

08:00	09:00	<b>Registration &amp; Welcome</b>					
<b>Plenary - Open Ceremony - Welcome Presentations</b>							
09:00	10:00	<p style="text-align: center;"><b>Prof. Dr. William BAHNFLETH, P.E.</b> ASHRAE presidential member</p> <p style="text-align: center;"><b>Dr. Costas A. BALARAS</b> Director &amp; Regional Chair, ASHRAE Region XIV</p> <p style="text-align: center;"><b>Angelos DALAVOURAS</b> President, ASHRAE Hellenic Chapter</p>		<p style="text-align: center;"><b>Vice Admiral Nikolaos Tsounis HN</b> Chief, Hellenic Navy General Staff</p> <p style="text-align: center;">will be represented by</p> <p style="text-align: center;"><b>Rear Admiral Georgios Bamplenis HN</b> General inspector of the Hellenic Navy</p> <p style="text-align: center;"><b>Georgios Stasinou</b> President, Technical Chamber of Greece</p>			
		<b>ATHINA</b> Level: 1 <sup>st</sup> floor	<b>ZEUS – 1</b> Level: Basement	<b>ZEUS – 2</b> Level: Basement	<b>HERA 1</b> Level: 1 <sup>st</sup> floor	<b>FOYER</b> Level: 1 <sup>st</sup> floor	
10:00	10:30	<p>Thermal Energy Storage in the Era of Sustainability</p> <p><b>Prof. Dr. William BAHNFLETH, P.E.</b> <i>FASHRAE, FASME, FISIAQ, ASHRAE President 2013-2014, Department of Architectural Engineering Pennsylvania State University</i></p>	<p>How Sustainable are Hotel Rooms? Estimating Sustainability Factors</p> <p><b>Ioannis STAMATIOU</b> <i>Electrical and Computer Engineerm, Environmental Design of Cities and Buildings MSc HOU</i></p>	<p>Analyses of Thermal Comfort and Air Flow Patterns in Naval Ships and Passenger trains</p> <p><b>Prof. Dr. Essam KHALIL</b> <i>ASHRAE Fellow, ASME Fellow, AIAA Fellow, Professor of Energy. Cairo University, ASHRAE Director at Large</i></p>	<p style="text-align: center;"><b>TESSE<sup>2</sup>B</b></p> <p>The Tesse2b overall vision and rationale</p> <p><b>Prof. Dr. Michalis Gr. VRACHOPOULOS</b> <i>TEISTE</i></p> <hr/> <p><b>Dr. Constantine KARYTSAS</b> <i>Director of RES Division, CRES</i></p> <hr/> <p><b>The TESSE2b project:</b> Thermal Energy Storage Systems for Energy Efficient Buildings</p> <p><b>Prof. Luis COELHO</b> <i>IPS</i></p> <hr/> <p><b>TEISTE</b></p> <p>Development of heat exchangers and PCM tanks for heating, cooling and Domestic Hot Water (DHW)</p> <p><b>Assist. Prof. Dr. Maria K. KOUKOU</b></p> <hr/> <p><b>GEOTEAM</b></p> <p>Borehole heat exchangers(BHE) using PCM technology</p> <p><b>Mag. Heiko GAICH</b></p>	<p style="text-align: center;"><b>POSTER SESSION</b></p> <p>Experimenting in lighting design using light fixtures in a real space</p> <p><b>Olympia ARDAVANI</b> Architect Engineer, Environmental Engineer, Lighting Designer</p> <hr/> <p>Simulation of Daylight Penetration through Roof Openings with Varying Geometrical Data Relations, in a Small Industrial Building in Greece and Evaluation of Photometric Results</p> <p><b>Olympia ARDAVANI</b> Architect Engineer, Environmental Engineer, Lighting Designer</p> <hr/> <p>External Factors and Efficiency of Thermal Energy Storage System</p> <p><b>Prof. Dr. Tomasz BAKON</b> <i>Assist. Professor at Faculty of Production Engineering, Warsaw University of Life Sciences, Poland</i></p>	<p style="text-align: center;"><b>WORKSHOPS</b></p> <p><b>WORKSHOP – 1</b> AHU Systems combined with VRF Technology – Applications and Benefits</p> <p><b>Christos GEKAS</b> Mechanical Engineer NTUA, AE Academy Supervisor, LG Electronics, Athens, Greece</p> <hr/> <p><b>WORKSHOP – 2</b> Refrigeration Applications with Transcritical CO<sub>2</sub></p> <p><b>Timos DASKALOPOULOS</b> <i>Mining &amp; Metallurgical Engineer, MBA, CEO Delphis Group, Athens, Greece</i></p>
10:30	11:00	<p>Building and Urban Scale Transnational Multicriteria Sustainability Assessment Systems</p> <p><b>Dr. Costas A. BALARAS</b> <i>Mechanical Engineer, FASHRAE, Research Director, Group Energy Conservation, Institute for Environmental Research &amp; Sustainable Development, National Observatory of Athens, Greece</i></p>	<p>Standardization for Supporting Decision Making in Tertiary Sector Buildings Energy Efficiency Renovations</p> <p><b>Prof. Dr. Theocharis TSOUTSOS</b> Head, Renewable &amp; Sustainable Energy Lab, School of Environmental Engineering, Technical University of Crete</p>	<p>Risk and Threat Assessment Integration in Systems Engineering Process</p> <p><b>Dimitrios KROUPATSIARIS</b> Captain at Hellenic Navy, BS in Marine Engineering, HNA, M.Sc. in Electrical &amp; Computer Engineering, NPS, Degree of Electrical Engineer, NPS</p>			

