

08:00 09:00 **Registration & Welcome**

Plenary - Open Ceremony - Welcome Presentations

09:00	10:00	<p>Thomas H. PHOENIX ASHRAE presidential member</p> <p>Dr. Costas A. BALARAS Director & Regional Chair, ASHRAE Region XIV</p> <p>Aikis TRIANTAFILLOPOULOS President, ASHRAE Hellenic Chapter</p>	<p>Dr. Ing. Olga RIO SUAREZ European Commission, DG Research & Innovation, D3. Advanced Materials and Nanotechnologies</p> <p>Nikolaos Milis Vice President, Technical Chamber of Greece</p> <p>Theodoros PAPAPOPOULOS Managing Director, ATTIKO METRO</p>
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10:00	10:30	<p>Improving Building Performance</p> <p>Thomas H. Phoenix, P.E. <i>ASHRAE, Presidential Member, ASHRAE Fellow, LEED Accredited Professional</i></p>	<p>Experimental and Numerical investigation of the Energy Efficiency of a Lightweight Steel Framed Building Incorporating Vacuum Insulation Panels</p> <p>Atsonios Ioannis <i>Ph.D. (c), School of Mechanical Engineering, National Technical University of Athens, Greece</i></p>	<p>Two – Stroke Marine Natural Gas Engines: Concept, Challenges and Current Market Solutions</p> <p>Pariotis Efthimios <i>Assistant Professor, Section of Naval Architecture & Marine Engineering, Hellenic Naval Academy (HNA), Piraeus, Greece</i></p>	<p>WORKSHOP – 1 RESEARCH & INNOVATION ACTIVITIES IN NANOTECHNOLOGY CONCERNING ENERGY EFFICIENT BUILDINGS</p> <p>ECOBINDER: Development of Insulating Concrete Systems Based on Novel Low CO₂ Binders for a New Family of Eco-Innovative, Durable and Standardized Energy Efficient Envelope Components</p> <p>Dr. Chrysanthi PANAGIOTOPOULOU <i>Senior Researcher, National Technical University of Athens (NTUA), Greece</i></p> <hr/> <p>INNOVIP: Vacuum-Insulation-Panels (VIPs) for Buildings – From Research into Market</p> <p>Christoph SPRENGARD <i>FIW München, Head of Department R & D, Munich, Germany</i></p> <hr/> <p>WALL ACE: Novel Wall Insulation Systems</p> <p>Dr. Michael FOKEN <i>Head of Research & Development quick-mix GmbH & Co. KG, Osnabrück, Germany</i></p>	<p>POSTER SESSION-Light Harvesting Daylight in a Classroom, the Case Study of Leontios School</p> <p>Dr. Lambros Doulos <i>Researcher, Photometry Lab, National Technical University of Athens, Adjunct Professor, Hellenic Open University, School of Applied Arts, Greece</i></p> <p>---</p> <p>Energy Saving Potential by Retrofitting the Artificial Lighting System in the Typical Classroom in Greece</p> <p>Dr. Lambros Doulos <i>Researcher, Photometry Lab, National Technical University of Athens, Adjunct Professor, Hellenic Open University, School of Applied Arts, Greece</i></p> <p>---</p> <p>Energy Efficient Lighting in Existing National Motorways. The Case Study of Egnatia Odos</p> <p>Evaggelia Anthopoulou <i>School of Applied Arts, Hellenic Open University, Patra, Greece</i></p>	<p>Energy Saving and Comfort Level Optimization Through Relative Humidity Sensing in Variable Refrigerant Flow Systems</p> <p>Christos Gekas <i>Mechanical Engineer NTUA, AE Academy Supervisor, LG Electronics, Athens, Greece</i></p> <hr/> <p>CASE STUDY – 3 Greek Highway & Tunnel Innovative LED lighting Projects</p> <p>Leonidas Vergos <i>Electrical Engineer NTUA, Project Developer at Sirecled SA</i></p>
