77° CONGRESSO NAZIONALE ATI - BARI - 12 - 14 Settembre 2022 LA SFIDA PER IL NUOVO MODELLO ENERGETICO NAZIONALE TRA DECARBONIZZAZIONE, COMUNITÀ ENERGETICHE E DIVERSIFICAZIONE DELLE FONTI DI ENERGIA

POLITECNICO DI BARI

https://goo.gl/maps/hyWXRNSyZzLVVSyPA

PROGRAMMA

LUNEDI 12 Settembre 2022 - POLITECNICO DI BARI

11.00 - 12.00	Consiglio Generale ATI
12.00 - 13.00	Assemblea Generale ATI
16.00 - 20.00	Cerimonia inaugulare (si veda programma dettagliato Opening Session)

MARTEDI 13 Settembre 2022 - POLITECNICO DI BARI

08.30 - 10.30	SESSIONI SCIENTIFICHE SESSIONE AZIENDALE/INDUSTRIALE ENERGIA E AGRICOLTURA	EXPOSITION AZIENDE POSTER
10.30 - 11.00	Coffee Break	
11.00 - 13.00	SESSIONI SCIENTIFICHE SESSIONE AZIENDALE/INDUSTRIALE 11.00-12.30 COMUNITA' ED EFFICIENZA ENERG.	EXPOSITION AZIENDE POSTER
13.00 - 14.30	Light Lunch	
14.30 - 16.30	SESSIONI SCIENTIFICHE SESSIONE AZIENDALE/INDUSTRIALE KeyNote: La Decarbonizzazione dei Grandi Impianti Industriali - Acciaierie d'Italia Alessandro Lazari Senior Key Account Manager F24 AG - La sicurezza delle infrastrutture critiche energetiche tra protezione, resilienza e climate change	EXPOSITION AZIENDE

15.30 - 18.30	Giunta della Associazione della Fisica Tecnica Italiana	POSTER
16.30 - 17.00	Coffee Break	
17.00 - 19.00	SESSIONI SCIENTIFICHE	EXPOSITION AZIENDE POSTER
21.00 - 23.00	**ATI Event Dinner**	

MERCOLEDI 14 Settembre 2022 - POLITECNICO DI BARI

08.30 - 10.30	**ASSEMBLEA Associazione Italiana delle Macchine a fluido e dei Sistemi per l'Energia e l'Ambiente** SESSIONI SCIENTIFICHE	EXPOSITION AZIENDE POSTER
10.30 - 11.00	Coffee Break	
11.00 - 13.00	SESSIONI SCIENTIFICHE **PREMIAZIONI**	EXPOSITION AZIENDE POSTER

SESSIONI TECNICO-SCIENTIFICHE

Martedì 13 settembre - Aula 1

8.30-10.30 - Energia e Agricoltura - chairman RICCARDO AMIRANTE	
orario	**titolo**
8.30	**Introduzione e saluti** Dr. Beppe Bratta - Presidente Distretto La Nuova Energia
8.35	**Il nuovo regolamento operativo GSE " parco agrisolare"** Dr. Nicola Danza - Vice Presidente Distretto La Nuova Energia
8.50	**Energy storage in Horizon Europe: support opportunities from European Innovation Council and the role of programme managers** Prof. Marco Antonio Pantaleo - Università degli studi di Bari Programme manager for energy systems, European innovation Council, European Commission
9.10	**Gli impianti per la produzione di energia per comparto agricolo** Ing. Vincenzo Loverre - Politecnico Bari

9.30	**Le difficoltà del comparto olivicolo a seguito della crisi del mercato dell'energia** Stefano Caroli - Presidente A.F.P
9.50	**Ottimizzazione delle tariffe per l'energia** Dott. Enrico Belletti - CEO Sinergia Consulting
10.10	**Nutrire la terra, per curare l'ambiente** Leonardo Delle Foglie - CEO Tersan Puglia Spa

11.00-13.00 - Comunità ed efficienza energetica - chairman GIUSEPPE STARACE	
orario	**titolo**
11.00	**Evoluzione normativa e opportunità delle CER** Avv. Angelica Cistulli - Dirigente Responsabile Regione Puglia Sezione Transizione Energetica
11.20	**L'efficienza energetica in ambito residenziale** Ing. Arcangelo Tarantino - EGE
11.40	**Comunità Energetiche Opportunità e tecnologie** Ing. Antonio Sacchetti - CEO TERA
12.00	**Solare termico e relative opportunità** Mario Gianelli - CEO CMG Solari
12.20	**Comunità energetiche rinnovabili: procedure attuative e casi pratici** Dott. Luca Calogiuri - Direttore Commerciale Efficientia
12.40	**Progetto Comunità Energetiche dei Comuni dei Monti Dauni** Daniele Borrelli - Direttore GAL Meridaunia

