PROGRAMME

MED GREEN FORUM – III

MEDITARREAN GREEN BUILDINGS AND RENEWABLE ENERGY FORUM - 2015







etaflorence#
renewableenergies

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ABITA

August 26_28, Tour Visit 29, 2015, School of Architecture, University of Florence, Florence, Italy.



Mission Statement

This is a World Renewable Energy Congress and Network Forum aimed at the international community as well as Mediterranean countries. The first forum was held in 2010 in France followed by Morocco in 2012 and the third forum is going to be at Florence, Italy 25- 28 August 2015.

The Forum will highlight the importance of growing renewable energy applications in two main sectors: Electricity Generation and the Sustainable Building Sector. The Mediterranean region was chosen to illustrate the viability of using renewable energy to satisfy all its energy needs. We are hoping to demonstrate the effectiveness of using renewable energy in these countries to act as a beacon of light to the rest of the world to follow.

Renewables are the cornerstones and the foundation of a truly <u>sustainable energy future</u>. Our mission is to promote enabling policies and to further develop a broad range of renewable energy technologies and applications in all sectors – for electricity production, heating and cooling, agricultural applications, water desalination, industrial applications and for the transport sectors leading to A BETTER, CLEANER AND SAFER WORLD

Chairman Message



In this third Med Green Forum I am lucky to have my Co-Chair Prof Marco Sala, Head of ABITA, Florence and The Head of administration is Ms Angela Grassi, Director of ETA Renewable Energy-Florence. We also have excellent team representing the Technical Committee.

We received more than 152 abstracts from 51 countries covering the 9 topics of the Forum. Our aim is to learn from each other's experience, and to highlight the best practice. The Mediterranean region will be the first in the world where all energy demand be met from renewable energy sources. During the last twenty five year the World Renewable Energy Congress and Network have run outstanding events in more than 50 countries and this is our fifth meeting in Florence, the city of Culture, Art and knowledge. Our thanks to all the sponsors including: ISESCO, Italian Foreign Ministry and Springer.

Technical Committee



Mr Rainer Hinrichs-Rahlwes
- Germany



Prof Arch Fernando Recalde - Italy



Dr Neveen Hamza – UK



Prof Bahram Moshfegh
– Sweden



Prof Federico Butera – Italy - Italy



Prof Runming Yao -UK

DO NOT FORGET NEXT YEAR

- 1- World Renewable Energy Congress 15, Jakarta, Indonesia, 19 24 September 2016, Contact: Dr Herman Darnel Ibrahim, Email: hermandarnel@yahoo.com Or Dr Suharta Email: hermandarnel@yahoo.com Or Dr Suharta
- 2- World Renewable Energy Congress 16, Perth, Australia, 29 October 3 November 2016 Contact: Dr. Kuruvilla Mathew, K.Mathew@murdoch.edu.au

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NOTE: Green Buildings Sessions will be in (MT), Renewable Energy Sessions will be in (FFT)

Wednesday 26 August

09:00-09:30 Opening Ceremony – Main Theatre

- Welcome Speech by: Prof Ali Sayigh, Chairman of MED Green Forum UK
- Welcome Speech by: Prof Marco Sala, Co-Chair of Med Green Forum- Italy
- A Speech by Dr Aisha Bammoun, A. Director of Science, ISESCO Morocco
- A Speech by H E Minister Eliecer Cruz Galapagos Island









09:30-10:30 Main Plenary – Main Theatre

09:30- 10:00 The European Climate and Energy Framework 2030 – Impact

on Renewable Energy development

Rainer Hinrichs-Rahlwes, (EREF) European Renewable Energies Federation, German Renewable Energy Federation (BEE), Berlin, Germany

10:00-10:30 Evaluating building performance using carbon mapping, physical monitoring and post-occupancy evaluation
Rajat Gupta, School of Architecture, Oxford Brookes University, Oxford, UK

10:30 - 11:00 COFFEE BREAK

11:00 – 13:00 Main Plenary – Main Theatre

11:00 – 11:30 **The energy, water, food nexus**Bill Watts, Max Fordham LLP, London







Chairman: Prof Ali Savigh





11:30 – 12:00 Energy savings solutions for five Hospitals in Europe
Marco Sala¹, Giuseppina Alcamo², Lucia Ceccherini Nelli², University of Florence,
DIDA Dept. – ABITA Firenze Italy

12:00 – 12:30 **Revitalization and refurbishment of Mediterranean minor historical Centres** Alessandra Battisti, PDTA Dept., Sapienza" Rome University, Roma, Italy

12:30 – 13:00 **Buildings' Energy flexibility: A bottom-up approach for system integration of energy infrastructures starting from the user to support the Smart grid**Wim Zeiler, Faculty of the Built Environment, TU Eindhoven, Eindhoven, Netherlands

11:00 – 13:00 Main Plenary – First Floor Theatre Chairman: Prof Bahram Moshfegh

11: 00 – 11:30 **Innovative Solar Resource Tools for a Growing Photovoltaic Energy Supply**Dave Renné, Boulder, CO 80304, USA









11:30 – 12:00 **Autothermal reforming of BTL diesel fuel for fuel cell systems**Joachim Pasel¹, Remzi Can Samsun¹, Ralf Peters¹ and Detlef Stolten^{1,2}

¹Forschungszentrum Jülich GmbH, Institute of Energy and Climate Research, Jülich, Germany, ²Chair for Fuel Cells, RWTH Aachen University, Germany

12:00 – 12:30 **Solving water scarcity problems by renewable energy technology**Riadh H. AL- Dabbagh, Ajman University of Science and Technology, UAE

12:30 – 13:00 the use of computational models to aid the understanding of tidal renewable energy
Ian Masters, Marine Energy Research Group, Swansea Univ., Swansea, UK

13:00 - 14:30 LUNCH BREAK

14:30 – 16:00 Main Plenary – Main Theatre Chairman: Dr Neveen Hamza

14:30 – 15:00 Sustainable Building Design for Tropical Climates: a handbook for practitioners and architecture students
Federico M. Butera, Politecnico di Milano, Milano, Italy







15:00 – 15:30 the perennial of sustainable architecture Emil Barbu Popescu, University of Architecture and Urbanism, Bucharest, Romania

15:30 – 16:00 **Spectral Variation of Energy Efficient Room Lighting**Helmut F.O. Müller, Green Building R&D GmbH, Duesseldorf, Germany

16:00 - 16:30 COFFEE BREAK

14:30 – 16:00 Main Plenary – First Floor Theatre Chairman: Prof Runming Yao

14:30 – 15:00 First Year Performance of a PV Plant in Jordan

Compared to PV Plants in the Region

Ali Hamzeh¹, Sadiq Hamid¹, Abbas Sandouk²,

Zakaria Al-Omari¹, Ghada Aldahim²







1-Al-Ahliyya Amman University, Amman, Jordan, 2- Damascus University, FMEE,Syria

- 15:00 15:30 **Wind Power in Indonesia: Regulation, Projects and Development Challenges** Herman Darnel Ibrahim, Renewable Energy Society, Jakarta, Indonesia
- 15:30 16:00 Thermal Energy Recovery System Upgrading Waste Heat by Absorption Heat Pump

 Yoshinori Itaya, Graduate School of Engineering, Gifu University, Gifu, Japan

16:00 - 16:30 COFFEE BREAK

- 16:30 18:00 **Main Plenary Main Theatre**
- 16:30 17:00 Future Cities and Architecture: Ecology, Culture, Sustainability Derya Oktay, Ondokuz Mayis University, Atakum/Samsun, Turkey









17:00-17:30 Connecting energy efficiency, indoor environment and time-use in health care related buildings

Patrik Rohdin^{1,*}, Kristina Trygg², Kajsa Ellegård², ¹Division of energy systems, Dept of management and engineering, Linköping University, Sweden, ²Dept of Thematic Studies - Linköping University, Sweden.