11:00		11:30		COFFEE BREAK			
11:30	11:55	<p>Commissioning Management for High-Performance Buildings</p> <p><b>Andrés SEPÚLVEDA</b></p> <p><i>Chemical Engineer IFL MBA, Madrid Polytechnic University, Commtech Commissioning Services CEO, Madrid, Spain</i></p>	<p>A Demand Flexibility Driven Risk Assessment Framework for Smartgrids</p> <p><b>Stylianos KARATZAS</b></p> <p><i>Electrical Engineer, MSc in Operations Management, Ph.D. (c), Civil Engineering Department, University of Patras, Greece</i></p>	<p>Vehicles, Energy, and Air Quality - Current Impact and Issues</p> <p><b>Prof. Dr. William BAHNFLETH, P.E.</b></p> <p><i>FASHRAE, FASME, FISIAQ, ASHRAE President 2013-2014, Department of Architectural Engineering Pennsylvania State University</i></p>	<p><b>CRES</b></p> <p>Solar Thermal Systems' innovative concepts for residential buildings</p> <p><b>Theoni I. OIKONOMOU</b></p> <p><i>Solar Thermal Systems Dept.</i></p>	<p>About Stage Lighting in the Theatre: The Use of Led Lanterns on Lighting Performance Spaces – Stage Spaces (Go Green)</p> <p><b>Angeliki BOUMPOPOULOU</b></p> <p><i>Electrical and Computer Engineering, Lighting Design MA, Technical Department, Municipality of Kalamata</i></p>	<p><b>WORKSHOP – 3</b></p> <p>ASHRAE Standard 189.1 – “Standards for the Design of High Performance Buildings; except Low-Rise Residential”</p> <p><b>Prof. Douglas ZENTZ</b></p> <p><i>Associate Professor, Program Coordinator for the HVACR Programs within the College of Engineering Technology at Ferris State University</i></p>
11:55	12:20	<p>Optimising Efficiency at System Level</p> <p><b>Raul SIMONETTI</b></p> <p><i>HVAC/R Corporate Business Manager at the HVAC/R Knowledge Centre of CAREL Industries SpA, Brugine, Italy</i></p>	<p>Cost Effectiveness Assessment and Beyond: a Study on Energy Efficiency Interventions in new Greek Residential Building Stock</p> <p><b>Platon V. PALLIS</b></p> <p><i>Mechanical Engineer, M.Sc. Ph.D (c), Senior Researcher at Laboratory of Steam Boilers &amp; Thermal Plants, National Technical University of Athens</i></p>	<p>Advanced System Architectures and Operational Methodologies Leading to Energy Efficient Operations in the new Metro Line 4 in Athens</p> <p><b>Dr. George LEOUTSAKOS</b></p> <p><i>Mechanical Engineer, Engineering Department, Attiko Metro S.A, Athens, Greece</i></p>	<p><b>RUB</b></p> <p>Control and monitoring system for high energy and cost efficiency</p> <p><b>Prof. Constantinos SOURKOUNIS &amp; Pavlos TOUROU</b></p>	<p>Daylight and Transparency: Architectural Spaces' Qualitative Features Related to Daylight Through Materials' Form and Structure</p> <p><b>Anastasios BOUTZIKAS</b></p> <p><i>Architect Engineer UTH, M.A. Lighting Design &amp; Multimedia</i></p>	<p><b>WORKSHOP – 4</b></p> <p>HVAC systems for Hyper - Efficient Buildings</p> <p><b>Alkis Triantafyllopoulos</b></p> <p><i>Menerga Hellas Mech. Engineer BEng Mech Eng, MSc in Energy Engineering ASHRAE Hellenic Chapter President 2017-2018</i></p>
