Measuring the Luminance and Chromaticity Distribution of the Sky S. Pagani Guazzugli Bonaiuti, M. Wilson: An Analysis of the (BRE) Average Daylight Factor and Limiting Depth Guidelines as Design Criteria. W. Zeiler, J. Verdonschot, G. Boxem: An Integral Approach to Façades: A Conceptual Comparison Between Different Types of Facades N. Ibrahim, A. Zain-Ahmed: Daylight Availability in an Office Interior due to Various Fenestration Options T. Tzembelikos, B. O'Neill, A. Athienitis: Daylight and Luminaire Control in a Perimeter Zone Using an Automated Venetian Blind H. G. Schuster, H. F.O. Mueller: Interdisciplinary Development of a Modular Facade System with Decentralised Building Services
13:15 - 15:15	Lunch at the main Restaurant of the Hotel		

PARALLEL SESSIONS

	Room A	Room B - AIVC Sessions	Room C
THURSDAY, 27 SEPTEMBER 2007	15:15 - 17:15 Thermal Comfort	Ventilation and Cooling Case Studies	Sustainability and use of Renewable Energies
	<p>Chair Persons: F. Nicol and L. Pagliano</p> <p>Key Note Lecture: I. Knight, S. Stravaravdis, S. Lasvaux Assessing the Operational Energy Profiles of UK educational buildings: Findings from Detailed Surveys and Modelling Compared to Measured Consumption</p> <p>A. Androutsopoulos, G. Kotsiris: Thermal Comfort under Transient Seasonal Conditions of a Bioclimatic Building in Greece</p> <p>A Sakka, F. Nicol, M. Wilson, M. Santamouris: Summer-time Comfort in Social Housing in Athens</p> <p>N. Nasrollahi, I. Knight, P. Jones: Occupant Indoor Environmental Quality (IEQ): Results of a survey in office buildings in Iran</p> <p>M. Palme, A. Isalgue, H. Coch, R. Serra, IM. Marincic, A. Fanchiotti: Dynamic Sensation of Comfort in buildings: The Temperature Changes Effects</p> <p>M. Schweiker, M. Shukuya: User Behaviour in Relation to his Short- and Long-Term Thermal Background</p> <p>M. Varga, K. Leutgöb, L. Pagliano, P. Zangheri, R. Cavelius: Policy Instruments to Promote Sustainable Summer Comfort in Buildings</p> <p>Ch. Hamans: Thermal Insulation of Buildings and Cooling Demand</p> <p>S. Bellara, S. Abdou: Optimal Orientation for Housing with Low Energy Profile in a Semi Arid Climate</p>	<p>Chair Persons: M. Lain and A. Dimoudi</p> <p>Key Note Lecture: H. Erhorn-Kluttig, H. Erhorn Ecobuildings: Towards an Energy-Efficient European Building Stock beyond National Requirements</p> <p>J.Y. Yu, D.W.Cho, K.H.Yu, K. D. Song: Case Study of the Weighed Factors of Stack Effect and the Reduction Alternatives in tall Complex Building</p> <p>S. Croce, L.P. Gattoni, R. Arlunno and G. Pansa: Radiant Cooling and Ventilation Strategies in Low Energy Buildings</p> <p>T. Kurabuchi, T. Endo, K. Kumagai, H. Yoshino: Window Opening Behaviour and Resultant Thermal and Air Quality Environment in Elementary School Classrooms</p> <p>M. Lain, V. Zmrhal, J. Hensen: Low Energy Cooling for Buildings in the Middle Europe - Case Studies</p> <p>Sh. Nishizawa, T. Sawachi, H. Habara, H. Seto: Measurement of Natural Ventilation Rate in Japanese Residential Building</p> <p>H. Erhorn-Kluttig, H. Erhorn, K. Höttges, J. Kaiser: Experiences from the first German EPBD Implementations: - Field tests for Residential and Non-residential Buildings - Certificates for well-known National and International Buildings</p> <p>I. Farrou, M. Santamouris, S. Zerefos, R. Heimrath, H. Hengsberger, Th. Mach, W. Streicher, R. Waldner, G. Flamant, X. Loncour, S. Prieus, G. Guarracino, H. Erhorn, H. Erhorn-Kluttig, R. Duarte, M. Matos, Á. Blomsterberg, L. Sjöberg: Best Practice for Double Skin Facades. The BESTFACADE project</p> <p>A. Blomsterberg: The Energy Performance of Glazed Office Buildings with Double Skin Facades – BESTFACADE guidelines</p> <p>K. Sfakianaki, K. Pavlou, M.N. Assimakopoulos, M. Santamouris, I. Leivada, N. Karkoulas, J. Mamouras: Analyzing air-tightness Measurements using Fan Pressurization Method on Forty Residential Houses in Athens, Greece</p> <p>W. Zeiler, G. Boxem, R. Scholten: Field Study on the Performance of Hybrid Ventilation with HRHC in Schools</p>	<p>Chair Persons: E. Erell and A. Synnefa</p> <p>Key Note Lecture: A. Athienitis Design and Control of Building-Integrated Solar Energy Utilization Systems - Achieving Net-Zero Building Energy Consumption in Canada</p> <p>S. Pina, D.C.C.K. Kowaltowski, V.T. de Paiva, A.M.G. De Monteiro, C.R. Arias, E.T. Donadon: The Social Housing and Sustainable Design: A Teaching Experience</p> <p>H. Mueller, K. Byabato: PREA Promoting Renewable Energies in Africa</p> <p>S. Kouvelis: Mediterranean Strategy for Sustainable Development</p> <p>N.C. Sijppeer, E.J. Bakker, R. Schuitema, F.A.T.M. Ligthart, I.J. Opstelten: Research and Development with Full Scale Research Dwellings</p> <p>M. Hernández T, L. Shao: Experimental and Computational Evaluation of the Thermal Performance of Double Skin Facades</p> <p>Y. Kazakov: The Theory and Practice of Use Quickly Build of Buildings in Usual Conditions and Extreme Situation : Experience of Russia by 2007</p> <p>G. Saridakis, D. Kolokotsa, M. Santamouris: State of the art on Macroscopic Models for the Determination of Thin Films Optical Properties</p> <p>A.C. Silva, E. M. V. Matos, N. R. A. J. Cabral, G. C. Nolasco, J. L. J. Albores: Evaluation of the Thermal Behavior of two Systems of Ceilings: Reinforced Concrete and Water Layer</p> <p>M. Singery, S.M. Mofidi: Climatic Responsive Architecture of Tabriz</p>
17:15 - 17:30	Coffee Break at the lobby of the Conference Center		

