



***3rd AIGE/IIETA International Conference
12th AIGE Conference 2018***

***ENERGY CONVERSION, MANAGEMENT, RECOVERY,
SAVING, STORAGE AND RENEWABLE SYSTEMS***

14 – 16 June 2018 Reggio Calabria - Messina, Italy

FINAL PROGRAM

www.AIGE-IIETA 2018.unirc.it



THE CONFERENCE

The **3rd AIGE/IIETA International Conference and 12th AIGE 2018 Conference on "Energy Conversion, Management, Recovery, Saving, Storage and Renewable Systems"** is organized under the joint auspices of the AIGE and IIETA with the aim of providing technical information to their members and to the scientific and industrial community at large.

The joint Conferences foster a binding platform for researchers from universities, research institutions and industries as well as students to network, learn more and share their knowledge. They pursue the goal of providing a forum for the exposure and the exchange of technical/scientific information.

The joint Conferences give the opportunity to discuss the state of the art and to present experimental, analytical and numerical results in Energy Conversion Systems, in Energy Management, in Energy Recovery Systems, in Energy Saving Techniques, Energy Storage Systems and Renewable Systems, with a particular attention to the engineering, environmental and economic aspects.

TOPICS

1 - Energy Conversion and Management:

Analysis and optimization of energy processes - Cogeneration and combined heat, power and refrigeration - Combustion improvements and combustion of new fuels - Industrial and domestic use of energy - Energy conversion and storage – Energy Efficiency in Buildings – Improvement of Indoor Air Quality – Energy Saving in Transportations – Power Plants and Equipment – Refrigeration and Air-Conditioning – Low Enthalpy Energy Sources – Energy Harvesting

2 - Energy Planning and Policy:

Economic and Policy Issues - Energy Analysis - Energy Planning and Energy Management - Energy supply security - Environmental, Social and Economic Impacts of Energy Policies and Usage - Overview of the Global and Regional Energy Scene - Problems of Modeling and Forecasting - Integrated Energy Systems - Optimal Use of Energy Resources - Energy and Environmental Regulation.

3 - Power Systems and Networks:

Electricity Supply and Demand – Transmission – Distribution – Network Operation – Data Monitoring and Control Systems – Power Grids – District Heating and Cooling – Natural Gas Supply – Power Plants Automation and Control - Power System Metering - Smart Transmission Grids -

4 - Thermodynamics and Heat Transfer:

Heat Exchangers – Conduction, Convection and Radiation Heat Transfer - Heat Transfer in Fission and Fusion Nuclear Facilities – Exergy Analysis - Entropy Generation Minimization – Heat and Mass Transfer Processes – Thermodynamic Modelling and Optimization – Computational Fluid Dynamics -

5 - Renewable and Nuclear Energy Sources:

Biomass and Bioenergy - Geothermal Energy Systems - Sustainable Energy Systems - Wind Energy - Solar Thermal and Photovoltaic – Concentrating Solar Power – Waves Energy - Nuclear Power Plants – Hydro Power – Hydrogen Production Technology - Fuel Cells – Tide and Ocean Energy

CONFERENCE CHAIRS

Giuseppe Cannistraro, Università di Messina, Italy (Organizer)

Salvatore Freni, CNR-ITAE, Messina, Italy (Organizer)

Matilde Pietrafesa, Università Mediterranea di Reggio Calabria, Italy (Organizer)

Enrico Lorenzini, Università di Bologna, Italy, AIGE President, IETA Directive Board Component

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Luca A. Tagliafico, Università degli Studi di Genova, Italy

David Williams, International Information and Engineering Technology Association, IETA, Canada.

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VENUE

Aula Magna Engineering Departments - *Mediterranea* University of Reggio Calabria

AWARDS

5 Certificates of Merit have been assigned during the Conference to young graduates, PhD and post PhD students and young researchers, who have carried out significant research work on the Conference issues and presented their results with a paper, in oral or poster sessions:

- 2 for young graduates who present the results of their thesis
- 2 for PhD and post-PhD students under 32 years old
- 1 for the best paper presented by young researchers under 35 years old.