- 17:30 18:00 **Benchmarking Frameworks for Sustainable Building Assessment and Diagnosis**Vasco Portugal, Joana Rafael, Manuel Correia Guedes, Department of Civil
 Engineering and Architecture Instituto Superior Técnico
- 16:30 18:00 Main Plenary First Floor Theatre Chairman: Dr Herliyani Suharta
- 16:30 17:00 Multipurpose crops for energy and biorefineries M. Christou, E. Alexopoulou, I. Eleftheriadis, I. Papamichael, K. Tsiotas, Center for Renewable Energy Sources (CRES), Pikermi, Greece







- 17:00 17:30 Integration of advanced Biochemical/Biomaterial Demonstration Activities within commercial modern biorefineries.

 Giuliano Grassi, Eubia, Brussels (B), Harold Wouters, Modern Bioenergy International, Singapour ETA, Florence, Italy
- !7:30 18:00 **Ionic liquid based artificial cellulase type catalysts for cellulosic ethanol process**Ananda S. Amarasekara*, Onome S. Owereh, Preethi Shanbhag, Bernard Wiredu

 Department of Chemistry, Prairie View A&M University, Prairie View, Texas, USA
- 18:00 18:15 RECYCLING THE BIO-BASED MATERIAL FOR THE BUILDING SECTOR.

Dora Francese, Nicolina Mastrangelo, Department of Architecture University of Naples Federico II, Naples, Italy

Thursday 27 August

09:00-10:30 Main Theatre

Chairman: Prof Federico Butera

09:00 – 9:30 **Light and shadow. Mediterranean visual scenes**Judit López-Besora*, Helena Coch, Architecture &
Energy, School of Architecture of Barcelona, UPC,
Barcelona, Spain







09:30 – 10:00 Sustainability of Educational Buildings: Retrofitting Measures to Enhance
Energy Performance; the case of the AASTMT Management Building
Mohsen M. Aboulnaga¹ and Mohamed S. Hussein², Sustainable Built Environment
Dept. of Architectural Engineering, Faculty of Engineering, Cairo University, Egypt

10:00 – 10:30 Qualitative Approach for evaluation of architectural projects based on the influence of design variables for indoor environment.

Dania Conzélez Couret Luis Alberto Rueda Guzmén Nataly Conzélez l

Dania González Couret, Luis Alberto Rueda Guzmán, Nataly González Milian, Elizabeth Rodríguez García, Mónica Llovet Salazar, Faculty of Architecture, Havana, Cuba

09:00-10:30 First Floor Theatre Chairman: Mr Rainer Hinrichs -Rahlwes

09:00 -09:30 Thermal resistance of an innovative prefabricated wall: in-situ measurements Fabio Sciurpi¹, Andrea Rocchetti¹, Leone Pierangioli², Adriano Milazzo^{1,*}







¹Dept. of Industrial Engineering, ²Department of Architecture, University of Florence, Italy

09:30-10:00 Development and Business opportunities in Mediterranean countries by valorising agricultural biomass in the context of Circular Economy and Industrial Symbiosis

Anastasia Zabaniotou, Department of Chemical Engineering, Aristotle University of Thessaloniki, Thessaloniki, Greece

10:00-10:30 Solar Adsorption Cooling System for Residential Buildings in Mediterranean Climate

Angelo Freni, Salvatore Vasta, Valeria Palomba, Andrea Frazzica, Fabio Costa, Giovanni

Restuccia, CNR - Istituto di Tecnologie Avanzate per l'Energia Messina, Italy

10:30-10:40 Study on landform-reconstruction method of building volume in cold area under the landscape horizon

Chen Shuo, Zhang Xiangning, School of Architecture, Harbin, China

10:30 - 11:00 COFFEE BREAK

- 11:00 13:00 Invited Speakers Main Theatre Chairman: Prof Runming Yao
- 11:00 11:30 Users experiences with comfort in sustainable homes: regulating for reduced energy demand at the tipping point
 Neveen Hamza, School of Architecture, Planning & Landscape, Newcastle University, New Castle, UK
- 11:30 12:00 Energy Building Performance Certification Implementation in the Portuguese practices, using Ethical and Moral issues.

 Manuel Correia Guedes, Department of Civil Engineering and Architecture, Portugal
- 12:00 12:30 **Learning Sustainability from the Arab Gulf Vernacular Architecture** Khaled A. Al-Sallal, Architectural Engineering, UAE University, Al-Ain, UAE
- 12:30 13:00 the RENAISSANCE Project: Renewable Energy & Sustainable Environment Fernando RECALDE L, ABITA, Università Degli Studi di Firenze, Florence, Italy
- 11:00 13:00 Invited Speakers First Floor Theatre Chairman: Prof Federico Butera
- 11:00 11:30 Supporting Electro-mobility in Smart Cities
 Using Solar EV Charging Stations
 Kaldellis J.K., G. Spyropoulos, St. Liaros,
 Environmental Protection Lab, TEI of Piraeus, Athens, Greece
- 11:30 12:00 HOW ELECTRICITY SYSTEMS LARGELY BASED ON RENEWABLES WILL LOOK LIKE
 Reinhard Haas, Vienna University of Technology, Vienna, Austria
- 12:00 12:30 **Solutions for sustainable transport: Renewable energy sources and electric vehicles**Amela Ajanovic^{1, a *}, Reinhard Haas^{1, b}, ¹Vienna University of Technology, Vienna, Austria
- 12:30 13:00 new environmentally friendly chlorine-free solar-grade silicon production technologies

 Sergey M. Karabanov, Victor I. Yasevich, Andrey S. Karabanov, Dmitriy V. Suvorov, Evgeniy V. Slivkin, Gennadiy P. Gololobov, Ryazan State Radio Engineering University, Ryazan Russia
- 11:00 13:00 Invited Speakers Room (1) Chairman: Mr Rainer Hinrichs-Rahlwes
- 11:00 11:30 **Teaching environmental conscious design: developing, innovation and performances,** Integrated education of architects in the use of environmental strategy in the project

 P. Gallo¹, ¹: University of Florence,
 Dept. of Architecture, Florence Italy

11:30 – 12:00 ASPECTS OF SUSTAINABILITY IN THE VERNACULAR ROMANIAN ARCHITECTURE – DOBROGEA COUNTY

Ruxandra CRUŢESCU, Spiru Haret University, Faculty of Architecture, Bucharest, Romania

12:00 – 12:30 Environmental Aspects for Green Building Design

H.H. El-Ghetany^a, H.M.S. Hussein^a and K. Nassar^b, ^a Solar Energy Department, National Research Centre, Egypt, ^b Department of Architecture Engineering, New Cairo, Egypt

12:30 – 13:00 Materials for sustainable architecture in the Mediterranean region.