PARALLEL SESSIONS

	Room A	Room B - AIVC Sessions	Room C
17:30 - 19:30	Microclimate and Passive Cooling	Natural Ventilation Systems	Heat Dissipation and Amortisation Techniques
THURSDAY, 27 SEPTEMBER 2007	<p>Chair Persons: H. Akbari and I. Meir</p> <p style="text-align: center;">Key Note Lecture: E. Erell, T. Williamson The spatial Variability of air Temperature in the Urban Canopy Layer</p> <p>Y. Xiong: The Impact of Exterior Environmental Comfort on Residential Behaviour from the Insight of Building Energy Conservation: a Case study on Lower Ngau Tau Kok Estate in Hong Kong</p> <p>A. Al-musaed, A. Almssad, Z. Khalil: Heat Island Effects upon the Human Life on the City of Basrah</p> <p>S. Soutullo, C. San Juan, R. Olmedo, R. Enriquez, S. Palero, J.A. Ferrer & M^a.R. Heras: Refrigeration in Open Spaces by Means of Evaporative Systems</p> <p>L. Souza, C. Postigo, A. Oliveira, C. Nakata: Urban Heat Islands and Electrical Energy Consumption in a Brazilian City</p> <p>M. Zinzi, G. Fasano, E. Manilia: Properties and Performances of an Innovative Reflective Painting to Reduce the Cooling Loads in Buildings and Mitigate the Heat Island Effect in Urban Areas</p> <p>F. Soflaee, M. Shokouhian: Environmental Effect of Courtyard in Sustainable Architecture of Iran (Hot – Arid regions, meso-climate BWks). Case study: Courtyard houses in Ispahan & Kerman</p> <p>C. Ren, E. Ng, L. Katzschner: An Investigation into Developing an Urban Climatic Map for High Density Living-Initial Study in Hong Kong</p> <p>N.H. Wong, S.K. Jusuf: GIS-Based and Computer Simulation Evaluation on NUS Campus Master Plan</p> <p>M. Stathopoulou, A. Synnefa, C. Cartalis and M. Santamouris: A Heat Island Study of Athens Using High-Resolution Satellite Imagery and Measurements of the Optical and Thermal Properties of Commonly used Building and Paving Materials</p> <p>H. Akbari, R. Levinson: Status of Cool Roof Standards in the United States</p>	<p>Chair Persons: C. Kittas and D. Finn</p> <p style="text-align: center;">Key Note Lecture: T. Sawachi, S. Nishizawa, H. Habara, H. Miura Estimation on the Effectiveness of the Cross Ventilation as a Passive Cooling Method for Houses</p> <p>T. Bartzanas, C. Kittas, N. Tadj, B. Draoui: Influence of Vents Type Arrangement on Greenhouse Thermal Driven Ventilation</p> <p>Y. Bouchahm, A. Djouima: Application of new Design of Wind Tower Configuration to Existing Building for Passive Cooling</p> <p>M. Tahsildoost, N. Deldar: Utilizing Simulation to Predict Natural Ventilation and Wind Flow</p> <p>J. Horan, D. Finn: Internal Airflow Sensitivity in a Naturally Ventilated Atrium Subject to Variation in External Wind Conditions</p> <p>T. Iwamatsu, Y. Hoshino, E. Kataoka, M.L Shukuya: Exergetic Evaluation of High-Temperature Radiative Cooling Combined with Natural Ventilation</p> <p>F. Nicol, H. Rijal M. Humphreys, P. Tuohy: Characterising the use of Windows in Thermal Simulation</p> <p>D. Lanceta, J. Llorente: Solar Chimney: Modelling and Verification</p> <p>J-E. Song, Y-S. Kim, J-Y. Sohn: The Effect of Plant Use on the Reduction of Volatile Organic Compounds for Environmental Improvement</p> <p>M. Tajima and T. Sawachi: Accuracy of a Neural Network for the Prediction of Wind Pressure Coefficient</p> <p>Dong-Woo Cho, Jung-Yeon Yu, Ki-Hyung Yu: Performance of the Raised Floor Heating System with Natural ventilation</p> <p>K. Niachou, S. Hassid, M. Santamouris: Performance of Natural, Hybrid and Mechanical Ventilation Systems in Urban Canyons</p>	<p>Chair Persons: C. Inard and E. Almeida</p> <p style="text-align: center;">Key Note Lecture: D. Serghides Bioclimatic Design for Cooling in Mediterranean Buildings. The Effectiveness of Mass Increase</p> <p>A. Almusaed: Evaporative Cooling Process Adaptive for Baghdad City Climate</p> <p>Gh. Heidarinejad, M. Bozorgmehr: Modelling of Indirect Evaporative Air Coolers</p> <p>D. Lanceta, F. Manteca, C. Martin, D. Martinez, F. Serna, J.Llorente: Cooling of Outdoor Spaces by Means of Evaporative-cooling Ceramic-pillars</p> <p>E. Almeida: Ventilation and Non-conventional Thermal Mass Strategies Applied to Lightweight Constructions</p> <p>N. Artmann, H. Manz, P. Heiselberg: Parametric Study on the Dynamic Heat Storage Capacity of Building Elements</p> <p>S. Ferrari: Building Envelope and Heat Capacity: Re-discovering the Thermal Mass for Winter Energy Saving</p> <p>S. Kalogirou: Use of Genetic Algorithms for the Optimum Selection of the Fenestration Openings in Buildings</p> <p>D. Warwick, A. Crips, M. Kolokotroni: Monitoring and Simulation of two Operational Buildings Integrating Active Thermal Mass Strategies</p> <p>E. Matsumoto and R.M. Caram: The Stack Effect using Materials with high Thermal Inertia</p>
19:30 - 21:00	Welcome Reception at the Beach Platform		