CONTACTS

Conference Secretary

aige-ijeta2018@unirc.it

Conference website

www.aige-ijeta2018.unirc.it

Thursday, June 14th, 2018

13:30 – 15:00 **Welcome Buffet** **Coffing Club Ingegneria**

14:30 – onwards **Registration** **Aula Magna Entrance**

15:00 – 15:30 **Opening** **Aula Magna**

	<p>Conference Chairs: Prof.ssa Matilde Pietrafesa – Mediterranean University of Reggio Calabria Prof. Giuseppe Cannistraro – University of Messina Prof. Salvatore Freni - CNR-ITAE Messina Rector of the Mediterranean University of Reggio Calabria – Prof. Pasquale Catanoso DICEAM Director – Prof. Nicola Moraci Mayor of Reggio Calabria – Dr. Giuseppe Falcomatà AIGE President – Prof. Enrico Lorenzini AICARR, Delegate of the President – Prof.ssa Anna Magrini Technical Physics Association Vice President – Prof. Romano Borchiellini</p>
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15:30 – 17:30 **Session 1, Building performances and energy efficiency** **Aula Magna**
Chair: Prof. Oronzio Manca

15:30 – 16:00	Invited paper: Prof. Gianvincenzo Fracastoro – <i>Polytechnic of Turin</i> - Being the energy manager in a technical university
16:00 - 16:15	024 - Weather data morphing to improve Building energy modeling in an urban context – L. Marletta, G. Evola, D. Cimino
16:15 - 16:30	025 - Survey - based Analysis of the Electrical Energy Demand in Italian Households - M. Caldera, P. Ungaro, G. Cammarata, G. Puglisi
16:30 - 16:45	033 - Simplified tool for the energy performance assessment of residential buildings – L. Belussi, L. Danza, I. Meroni, F. Salamone, S. Minutoli, C. Romeo
16:45 - 17:00	039 - Summer Mitigation Strategies in an Urban Renovation Area in the South of Italy - P. Lassandro, S. Di Turi, M. G. Perrini
17:00 - 17:15	060 - Smart tools for energy resilient city - F. Moraci, C. Frazia, M. F. Errigo
17:15 - 17:30	068 - Textile wastes in building sector: a review – C. Rubino, S. Liuzzi, F. Martellotta, P. Stefanizzi

15:30 – 17:30 **Session 2, Hydrogen, fuel cells and electrical storage** **Room E1**
Chair: Prof. Salvatore Freni

15:30 – 16:00	Invited Paper: Prof. Tsiakaras Panagiotis – <i>University of Thessaly</i> - Electrochemical devices based on solid oxide proton electrolytes
16:00 - 16:15	002 - SOFCs R&D Activities at CNR - ITAE - S. Trocino, M. Lo Faro, S.C. Zignani, A.S. Aricò
16:15 - 16:30	012 - A viable strategy to improve the electrochemical performance of cost effective iron(III) oxide as anode material for sodium - ion rechargeable batteries - F. Pantò, P. Frontera, M. Fiore, G. Longoni, S. Stelitano, P. Antonucci, R. Ruffo, S. Santangelo
16:30 - 16:45	014 - Pt - Free Electrocatalysts For The Oxygen Reduction Reaction - C. Lo Vecchio, A. S. Aricò, V. Baglio
16:45 - 17:00	027 - Study and Development of Innovative Materials for Hydrogen Storage Activity - M.F. Gatto, R. Pedicini, A. Carbone, A. Saccà, F. Matera, I. Gatto
17:00 - 17:15	036 - Ceramic monolith - and foam - structured catalysts via in - situ combustion deposition for energetic applications - C. Italiano, L. Pino, M. Laganà, A. Vita
17:15 - 17:30	037 – Synthesis and Characterization of Fe ₂ O ₃ /Reduced Graphene Oxide Nanocomposite as a High - Performance Anode Material for Sodium - Ion Batteries - V. Modafferi, M. Fiore, G. Longoni, E. Fazio, S. Patanè, C. Triolo, S. Santangelo, R. Ruffo, F. Neri, and M. G. Musolino