Francesca Scalisi, Cesare Sposito, Dept. of Architecture, Univ. of Palermo, Palermo Italy

11:00 – 13:00 Invited Speakers – Room (2) Chairman: Prof Ali Hamzeh

11:00 – 11:30 Biomass Small Power Generation in the Archipelagic Islands of Indonesia which have the third largest forest in the

World

Herliyani Suharta, Adiarso*, Andika Prastawa and Nurdi Energy Technology Center (B2TE)-BPPT, PUSPIPTEK,

Center (B2TE)-BPPT, PUSPIPTEK,
*Pusat Teknologi Pengembangan Sumber Daya energi Indonesia

11:30 – 12:00 EVALUATION OF RENEWABLE ENERGY IN THE SOUTH OF MOROCCO AND PERSPECTIVES

Hassan Nfaoui & Ali Sayigh, Solar Energy & Environment Laboratory, Mohammed-V University, Rabat, Morocco, WREC & WREN, Brighton UK.

12:00 – 12:30 Assessment of air flows in a school building with mechanical ventilation using active and passive tracer gas methods

Jessika Steen Englund^{a,*}, Jan Akander^a, Mikael Björling^b, Bahram Moshfegh^{a, b}
^a Division of Building, Energy and Environment Tech., Univ. of Gävle, Gävle,
^b Division of Energy Systems, Linköping University, Linköping, Sweden

12:30 – 13:00 LIQUID AND GAS BIOFUELS FROM THE CATALYTIC REFORMING OF PYROLYSIS BIO-OIL IN SUPERCRITICAL WATER. EFFECT OF THE OPERATING CONDITIONS ON THE PROCESS

Javier Remón^{a,b*}, Pedro Arcelus-Arrillaga^b, Jesús Arauzo^a, Lucía García^a, Marcos Millan Agorio^b, ^aThermochemical Processes Group (GPT), Universidad Zaragoza, Zaragoza, Spain, ^bDepartment of Chemical Engineering, Imperial College London, London, UK

14:30 – 16:00 Contributors Presentation Main Theatre Chair: Prof Khaled Al-Sallal

14:30 – 15:00 **Building integrated renewable energy systems, or rediscovering forgotten principles**Ana-Maria Dabija, University of Architecture and Urbanism, Bucharest, Romania



15:00 – 15:20 **The Cheap Type Solar Bioclimatic Individual Houses for Residential Areas.** Teofil MIHAILESCU, "*Transilvania*" University of Brasov, Faculty of Constructions, Brasov, Romania

15:20 – 15:40 Renovation of Apartment buildings to Passive House Standard in Sweden – experiences

and consequences on energy support system.

Hans Eek, Architect, Energy expert, Mälardalens Högskola, Västerås, Sweden.

15:40 – 16:00 **Vernacular Design Solutions in Hot Regions: A Study on Erbil Citadel in Iraq** Hala Ali Abdulrazaq , Manuel Correia Guedes, Department of Civil Engineering and Architecture, Instituto Superior Técnico, Portugal

14:30 – 16:00 Contributors PresentationFirst Floor Theatre Chair: Dr Kamil M. Yousif

14:30–14:50 Exploitation of Wave Energy Potential in Aegean Sea – Greece
 Xanthaki F., Giannaraki Chr., Kaldellis J.K.
 Lab of Soft Energy Applications & Environmental Protection, TEI of Piraeus, Greece

14:50 – 15:10 ANALYSIS OF WINDBREAK THAT IMPACT MICRO-CLIMATE IN THE SEVERE FREEZING RURAL AREAS OF CHINA

Hong lin Huanyu Ly, Harbin Institute of Technology School of Architecture Harbin

Hong Jin ,Huanyu Lv, Harbin Institute of Technology School of Architecture Harbin, China

15:10 – 15:30 ON THE APPLICABILITY OF THE MOROCCAN THERMAL REGULATION OF CONSTRUCTION WITHIN THE REQUIREMENTS OF NATIONAL STANDARDS

Mohammed GAROUM SAAD RAEFAT, NAJMA LAAROUSSI Équipe « Acoustique, Thermique, Énergétique et Matériaux » École Supérieure de Technologie de Salé. Université Mohammed V Rabat, Morocco

15:30 – 15:50 A SYSTEMATIC PROCESS FOR INVESTIGATING THE INFLUENCE OF OCCUPANTS ENERGY USE PATTERNS ON BUILDING ENERGY PERFORMANCE

Parisa Esmaeili Moakher ^{a, 1}, Tania Urmee, Trevor Pryor, Garry Baverstock ^a School of Engineering & Information Technology, Murdoch University, Western Australia

- 14:30 16:00 Contributors PresentationRoom (1) Chair: Prof Helmut F O Mueller
 - 14:30 14:50 Proposal of urban requalification in order to the adjustment to the Sustainable Energy Action Plan of Palermo

Tiziana Firrone, University of Palermo, Department of Architecture, Italy

14:50: 15:10 A Whole-Building, Integrated Approach for Designing a High Performance, Net-Zero Energy and Net-Zero Water Building

Richard Piacentini, Phipps Conservatory and Botanical Garden, Pittsburgh, USA

15:10 – 15:30 Analysis of the procedures of passive calculation of cooling and definition of an Effective control tool

Eleonora Laurini, Universita degli Studi dell'Aquila, L'Aquila, Italy

15:30 – 15:50 DESIGN WITH ENVIRONMENTAL DATA: ADAPTIVE AND OPTIMIZED TECHNOLOGICAL SYSTEMS FOR SUSTAINABLE RENOVATION OF HOUSING HERITAGE IN THE MEDITERRANEAN AREA

Angelo Figliola, University of Rome "La Sapienza" Rome, Italy

- 14:30 16:00 Contributors Presentation Room (2) Chair: Dr John Lowry
- 14:30 14:50 Experimental Assessment of the Impact of Songhua River onto the Regional Micro-climatic Condition in Harbin City

Zheming Liu¹, Xudong Zhao^{1,2}, Hong Jin¹

- 1. School of Architecture, Harbin Institute of Technology, Harbin 150001, China;
- 2. School of Engineering, University of Hull, UK
- 14:50 15:10 Office Building Ventilation Optimization of the Atrium Based on the Skylight Design in Cold Region