14.30-16.30 - La Decarbonizzazione dei Grandi Impianti Industriali - Acciaierie d'Italia - chairman ANTONIO FICARELLA	
orario	**titolo**
14.30 - 15.30	**La Decarbonizzazione dei Grandi Impianti Industriali - Acciaierie d'Italia**
15.30 - 16.30	**La sicurezza delle infrastrutture critiche energetiche tra protezione, resilienza e climate change** Alessandro Lazari Senior Key Account Manager F24 AG

Martedì 13 settembre - Aula 3

8.30-10.30 - Energy storage systems - chairman MICHELE BIANCHI

orario	titolo	relatore
8.30	ACAES systems to enhance the self-consumption rate of renewable electricity in sustainable energy communities	Davide Micheletto
8.50	Comunità energetiche tra opportunità e problemi civilistici e fiscali	Pietro Bonello
9.10	Design and partial-load operation of a reversible Solid Oxide Cell system with molten salts thermal storage	Marco Ficili
9.30	Numerical analysis of the thermal energy storage in cellular structures filled with phase-change material	Carlo Nonino
9.50	Numerical study of shell and tube latent thermal energy storage partially filled with metal foam and corrugated internal tube with external heat losses	Oronzio Manca
10.10	Thermo-physical properties of paraffin wax with iron oxide nanoparticles as phase change material for heat storage applications	Meriem Jebali

11.00-13.00 - Hydrogen and new fuels - chairman PIETRO DE PALMA		
orario	**titolo**	**relatore**
11.00	Advances in 1D thermo-fluid dynamic simulation of SI hydrogen-fueled engine	Andrea Massimo Marinoni
11.20	Alternative fuels for hard-to-abate sectors: a carbon intensity assessment	Matteo Prussi
11.40	Ammonia as a fuel for internal combustion engines: latest advances and future challenges	Giuseppe Langella
12.00	Analysis and performance assessment of the use of ammonia based nanoadditive for lean combustion	Antonio Ficarella
12.20	CFD simulations of under-expanded hydrogen jets under high-pressure injection conditions	Faniry Nadia Zazaravaka Rahantamialisoa
12.40	Design and experimental set-up of hydrogen based microgrid characterization of components and control system development	Carmine Cava

14.30-16.30 - Hydrogen and new fuels - chairman MARCO TORRESI		
orario	**titolo**	**relatore**
14.30	Development of a novel CO2 splitting fixed-bed reactor based on copper-doped cerium oxide	Arturo De Risi
14.50	Economic-Comparative Study for Carbon Neutrality During Ships Docking and in Port Operations: A Path Towards Maritime Sector Decarbonization	Simona Di Micco

15.10	Electrochemical Impedance Spectroscopy study on ammonia-fed Solid Oxide Fuel Cells	Giovanni Cinti
15.30	Fuels systems and components for future airliners fuelled with liquid hydrogen	Paolo Tamburrano
15.50	Hybrid Hydrogen production: Application of CO2 heat pump for the high-temperature water electrolysis process	Ali Mojtahed
16.10	Hydrogen production from low-quality water: challenges and perspectives	Arianna Baldinelli

17.00-19.00 - Hydrogen and new fuels - chairman ARTURO DE RISI		
orario	**titolo**	**relatore**
17.00	Life Cycle Analysis of a Hydrogen Valley with multiple end-users	Giulia Concas
17.20	Numerical characterization of hydrogen under-expanded jets: influence of the nozzle cross-section shape	Giuseppe Anaclerio
17.40	Optimized size and schedule of the power-to-hydrogen system connected to a hydrogen refuelling station for waste transportation vehicles in Valle Camonica	Ferdinando Vincenti
18.00	Process Design and Techno-Economic Assessment of biogenic CO2 Hydrogenation-to-Methanol with innovative catalyst	Giorgia Lombardelli
18.20	Techno-economic assessment of enhanced Biogas&Power-to-SNG processes with high-temperature electrolysis integration	Paolo Colbertaldo
18.40	Thermodynamic analysis of a small-scale biomethane liquefaction process	Mario Fedele