17:30 – 17:50 **Coffee break** **Coffing Club Ingegneria**

- 003 - Heat and Moisture Transfer Investigation of Surface Building Materials - C. Balocco, G. Petrone
- 008 - Indoor Air Quality real - time monitoring in airport terminal areas: an opportunity for sustainable management of micro - climatic parameters - S. Zanni, F. Lalli, E. Foschi, A. Bonoli, L. Mantecchini
- 010 - Energy Performance of Xlam Cross - Laminated Timber Panel Buildings: a case study - F. Nocera, A. Gagliano, M. Detommaso
- 017 - Thermophysics characterization of a cardboard emergency kit - house – D. Distefano, A. Gagliano, V. Sapienza
- 018 - Clay and fibers: energy efficiency in buildings between tradition and innovation - T. Cardinale, C. Sposato, A. Feo, P. De Fazio
- 019 - The importance of thermal bridge correction in energy refurbishment of existing buildings – S. Bergero, P. Cavalletti, A. Chiari
- 034 - Application of Model Predictive Control for the optimization of thermo - hygrometric comfort and energy consumption of buildings – L. Danza, L. Belussi, F. Floreani, I. Meroni, A. Piccinini, F. Salamone
- 038 - Energy Efficiency improvements in historic buildings: numerical analysis of a case study in central Italy - P. Zazzini, M. Capone
- 040 - A Work - Related Learning Project for Energy Efficiency Evaluation and Indoor Comfort of School Buildings - P. Lassandro, M. Zonno
- 046 - Energy Efficiency in the Construction of Smart Cities – the VerGe Project in Switzerland - A. Barresi
- 047 - Energy Retrofitting Of Windows In Historical And Monumental Buildings - V. Malaguti, C. Lodi, E. Cecchetto, A. Muscio, P. Tartarini
- 048 - Study of an integrated retrofit system for energy positive buildings in urban areas - F. Ruggiero, S. Di Turi , A. Mastrotrilli
- 055 - Numerical investigation on Nano - PCM in aluminum foam in latent thermal energy storages – B. Buonomo, D. Ercole, O. Manca, S. Nardini
- 059 - Supporting decision methodology for the refurbishment of buildings: optimization in nZEB perspective – A. Bellazzi, B. Barozzi, G. Guazzi, I. Meroni
- 062 - Thermo - hygrometric and energy analysis of a vernacular multi - room settlement in the Sassi of Matera – E. Negro, N. Cardinale, G. Rospi
- 071 - 3D modeling By thermography For non - destructive Analysis of Archaeological heritage - V. Barrile, A. Fotia, F. Laganà
- 079 - The relation between NZEB requirements, local climate, and building features. Discussion of the NZEB model application to two sample buildings, in different climatic conditions - G. Murano, A. Magrini
- 088 - Evaluation of the Greenhouse energetic needs with a sensible heat storage system at night – D. Lalmi, H. Bensaha, R. Zarrit, A. Benseddik, S. Bezari, M. Guermouai and A. Rabhi
- 091 - Design of ventilated cross flow heat sinks – M. Trancossi, J. Pascoa
- 092 - Peltier cells based acclimatization system for a container passive building - Michele Trancossi, Jacob Kay, Mauro Cannistraro
- 096 - Soft - linking Bottom - up energy models with Top - down Input - Output models to assess the global impact of future energy scenarios: the case of Egypt - Rocco M.V., Colombo E., Rady Y.
- 106 - Heat transfer through the building envelope. Dynamic models and validation - F. Passerini, A. Bassani, A. Magrini, A. Costa
- 108 - Analysis and definition of a ZEB building at optimum level of efficiency and costs - A. Magrini, F. Modafferi, L. Belussi, L. Danza, G. Guazzi
- 112 - Experimental Analysis of Atmospheric Pollution in Urban Center of the City of Messina - G. Cannistraro, M. Cannistraro, Jingyu Cao, L. Ponterio
- 113 - New technique monitoring and transmission environmental data with mobile systems - G. Cannistraro, M. Cannistraro, Jingyu Cao, L. Ponterio
- 118 - Towards the nearly zero and the plus energy building: primary energy balances and economic evaluations - C. Marino, A. Nucara, M.F. Panzera, M. Pietrafesa

Friday, June 15th, 2018

9:00 – onwards Registration Aula Magna Entrance

9:00 – 10:30 Plenary Session Aula Magna
Chair: Prof. Luigi Marletta

9:00 - 9:30	Invited paper: Prof. Romano Borchiellini - <i>Polytechnic of Turin - President of the Advisory Board of Energy Center in Turin - The nexus between energy, development and sustainability</i>
9:30 - 10:00	Invited paper: Prof. Federico Butera – <i>Professor emeritus Polytechnic of Milan - Urban Challenges in the third Millennium</i>
10:00 - 10:30	Invited paper: Prof. Francesco Russo – <i>Mediterranea University of Reggio Calabria - Vice-President of the Calabria Regional Executive - Sustainability of transportation system, from planning to programming: the case of Calabria region</i>