10:30	11:00	<p>Decoupled Ventilation Strategies for Enhanced IAQ – “Demand Cooling” and “Demand Ventilation”</p> <p>Dr. Chandra Sekhar <i>ASHRAE Fellow, Programme Director School of Design and Environment National University of Singapore</i></p>	<p>SENSO - An Intelligent Answer for Indoor Environmental Quality Performance Control</p> <p>Dr. Aleksandar Andjelkovic <i>Assistant professor, University of Novi Sad, Serbia</i></p>	<p>Marine DeSOx Systems: A State-of-the-Art Evaluation</p> <p>Theodoros C. Zannis <i>Assistant Professor, Hellenic Naval Academy, Piraeus, Greece</i></p>			

11:00		11:30		COFFEE BREAK			
11:30	11:50	<p>Practical Impact Assessment of Weather Data on Calculated Energy Performance of a Residential Hellenic Building</p> <p>Dr. Constantinos A. Balaras <i>Mechanical Engineer, FASHRAE, Research Director, Group Energy</i></p>	<p>Developments of the Hellenic Regulation on the Energy Performance of Buildings</p> <p>Kalliopi (Popi) Droutsa <i>M.Sc. Environmental Physicist, Research Assistant at Institute for Environmental Research & Sustainable Development of the National Observatory of Athens, Greece</i></p>	<p>Smoke Management in Underground Tunnels</p> <p>Dr. Essam E Khalil <i>ASHRAE Fellow, ASME Fellow, AIAA Fellow, Professor of Energy. Cairo University, ASHRAE Director at Large</i></p>	<p>GELCLAD: Development of a Novel Façade Panel with Nano-insulation Properties for Energy Efficient Buildings</p> <p>Dr. Jorge CORKER <i>Project Manager and Head of the Unity of Characterization and Certification of Granular Materials (UGRAN) at Instituto Pedro Nunes (IPN), Coimbra, Portugal</i></p>	<p>POSTER SESSION-Light Lighting Design Simulation Programs Comparison</p> <p>Thanos Balafoutis <i>Architect, Lighting Designer MA, PhD (C), Researcher, Hellenic Open University, School of Applied Arts, Greece</i></p> <p>---</p> <p>The contribution of Lighting in the Citizens' Feeling of Safety and the Influence on Criminality in Municipality of Athens</p> <p>Georgia Christodoulaki <i>Interior Architecture, Decoration & Design, MA Lighting Design & Multimedia</i></p> <p>---</p> <p>Sustainability in Lighting Design and Lamps. Early Results from the Case Study in Greek Households</p> <p>Christos Grigoropoulos <i>Electrical Engineer, IT Administrator, Department Of Pharmacy, Patra's University</i></p> <p>---</p> <p>Adaptive Street Lighting and Control Protocols for Urban Streets Using the Revised Street Lighting Standard EN 13201 The Case Study of V. Olgas Avenue</p> <p>Dimitrios Iliadis <i>Dipl. Electrical Engineer, MA</i></p>	<p>WORKSHOP – 2 Air to Air Heat Exchangers</p> <p>Alkis Triantafyllopoulos <i>President, ASHRAE Hellenic Chapter, B.Sc., M.Sc., Mech Eng, MENERGA GmbH</i></p>
11:50	12:10	<p>Waiting for the Net Zero Energy Buildings?</p> <p>Dr. Samir R. Traboulsi <i>Senior Lecturer at the American University of Beirut, Lebanon, General Manager of Thermotrade SAL, Managing Director of RANEC SARL</i></p>	<p>Techno-Economic Analysis of Deep Renovation for a Typical Residential Multi-Storey Building</p> <p>Aris Manolitsis <i>Research assistant at Laboratory of Heterogeneous Mixtures and Combustion Systems at National Technical University of Athens</i></p>	<p>Environmental managements systems for ports. Green initiatives for improving sustainability</p> <p>Ioannis Argyriou <i>PhD student in Technical University of Crete, MSc in Environmental Engineering-Water, Resources and Climate Change, Degree in Physics</i></p>	<p>ISOBIO: Development and Demonstration of Highly