12:20	12:45	<p>Comparative Techno-Economic Assessment between Conventional insulation and VIP for the Renovation of a Building Envelope</p> <p><b>Dr. Ioannis ATSONIOS</b></p> <p><i>Mechanical Engineer, Post-Doctoral Researcher at Lab. of Heterogeneous Mixtures and Combustion Systems, School of Mechanical Engineering, NTUA</i></p>	<p>Energy Efficiency in Heritage Buildings</p> <p><b>Vasiliki KYRIAKOU</b></p> <p><i>Architect Engineer, MSc. Energy systems, Doctoral candidate, Department of Civil Engineering Demokritos University of Thrace, Greece</i></p>	<p>Theoretical Study of the Effect of Injection Timing Malfunction on DI Diesel Engine Performance and Combustion Characteristics</p> <p><b>Marios I. KOURAMPAS</b></p> <p><i>Naval Engineer Officer</i></p>	<p><b>ECOSERVEIS</b></p> <p><b>Aniol Esquerra ALSIUS</b></p>	<p>Light and Water in Wellness Spaces</p> <p><b>Ioanna DAMOPOULOU</b></p> <p><i>Lighting Design &amp; Multimedia Applied Art Hellenic Open University</i></p>	<p>How the Economic Viability of Redesigning the Lighting System is Affected in a Typical Classroom in Greece by Lighting Design and Daylight Zones</p> <p><b>Dr. Lambros DOULOS</b></p> <p><i>Post-Doctoral Researcher, Dpt. Of Architecture, University of Thessaly, Adjunct Professor, Hellenic Open University, Researcher, Photometry Lab, NTUA</i></p>
12:45	13:10	<p>Deep Renovation of a Residential Building - a Life Cycle Perspective</p> <p><b>Dr. Alexandra BONOU</b></p> <p><i>Civil Engineer, Post Doctoral Researcher, School of Mechanical Engineering, Lab. of Heterogeneous Mixtures and Combustion Systems, Zografou, Athens, Greece</i></p>	<p>Towards Occupancy Inference in a Smart Home Using Energy and Environmental Data Sources and Binary Classification Techniques</p> <p><b>Dr. Stelios KRINIDIS</b></p> <p><i>Postdoctoral Research Associate ITI/CERTH</i></p>	<p>Advanced Exergy Analysis of Gas Turbines</p> <p><b>Kyriaki MOSCHOPOULOU</b></p> <p><i>Student, Dpt. Mechanical Engineering, University of West Attica, Athens, Greece</i></p>	<p><b>GEOTEAM</b></p> <p><b>Mag. Heiko GAICH</b></p>	<p>The Use of Lighting as a Tool to add Familiarity to a Space – The Example of a Hotel</p> <p><b>Eleftheria FLOROU</b></p> <p><i>Architect AUTH, MSc Lighting Design MA HOU</i></p>	<p><b>Z&amp;X</b></p> <p><b>Zenon CHRYSANTHOU</b></p>
13:10	14:00	<b>LUNCH BREAK</b>					