FRIDAY, 28 SEPTEMBER 2007

Sessions

09:00 - 11:00

PLENARY SESSION

Room A

European Directive on Building's Performance

Chair Persons: O. Seppanen and K. E. Thomsen

Key Note Lecture:

E. Maldonado

Cooling Requirements in the EU Building Regulations: Status and Future Needs

Key Note Lecture:

F. Nicol, L. Pagliano

Allowing for Thermal Comfort in Free-running Buildings in the new European Standard EN15251

Key Note Lecture:

P. Wouters, N. Heijmans, A. Janssens, N. Van Den Bossche, S. Roels

Assessment of Innovative Systems/Technologies in the Context of EPBD Regulations
(Illustrated with the Assessment of an Innovative Ventilation System in the Belgian Context)

11:00 - 11:15

Coffee Break at the lobby of the Conference Center

PARALLEL SESSIONS

	Room A	Room B - AIVC Sessions	Room C
11:15 - 13:15	Case Studies on Passive Cooling	Thermal Comfort, Ventilation and Energy	Heat Dissipation and Solar Control Techniques
FRIDAY, 28 SEPTEMBER 2007	<p>Chair Persons: S. Yannas and H. Tsoutsos</p> <p style="text-align: center;">Key Note Lecture: A.M. Papadopoulos, E. Giama Rating Systems for Counting Buildings' Environmental Performance</p>	<p>Chair Persons: I. Knight and D. Serghides</p> <p style="text-align: center;">Key Note Lecture: F. Butera, R.S Adhikari, M. Butera Evaluation of Design Strategies for Improving Summer Comfort Conditions in a Low-Energy Residential Building</p>	<p>Chair Persons: H.N. Wong and Y. Tripanagnostopoulos</p> <p style="text-align: center;">Key Note Lecture: P. Karava, T. Stathopoulos, A.K. Athienitis Guidelines for Natural Ventilation Design with Operable Windows</p>
	<p>L. Wang, J. Gwilliam: Discussion of Strategies for UK Zero Energy Building Design.</p> <p>S. Yannas: Dynamic Structures</p> <p>J. Fernandes, J. Correia da Silva: Passive Cooling in Ivora's Traditional Architecture</p> <p>V. Sagia: Double Enclosure: Application for a Commercial Building in Athens, Greece.</p> <p>M. Costella: An Adaptable Urban House Designed for the Southern Brazilian Climate</p> <p>S. Chadiarakou, M. Santamouris: Insulation as Criteria for the Energy Behaviour of the Building Stock</p> <p>Th. Kyparissi, A. Dimoudi: Measures to Improve the Cooling Energy Performance of Student Halls in Greece</p> <p>A. Papadopoulos, A. Avgelis, D. Anastaselos, M. Santamouris: A study of Converting the White Tower into a Contemporary Museum</p> <p>D.C. Avila: Study of Energy Savings Strategies in Rural Houses of Hot Climates in Mexico</p>	<p>B. Güçyeter, B. Terim and Z. Durmuş Arsan: Thermal Effect of Orientation Differentiations in a University Building in Izmir, Turkey</p> <p>B. Ganem Karlen, H. Coch Roura: Solar Shading and Ventilation Patterns: to What Extent are they Accurate to Comfort Expectations?</p> <p>A. Angelotti, P. Caputo: The Exergy Approach for the Evaluation of Heating and Cooling Technologies; first Results Comparing Steady State and Dynamic Simulations</p> <p>M. Romero: Sustainable recommendations for the faculty of Technology of the University of Brasilia – Brazil</p> <p>Y. Kazakov: Little floors town-planning complexes with energy protect building systems and new types concrete in Russia at 2007</p> <p>K. Sfakianaki, K. Pavlou, M. Santamouris, E. Pagalou: Investigating and Analysing the Thermal Behaviour of the "Green Roof System" Installed in two Buildings in Athens, Greece</p> <p>R. Mateus, S. Silva, L. Bragaca, M. Almeida, P. Mendona, P. Silva: Sustainability Assessment of an Energy Efficient Optimized Solution</p> <p>O. Pankratz, L.M. Avila, C. Buxbaum and A. Seiler: Combining Cooled Soil and Natural Night Ventilation to Achieve Moderate Tempered Houses in Andalusia, Spain</p>	<p>A. Almusaed, A. Almssad, S. Harith, M. Nathir, M. Ameer: Shading Effects upon Cooling House Strategy in Iraq</p> <p>C. Bleil De Souza, I. Knight: Interpreting Building Simulation Modelling data for Building Designers, with Specific Reference to the Cooling Demand</p> <p>T. Caplow, J. Nelkin: Building-Integrated Greenhouse Systems for Low Energy Cooling</p> <p>Y. Tripanagnostopoulos, M. Tripanagnostopoulou: Design Aspects and Perspectives for Solar Control of Buildings with Aesthetic and Efficient Solar Thermal Collectors and Photovoltaics</p> <p>T. Nikolaou, G. Stavrakakis, I. Skias, D. Kolokotsa: Contribution of Shading in Improving the Energy Performance of Buildings</p> <p>G. Oliveti, N. Arcuri, R. Bruno, M. de Simone: Solar Gains in the Glazing Systems with Sun-Shading</p> <p>Z. Khalil, A. Almusaed, A. Almssad: Cooling by Underground Earth Tubes</p> <p>C.J Koinakis, J. Sakkelaris: Office building Facades and Energy Performance in Urban Environment in Greece</p> <p>M. De Matos, R. Duardo: A Comparison Between Energy Performance of one DSF Buildings Studied Sample and Office Buildings Benchmarks in Europe</p> <p>M. Grosso, L. Raimondo: Horizontal Air-to-Earth Heat Exchangers in Northern Italy: Testing and Application</p> <p>G. Alcamo, S. Murgia, M. Sala: The Impact of Different Window Configurations, Natural Ventilation and Solar Shading Strategies on the Indoor Comfort Level in Simple Rooms, in Mediterranean Area</p>
13:15 - 15:15	Lunch at the main Restaurant of the Hotel		