Insulating, Construction Materials from Bio-Derived Aggregates</p> <p>Nadia SID <i>Senior Project leader at TWI Ltd</i></p>	<p>---</p> <p>Sustainability in Lighting Design and Lamps. Early Results from the Case Study in Greek Households</p> <p>Christos Grigoropoulos <i>Electrical Engineer, IT Administrator, Department Of Pharmacy, Patra's University</i></p> <p>---</p> <p>Adaptive Street Lighting and Control Protocols for Urban Streets Using the Revised Street Lighting Standard EN 13201 The Case Study of V. Olgas Avenue</p> <p>Dimitrios Iliadis <i>Dipl. Electrical Engineer, MA</i></p>	<p>WORKSHOP – 2 Air to Air Heat Exchangers</p> <p>Alkis Triantafyllopoulos <i>President, ASHRAE Hellenic Chapter, B.Sc., M.Sc., Mech Eng, MENERGA GmbH</i></p>
12:10	12:30	<p>Challenges in Passive Buildings Design</p> <p>Nohad Boudani <i>Technical Manager at SODICOM SAL, Beirut, Lebanon</i></p>	<p>Building Integrated Photovoltaic Systems: Integration and Performance Evaluation in Real Site Application at NTUA Premises</p> <p>Dimitris Mantelis <i>Mechanical Engineer, Junior Researcher at National Technical University of Athens (NTUA), Athens, Greece</i></p>	<p>Combining Offshore Renewable Energies and Addressing Variability</p> <p>Dr. George Lavidas <i>Senior Consultant, Renewable Energy and Numerical Modelling, CERES Global</i></p>	<p>CETIEB - EENSULATE: Innovative Technologies for Improved Built Environment and Energy Efficiency</p> <p>Marco ARNESANO <i>Researcher at Università Politecnica delle Marche (UNIVPM), Italy</i></p>	<p>---</p> <p>Adaptive Street Lighting and Control Protocols for Urban Streets Using the Revised Street Lighting Standard EN 13201 The Case Study of V. Olgas Avenue</p> <p>Dimitrios Iliadis <i>Dipl. Electrical Engineer, MA</i></p>	<p>WORKSHOP – 2 Air to Air Heat Exchangers</p> <p>Alkis Triantafyllopoulos <i>President, ASHRAE Hellenic Chapter, B.Sc., M.Sc., Mech Eng, MENERGA GmbH</i></p>
12:30	12:50	<p>Nearly Zero Energy Buildings. Presentation of a Case Study & Design 'Soft' Elements of a HVAC Project can be Critical to Reach a Nearly Zero Energy Building</p> <p>Zacharias Hadjigeorgiou <i>Mech Eng, MASHRAE, Owner, HeatFlow Group of Companies</i></p>	<p>Investigating the Role of Three Types of Horizontal Openings in Industrial Buildings Concerning Exploitation of Daylight and Optical Comfort</p> <p>Theodora Mavridou <i>Chartered Architect, MA, Ph.D. (c)</i></p>	<p>Alisea – Electric Hybrid Power Catamaran Yacht</p> <p>Andreas Tsokos - Pappas <i>Architect Engineer</i></p>	<p>HOMESKIN: Pre-industrial Development of Super-Insulating Material and Systems</p> <p>Dr. Brice FIORENTINO <i>Innovation Manager at ENERSENS, Bourgoin-Jallieu, France</i></p>	<p>---</p> <p>Adaptive Street Lighting and Control Protocols for Urban Streets Using the Revised Street Lighting Standard EN 13201 The Case Study of V. Olgas Avenue</p> <p>Dimitrios Iliadis <i>Dipl. Electrical Engineer, MA</i></p>	<p>WORKSHOP – 2 Air to Air Heat Exchangers</p> <p>Alkis Triantafyllopoulos <i>President, ASHRAE Hellenic Chapter, B.Sc., M.Sc., Mech Eng, MENERGA GmbH</i></p>

12:50		14:00		LUNCH BREAK			