Martedì 13 settembre - Aula 5

8.30-10.30 - Sustainable energy generation systems - chairman MARCO TORRESI		
orario	**titolo**	**relatore**
8.30	Application of an overset grid method for the performance analysis of flapping airfoils	Lorenzo Pinelli
8.50	Biomass oxy-CO2 gasification process for bio-methane production: an experimental and numerical activity	Giacomo Flori
9.10	Bypass Control strategy of a Pump as Turbine in a Water Distribution Network for energy recovery	Domenico Filannino
9.30	Definition of the induction time for CO2 and CH4 hydrate via evaluation of the heat released during the process and the gas consumption rate.	Alberto Gambelli
9.50	Derivation of Met-Ocean Conditions for the Simulation of Floating Wind Turbines: a European case study	Francesco Papi

10.10	Development of a Test Bench for Biogas-fueled Internal Combustion Engines Working in Cogeneration Mode for Residential Applications	Maria Alessandra Ancona

11.00-13.00 - Sustainable energy generation systems - chairman ADOLFO SENATORE		
orario	**titolo**	**relatore**
11.00	Effects of low-grade gas composition on the energy/exergy performance of a polygeneration system (CH2HP) based on biomass gasification and ICE	Antonio Caricato
11.20	Experimental and numerical investigation of a micro-ORC system for heat recovery from data centers	Saverio Ottaviano
11.40	Experimental characterization of a solar-powered ORC-based plant for micro-cogeneration in domestic applications	Marco Di Bartolomeo
12.00	Experimental investigation of bladeless expander with an incompressible fluid	Alberto Traverso
12.20	How to extrapolate 3D aerodynamic coefficients from HAWT CFD simulations: an inverse BEM approach	Stefano Mauro
12.40	How to Increase Savonius Power Coefficient: Ducted Rotor Performance with Different Overlap Ratios	Sebastian Brusca

14.30-16.30 - Sustainable energy generation systems - chairman SERGIO MARIO CAMPOREALE		
orario	**titolo**	**relatore**
14.30	Integrated ORC-SOEC system for green hydrogen production from incineration of solid fuels	Mattia Baiguini
14.50	Model and transient Control strategy design of an Organic Rankine Cycle Plant for waste heat recovery of an Internal Combustion Engine	Raffaele Iossa
15.10	Optimization of Solar District Heating & Cooling Systems	giovanni brumana
15.30	Performance analysis of a bio-diesel fired engine bottoming with micro-ORC	Luigi Falbo
15.50	Pressurised Chemical Looping Combustion (PCLC) Combustor coupled with a turbo expander: designing principles of the air reactor	Pietro Bartocci
16.10	Re-Powering Italian Wind Farms: a Feasibility Study from Theory to Practice	Pier Francesco Melani

17.00-18.20 - Sustainable energy generation systems - chairman MASSIMO MILANI		
orario	**titolo**	**relatore**

17.00	Re-Powering Italian Wind Farms: a Feasibility Study from Theory to Practice	Pier Francesco Melani
17.20	Sustainable opportunities to recover power plants' waste heat: a benchmark of techno-economically optimized heat pumps	Alberto Vannoni
17.40	Techno-economic assessment of small-scale solar tower plants with modular billboard receivers and innovative power cycles	Ettore Morosini
18.00	Understanding the near and post-stall behavior of wind turbine blade airfoils through multi-fidelity CFD simulations: the case of S809 airfoil	Simone Giaccherini

Martedì 13 settembre - Aula 7

9.10-10.30 - Turbomachines - chairman STEFANIA CHERUBINI		
orario	**titolo**	**relatore**
9.10	A Study on Accounting for Drift Velocities on Liquid Jets Injected in Cross Flow	Nasrin Sahranavardfard
9.30	Analysis of satellite-derived data for the study of fouling in aircraft engines	Nicola Zanini
9.50	Experimental analysis of speed control strategies to improve the overall efficiency of a Wells turbine	Fabio Licheri
10.10	Experimental evaluation of isentropic efficiency in turbocharger twin-entry turbines	Vittorio Usai