Tiantian Du, Jianfei Chen

School of Architecture, Harbin Institute of Technology, China

- 15:10 15:30 **Investigation of Urban Microclimate Parameters of City Square in Harbin** Peng Cui, Hong Jin, Meng Huang (School of Architecture, Harbin Insitute of Technology), China
- 15:30 15:45 **Renewable Energy Applications in Oil & Gas Industry** Ali Al-Alawi, Petroleum Development Oman, Oman



15:45 – 16:00 Architectures for Meditation: the Exploration of the Application of a kind of Sustainable Humanistic Spirit

Liu Yang* and Li Guiwen**, *Harbin Institute of Technology and Northeast Dianli University, **Harbin Institute of Technology, China

16:00 – 16:30 **COFFEE BREAK**

16:30 – 18:00 Contributors Presentation Main Theatre Chair: Prof P Gallo

16:30-16:50 Energy and environmental aspects of a sustainable programming for school building

Giacomo Chiesa,1, Mario Grossoa,2

a Dipartimento di Architettura e Design, Politecnico di Torino, Torino, Italy.

16:50 – 17:10 Urban sustainable development in Mediterranean are. The case of Sestri Ponente, Genoa

Katia Perini, Adriano Magliocco

Università degli Studi di Genova - Dipartimento di Scienze per l'Architettura, Italy

17:10-17:30 An expert system for the thermal assessment of architectural building design in Portugal

Mariana Pereira, UPorto, Prof. Manuel Correia Guedes, Department of Civil Engineering and Architecture, Instituto Superior Técnico, Portugal

17:30 – 17:50 Optimum Switch Temperature for Buildings Incorporated Phase Change Materials in Mediterranaen Climates

El Hadi Bouguerra^a and Nouredine Retiel^b

^aMechanical Department, Blida I University, Algeria

^bLMNEPM Mechanical Department, University of Mostaganem, Algeria

16:30 – 18:00 Contributors Presentation First Floor Theatre Chair: Prof M Christou

16:30 – 16:50 Assessing the Environmental Impact of Governmental Resettlement Housing in Northern Africa – The Case of Morocco

Khadija, Manuel Correia Guedes, Deprt. of Civil Engineering and Architecture Instituto Superior Técnico, Portugal

16:50 – 17:10 BUILDING THERMAL EXERGY ANALYSIS

(a)Lorenzo Leoncini, (b) Marta Giulia Baldi,

(a) & (b) Departement of Industrial Engineering, University of Florence, Florence Italy,

17:10 – 17:30 DEVELOPMENT OF ENERGY DEVICES BASED ON PHOTOVOLTAIC PANELS WITH EXTRA CONSUMER PROPERTIES

Mikhailov L., Mikhailova S.¹, Ismailova G.², Sokolov S.

Al-Farabi Kazakh National University, Physico-Technical Faculty, Kazakhstan

17:30 – 17:50 PHOTOVOLTAIC SYSTEM PERFORMANCE INSTALLED IN A COMERCIAL OFFICE.

*Igor C. TORRES, Chigueru TIBA, Elielza Moura S. BARBOSA Universidade Federal de Alagoas, Brasil., Universidade Federal de Pernambuco, Departamento de Energia Nuclear, Brasil, Universidade Federal de Pernambuco, Departamento de Energia Nuclear, Brasil.

- 16:30 18:00 Contributors Presentation (Room 1) Chair: Prof Ana Maria Dabija
- 16:30 16:50 the research on the sustainability of campus construction land in extreme cold region based on optimized particle swarm optimization

 Chang Liu, Hongyuan Mei, School of Architecture, Harbin Institute of Technology, China
- 16:50 17:10 **Soundscape Features of Guizhou Traditional Habitant Environment** Linqing Mao, Bin Liu, SHI JIA ZHUANG TIE DAO UNIVERSITY HEBEI NGREEN ARCHITECTURAL DESIGN CO., LTD, China
- 17:10 17:30 SIMULATION MODELS FOR SUNLIGHT ANALYSIS AND EVALUATION LIKE SUPPORTS FOR MAKING DECISION DURING THE DESIGN STAGE Beatriz S. Garzon de Jimenez, CONICET MinCyT- Argentina
- 17:30 17:50 **Designing Urban Agriculture in Mediterranean area The case of Villaseta** (**Sicily**)
 Rosa Maria Vitrano, University of Palermo, Faculty of Architecture, Italy
- 16:30 18:00 Contributors Presentation (Room 2) Chair: Dr Abdul Salam Darwish
- 16:30 16:50 **DEVELOPMENT OF DESIGN A DROP-IN HYDROGEN FUELING STATION TO SUPPORT THE EARLY MARKET BUILDOUT OF HYDROGEN INFRASTRUCTURE**

Abdul hakim Gall [1]*; Tarek Hamad [1]; Sushrut G. Bapat [1]; Yousif Hamad [1]; John W. Sheffield [2]

- [1] Department of Mechanical and Aerospace Engineering, Missouri University of Science and Technology, Rolla, MO, USA
- ^[2] Department of Mechanical and Aerospace Engineering, Missouri University of Science and Technology, Rolla, MO, USA
- 16:50 17:10 POLLUTION EATING CELLS

PRIYAJIT GHOSH, ASANSOL ENGINEERING COLLEGE, ASANSOL, WEST BENGALINDIA, VAMSHI RATNALA, BC ROY, ENGINEERING COLLEGE, DURGAPUR, WEST NEGAL, INDIA

17:10 – 17:30 Effect of Chenodeoxycholic Acid (CDCA) on the Photovoltaic Performance of Dye-Sensitized Solar Cell

Ramshah Ahmad and Muhammad Hassan Sayyad Faculty of Engineering Sciences, Ghulam Ishaq Khan Institute of Engineering Sciences and Technology, Topi, Pakistan

17:30 – 17:50 **Solar Driven Storage units to reduce Food Waste** Sraisth, Sraisth, TU Berlin, Germany

Friday 28 August

09:00-10:30 Main Theatre

Chairman: Prof Antonella TROMBADORE

09:00 – 09:30 A SUSTAINABLE MODULAR **BUILDING FOR RESEARCH** DEVELOPMENT IN THE ANTARCTIC Manuel Correia Guedes, Department of Civil Engineering and Architecture, Portugal







- 09:30 10:00 Analysis and Certification of Low Energy Residential Buildings Helmut F.O. Müller, Francesco Sasso, Green Building R&D, Düsseldorf, Germany
- 10:00 10:30 Smart-Sustainable-Green Building Aspects and Innovations Abdul Salam Darwish, Phoenix Renewable Energy Centre Manchester, UK

09:00-10:30 First Floor Theatre Chairman: Dr Herman Darnel Ibrahim

09:00 – 09:30 Building Integrated and Distributed **Energy and Water Infrastructure: Findings for Transit-Oriented Developments in Western Australia**