14:00	14:20	<p>Energy Renovations in the Existing Housing Stock – Reassessing the Savings Based on Actual Energy Consumption</p> <p>Faidra Filippidou <i>TU Delft / Faculty of Architecture and The Built Environment OTB - Research for the Built Environment</i></p>	<p>New ICT infrastructure for the efficient energy management in Buildings in the framework of the smart grids trend</p> <p>Dr. Dimitris Tsiamitros <i>Electrical & Computer Engineer, Assistant Professor at Western Macedonia University of Applied Sciences (TEIWM)</i></p>	<p>Implications of the Greek Economic Crisis on Future Prospects of Teleworking and Travel Behaviour</p> <p>Athanasios Galanis <i>Lecturer (P.D. 407/80), Department of Civil Engineering, University of Thessaly, Volos, Greece</i></p>	<p>LAWIN: Large Area Fluidic Windows</p> <p>Benjamin Heiz <i>Research Associate at Friedrich Schiller University, Jena, Germany</i></p>	<p>POSTER SESSION-Light</p> <p>Urban Network Road Lighting Optimization as Regards to the Needs and Reactions of Users, Driving Safety and the Environment Impact</p> <p>Yolanda Sofia Lampiri <i>Electrical Engineer Graduate, Lighting Designer</i></p> <p>...</p> <p>The Negative Contribution of Lighting Proposals on the Facades of Buildings and Signs in the Urban Landscape. The Role of Excessive Luminance Distributions</p> <p>Nikos Palatzoglou <i>School of Applied Arts, Hellenic Open University</i></p> <p>...</p> <p>Architectural and Theatrical Lighting: an exploration of the relationship</p> <p>Aikaterini Skalkou <i>Architect, Lighting Designer (MSc AUTH, MPhil NTUA, MA HOU)</i></p> <p>...</p> <p>Analysis of Behavior and Interaction of Students Concerning the Conditions of Daylight in School Buildings</p> <p>Meletis Theodorakakos <i>Electrical Engineer, Teacher, Serres, Greece</i></p>	<p>CASE STUDY - 1.</p> <p>Dedicated Outdoor Air Systems: A Comparison of the Initial and Recurring System Operating Costs</p> <p>Gaitanos Stefanos <i>Mechanical Engineer, AHI Carrier SEE Air-Conditioning S.A.</i></p>
14:20	14:40	<p>Sustainable Lighting Practices and Lighting Technologies. Case Study: Office Buildings</p> <p>Maria Danilatou <i>Architect Engineer, NTUA, M.Arch Bartlett_UCL UK, DGNB Auditor, Senior Architect Engineer at BRIGHT SPECIAL LIGHTING S.A.</i></p>	<p>The insulation thickness as a design parameter in Greek climate</p> <p>Georgios Mitsopoulos <i>Mechanical Engineer, Dipl., Msc., MBA, Ph.D. (c)</i></p>	<p>Comparison of Air Flow Regimes and Thermal Patterns in Train Cabins</p> <p>Essam E Khalil <i>ASHRAE Fellow, ASME Fellow, AIAA Fellow, Professor of Energy. Cairo University, ASHRAE Director at Large</i></p>	<p>GREEN INSTRUCT: Green Integrated Structural Elements for Retrofitting and New Construction of Buildings</p> <p>Prof. Dr. Glykeria KAKALI <i>Professor at National Technical University of Athens (NTUA), Greece</i></p>	<p>Architectural and Theatrical Lighting: an exploration of the relationship</p> <p>Aikaterini Skalkou <i>Architect, Lighting Designer (MSc AUTH, MPhil NTUA, MA HOU)</i></p> <p>...</p> <p>Analysis of Behavior and Interaction of Students Concerning the Conditions of Daylight in School Buildings</p> <p>Meletis Theodorakakos <i>Electrical Engineer, Teacher, Serres, Greece</i></p>	<p>CASE STUDY - 1.</p> <p>Dedicated Outdoor Air Systems: A Comparison of the Initial and Recurring System Operating Costs</p> <p>Gaitanos Stefanos <i>Mechanical Engineer, AHI Carrier SEE Air-Conditioning S.A.</i></p>