14:00	14:25	<p>Net Positive Energy Design <b>Dr. Rupesh IYENGAR</b> <i>Dr. Sc. (Sustainable Architecture), M. Sc. (Sustainable Design), B. Eng. (Mechanical)</i> Director, Services Consultants, India. Co-Founder, Index Workshop LLP, Singapore</p>	<p>Energy Signature Model for Data Center Infrastructure <b>Prof. Dr. Spiros LIVIERATOS</b> Electrical Engineer, Associate Professor, School of Pedagogical and Technological Education Dept. of Electrical and Electronic Engineering, Athens, Greece</p>	<p>The Discovery of some Engine Parts of the early 19th Century Steam Ship "Karteria" at the Salamina Main Naval Station of the Hellenic Navy <b>Dr. Michaelis LEFANTZIS</b> <i>Architect Engineer, Greek Ministry of Culture &amp; Sports, Directorate for the Restoration of Ancient Monuments Athens, Hellas</i></p>	<p>European Innovation Activities in Thermal Energy Storage <b>CREATE</b> Advanced thermal storage system based on Thermo Chemical Materials <b>Fenixtnt, Barbora BLAŠKOVIČOVÁ</b></p>	<p>Daylight as Basic Parameter on Lighting Design in Tunnels with Vertical Openings <b>Christina GKAZGKA</b> <i>Electrical Engineer, Lighting Designer</i> Intelligent Bulk Materials for a Smart Transport Sector <b>Dr. Andreas Gondikas</b> Chemical Engineer, Environmental Engineer, Project manager, AXIA Innovation</p>	<p><b>WORKSHOP – 4 cont.</b> HVAC systems for Hyper - Efficient Buildings <b>Alkis Triantafyllopoulos</b> <i>Menerga Hellas Mech. Engineer</i> <i>BEng Mech Eng, MSc in Energy Engineering</i> ASHRAE Hellenic Chapter President 2017-2018</p>
14:25	14:50	<p>Energy Efficiency in Smart Cities <b>Prof. Dr. Essam KHALIL</b> <i>ASHRAE Fellow, ASME Fellow, AIAA Fellow, Professor of Energy, Cairo University, ASHRAE Director at Large</i></p>	<p>Experimental Performance Evaluation of a Small-Scale ORC Power Unit Working with Low Temperature Energy Sources for Power Co-generation <b>Prof Dr. Maria K. KOUKOU</b> <i>Assistant Professor, Mechanical Engineering Department, Technological Education Institute of Sterea Ellada, Psachna, Evia</i></p>	<p>Energy Efficient Strategies for Urban Transportation Planning <b>Prof. Dr. Doaa M. EL-SHERIF</b> <i>Professor of Environmental Planning &amp; Urban Management, Executive Director, Urban Training &amp; Studies Institute (UTI); Housing &amp; Building National Research Center (HBRC)-Ministry of Housing, Utilities &amp; Urban Communities, Egypt</i></p>	<p><b>SCORES</b> Self consumption of renewable energy by hybrid storage systems <b>Fenixtnt, Barbora BLAŠKOVIČOVÁ</b></p>	<p>The Effect of Nanostructured Photocatalysts for the Improvement of Indoor Air Quality <b>Theodora Kalampaliki</b> <i>Materials Scientist, MSc., Project Manager, Creative Nano PC</i> Urban Micro Space Lighting: The Case of Folegandros Fortress <b>Myrsini KOPANARI</b> <i>Engineer of Restoration and Renovation of Buildings, Lighting Design MA</i></p>	<p><b>WORKSHOP – 5</b> Chillers and Ecodesign <b>Athanasios PALIOGIANNIS</b> <i>Mechanical Engineer MSc., Sales Manager BSS &amp; Projects, AHI CARRIER SEE SA</i></p>