Martin Anda, Max Ploumis, Kuruvilla Mathew and David Goodfield, School of Eng. & Information Technology, Murdoch University, Western Australia, Perth, Australia

- 09:30 10:00 CARBON FREE TRANSPORT John Lowry, Swindon, UK
- 10:00 10:30 Sustainable Rural development by Renewable Energies and Energy Efficiency in **Afghanistan** Robert Dilger, GIZ-ESRA, Zabiullah Tahirzada, GIZ-ESRA, Deputy Director of Energy Program of Afghanistan, Kabul, Afghanistan

10:30 - 11:00 COFFEE BREAK

11:00 – 13:00 Invited Speakers – Main Theatre

Chairman: Prof Manuel C. Guedes

11:00 – 11:30 For a more Sustainable University of **Computer Sciences**

Dania González Couret*, Nataly González Milian, Elizabeth Rodríguez García, Mónica Llovet Salazar, Fac. of Arch., Havana, Cuba







- 11:30 12:00 INFORMATION TECHNOLOGIES FOR CHANGE IN THE PROJECT Gisella Calcagno, Deprt. di Architettura DIDA, Univ. degli Studi di Firenze, Italy
- 12:00 12:30 Climate adapted in NZEB retrofitting for residential buildings Lucia Ceccherini Nelli¹, Marco Sala², DIDA Dept, ABITA, Univ. of Florence, Italy

12:30 – 13:00 Life Cycle Performance Costing as argument for Green Buildings and renewable energy application

Willem Zeiler, Ann Vanderveen and Wim Maassen, Unit Building Physics and Systems Eindhoven, the Netherlands

11:00 – 13:00 **Invited Speakers – First Floor Theatre**

Chairman: Prof Hassan Nfaoui

11:00 – 11:30 Transparent Conducting Oxides for Solar Cell Applications

Shadia J. Ikhmayies, Al Isra University, Faculty of Information Technology, Amman, Jordan.





11:30 – 12:00 Some of Physical Properties of Pure and Fluorine Doped Tin Oxide Films suitable for energy-conserving windows

Sayran A. Abdulgafar ¹, Kamil M. Yousif ^{2*}. Dept. of Physics, Faculty of Science, Dohuk University, Dohuk, Kurdistan Region, Iraq

12:00 – 12:30 Narrow Band-Gap Quantum Dots Diode Heterostructures and Photoconductive Cells for Thermophotovoltaic Applications

Karen M. Gambaryan, Department of Physics of Semiconductors and Microelectronics Yerevan State University, Armenia

12:30 – 13:00 Potential of Solar Electricity in Algeria

Linda Hassaine and A. Mraoui, Maitre de recherche A Division Photovoltaïque CDER, Alger, Algérie

11:00 – 13:00 Invited Speakers – Room (1) Chairman: Dr Abdul Salam Darwish

11:00 – 11:30 Interactive envelopes for building ventilation. A case study

E. Marmonti^{*1}, C. Balocco^{*}, Department of Industrial Engineering DIEF University of Florence, Italy.

11:30 – 12:00 Solar building systems for the Mediterranean area: research outputs between Italy and France

- -Christian Cristofari, University of Corsica Pascal Paoli IUT UMR CNRS,(France)
- -Andrea Giachetta, Department of Sciences for Architecture University of Genoa (Italy)
- -Chiara Piccardo, Department of Sciences for Architecture University of Genoa (Italy)

12:00 – 12:30 **High Quality of Calibration Accuracy for Smart Building Energy Efficiency Opportunities**

Giorgio Mustafaraj, International Energy Research Centre IERC, Tyndall Institute, University College of Cork, Ireland

12:30 – 13:00 EFFECTIVENESS OF THERMAL INERTIA IN SOUTH MEDITERRANEAN CLIMATE: RESIDENTIAL HOUSES

Giuseppina Alcamo, University of Florence, Department of Architecture DIDA, Centro ABITA, Florence, Italy

11:00 – 13:00 **Invited Speakers – Room (2)**

Chairman: Dr Ruxandra Crutescu

11:00 – 11:30 Comparison Study between Water Pumping System Entrained by PV Array and Diesel Generator





Sarah Abdourraziq, Sidi Mohammed Ben Abdellah University, Fez, Morocco

11:30 – 12:00 PYROLYSIS BIO-OIL UPGRADING TO RENEWABLE LIQUID FUELS BY CATALYTIC HYDROCRACKING. EFFECT OF OPERATING CONDITIONS ON THE PROCESS

Javier Remón^{a,b*}, Pedro Arcelus-Arrillaga^b, Jesús Arauzo^a, Lucía García^a, Marcos Millan-Agorio^b

^aThermochemical Processes Group (GPT), Universidad Zaragoza, Zaragoza, Spain.

^bDepartment of Chemical Engineering, Imperial College London, UK

12:00 – 12:30 **Thermal performance of vacuum glazing with tempered glass panes**Yueping Fang, Trevor J. Hyde, Neil Hewitt, School of the Built Environment, Ulster

Yueping Fang, Trevor J. Hyde, Neil Hewitt, School of the Built Environment, Ulster University, Northern Ireland, UK

12:00 – 13:00 Assessing PV Module Degradation and the Potential of Using Greenhouse Roofs for Supplemental PV Power Generation in Malta

Kristy Bartolo¹ and Charles Yousif²: ¹ Institute of Earth Systems, University of Malta, Malta, ² Institute for Sustainable Energy, University of Malta, Malta

13:00 - 14:30 LUNCH BREAK

14:30 – 16:00 BUSINESS SESSION & Contributors Presentation Main Theatre Chair: Prof Antonella TROMBADORE

14:30 -14:50 Robustness of social houses in Ecuador facing global warming: prototyping and simulation studies in the macroclimatic regions of Amazons, Coast and Andes.

Massimo Palme^{1,2} and Andrea Lobato²

¹Universidad Católica del Norte, School of Architecture, Antofagasta, Chile ²Instituto Nacional de Eficiencia Energética y Energías Renovables, Quito, Ecuador

14:50 – 15:10 School Buildings Energetic and Functional Upgrade

Paolo Giordani^a, Alessandro Righi^a, Tiziano Dalla Mora^a, Fabio Peron^a, Piercarlo Romagnoni^b, ^aUniversità I.U.A.V. di Venezia,Italy

15:10 – 15:30 An Integrated Building Energy Management System

Carlos Henggeler Antunes , Ana Soares, Álvaro Gomes Dept. of Electrical and Computer Engineering, University of Coimbra, Coimbra Portugal and INESC Coimbra, Coimbra, Portugal

15:30 – 15:50 URBAN LIVABILITY ACROSS DISCIPLINARY AND PROFESSIONAL BOUNDARIES

Mohamad Kashef, ALHOSN University, Abu Dhabi, UAE

15:50 – 16:00 **BUSINESS SESSION**

14:30 – 16:00 Contributors Presentation First Floor Theatre Chair: Dr. Ananda S Amarasekara