11.00-12.20 - Turbomachines - chairman FRANCO RISPOLI		
orario	**titolo**	**relatore**
11.00	How incoming turbulence affects wake recovery of an NREL-5MW wind turbine	Stefania Cherubini
11.20	Influence of the Trigger Time Window on the Detection of Gas Turbine Trip	Enzo Losi
11.40	Liquid film formation: prediction accuracy of different numerical approaches	Giuliano Agati
12.00	Towards a low-noise axial fan for automotive applications	Nicola Casari

14.30-16.30 -		
orario	**titolo**	**relatore**
14.30	A Lumped Parameter and CFD Combined Approach for the Lubrication Analysis of a Helical Gear Transmission	Giovanni Paini
14.50	An Alternative Solution for Microfluidic Chip Fabrication	Alice Betti
15.10	Design procedures for hybrid hydromechanical transmissions	Alarico Macor

15.30	Detailed CFD transient heat transfer modelling in a brake friction system	Francesco Orlandi
15.50	Detailed simulations of a aircraft fuel system by means of Simulink	Francesco Sciatti
16.10	Downsizing the Electric Machines of Energy-Efficient Electro-Hydraulic Drives for Mobile Hydraulics	Damiano Padovani

17.00-17.20 - Hydraulics, pneumatics and drive systems - chairman ADOLFO SENATORE		
orario	**titolo**	**relatore**
17.00	Performance Assessment of Hydraulic Micro Relief Valve	Edoardo Frattini

Martedì 13 settembre - Aula 9

8.30-10.30 - Propulsion systems and sustainable mobility - chairman LORENZO DAMBROSIO		
orario	**titolo**	**relatore**
8.30	1D/3D simulation procedure to investigate the potential of a lean burn hydrogen fuelled engine	Luigi Teodosio
8.50	3D CFD analysis of Mixture Formation in Direct-Injection Hydrogen-fueled Internal Combustion Engines	Giuseppe Anaclerio
9.10	A methodology to initialize tumble flow fields for fast 3D-CFD simulations of pent-roof SI engines	Federico Ramognino
9.30	Accelerometer-based SOC estimation methodology for combustion control applied to Gasoline Compression I gnition	Davide Moro
9.50	Application of a one-dimensional fuel-oil dilution model coupled with an empirical droplet-to-film formation strategy for predicting in-cylinder oil effects in a direct injection engineEdoardo	Edoardo De Renzis
10.10	Batteries Thermal Management for Hybrid plug-in Powertrains	Diego Perrone

11.00-13.00 - Propulsion systems and sustainable mobility - Chairman ELIA DISTASO		
orario	**titolo**	**relatore**
11.00	CFD simulation of water droplet adhesion on the GDL of a low temperature PEM FC in air cross-flow conditions	Adrian Irimescu
11.20	Comparison on the energy absorbed of volumetric and centrifugal pumps for automotive engine cooling	Giammarco Di Giovine
11.40	CFD investigation of the radiative heat transfer effects on the adoption of an electrical heated catalyst to increase the abatement efficiency	Loris Barillari

12.00	Conceptual design and sizing optimization based on minimum energy consumption of lift-cruise type eVTOL aircraft powered by battery and fuel cell for urban air mobility	Teresa Donateo
12.20	Dynamic model of a Hybrid Electric Propulsive System for degradation assessment	Ludovica Spada Chiodo
12.40	Effect of coil charge duration on combustion variability and flame morphology in a GDI engine working in lean burn conditions	Giovanni Cecere

14.30-16.30 - Propulsion systems and sustainable mobility - chairman TERESA DONATEO		
orario	**titolo**	**relatore**
14.30	Feed-Forward Neural Network for health monitoring of a parallel hybrid electric power system	Maria Grazia De Giorgi
14.50	Highlighting the Role of Lubricant Oil in the Development of Hydrogen Internal Combustion Engines by means of a Kinetic Reaction Model	Giuseppe Calò
15.10	Hydrogen Fuel Cell Hybrid Electric Vehicles: the Impact of Commercial Vehicle Fleets on the Penetration of Renewable Energy Sources	Edoardo Cennamo
15.30	Model Parameterized Assessment of a Thermal Storage Unit for Engine Oil Warm-up Improvement	Davide Di Battista
15.50	Model-based optimization of Sliding Rotary Vane Pump for internal combustion engine cooling of heavy-duty vehicles	Fabio Fatigati
16.10	Modeling and design optimization of a hybrid power generator for full-electric naval propulsion	Gianmarco Saponaro