14:50	15:15	<p>Can Machines be Conscious <b>Prof. Dr. Maria VENIERI</b> <i>Department of Philosophy &amp; Social Studies, University of Crete</i></p>	<p>Assessment of the Influence of the Thermal Properties of the Grout Backfill Material on the Heat Exchange Process of Geothermal Boreholes <b>Dr. Amândio REBOLA</b> <i>Mechanical Engineering, Researcher of H2020 TESSe2b project at Instituto Politécnico de Setúbal, Setúbal, Portugal</i></p>	<p>Experimental Investigation of the Wave Run Up on a TLP Floating Wind Turbine <b>Marinos CHARALAMPOUS</b> <i>Naval Architect and Marine Engineer, School of Engineering - Naval Architecture Department, University of West Attica, Athens, Greece</i></p>	<p><b>E2VENT</b> Energy efficient ventilated facades for optimal adaptability and heat exchange <b>Fenixtnt, Barbora BLAŠKOVIČOVÁ</b></p>	<p>Statistical Distribution of Luminous Efficacy of Office Luminaires <b>Evangelos MANOLIS</b> <i>Lighting Design &amp; Multimedia MA, Capture Visualisation AB, Gothenburg, Sweden, AtlaBase Ltd, Athens</i> Contemporary Lighting Requirements in Museums <b>Ioanna PAPADOPOULOU</b> <i>Hellenic Open University, School of Applied Art, Lighting Design MA</i></p>	<p><b>WORKSHOP – 6</b> Optimum Savings Through a Sophisticated Air Conditioning System in a Hotel Unit in Crete <b>Elias PETSANAS</b> <i>Mechanical Engineer, Sales Manager, DELTA HEATING – AIR CONDITIONING LTD.</i></p>
15:15	15:40	<p>Energy Analysis on Cascade Refrigeration CO<sub>2</sub> Systems with Thermal Compression in Super Markets <b>Christos PAGKALOS</b> <i>Research Assistant, Energy and Environmental Research Laboratory, Technological Education Institute of Sterea Ellada Psachna, Evia</i></p>	<p>Yearly Performance of a Cogeneration System with Nanofluid-based Thermal Photovoltaic Coupled to a Heat Pump <b>Dr. Evangelos BELLOS</b> <i>Post-doctoral Researcher at School of Mechanical Engineering, NTUA</i></p>	<p>The Impact of Economic Crisis on Teleworking and Travel Behaviour in the Cities of Thessaloniki and Karditsa, Greece <b>Dr. Eleni MISOKEFALOU</b> <i>Civil Engineer, MSc. Planning, Organization and Management of Transport Systems, Lecturer at University of Thessally</i></p>	<p><b>HYBUILD</b> Integration of energy storage systems in a heat pump <b>NTUA, Efstratios VARVAGIANNIS</b></p>	<p>Studying, Managing and Planning Areas Protected from Light Pollution. The Case of Planning Greece's First National Dark Sky Park <b>Andreas PAPALAMBROU</b> <i>Electrical Engineer</i></p>	