10:30 – 10:50 Coffee break Coffing Club Ingegneria

10:50 – 11:50 Session 3, Sustainable mobility and green roads Aula Magna
Chair: Prof. Stefano Piva

10:50 - 11:05	035 - From GREen ENERgy to green LOGistic: a methodology to plan green transport and logistic services near port areas – G. Musolino, C. Rindone, A. Vitetta
11:05 - 11:20	097 - Integrated urban regeneration policy and soft mobility planning for transport energy - saving - D. Gattuso, G. Cassone, M. Malara
11:20 - 11:35	120 - Energy harvesting solutions for powering IoT innovative road pavement monitoring systems - R. Fedele, M. Merenda, F. G. Praticò, R. Carotenuto, F. G. Della Corte
11:35 - 11:50	123 - Life Cycle Assessment of roads: material and process related energy savings - T. M. Gulotta, M. Mistretta, F. Praticò

11:50 – 12:50 Session 4, Renewable energy systems Aula Magna
Chair: Prof. Mario Cucumo

11:50 - 12:05	026 - Linear Fresnel Plant with Primary Reflectors Movable on Two Axes - M. Cucumo, V. Ferraro, D. Kaliakatsos, M. Mele, F. Nicoletti
12:05 - 12:20	028 - Energy Production and Carbon Sequestration in Wet Areas of Emilia Romagna Region, the Role of Arundo Donax - G. Allesina, S. Pedrazzi, F. Ginaldi, G. A. Cappelli, M. Puglia, N. Morselli, P. Tartarini
12:20 - 12:35	030 - Design of heliostat field for an unfired solarized micro gas turbine in a closed cycle with mass flow control regulation - F. Rovense, M. Bomentre, M. S. Silva, V. Ferraro, M. Amelio
12:35 - 12:50	049 - Graphene - Based Derivative as Interfacial Layer in Graphene/n - Si Schottky Barrier Solar Cells - A. Gnisci, G. Faggio, G. Messina, L. Lancellotti, E. Bobeico, P. Delli Veneri, T. Dikonimos, N. Lisi

10:50 – 12:35 Session 5, Hydrogen, fuel cells and electrical storage Room E1
Chair: Prof. Tsiakaras Panagiotis

10:50 - 11:05	041 - Formic acid cycle as partial alternative to Allam cycle less expensive and more simple - M. Gotovsky, A. Gotovsky, V. Mikhailov, C. Kolpakov, V. Lychakov, Y. Sukhorukov
11:05 - 11:20	054 –Thermochemical heat storage: experimental characterization of materials and prototypes - V. Palomba, V. Brancato, D. La Rosa, A. Sapienza, A. Frazzica, S. Vasta
11:20 - 11:35	063 - Hydrogen Production from Residual Biomass Via Air - Steam Gasification for a Bioenergy - Based Economy in Sicily - M. Prestipino, V. Chiodo, S. Maisano, S. Brusca, F. Urbani, A. Galvagno
11:35 - 11:50	064 - Modeling, Realization and Test on Field of a Fuel Cell - Na/NiCl ₂ Battery Battery Hybrid System as a Base Transceiver Station Power Supply - D. Aloisio, M. Ferraro, G. Brunaccini, F. Sergi, N. Randazzo, G. Dispenza and V. Antonucci
11:50 - 12:05	098 - Thin supported Pd and Pd - Au membranes for hydrogen generation and purification - A. Iulianelli, Y. Huang, Angelo B.
12:05 - 12:20	104 - Chitosan - Heteropolyacid membranes for Direct Methanol Fuel Cells - F. Di Franco, G. Burgio, M. Santamaria
12:30 - 12:35	119 - Review of catalyst - deposition techniques for PEMFC electrodes - P. E. Santangelo, M. Cannio, M. Romagnoli

13:00 – 14:30

Buffet lunch

Coffing Club Ingegneria

14:30 – 16:00

Session 6, Building performances and energy efficiency

Aula Magna

Chair: Prof. Nicola Cardinale

14:30 - 14:45	072 - Cost optimal analysis of energy refurbishment actions depending on the local climate and its variations - A. Magrini, S. Lazzari, L. Marengo, G. Guazzi
14:45 - 15:00	074 - The Energy Center Initiative at Politecnico di Torino: a focus on Energy and Development in the Africa Region – P. Leone, R. Borchiellini, S. P. Corgnati, A. Lanzini, C. Delmastro, L. Rosciarelli, B. Ugwoke, E.
15:00 - 15:15	080 - Can constructal law produce a robust design method that couples with Industry 4.0 paradigms? The case of a container house – M. Trancossi, M. Cannistraro, J. Pascoa
15:15 – 15:30	081 - Analysis of triangular sharkskin profiles according to second law – P. Liversage, M. Trancossi
15:30 - 15:45	029 - A CCHP system fed by low enthalpy sources in Mediterranean area - V. La Rocca, M. Morale, G. Peri, G. Scaccianoce
15:45 - 16:00	124 - GIS - based energy - use model for residential buildings in Mendoza (AR) – G. Mutani, M. Fontanive, M. Edith Arboit