17.00-18.40 - Propulsion systems and sustainable mobility - Chairman IVAN ARSIE		
orario	**titolo**	**relatore**
17.00	Numerical analysis of energy recovery system for turbocharged internal combustion engines via a parallel compounding turbine	Marco Antonelli
17.20	On Iso-octane Combustion with Ozone Addition under HCCI Engine-Like Conditions	Marco D'Amato
17.40	Predictive Model of Cooling System for Railway Electric Propulsion: Validation of Design Choices and Last Mile Analysis	Raffaele De Rosa
18.00	Towards the development of smart weather routing systems for leisure planing boats	Marco Ciampolini
18.20	Numerical simulation of the HyShot II hydrogen combustor for hypersonic propulsion	Elia Distaso
18.40	Influence of the energy management system control strategies on the battery state of health in hybrid electric vehicles	Umberto Previti

Martedì 13 settembre - Aula 11

9.10-10.30 - Smart Energy Systems and Smart Grid - chairman ANTONIO FICARELLA		
orario	**titolo**	**relatore**
9.10	The State Of The Electrical Sector In Western Balkan Countries. Case Study: Republic Of Kosovo	Luca Rubini
9.30	Data-driven modelling for gas consumption prediction at City Gate Stations	Lapo Cheli
9.50	Synergy between Cities and surrounding territory to achieve the international agreements on energy and CO2 reduction. The Municipality of Avezzano in the Abruzzo Region (Italy) case.	Davide Di Battista
10.10	Using Life Cycle Assessment in tenders to enhance the sustainable procurement of External Thermal Insulation Composite Systems	Alessandro Cardarelli

11.00-12.20 - Smart Energy Systems and Smart Grid - PIER RUGGERO SPINA		
orario	**titolo**	**relatore**
11.00	Fault Diagnosis In District Heating Networks	Pier Ruggero Spina
11.20	LNG in ports: a novel integrated energy recovery system	Corrado Schenone
11.40	Using neural networks to predict hourly energy consumptions in office and industrial buildings as a function of weather data	Francesco Martellotta
12.00	How Power-to-Gas strategy could reduce national Natural Gas consumption over the energy crisis period	Ali Mojtahed

Martedì 13 settembre - Sala Riunuoni Dip. DMMM Piano 1

15.30-16.30 - Giunta Fisica Tecnica		
orario	**titolo**	**relatore**
15.30	Giunta Fisica Tecnica	
15.50	Giunta Fisica Tecnica	
16.10	Giunta Fisica Tecnica	

17.00-19.00 - Giunta Fisica Tecnica		
orario	**titolo**	**relatore**
17.00	Giunta Fisica Tecnica	
17.20	Giunta Fisica Tecnica	

17.40	Giunta Fisica Tecnica	
18.00	Giunta Fisica Tecnica	
18.20	Giunta Fisica Tecnica	
18.40	Giunta Fisica Tecnica	

Mercoledì 14 settembre - Aula Virtuale

8.50-10.50 - Aula Virtuale - chairman UMBERTO BERARDI		
orario	**titolo**	**relatore**
8.50	The Thermal Network Approach to Model Occupants' Heat and CO2 Generation Interactions: A Case Study in an Office Building in Panama	Jinela González
9.10	Optimal Hybrid Ventilation Strategy to Assure Adequate Indoor Thermal Comfort and Air Quality in Educational Spaces under a Tropical Climate	María Cedeño
9.30	Data Driven Disaggregation Method for Electricity Based Energy Consumption for Smart Homes	Asad Hussain
9.50	Decision-Making Approach based on Multi-objective Optimization to Achieve Net-Zero Energy Neighborhoods through Retrofit in a Tropical Climate	Katherine Chung
10.10	Energy and Environmental Refurbishment of the Hygiene Institute within the Sapienza University of Rome campus	Giada Romano
10.20	Comparison of different heating generator systems to reduce energy consumption in social housing in a Mediterranean climate	Miriam Di Matteo
10.30	Assessment of closed cycles operating with supercritical CO2 as bottoming of small combustion turbines	Elham Akramieh

11.00-12.40 - Aula Virtuale - chairman PAOLO TAMBURRANO		
orario	**titolo**	**relatore**
11.00	Transformation of a historical building into a Nearly Zero Energy Building (nZEB)	Giada Romano
11.20	Energy Storage System based on Biomimetic Strategies: Concept Design and Performance Assessment in Buildings	Alisson Dodón
11.40	The pyrolysis and gasification pathways of automotive shredder residue targeting the production of fuels and chemicals	Giovanni Manente