15:40	16:05	<p>Motives and Tools to Enable Citizens to Become "Smart Consumers": A "Socially-Oriented" Approach Towards Smart Energy Consumption in Buildings</p> <p><b>Dr. Christos VLACHOKOSTAS</b> Mechanical Engineer, Board Member Technical Chamber of Greece/Region of Central Macedonia</p>	<p>Study of Heat Transfer in a Latent Heat Storage System using Salt Hydrates for Domestic Heating Applications</p> <p><b>George DOGKAS</b> <i>Physicist, PhD Candidate, Technological Education Institute of Sterea Ellada, Chalkida, Greece</i></p>	<p>Study of the Application of the Thermal Energy Storage in an Office Building</p> <p><b>Louis COELHO</b> <i>Assistant Professor at the Mechanical Engineering Department of Escola Superior de Tecnologia of Polytechnic Institute of Setúbal</i></p>	<p><b>DISCUSSION</b></p> <p>Thermal Energy Storage – Prospects and future steps in European research</p>	<p>Retail lighting design: consumer approach techniques</p> <p><b>Evangelia RENTZIOU</b> Photography and Audio-visual Arts, MA Lighting Design</p> <hr/> <p>Assessment of Daylighting Design Strategies in Preschool Buildings</p> <p><b>Athina I. SAMIOU</b> <i>Architect Engineer A.U.Th., M.Sc. Environmental Design of Buildings, M.A. Lighting Design-Multimedia</i></p>	
16:05	16:30	<b>COFFEE BREAK</b>					
16:30	16:55	<p>Historical Buildings Energy Efficiency – improvement and Empowerment</p> <p><b>Dr. Milena BLAGOJEVIC</b> <i>Architect, Teaching Assistant, Department of Architecture, University of Florence, Italy</i></p>	<p>Utilization of transgenic plants, through genetic modification as bioluminescent, for outdoor lighting</p> <p><b>Olympia ARDAVANI</b> <i>School of Applied Arts, Hellenic Open University, Patra, Greece</i></p>	<p>Corporate Social Responsibility and Lighting Design</p> <p><b>Dr. Ioannis F. PANAGIOTOPOULOS</b> <i>Electrical &amp; Electronic Engineer</i></p>	<p><b>DISCUSSION – cont.</b></p> <p>Thermal Energy Storage – Prospects and future steps in European research</p>	<p>Lighting and Well-Being of Employees in Healthcare Buildings</p> <p><b>Hara SIGALA</b> <i>Architect NTUA, MSc Light and Lighting UCL, Adjunct Professor Hellenic Open University</i></p> <hr/> <p>The contribution of Richard Kelly in 21<sup>st</sup> Century Architecture through Lighting Design</p> <p><b>Nikolia ZACHARAKI</b> <i>Architect NTUA, MSc Light and Lighting UCL, Adjunct Professor Hellenic Open University</i></p>	<p><b>WORKSHOP – 7</b></p> <p>New Chiller Generation: Technologies &amp; Refrigerant Solutions for High Energy Efficiency and low Environmental Impact in Buildings</p> <p><b>Emiliano PELLIS</b> <i>Mechanical Engineer Export Area Manager CLINT / G.I. INDUSTRIAL HOLDING SpA</i></p>
16:55	17:20	<p>Combining Business Processes with Energy Management: A Process Driven Building Energy Management Framework for Tertiary Buildings</p> <p><b>Stylianios KARATZAS</b> <i>Electrical Engineer, MSc in Operations Management, Ph.D. (c), Civil Engineering Department, University of Patras, Greece</i></p>	<p>Innovative uses of Phase Change Materials (PCMs) for Renewable Heating &amp; Cooling</p> <p><b>Adam DICKEN</b> <i>Chemical Engineer, AMIChemE, Phase Change Material Products Ltd</i></p>				
17:20	17:45	<p>Multicriteria Analysis on the Energy Upgrade to nZEB of Traditional Buildings in Mountainous Areas</p> <p><b>Ioannis RAMMOS</b> <i>Architect UTH, Environmental Design of Cities and Buildings MSc HOU</i></p>	<p>Analysis of Wind Catcher, Decorative Pool and Outlet Opening Combinations on Evaporative Cooling of Residential Interiors</p> <p><b>Prof. Dr. Murat ÇAKAN</b> <i>Asst. Professor, Faculty of Mechanical Engineering, Istanbul Technical University, Turkey</i></p>				



**ROUND TABLE – OPEN DISCUSSION**

Building our New Energy Future  
*Challenging the president*

18:00 19:00

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| <ul style="list-style-type: none"> <li>• Prof. Dr. William Bahnfleth</li> <li>• Dr. Costas Balaras</li> <li>• Dr. Essam Khalil</li> <li>• Prof. Dr. Bratislav Blagojevic</li> </ul> | <ul style="list-style-type: none"> <li>• Rear Admiral Georgios Bamblenis</li> <li>• Captain Dimitrios Koupatsiaris HN</li> <li>• Andrés Sepulveda</li> <li>• Dr. Rupesh Iyengar</li> </ul> |
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**Sheila Hayter, President, ASHRAE**  
 Will join the discussion, time & technology permitting

Required reading

Manuscript of presidential speech by Sheila Hayter, President, ASHRAE ([link](#))

Video of presidential speech by Sheila Hayter, President, ASHRAE ([link](#))

Building our New Energy Future ([link](#))