PARALLEL SESSIONS

	Room A	Room B – AIVC SESSION	Room C
15:15 - 17:15	<p>Microclimate and Passive Cooling</p> <p>Chair Persons: E. Maldonado and A. Mingozzi</p> <p>Key Note Lecture: L. Wang, N.H. Wong A Convenient Coupled Simulation Method for Thermal Environment Prediction in Naturally Ventilated Buildings</p> <p>A. Angelotti, V. Dessi and G. Scudo: The Evaluation of Thermal Comfort Conditions in Simplified Urban Spaces: the COMFA + Model</p> <p>A. Almusaed, Z. Khalil: The Local Microclimate Effects on Bio-climatically Investigative Process in Iraq</p> <p>T. Karlessi, M. Santamouris, K. Apostolakis, A. Synnefa: A Study of Thermo Chromic Coatings for Energy Efficiency in Buildings</p> <p>S. K. Jusuf, N.H. Wong: GIS-Based Urban Elements Study and Its Rooftop Greenery Potential in NUS Campus</p> <p>F. Sartogo, V. Calderaro: Natural Ventilation and Building Low Energy Cooling as new Culture for City Planning Design</p> <p>J. P. Tavares-Coimbra: Building Low Energy Cooling and Advanced Ventilation in Cooperative Housing</p> <p>A. Mingozzi, S. Bottiglioni: Bioclimatic Architecture: the Case Study of the Sustainable Residential Settlement in Pieve di Cento.</p>	<p>Energy and Ventilation : Legislation Training and Market Issues</p> <p>Chair Persons: P. Wouters and K. Krell</p> <p>Key Note Lecture: K.E. Thomsen, K. B. Wittchen, O.M. Jensen, S. Aggerholm Knowledge Extraction from Energy Certification of Buildings—Results from the ENPER-EXIST Project</p> <p>A Tsave, T. Nikolaou, D. Kolokotsa, D. Dasenakis, N. Zografakis: Energy Performance and Energy Rating Procedures of Buildings in Southern Europe</p> <p>K. Burke, P. Kenny, D. Finn: Sensitivity Analysis of the EPBD. Energy Performance Grading of Buildings</p> <p>K. Krell: Methodologies to Bring Innovative Environmental Technology R&D Results into the Market</p> <p>A. Almusaed, Z. Khalil: Saleable Passive House (Marketing Activities in the Context of Passive Sustainable Principles)</p> <p>F. Butera, S. Ferrari, R.S. Adhikari and P. Caputo: Feasibility Study for Renewable and Low-Energy Applications in Urban Building Sector</p> <p>D.Kolokotsa, G. Saridakis, O.Fenekos, A.Karagounakis, D.Tsoukakis: e-EPBD: A distance Training Tool for the Energy Performance Buildings Directive</p> <p>A. Pindar, P. Zangheri, A. Pagliano, J. Schneiders: The Passivhaus Standard in Southern Europe</p> <p>M. Papaglastra, M. Santamouris, R. Cohen: Applying the EP Label Tools for Energy Certification of Buildings in Greece</p>	<p>Dynamic Analysis Methods and Modelling</p> <p>Chair Persons: H. Bloem and L. Vandaele</p> <p>Key Note Lecture: H. Bloem Dynamic Analysis Methods and Modelling. Application to Energy Performance Assessment</p> <p>G. Fraisse, Y. Bai, N. Le Pierres, T. Letz: Comparative Study of various CESI Optimisation Criteria and Proposition of a Global Evaluation Approach</p> <p>G. Baryannis, G. Stavrakakis, T. Nikolaou, D. Kolokotsa: TRNDB: A Web Database and Web Site for Storage and Process of Building Energy Analysis Data</p> <p>A. Sempey, C. Inard, C. Ghiaus, C. Allery: Control of Temperatures in Air-Conditioned Indoor Spaces Using Reduced Order Model</p> <p>K. Kontoleon, M.C.A. Torres: Modelling Building Envelopes in Order to Assess and Improve their Thermal Performance</p> <p>R. Xiao, S.H. He, C. Huang, Z.P. Feng: Pressure-Drop and Energy-Saving Analysis of TBAB Clathrate Hydrate Slurry as a Latent Heat Transportation Media</p> <p>J. Cipriano, G. Haouzeaux, D. Perez: Development and Characterization of Semitransparent Double Skin PV Facades with Heat Recovering</p> <p>H. Erhorn, J. de Boer, S. Wössner, K. Höttges, H. Erhorn-Kluttig: DIN V 18599: The German Holistic Energy Performance Calculation Method for the Implementation of the EPBD</p> <p>A. Sial Mahammed Naeem, M. Wilson: A Study of the Application of the BRE Average Daylight Factor Formula to Rooms with Window Areas Below the Working Plane</p> <p>A. Sempey, C. Inard, C. Ghiaus, C. Allery: Reduced Order Model for Air Temperature Control in Indoor Spaces</p>
17:15 - 17:30	Coffee Break at the lobby of the Conference Center		