14:30 – 15:00 LARGE-SCALE INTEGRATION OF MODERN BIOENERGY INTO SMART URBAN DISTRICTS

Giuliano Grassi, ETA, Florence, Italy



15:00 – 15:20 **Laser toxic-waste disposal and energy co-generation**Muhammad Muddassir S. Gualini, Università Islamica d' Italia

15:20 – 15:40 A Study on Chinese Vocational Education Park Public Space Layout and Sustainable Design Based on an Urban Intensification Strategy Qiushi Hao, Benchen Fu, Teng Fei, School of Architecture, Harbin, China

15:40 – 16:00 AN ADAPTIVE THERMAL COMFORT MODEL FOR THE ROMANIAN CLIMATE

Ioana UDREA, Ruxandra CRUŢESCU, Cristiana CROITORU, Ilinca NĂSTASE, Viorel BĂDESCU*, *UNIV. POLITEHNICA OF BUCHAREST, ROMANIA,

² Spiru Haret University, Faculty of Architecture, Bucharest, Romania,

³ Technical University of Civil Engineering of Bucharest,

⁴Dept. of Building Services, Technical University of Civil Eng. of Bucharest,

⁵ Oancea Institute, University POLITEHNICA of Bucharest, Romania

14:30 – 16:00 Contributors Presentation (Room 1) Chair: Prof Bahram Moshfegh

14:30 -14:50 **Passive cooling technologies: a review and tools for designers**. Giacomo Chiesa^{a,} Mario Grosso^a: ^a Dipartimento di Architettura e Design, Politecnico di Torino, Torino, Italy.

14:50-15:10 Modelling microclimate in urban square and assessing its influence on the performance of surrounding buildings

CUI Peng, JIN Hong and HUNG Meng, Harbin Institute of Technology, China

15:10 – 15:40 Passive cooling in Mediterranean Area for a Bioclimatic and Zero Energy Architecture

Fabrizio Tucci, University di Architecture, Department, Planning Design Technology Roma, Italy

15:40-16:00 Thermal Habitability Monitoring in Housing for Low-Income Families in Extreme Warm, Dry Weather

R. A. Romero-Moreno, G. Bojórquez-Morales, A. Luna, M. Corral,

T. Gutiérrez-García, Faculty of Architecture and Design, Autonomous University of Baja California, Mexicali, México

14:30 – 16:00 Contributors Presentation (Room 2) Chair: Prof Karen M Gambaryan

14:30-14:45 Dynamic simulation use for increasing the efficiency of solar cooling system in Northern latitudes.

Peteris Shipkovs¹, Janis Shipkovs^{1,2} Andrejs Snegirjovs^{1,2}, Galina Kashkarova¹, Kristina Lebedeva¹, Lana Migla¹, Institute of Physical Energetics¹, Riga Technical University², Lithuania

14:45 – 15:00 Effect of heat and light intensity on (I-V) characterization of Cu₂S film / p- Si heterojunction

M.M. Saadeldin¹, M.M. El-Nahass², K. Sawaby¹.

- 1. Physics Department, Faculty of Science, Cairo University, Giza, Egypt
- 2- Physics Department, Faculty of Education, Ain-Shams University, Cairo, Egypt

15:00 – 15:15 Effect of Shadow on the Performance of Solar Photovoltaic

Hussein A Kazem¹, Miqdam T Chaichan², Ali H Alwaeli¹, and Kavish Mani¹Sohar University, PO Box 44, Sohar, PCI 311, Oman ²University of Technology, Baghdad, Iraq

15:15 – 15:30 THE NORMAL; MINIMISING ENERGY USE, THE ABNORMAL: CHANGING THE HABITS

Anwar El Hadi¹; Ingi El Hadi Abdelrahman²; Mohammed Abdalwahid Ibrahim Alameer³: University of Bahri, Mechanical Engineering, Khartoum, Business International and Resource Development, Sudan

15:30 – 15:50 **Design of a Solar PV-Diesel Mini-grid for Char Parbotipur, Bangladesh**A.K.M. Sadrul Islam, S Salehin, M M Rahman, S R Faysal Mechanical & Chemical Engineering Dept, Islamic University of Technology, Bangladesh

15:50 – 16:00 NUMERICAL STUDY OF THE EFFECT OF WIND LOADS ON SOLAR HELIOSTATS DESIGNED FOR GHARDAÏA ZONE IN ALGERIA

H. MERARDA¹, M. AKSAS^{2*} and A. GAMA¹

¹Renewable Energy Applied Research Unit, URAER, CDER, 47133, Ghardaïa, Algeria: ²Energetics Applied Physics Laboratory, University of Batna, Algeria

- **16:00 16:30 COFFEE BREAK**
- 16:30 18:00 **BUSINESS SESSION**

&Contributors Presentation Main Theatre Chair: Prof Marco Sala

16:30 – 16:50 Research on Optimized Construction of Sustainable Human Living Environment in Regions where People of a Certain Ethnic Group Live in Compact Communities in China

JUNYAN DONG^{1, 2}, WEN CHENG¹: 1- School of Architecture of, HIT, China 2-School of Architecture and Design, Changchun Institute of Technology, China

16:50-17:10 The "mantra" of Ecology in the practice of relations: humanistic approach to the territory

Patrizia Bottaro, Massimo Pica Ciamarra, Pica Ciamarra Associati, Napoli, Italy

- 17:10 17:30 Micro aeolic in residential districts. A case study in S. Arsenio (South Italy)
 Dora Francese, Emanuela Adamou Cittam, Italy
- 17:30-17:50 Urban renovation and microclimate mitigation: assessing the impact of vegetation in an area of Palermo's old town centre

Alessandro BALLATO^a, Helena CARI'^a, Rossella CORRAO^b, Luisa PASTORE^{bc}

- ^a Scuola Politecnica, Università degli Studi di Palermo, Palermo, Italy
- ^b Dipartimento di Architettura, Scuola Politecnica, Università degli Studi di Palermo, Palermo, Italy
- ^c LIPID), School of Architecture, Civil and Environmental Engineering (ENAC), Ecole Polytechnique Fédérale de Lausanne (EPFL), Lausanne, Switzerland
- 17:50 18:00 **BUSINESS SESSION**
- 16:30 18:00 Contributors Presentation First Floor Theatre Chair: Dr. Javier Remon
- 16:30-17:00 the possible shift between heating and cooling demand of buildings under Climate Change conditions: are some of the mitigation policies wrongly understood?

Massimo Palme, University Catolica del Norte, Antofagasta, Chile

- 17:00 17:20 Performance Analysis and Parametric Studies of a Bi-fluid Type
 Photovoltaic/Thermal (PV/T) Solar Collector in Simultaneous Mode using a
 Low-cost Solar Simulator and under Tropical Climate Conditions.