14:40	15:00	<p>Dynamic versus Steady State Building Simulations – Preliminary Analysis of an Energy Performance Gap analysis</p> <p>Paula van den Brom <i>TU Delft / Faculty of Architecture and the Built Environment OTB – Research for the Built Environment</i></p>	<p>A Holistic Demand Flexibility Profiling Framework for the energy management environment</p> <p>Konstantinos Tsatsakis <i>Project Manager at HYPERTECH S.A., Athens, Greece</i></p>	<p>Sustainable Mobility Solutions and Impact Assessment in Touristic Areas in CIVITAS DESTINATIONS Project: The Case of Rethymno</p> <p>Dr. Theocharis Tsoutsos <i>Professor, Head, Renewable and Sustainable Energy Lab School of Environmental Engineering, Technical University of Crete</i></p>	<p>SUS-CON: Towards Greener and Energy Efficient Buildings: The SUS-CON Project</p> <p>Dr. Konstantina PAPAKONSTANTINOU <i>Ph.D., candidate and Researcher at National Technical University of Athens (NTUA), Athens, Greece</i></p>	<p>Architectural and Theatrical Lighting: an exploration of the relationship</p> <p>Aikaterini Skalkou <i>Architect, Lighting Designer (MSc AUTH, MPhil NTUA, MA HOU)</i></p> <p>...</p> <p>Analysis of Behavior and Interaction of Students Concerning the Conditions of Daylight in School Buildings</p> <p>Meletis Theodorakakos <i>Electrical Engineer, Teacher, Serres, Greece</i></p>	<p>CASE STUDY - 1.</p> <p>Dedicated Outdoor Air Systems: A Comparison of the Initial and Recurring System Operating Costs</p> <p>Gaitanos Stefanos <i>Mechanical Engineer, AHI Carrier SEE Air-Conditioning S.A.</i></p>
15:00	15:20	<p>Energy and Comfort Monitoring in Existing Buildings – A Measurement Campaign of 150 Dutch Dwellings</p> <p>Arash Rasooli <i>PhD researcher, TU Delft, OTB- Onderzoek voor de gebouwde omgeving, Section DWK-Housing Quality and Process Innovation</i></p>	<p>Comparative Study of HVAC Systems in an Office Building in Greece based on Energy Simulations</p> <p>Iliia Lampro <i>MSc Mechanical Engineer, Technical advisor at Toyota, Athens, Greece</i></p>	<p>Intelligent Transportation Systems Applications for energy efficiency and GHG-emissions reduction purposes</p> <p>Dr. Dimitris Tsiamitros <i>Electrical & Computer Engineer, Assistant Professor at Western Macedonia University of Applied Sciences (TEIWM)</i></p>	<p style="text-align: center;">Workshop – 1: Research and Innovation Activities in Nanotechnology Concerning Energy Efficient Buildings</p> <p style="text-align: center;">OPEN DISCUSSION</p>	<p>POSTER SESSION-Light</p> <p>The Impact of the Color Temperature of Lighting in the Rendering of Artworks</p> <p>Mary Tzortzi <i>Architect Engineer NTUA, Lighting Designer</i></p> <p>Improvement of Artificial Lighting within the Contemporary Greek Residence</p>	<p>CASE STUDY – 2a</p> <p>Commission Regulation (EU) n°1253/2014 - Eco-Design Requirements for Ventilation Units</p> <p>Cristiano Dal Seno <i>Mech. Eng., Air Side Business Developer, Mitsubishi Electric Hydronics & IT Cooling Systems</i></p>

15:20	15:40	<p>An Enhanced Human - Centric Performance Framework Towards Promoting Behavioural Energy Efficiency in Buildings</p> <p>Konstantinos Tsatsakis Project Manager at HYPERTECH S.A., Athens, Greece</p>	<p>A hybrid life cycle analysis method for the environmental assessment of conventional building materials</p> <p>Konstantinos Sentzas Civil Engineer / Technical Special Consultant at Municipality of Deskatí (WM)</p>	<p>Optimization of Flapping Foil Motion for Ship Propulsion for Maximum Thrust Augmentation</p> <p>Andreas Priovolos Naval Architecture & Marine Engineering