14:30 – 16:00

Session 7, Industrial systems and cycles

Room E1

Chair: Prof. Paolo Tartarini

14:30 - 14:45	007 - Introducing exergy analysis in life cycle assessment: A case study - T.M. Gulotta, F. Guarino, M. Mistretta, M. Cellura, G. Lorenzini
14:45 - 15:00	011 - The Environmental Impact Of Solid - State Materials Working In An Active Caloric Refrigerator Compared to a Vapor Compression Cooler - C. Aprea, A. Greco, A. Maiorino, C. Masselli
15:00 - 15:15	020 - GIS Based Risk Assessment of Oil Spill and Gas Leakage Vulnerable Zones in Pakistan – S. Talha Tirmizi, S. Rizwan Ul Haq Tirmizi
15:15 – 15:30	043 - An Investigation of Thermo - Fluid Dynamic Performance of a Stirling Engine Regenerator by means of OpenFOAM - M. Faruoli, A. Viggiano, V. Magi
15:30 - 15:45	044 - Energy efficiency analysis of an entire ceramic kiln: a numerical approach – G. Cantore, M. Milani, L. Montorsi, F. Paltrinieri
15:45 - 16:00	050 - A Techno - Economic and Environmental Analysis for Carbon Capture and Storage in Italian power plants - A. Fichera, R. Volpe, V. O. Utili

16:00 – 16:20

Coffee break

Coffing Club Ingegneria

16:20 – 17:20

AIGE General Meeting

Aula Magna

17:20 – 18:20

Visit to the *Building Future Lab*

21:00

Social Dinner

L'A Gourmet L'Accademia

Saturday, June 16th, 2018

9:00 – 9:45

Session 8, Industrial systems and cycles
Chair: Prof. Vittorio Ferraro

Aula Magna

9:00 - 9:15	052 - Testing a Model of Flow and Heat Transfer for U - shaped Geothermal Exchangers - J. Giacomini, C. Invernizzi, P. Maponi, M. Verdoxa
9:15 - 9:30	089 - About electrical and mechanical behaviour of low - voltage I&C cables used in nuclear power plants – S. V. Suraci, D. Fabiani, S. Bulzaga
9:30 - 9:45	090 - Modelling and Simulating a Thermal Storage System for the Savona Campus Smart Polygeneration Micro grid - M. Brignone, F. Delfino, F. Devia, M. Fossa, F. Pampararo

9:00 – 9:45

Session 9, Heat pumps and HVAC systems
Chair: Prof. Pietro Stefanizzi

Room E1

9:00 - 9:15	009 - How to Enhance the Energy Efficiency of HVAC Systems - A. Genco, A. Viggiano, V. Magi
9:15 - 9:30	021 - Testing a Dual - Source Heat Pump - M. Cannistraro, E. Mainardi, M. Bottarelli
9:30 - 9:45	105 - Demand Side Management analysis of a commercial Water Loop Heat Pump system - G. Coccia, A. Arteconi, P. D'Agaro, F. Polonara, G. Cortella