PARALLEL SESSIONS

	Room A	Room B - AIVC SESSION	Room C
FRIDAY, 28 SEPTEMBER 2007	17:30 - 19:30 Solar Cooling Techniques	Ventilation Technology and Energy Efficiency	Energy Production, Training, Legislation and Market Issues
	<p>Chair Persons: M. Todorović and J. Pfafferott</p> <p style="text-align: center;">Key Note Lecture: U. Eicker, J. Schumacher, C. Vorschulze, D. Pietruschka</p> <p>Potential of Geothermal Heat Exchangers for Office Building Climatisation</p> <p>E. Ampatzi, I. Knight: The Potential Application of Residential Solar Thermal Cooling in the UK and the Role of Thermal Energy Storage Technologies</p> <p>M. Rhodes, I. Knight, F. Agyemin: Categorising the Existing Welsh Housing Stock in Terms of Heating and Cooling Demand and Thermal Storage Capacity</p> <p>J. Desmedt, J. Hoes: Simulation of Large Scale Ground Source Heat Pump with Natural Cooling</p> <p>S. Kumar: Performance Study of Air Washer Chilled Water Coil System and Chilled Water Spray System for a Yarn Industry</p> <p>F. Agyemin, M. Rhodes, I. Knight: The Use of Phase Change Material (PCM) to Improve the Coefficient of Performance of a Chiller for Meeting Domestic Cooling in Wales</p> <p>A. Sapounas, T. Bartzanas, Ch. Nikita-Martzopoulou, C. Kittas: Aspects of CFD modeling of Fan and Pad Evaporative Cooling System in Greenhouses</p> <p>P. Shahmohamady, F. Soflaee: The Combination of Clay and Nanotube Carbon as an Innovative and Sustainable Material</p> <p>P. Naukkarinen: Solar Air Conditioning and its Role in Alleviating the Energy Crisis of the Mediterranean Hotels</p> <p>G. Zidianakis, T. Tsoutsos, N. Zografakis: Simulation of a Solar Absorption Cooling System.</p> <p>M. Todorović, O. Ećim, and I. Zlatanovic: Building Integrated PV Water Heating and Air Conditioning in the Special Hospital of the SPA Rusanda</p>	<p>Chair Persons: A. Wagner and H. Erhorn Kluttig</p> <p style="text-align: center;">Key Note Lecture: M. Sherman, I. Walker</p> <p>Air Distribution Effectiveness for Different Mechanical Ventilation Systems</p> <p>W. Zeiler, G. Boxem and M. Van Bruchem: Ventilation of Dutch Schools Presently Insufficient; An Integral Approach to Improve Design</p> <p>M. Košir, Z. Kristi, A. Krainer: Fuzzy Control System for Regulation of Integrated Shading and Ventilation</p> <p>J.K. Sakellaris, P. Romanos, C.J. Koinakis: Supervisory Control of an Intelligent Building in Greece Using EIB – KONNEX Technology for Energy Performance Improvement</p> <p>P. Van den Bossche, C. Delmotte, L. Vandaele, D. Van Orshoven: Air to Air Heat Recovery: Assessment of Efficiency</p> <p>H. Erhorn, H. Erhorn-Kluttig, H. Sinnesbichler, S. Wössner N. Weiss: A Simple Calculation Method for the Energy Performance of Double Skin Facades</p> <p>B. Jones, R. Kirby, M. Kolokotroni, T. Payne: Air Quality Measured in a Classroom Served by Roof Mounted Natural Ventilation Wind catchers</p> <p>F. Bourbia, F. Boucheriba: Urban microclimate and street design for semi arid climate (Constantine)</p> <p>E. Roijen, P. Opt Veld, E. Demollin-Sneiders: The Mine-water Project Heerlen Netherlands- Low Exergy Heating and Cooling in Practice</p> <p>M. Saito: Residential Active Cooling toward Snowy Cold Region in Japan and Human Temperature Sensitivity for Passive and Low Energy Cooling</p> <p>K. Pavlou, M. Santamouris: Study on the Thermal Performance of a Solar Chimney</p> <p>M.J. Jiménez, M.R. Heras J. Arce: Estimation of the Main Thermal Parameters of a Real Size Solar Chimney from Outdoor Dynamic Tests</p>	<p>Chair Persons: S. Hassid and M. Papaglastra</p> <p style="text-align: center;">Key Note Lecture: R. Lamberts, S. Goulart, J. Carlo, F. Westphal</p> <p>Regulation for Energy Efficiency Labelling of Commercial Buildings in Brazil</p> <p>P. Caputo, A. Roscetti, I. Rega: Evaluation and Evolution of the eCourse Ecology in Architectural Design</p> <p>S. Delbin, V. Gomes da Silva, D. Kowaltowski: Teaching for Integration of Building Energy Simulation in the Design Process</p> <p>M.N. Assimakopoulos, A. Sfakianaki, P. Doukas, M. Santamouris, A. Fourtounas: On the Indoor Air Quality Problem in Residential Areas: the Athens Case</p> <p>D. Zaslavsky, R. Guetta, S. Hassid: Energy Towers: A Renewable Energy Technology for Producing Electricity and Desalinated Water in Arid Climates</p> <p>M. Karagiorgas, M. Tsagouris, K. Galatis, A. Botzios-Valaskakis: Solar Assisted Heat Pump in Dual Mode: Direct and Indirect Space Heating by the Air Collectors: Simulation Results and Evaluation with Measurement Results</p> <p>N. Deldar, M. Tahsildoost: To Restate Traditional Sustainable Solution, Iranian Traditional Natural Ventilation</p> <p>I. Pollet, P. Renson: Night cooling: Practical Experiences in Offices and the Need for Standard Implementation into Energy Performance Legislations</p> <p>M. Karagiorgas, P. Kouretzi, L. Kodokalou, P. Lamarinis: Operation and Measurement Results of the Solar Cooling Installation in Rethymnon Village Hotel</p> <p>F. Richieri, J. Blanc Gonnet, P. Michel, G. Guarracino: HVAC System for Experimental Research and Educational Applications</p>

SATURDAY, 29 SEPTEMBER 2007

Sessions

09:00 - 11:00

PLENARY SESSION

Room A

Chair Persons : R. Lamberts and M. Wilson

Key Note Lecture: A. Tombazis

Reflections on the Skins of Different Objects and the Use of Climate Modifiers

Key Note Lecture: J. Clarke, C.M. Johnstone, J.M. Kim, P.G. Tuohy

Energy and Carbon Performance of Housing: Upgrade Analysis,
Energy Labelling and National Policy Development

Key Note Lecture: B. Todorović

Visualization of Air Conditioning and Ventilation Processes: the Appearance of Humid Air Diagram
Within a Short Period at Three Distant Places on a Globe

Key Note Lecture: A. Wagner

The German Research Programme “Energy Optimised Buildings” – Lessons Learned and Future Perspectives