12.00	1D-3D coupled approach for the evaluation of the in-cylinder conditions for Gasoline Compression Ignition Combustion	Davide Viscione
12.20	A preliminary computational analysis towards the use of Electrically Heated Mixing Catalyst for innovative SCR after-treatment systems	Andrea Vespertini

Mercoledì 14 settembre - Aula 5

8.30-10.10 - Refrigeration, heat pumps and Energy and systems for IAQ - chairman GIUSEPPE STARACE		
orario	**titolo**	**relatore**
8.30	Influence of the ventilation strategy on the respiratory droplets dispersion inside a coach bus: CFD approach	Giulia Parlani
8.50	Assessment of a desiccant cooling system in a traditional and innovative nanofluid HVAC system	Brenda Raho
9.10	Butane-based heat pump for advanced GTCC applications: static and dynamic model validation	Luca Mantelli
9.30	New Experimental Vapor-Liquid Equilibria Data and Thermodynamic Modelling for R1234yf/propane/R32 as low-GWP Mixtures in Heat Pump Applications	Manuele Gatti
9.50	The comparative analysis of the R290 heat pump system working with standard expansion valve and two-phase ejector	Rafal Fingas

Mercoledì 14 settembre - Aula 9

8.30-9.30 - Energy efficiency and dynamic simulation in buildings - chairman UMBERTO BERARDI		
orario	**titolo**	**relatore**
8.30	A comparison between new European technical standards and dynamic simulation tools for chiller modelling	Franz Bianco Mauthe Degerfeld
8.50	A Methodology to identify appropriate refurbishment strategies towards zero energy buildings in a hot and humid climate	Cristina Carpino
9.10	Data driven Fault detection and diagnostics for Hydronic and monitoring systems in a residential building	Mohammad Abdollah Fadel Abdollah

11.00-12.20 - Energy efficiency and dynamic simulation in buildings - chairman GIAMPIERO COLANGELO		
orario	**titolo**	**relatore**
11.00	Energy Performance of Annual Operation of Heat Pump Coupled with Ground Ice Storage and Photovoltaic/Thermal modules	Marco Noro

11.20	Hygrothermal evaluation of sustainable insulating panels	Stefania Liuzzi
11.40	Thermal and acoustic performance of additive aerogel-clay bricks	Francesco Spaccini
12.00	Use of sustainable Phase Change Material (PCM) in mortars for building energy efficiency	Antonella Sarcinella

Mercoledì 14 settembre - Aula 11

9.00-10.20 - Efficiency in energy use and application processes in the circular economy - chairman FRANCESCO MARTELLOTTA		
orario	**titolo**	**relatore**
9:00	Social impact assessment of wind power generation. An innovative method for decision making processes.	Valeria Fois
9:20	State of the art of evapotranspiration models for plant cultivation in open fields, greenhouse systems and plant factories	Alice Arcasi
9.40	Investigation of the effects of gas recycle for increasing methanol production and carbon dioxide reduction on the environment using dynamic simulation	Maryam Ebrahimzadeh Sarvestani
10.00	Life cycle analysis of the thermodynamic and environmental sustainability of a cogeneration system based on residual biomass gasification	Mauro Prestipino

11.00-11.40 - Innovation in heat transfer issues - chairman NICOLA CARDINALE		
orario	**titolo**	**relatore**
11.00	Experimental and numerical analysis of the convective flow induced over a dry-ice bank with Particle Image Velocimetry	Matteo Vitali
11.20	Improvements to the hybrid method applied to the design of plate-finned tube evaporators	Silvia Macchitella

Mercoledì 14 settembre - Aula Magna Domus Sapientae Dip. Dicar

8.30-10.30 - Assemblea AIMSEA	
orario	**titolo**
8.30	Assemblea AIMSEA
8.50	Assemblea AIMSEA
9.10	Assemblea AIMSEA
9.30	Assemblea AIMSEA
9.50	Assemblea AIMSEA

10.10	Assemblea AIMSEA

11.00-12.20 - Premiazione	
orario	**titolo**
11.00	Premiazione
11.20	Premiazione
11.40	Premiazione
12.00	Premiazione