 Hasila Jarimi^{1,3*}, Mohd Nazari Abu Bakar¹, Mahmod Othman², Mahadzir Hj Din¹
 1-Faculty of Applied Sciences, Universiti Teknologi MARA, Perlis, Malaysia
 2-Fac. of Computer Sciences and Math., Univ. Teknologi MARA Perlis, Malaysia
 3-Faculty of Applied Sciences, Univ. Teknologi MARA Shah Alam, Malaysia
- 17:20 17:40 **Bi-Fluid Photovoltaic/Thermal PV/T Solar Collector with Three Modes of Operation: Experimental Validation of a Theoratical Model**Hasila Jarimi^{1,3*}, Mohd Nazari Abu Bakar¹, Mahmod Othman², Mahadzir Hj Din¹
 1-Faculty of Applied Sciences, Universiti Teknologi MARA Perlis, Perlis, Malaysia 2-Fac. of Computer Sciences and Math., Univ. Teknologi MARA Perlis, Malaysia 3-Faculty of Applied Sciences, Univ. Teknologi MARA Shah Alam, Malaysia
- 17:40 18:00 Performance Analysis of the 10 kW Solar PV Facility at King Faisal University, KSA

Mounir ouzguenda¹ Qusai M. Aldoghan² Mohamed H. Shwehdi³ Abdallah I. Smadi⁴ College of Engineering, King Faisal University, Hasa, Saudi Arabia

- 16:30 18:00 Contributors Presentation (Room 1) Chair: Prof Manuel C. Guedes
 - 16:30 16:45 Sustainable Design Solutions for Equatorial Regions: The Cases of S. Tomé e
 Príncipe and East Timor
 Manuel Corrain Guades, Department of Civil Engineering and Architecture

Manuel Correia Guedes, Department of Civil Engineering and Architecture Instituto Superior Técnico, Portugal

16:45 – 17:00 ANALYSIS OF ENERGY PERFORMANCE OF AN HIGH PERFORMANCE BUILDING IN A LOCAL CLIMATIC CONTEXT MEDITERRANEAN

Maria Teresa Lucarelli, Caterina Claudia Musarella dArTe Department, Mediterranea Univ. of Reggio Calabria, Salita Melissari, Italy

17:00 – 17:15 an Optimized Framework for Building Generation

Vasco Portugal, Manuel Correia Guedes, Department of Civil Engineering and Architecture Instituto Superior Técnico, Portugal

- 17:15 17:30 **Laser toxic-waste disposal and energy co-generation**Muhammad Muddassir S. Gualini, Islamic University of Italy
- 17:30 17:45 **The Housing Retrofit Market in Italy: constraints and barriers to development** Riccardo Pollo, Politecnico di Torino, Dept. of Arch. and Design. Torino, Italy
- 17:45 18:00 PLANNING THE PARADISE: GALAPAGOS ISLANDS SUSTAINABLE LAND PLANNING IN HIGHLY VULNERABLE AREAS: AN INTERVENTION EXPERIENCE IN THE GALAPAGOS.

Andres Carlos Bastida Tudela University Camilo Jose Cela, Madrid (Spain), Galapagos (Ecuador USA)

- 16:30 18:00 Contributors Presentation (Room 2) Chair: Dr Herliyani Suharta
- 16:30 16:45 Incubators of Public Spaces -Self-Awareness tool for renewable energy production in mixed-use urban tissues in Mediterranean zone.

 Luca Caneparo¹, Federica Bonavero¹, Barbara Melis¹

 Department of Architecture and Design, Politecnico di Torino, Torino, Italy
- 16:45 17:00 **The integration of renewable energy sources in the built minor heritage.**Pierluigi De Berardinis¹, Chiara Marchionni², ^{1&2} DICEAA_Department of Civil, Architecture, Environmental Engineering, University of Studies of L'Aquila, Italy
- 17:00 17:15 EVALUATION OF THERMAL PERFORMANCE, ENVIRONMENTAL IMPACT AND COST EFFECTIVENESS OF AN XLAM COMPONENT FOR RETROFITTING IN EXISTING BUILDING

Tiziano Dalla Mora^a, Alessandro Righi^a, Fabio Peron^a, Piercarlo Romagnoni^b
^aUniversità I.U.A.V. di Venezia,Italy

17:15-17:30 Hydrothermal comfort behavior within heritage buildings subject to a change of use

R. David Beltrán ^a*, Isabel Miño-Rodríguez ^a, Andrea Lobato ^a, Andrés Gallardo ^a, Carlos Naranjo-Mendoza ^b

^{a*} National Institute for Energy Efficiency and Renewable Energies (INER). Quito, Pichincha, Ecuador. ^b National Polytechnic School (EPN). Quito, Pichincha, Ecuador.

- 17:30 17:45 **Energy performance of a renovated multi-family buildings in Sweden** Lina La Fleur, Division of Energy Systems, Linköping University, Sweden
- $17:45-18:00 \ \ \textbf{A} \ \ \textbf{method for economic and energy optimization using dynamic simulation and evolutionary algorithm}$

Valentina Coccia, Department of Astronautical, Electrical and Energy Engineering (DIAEE), Sapienza University of Rome, Rome, Italy

- 16:30 18:00 Contributors Presentation (ROOM -3) Chair: Prof Hassan Nfaoui
- 16:30 16:45 **Variable Step Size Algorithm using single sensor applied for Photovoltaic system**Dr Mohamed Amine, Ecole Mohammadia d'Ingénieurs, Mohammed V, Rabat,
 Morocco
- 16:45 17:00 Runoff treatment system planning in low carbon campus using mathematical analytical tools- A case study in Environmental Management Campus of China Tong Wu, Rong Guo School of Architecture, Harbin Institute of Technology, Harbin, Heilongjiang, China
- 17:00 17:15 **Field Measurement of Songhua River Effects on Micro-climate of Urban Blocks** in Harbin City

 Xudong Zhao^{1, 2} Zheming Liu¹, Hong Jin¹, 1. School of Architecture, Harbin Institute of Technology, Harbin 150001, China; 2. School of Engineering, University of Hull,

17:15 – 17:30 **Urban Agriculture: soil less and traditional growing technologies** Chiara Casazza, Unifi, Università degli Studi di Firenze, Florence, Italy

UK

- 17:30 17:45 **Soil-less Urban Agriculture as a strategy for brownfield sites requalification** Leonardo Boganini , Chiara Casazza, Centro ABITA, Florence, Italy
- 17:45 18:00 **BUILDING ENVELOPE-SYSTEMS INTEGRATED MODELS**Fabio Conato, Dipartimento di Architettura, Università degli studi di Ferrara, Italy