Graduate, National Technical University of Athens, Greece</p>	<p>AMANAC Cluster meeting (Executive session - open only to project coordinators)</p>	<p>POSTER SESSION-Light Pinelopi Zacharopoulou Electrical Engineer and Computer Technology, MA Lighting Design & Multimedia</p> <p>POSTER SESSION Thermal Insulating Renders for the Renovation of Traditional Architecture</p> <p>Ioannis Karatasios Architectural Conservation and Materials Science BSc, PhD, Researcher C', Institute of Nanoscience and Nanotechnology at NCSR "Demokritos", Athens, Greece</p>	<p>CASE STUDY – 2b Smart Heat Pumps for High Efficiency, Low Carbon 4-Pipe Hydronic Plants</p> <p>Alessio Scantamburlo Energy Engineer, Product Manager at Mitsubishi Electric Hydronics & IT Cooling Systems S.p.A.</p>
15:40	16:00	<p>Thermodynamic investigation of an innovative solar driven trigeneration system ideal for the building sector</p> <p>Dr. Evangelos Bellos Post-doctoral researcher in the School of Mechanical Engineering at National Technical University of Athens</p>	<p>YEA TRAINING Young Engineers (YEA) in ASHRAE and Industry - Responsibilities and Challenges</p> <p>Dr. Aleksandar S. Anđelković Assistant Professor, Mech. Engineer, University of Novi Sad, Serbia</p>	<p>An Energy Hotspot Identification Model for Heavily Congested Urban Network</p> <p>Yorgos J. Stephanedes MSEE, Ph.D., P.E., Professor at Dept. of Civil Engineering, University of Patras, Greece</p>	<p>AMANAC Cluster meeting (Executive session - open only to project coordinators)</p>	<p>POSTER SESSION-Light Pinelopi Zacharopoulou Electrical Engineer and Computer Technology, MA Lighting Design & Multimedia</p> <p>POSTER SESSION Thermal Insulating Renders for the Renovation of Traditional Architecture</p> <p>Ioannis Karatasios Architectural Conservation and Materials Science BSc, PhD, Researcher C', Institute of Nanoscience and Nanotechnology at NCSR "Demokritos", Athens, Greece</p>	<p>CASE STUDY – 2b Smart Heat Pumps for High Efficiency, Low Carbon 4-Pipe Hydronic Plants</p> <p>Alessio Scantamburlo Energy Engineer, Product Manager at Mitsubishi Electric Hydronics & IT Cooling Systems S.p.A.</p>
16:00	16:20	<p>Energy Efficient Cooling with New Absorption Chiller Technology in Solar Cooling Systems and CHPC-Plants</p> <p>Christopher Paitazoglou Dipl.-Ing., Member of the Scientific Staff at the Technical University of Berlin</p>					
16:20	16:30	COFFEE BREAK					
16:30	17:30	<p>ROUND TABLE – OPEN DISCUSSION Establishing ASHRAE – EUROPEAN Collaboration for Technological Integration & Advancement</p> <ul style="list-style-type: none"> <li style="width: 50%;">• Thomas Phoenix <li style="width: 50%;">• Dr. Konstantinos Balaras <li style="width: 50%;">• Dr. Olga Rio Suarez <li style="width: 50%;">• Dr. Essam Khalil <li style="width: 50%;">• Nikolaos Milis <li style="width: 50%;">• Dr. Samir Traboulsi <li style="width: 50%;">• Dr. Ioanna Deligkiozi 					

		SYNDICATE Level: 1 st floor
10:00	10:30	<p>WORKSHOP – 3 Solar Gains Control and Building's Energy Balance</p> <p>Aris Tsangrassoulis <i>Associate Professor, Dept. of Architecture, University of Thessaly</i></p>
10:30	11:00	<p>WORKSHOP – 3 Solar Gains Control and Building's Energy Balance</p> <p>Aris Tsangrassoulis <i>Associate Professor, Dept. of Architecture, University of Thessaly</i></p>
11:00	11:30	COFFEE BREAK
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