11:00 - 11:15

Coffee Break at the lobby of the Conference Center

PARALLEL SESSIONS

	Room A	Room B - AIVC Sessions	Room C
SATURDAY, 29 SEPTEMBER 2007	Passive Cooling and Low Energy Buildings Chair Persons: F. Butera and C. Ghiaus Key Note Lecture: J. Pfafferott, D. Kalz, A. Wagner, T. Knapp Refurbishment and Monitoring of a Print Office in Karlsruhe, Germany	Ventilation, Indoor Air Quality and Thermal Comfort Chair Persons: A. Pitts and T. Tzembelikos Key Note Lecture : V. Assimakopoulou, O. Stathopoulou, C. Halios, C.J. Helmis Numerical Investigation of Indoor Environmental Conditions in an Office	Passive Cooling Related Topics I Chair Persons: H. Yoshino and I. Farrou Key Note Lecture: B. E. Psiloglou, C. Giannakopoulos, S. Majithia Comparison of Energy Load Demand and Thermal Comfort Levels in Athens, Greece and London, UK
	<p>M. Santamouris, K. Kapsis, D. Korres, I. Livada, C. Pavlou, M. Assimakopoulos: On the Relation Between the Energy and Social Characteristics of the Residential Sector</p> <p>F. Craveiro, B. Oliveira, V. Leal, O. Fernandes: A Study on the Energy Efficiency of Libraries of the West and Tejo Valley Region in Portugal</p> <p>J. Schlenger, H. Mueller: EULEB European High Quality Low Energy Buildings</p> <p>Y. Kazakov, T.M. Nikolaeva: Architecture of St.-Petersburg: Yesterday, Today and Tomorrow. How Europe to do Favourable Investments into Construction into City, Areas and Russia?</p> <p>L. Jesus, M. Almeida, A. C. Almeida: Passive Solar Energy Management Strategies in Shopping Centers</p> <p>S.M. Mofidi: Passive Architectural Cooling Principles for Arid Climates</p> <p>M. Menikou, G. Keeffe: Modular Passively Cooled Social Housing using Recycled ISO Shipping Containers; A Proposal for Limassol, Cyprus</p> <p>X. Cipriano, J. Carbonell: Monitoring and Modelling the Energy Efficiency of Municipal Public Buildings - Case Study in Catalonia</p>	<p>M. Santamouris, K. Argioudis, M. Georgiou, K. Pavlou, M. Assimakopoulos, A. Sfakianaki: Indoor Air Quality in Fifty Residences in Greece</p> <p>P. Petinga, P. Petit, P.J. Viale, S. Delaby, E. Robine, E. Gehin: Study of a new Photocatalytic Air Cleaner Applied to the Management of the Microbiological Indoor Air Quality</p> <p>H. Kokotti, T. Jauhiainen, P. Yli-Pirilä, A. Hirvonen, R. Halonen, A. Korpi, T. Keskikuru: Air Quality in Indoor Swimming Pools: Associations with Air Distribution, Water Treatment, Aerosols and Airway Symptoms</p> <p>K. Kittas, N. Katsoulas, A. Sapounas, T. Bartzanas: Distribution of a Tracer Gas in a Naturally Ventilated Greenhouse. Measurements and Simulations for Pesticides Dispersion Determination</p> <p>T. Kröger, K. Vepsäläinen, M. Reiman, T. Keskikuru, R. Halonen, H. Kokotti: The Determination of Conditions for Microbial Growth in the Crawlspace</p> <p>M. Papaglastra, M. Santamouris, E. Mouriki, G. Mihalakakou, D. Matthopoulos, I. Deligiannakis, V. Tsezos, E. Doulka, A. Geranios, A. Papadopoulos, E. Giama, A. Aristotelis, G. Stavarakakis, T. Nicolaou, D. Kolokotsa, S. Kephelopoulou, A. Katsoyiannis: Pythagoras: An Innovative Training Package on Indoor Environment Quality</p> <p>I. Ridley, M. Davies, D. Mumovic, M. Orme, W. Pane, J. Palmer: Performance of Domestic Ventilation Systems: A Simulation Study</p> <p>G. Giorgiantoni, D. Finizio: Energy Efficient Ventilation Systems and Components in Sport Facilities</p> <p>N. Sijpbeer, E.J. Bakker, R. Schuitema, F.A.T.M. Ligthart, I.J. Opstelten: Floor Cooling and Air-Cooling, the Effects on Thermal Comfort of Different Cooling Systems</p>	<p>A. Wagner, T. Knapp: Renewably Powered Art Energy Performance of the Ritter Museum in Wal-denbuch, Germany</p> <p>Ch. Kokolaki, M. Papoutsaki: Bioclimatic Intervention in a Central Region of Heraklion of Crete</p> <p>E. Grala da Cunha, N.R. Chleder-Machado, L. Turella, L. de Negri: Natural Heater Project</p> <p>S. Chadiarakou, A.M. Papadopoulos, A. Karamanos, D. Aravantinos: The Impact of Moisture on the Thermal Conductivity Value of Stone Wool Based Insulating Materials</p> <p>G. Loehlein: Research and Practice co Operation in Dubai</p> <p>V. P. Sethi: On the Selection of Shape and Orientation of a Greenhouse for Composite Climates</p> <p>N. Gaitani, A. Letsios, D. Maurogiorgi, M. Proios, M. Santamouris, A. Tsolaki : Field Measurements of Microclimatic Parameters for the Integration of the Green Areas and Implementation of the Principles of Bioclimatic Architecture in the Center of Athens</p> <p>A. Tsolaki, A. Trombadore, M. Santamouris: Sustainable Master Planning and Urban Design for the “Buffer Zone” of Nicosia</p> <p>K. Pavlou, A. Sfakianaki: Improvement of the Energy Performance of Greenhouses</p> <p>M. Zinzi, B. Barozzi, L. Danza, R. Lollini: A Simplified Tool for the Energy Certification of Italian Existing Dwellings. Comparative and Sensitivity Analyses</p>
13:15 - 15:15	Lunch at the main Restaurant of the Hotel		