9:45 – 10:30

Poster Session
Chair: Eng. Concettina Marino

Aula Magna Stage

004	Experiments on parallel connected loops in single – phase natural circulation - A. Marchitto, M. Misale
005	A simple correlation for the dynamic simulation of a solar thermal plant connected to a radiant floor - M. Cucumo, V. Ferraro, D. Kaliakatsos, M. Mele
006	A Simplified Calculation Method for the Evaluation of the Performance of a Hybrid Solar Plant with Linear Parabolic Collectors and Joule - Brayton Air Cycle - V. Ferraro, V. Marinelli, J. Settino
016	Numerical Study of the Evolution of the Fluid Flow In Lid - driven Cavity in the Vicinity of $Re=70000$ – A. Azzouz, S. Houat, O. Benhizia, M. Grine
031	Exergoeconomic and enviroeconomic study of weir type cascade solar still with hourly sun tracking – M. Norozi
032	Experimenting a Distributed Passive MPPT based on Mini - Battery - Packs to Cope with Short - Term Critical Partial Shadings on PV – Generators - R. Carbone, G. A. Maiolo
042	Application of Nanofluids in Solar Cooling System: Dynamic Simulation by Means Trnsys Software - B. Buonomo, F. Cascetta, L. Cirillo, S. Nardini
051	Activated carbons to CO ₂ capture from Posidonia Oceanica sea-plant - S. Maisano, F. Urbani, N. Mondello, F. Cipiti, C. Chiodo
053	Titanium - based Oxide Nanoparticles as Electrode and Electrolyte Components in PEM Fuel Cells and Electrolyzers - L. Mazzapioda, M A. Navarra, S. Panero
056	Porosity Effect on Thermal and Fluid Dynamic Behaviors a Compact Heat Exchanger in Aluminum Foam – B. Buonomo, A. di Pasqua, D. Ercole, O. Manca
058	Fatigue Life Investigation on Wind Blades - M. Buonsanti, F. Ceravolo, S. Suraci
065	Parametric Simulation Analysis of a Centralized Solar Heating System with Long - term Thermal Energy Storage Serving a District of Residential and School Buildings in Italy - G. Ciampi, A. Ciervo, A. Rosato, S. Sibilio, A. Di Nardo
070	Geodatabase for The assessment Of energetic Potential of Territory - V. Barrile, A. Fotia, M. Siclari
084	Power generation in externally fired air turbine feed by biomass derived syngas - E. Fanelli, N. Lovaglio, G. Cornacchia, G. Braccio, V. Magi
085	CFD analysis of biodiesel combustion for industrial burner applications - A. Cantiani, A.Viggiano, E. Fanelli, G. Cornacchia, G. Braccio, V. Magi
086	Small Scale Organic Rankine Cycle testing for low grade heat recovery by using refrigerants as working fluids- E. Fanelli, S. Braccio, G. Pinto, G. Cornacchia, G. Braccio
093	Hot Gas Desulfurization in Coal - To - SNG Process - J. Settino, T. J. Schildhauer, M. Amelio, F. P. Di Maio, A. Di Renzo

094 - Numerical Simulations of Coupled Conduction - Free Convection in Low Conductive Vertical Finned Surfaces - A. De Angelis, M. Libralato, O. Saro

099 - Design of a Geothermal Plant to Heat a Water Park Swimming Pool: Case Study of Tramutola (Basilicata, Italy) - G. Di Bella, A. Sapienza, S. Vasta, G. Lombardo

100 - Energetic analysis of a stand - alone photovoltaic system with hydrogen storage – C. Marino C., A. Nucara, M. Pietrafesa, V. Varano

103 - 3D Finite Element Model of Blast Loading on Road Tunnel - M. Buonsanti, G. Leonardi, D. Lo Bosco, F. Suraci

109 - Multistage Milling and Classification for Improving both Pellet Quality and Biogas Production from Hazelnut and Olive Pruning - P. Dell’Omo, P. Costa, S. La Froscia

110 - Enhancing Anaerobic Digestion of Wheat Straw through Multistage Milling - P. Dell’Omo, S. La Froscia

114 - Impact of the utilization of heat pumps for buildings heating in the Italian power market - S. Abd Alla, V. Bianco, L.A. Tagliafico, F. Scarpa

115 - Evaluation of the direct and diffused component of solar radiation starting from global radiation measurements - C. Marino, A. Nucara, M. Pietrafesa

121 - Energy savings in transportation: setting up an innovative SHM method - R. Fedele, F. G. Praticò, R. Carotenuto, F. G. Della Corte

122 - Energy harvesting from solar and permeable pavements: a feasibility study - D. Vizzari, P. Puntorieri, F. Praticò, V. Fiamma, G. Barbaro

10:30 – 11:00

Awards ceremony

Aula Magna

11:00 – 11:15

Coffee break

Coffing Club Ingegneria

11:15

Transfer to Messina

13:30 – 15:30

Closing Buffet

Messina

16:00

Transfer to Reggio Calabria

Friday, June 15th, 21:00

Social Dinner

L'A Gourmet L'Accademia

Via Largo Cristoforo Colombo, 6, 89125 Reggio Calabria RC