Friday 28 August

BUSINESS SESSION ITALIAN TECHNOLOGY

09:00-10:30	Main Theatre B	Chairman	: Prof Fernando RECALDE L		
09:00 - 09:10	ABITA	www.centroabita.unifi.it/	Marco Sala		
09:10 - 09:20	ANCE	www.toscana.ance.it/	Carlo Lancia		
09:20 - 09:40	Sannini Cotto	www.sannini.it	Guido Bondielli		
09:40 – 10:00	La Cost	www.lacost.it	Luisa Costantini		
10:00 – 10:20	Frangerini	www.frangerini.it	Stefano Frangerini		
10:20 – 10:30	Question time				
10:30 – 11:00	COFFEE BREAK				
11:00 – 11:20	Velux	www.velux.com	Andrea Impavido		
11:20 – 11:40	Ferotech	www.ferotech.com	Maurizio de Lucia		
11:40 – 12:00	Fabb. del Sole	www.lafabbricadelsole.it	Emiliano Checchini		
12:00 – 12:20	Davini	www.daviniprojects.it/	Elio Merciadri		
12:30 – 13:00	STO	www.sto.com	Francesco Romano		
13:00 – 14:30 LUNCH BREAK					
14:30 -14:50	Era Energia	www.eraenergia.it	Carlo Meccoli		
14:50 – 15:10	Isfol	www.isfol.it			
15:10 – 15:30	Simest	www.simest.it	Camillo Maria Pulcinelli		
15:30 – 16:00	Question & R	ound Table			

18:00 MT STUDENT COMPETITION AWARD CEREMONY









Saturday 29 August

BEST PRACTICE FREE TOUR - VISIT ITALIAN TECHNOLOGY UNDER RESERVATION MAX 40 PAX

09:00 Entrance Faculty Prof Fernando RECALDE L

Meyer Children Hospital Florence Careggi

Wooden Eco Social Housing Florence Novoli

ICT Business Incubator Lucca (130km from Florence)

Vallisneri School retrofitting Lucca

13:30 – 14:30 LUNCH BREAK c/o Frangerini Construction Co. Livorno

Advanced Historical Retrofitting Livorno (60km from Lucca)

Mall Esselunga Florence (Galluzo)

Hospital Building Florence

18:00 Entrance Faculty

Session Chairs

NAME	Day	Programme Page
Prof Ali Sayigh - UK	Wednesday	4
Dr Ruxandra Crutescu - Romania	Wednesday, Friday	4, 16
Prof Bahram Moshfegh - Sweden	Wednesday, Friday	5, 17
Dr Neveen Hamza - UK	Wednesday	5
Prof Runming Yao - UK	Wednesday, Thursday	5, 8
Prof Mohsen Aboulnaga - Egypt	Wednesday	6
Dr Herliyani Suharta - Indonesia	Wednesday, Friday	6, 20
Prof Federico Butera - Italy	Thursday	7, 8
Mr Rainer Hinrichs – Rahlwes - Germany	Thursday	7, 8
Prof Ali Hamzeh – Jordan /Syria	Thursday	9
Prof Khaled Al-Sallal - UAE	Thursday	10
Dr Kamil M Yousif - Iraq	Thursday	10
Prof Helmut F O Mueller - Germany	Thursday	11
Dr John Lowry - UK	Thursday	11
Prof P Gallo - Italy	Thursday	12
Prof M Christou - Greece	Thursday	12
Prof Ana-Maria Dabija - Romania	Thursday	13
Dr Abdul Salam Darwish - UK	Thursday, Friday	13, 15
Prof Antonella Trombadore- Italy	Friday	14, 16
Dr Herman Darnel Ibrahim - Indonesia	Friday	14
Prof Manuel C Guedes - Portugal	Friday	14, 19
Prof Hassan Nfaoui - Morocco	Friday	15
Dr Ananda S Amarasekara - USA	Friday	17
Dr Karen M Gambaryan - Armenia	Friday	18
Prof Marco Sala - Italy	Friday	18
Dr Javier Remon - Spain	Friday	19
Prof Fernando Recarlde L - Italy	Friday	22

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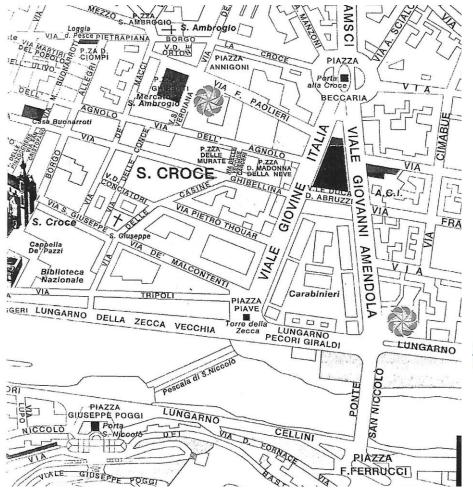
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LUNGARNO Hotel Mediterranean



Programme at Glance 25-29 August 2015

				1	
DAY	Tuesday 25	Wednesday 26	Thursday 27	Friday 28	Saturday 29
09:00 - 17:00		REGISTRATION	N – School of Architecture		All Day Outside
09:00 – 10:30		Mediterranean OPENING & Plenary Main Theatre - MT Only	Two Parallel Plenary - LEA at MT & Renewable Energy at RE - First Floor Theatre	Two Parallel Plenary – LEA at MT which includes Business Session & Renewable Energy -RE First Floor Theatre	Free Trip visit to architectural Best Case application. Trip starts from
10:30 - 11:00		Exhibition Coffee Break			
11:00 – 13:00	Setting	Two Parallel Plenary - LEA - MT & Renewable Energy - RE First Floor Theatre	Four parallel Sessions RE1 –First Floor Theatre & RE 2 – Ground Floor Room LEA1 – MT & LEA2 Ground Floor Room	Four parallel Sessions RE1 –First Floor Theatre & RE 2 – Ground Floor Room LEA1 – MT which includes Business Session & LEA2 Ground Floor	School of Architecture At 9:00 hr From 9 to 6 pm lunch & guided
13:00 - 14:30		Lunch Break			Tour is provided
14:30 – 16:00	Exhibition Setting	Two Parallel Plenary LEA - MT & Renewable Energy- RE First Floor Theatre	Four Parallel Technical Sessions RE1 –First Floor Theatre & RE 2 – Ground Floor Room LEA1 – MT & LEA2 Ground Floor Room	Four Technical Sessions RE1 –First Floor Theatre & RE 2 – Ground Floor Room LEA1 – MT includes Business Session & LEA2 Ground Floor Room	- We can have only Twenty Extra Persons
16:00 - 16:30			Tea Break		
16:30 - 18:00	WREN COUNCIL Meeting Main Theatre – School of Architecture	Two Parallel Plenary - LEA MT & Renewable Energy (RE) First Floor Theatre	Four Technical Sessions RE1 –First Floor Theatre & RE 2 – Ground Floor Room LEA1 – MT & LEA2 Ground Floor Room	Five Technical Sessions RE1 –First Floor Theatre & RE 2 – Ground Floor Room LEA1 – MT includes Business Session & LEA2 Ground Floor Room LEA3 –First Floor	
17:30 – 18:00				CLOSING	
19:00 – 22:00	WELCOME RECEPTION School of Architecture	WREN – Springer Dinner by Special Invitation Outside Venue	Gala Dinner*** By Tickets		