PARALLEL SESSIONS

	Room A	Room B - AIVC Sessions	Room C
15:15 - 17:15	Integrated Design for Passive Cooling	Ventilation Indoor Air Quality and Cooling	Passive Cooling Related Topics II
SATURDAY, 29 SEPTEMBER 2007	<p>Chair Persons: S. Kalogirou and S. Chadiarakou</p> <p>Key Note Lecture: L. Rosales and M. E. Hobaica C. Ghiaus and F. Allard Potential of Passive Design Strategies Using the Free-Running Temperature</p> <p>K. Sfakianaki, K. Vassilakopoulou, M. N.Assimakopoulos, K. Pavlou, P. Doukas, N. Gaitani, M. Santamouris: Energy and Environmental Rehabilitation of a Listed Neoclassic Building in Athens, Greece</p> <p>V. Kohli, S. Yannas: Environmentally Responsive Architecture; Passive Design for School in Southern India</p> <p>L. Gramkow: Integrated Energy Design in Public Buildings EU INTEND.</p> <p>A. Gavalas: Two Energy Efficient Projects in Athens</p> <p>E. Giancola, S. Soutulo, R. Olmeda, M. Heras: Energetic Evaluation in Real Condition of Use of Housing</p> <p>L. Gramkow: Low eHotels - Low Energy Hotels in Southern Europe An EU-funded demonstration project</p> <p>I. Farrou, M. Santamouris, K. Pavlou, A. Sfakianaki, H.Petroulopoulou, G. Likourgiotis: Designer Village-Low energy dwellings The DEMOHOUSE Project</p> <p>Y. Kazakov, T. M. Nikolaeva: Offers of Northwest Regional Branch. The Russian Academy of Architecture and Building Sciences on Wooden Housing Construction as to one of Perspective Directions of Realization of the Project «Accessible and Comfortable Habitation – to Citizens of Russia ».</p> <p>A. Barbour, G. Marriage: A Green Building for the Roaring Forties</p>	<p>Chair Persons: T. Sawachi and E. Ng</p> <p>Key Note Lecture : W. de Gids, C.J. Oel Relation Between Ventilation and the Learning Skills of Pupils in Classrooms</p> <p>M. Santamouris: Indoor Particulates Pollution in Greece</p> <p>G. Iwashita, H. Yoshino: The Effect of Natural Ventilation on the Indoor air Quality in Classroom of the Elementary School without Heating Equipments during Winter Season</p> <p>S. Lim, H. Lee, W. Choi and I. Song, J. Yu: A Study on the Indoor Air Quality Management Effect of Intelligent Building Certification Program</p> <p>E. Ng: An investigation into Parameters Affecting an Optimum Ventilation Design of high Density Cities</p> <p>A. Eisa, A. Pitts: The impact of Building Envelope Design on Thermal Performance of Office Buildings in Egypt</p> <p>Ch. Georgakis, M. Santamouris: Data Driven and Fuzzy Techniques for Wind Speed Calculation inside Urban Canyons</p> <p>N. Papanikolaou, I. Livada, M. Santamouris: The Influence of the Wind Speed on the Heat Island Phenomenon in Athens, Greece</p> <p>I. Friedrich, A. Alonso Cepeda, D. Martinez, A. Gal: Methodology and Results of Construction Company R&D Department in Energy Efficiency in Building</p> <p>S. Arias: Ventilation Strategies as a Solution in Rural Areas Houses in Hot Climates</p>	<p>Chair Persons: M. Kolokotroni and D. Kolokotsa</p> <p>Key Note Lecture : H. Poirazis: Double Skin Facade Glazed Office Buildings; A Parametric Study for Optimised Energy and Thermal Comfort Performance</p> <p>J. Chmielarski: CO₂ Emission and Energy Saving Potential through Correct Pipe Insulation in cold Applications</p> <p>S. Dolianitis , D. Kolokotsa, N. Kaltsounakis, N. Zografakis: Building Energy Management Systems in building's retrofit using power lines</p> <p>F. Nicol: SCATs, a successful European Project about Energy Efficiency and the Behaviour of Building Occupants</p> <p>A. Zain-Ahmed, H. Omar, M.Y. Alwi, M. Omar, S. Ahmed: Estimation of outdoor Illuminance for Passive Solar Architecture in Malaysia</p> <p>C. Fong: Out of the Box - Reinventing the Industrial Warehouse</p> <p>T. Vucetic : Energy Multiplier</p> <p>A. Cripps: Building AdVent: Aiming to help Spread best Practice in Ventilation</p> <p>D.C.C.K. Kowaltowski, L. C. Labaki, V. T. de Paiva, G. Bianchi, M. E. Mösch: The Creative Design Process Supported by the Restrictions Imposed by Bioclimatic and School Architecture: a Teaching Experience</p>
	17:15 - 17:30	Coffee Break at the lobby of the Conference Center	

17:30 - 19:00

CLOSING SESSION

Room A

SATURDAY, 29 SEPTEMBER 2007

Chair Persons: M. Sherman and S. Roaf

Best Paper Award

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Best Students Papers Awards

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Key Note Lecture: N. Fintikakis

The Environmental and Ecological Semeiology in Architecture

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Key Note Lecture: M. Santamouris

Passive Cooling to Improve Survivability

21:30

Conference Dinner - Cretan Party at the Swimming Pool Area

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