Sessione Poster

Energy audit of 1900s buildings for sustainable renovation
Nicola Cardinale, Valeria Selicati, Elisabetta Negro
Techno-economic analysis of alternative energy communities scenarios in small mountain localities in South Italy. A case study.
Daniela Cirone, Roberto Bruno, Piero Bevilacqua, Stefania Perrella, Natale Arcuri
A novel plant configuration for solar-assisted heat pumps in cold climates: energy evaluations
Stefania Perrella, Roberto Bruno, Piero Bevilacqua, Daniela Cirone, Natale Arcuri
Decarbonization of the heating sector from a system point of view: the case study of the Lombardy Region.
Marianna Pozzi, Giuseppe Muliere, Francesco Mezzera, Fabrizio Fattori, Alice Denarie, Mario Motta, Livio Mazzarella
Accuracy Assessment of the Eulerian Two-phase Model for the CFD Simulation of Gas Bubbles Dynamics in Alkaline Electrolyzers
Marco Dreoni, Francesco Balduzzi, Giovanni Ferrara, Alessandro Bianchini
Techno-economic study on green hydrogen production and use in hard-to-abate industrial sectors
Francesco Superchi, Alessandro Mati, Mattia Pasqui, Carlo Carcasci, Alessandro Bianchini
Fluid dynamic analysis of a cryogenic piston pump
Stefano Cioni, Francesco Balduzzi, Luca Romani, Alessandro Bianchini, Giovanni Ferrara
Hybrid Propulsion for Motorcycle Application to Reduce Engine-out Emissions: An Analytical-Experimental Investigation
Paolo Iodice, Enrico Fornaro, Massimo Cardone
In-Cylinder Pressure Estimation in a Multi-Cylinder Engine by Combining the Instantaneous Crankshaft Speed Data and a 0D Thermodynamic Model.
Iacopo Catalani, Lorenzo Bosi, Alberto Baroni, Luca Romani, Giovanni Vichi, Alessandro Bellissima, Go Asai, Ryota Minamino, Giovanni Ferrara
Real Time Estimation of Combustion Indicators on a 4 Cylinder CI Turbocharged Engine Based on Instantaneous Engine Speed Measurement with Rapid

Lorenzo Bosi, Iacopo Catalani, Alberto Baroni, Luca Romani, Giovanni Vichi, Alessandro Bellissima, Go Asai, Ryota Minamino, Giovanni Ferrara

Dynamic modelling of a dual-source heat pump system through a Simulink tool

Christian Natale, Claudia Naldi, Matteo Dongellini, Gianluca Morini

Design Loads in Small Wind Turbines: a Detailed Comparison Between Pitch and Stall Regulation

Francesco Papi, Leonardo Pagamonci, Alessandro Bianchini

PV-based hybrid residential microgrid with hydrogen and battery energy storage options

Antonello Damato, Antonio Ferraro, Mario Iamarino, Antonio D'Angola

Tuning the Discrete Wavelet Transform for Power Smoothing of Wind Turbines

Alessandro Bianchini

Three-dimensional unsteady analysis of a miniaturized pressure probe for turbocharger applications

Rodolfo Bontempo, Enrico Marco Di Marzo, Marcello Manna, Michelangelo Napolitano

Thermodynamic Analysis of a Parabolic Trough Collector (PTC) operating with gas-phase nanofluids

Jessica Settino, Vittorio Ferraro, Cristina Carpino, Valerio Marinelli

Performance and Emissions Comparison between Biomethane and Natural Gas Fuel in Passenger Vehicles: results of the third testing campaign

Fabio Cignini, Fernando Ortenzi, Antonino Genovese, Stefano Valentini, Alberto Caprioli

Effect of nanofluid on a Low-enthalpy geothermal plant

Bernardo Buonomo, Sergio Nardini, Vincenza Ciccarelli, Oronzio Manca, Renato Elpidio Plomitallo

Assessment of closed cycles operating with supercritical CO2 as bottoming of small combustion turbines

Riccardo Casadei, Marco Lorenzini, Daniele Fattini, Paolo Valdiserri

numerical investigation on a thermoelectric generator in an exhaust automotive line with convergent metal foam

Bernardo Buonomo, Oronzio Manca, Furio Cascetta, Anna di Pasqua

Thermal control of lithium-ion batteries for electric cars by metal foam partially filled with Phase Change Material

Bernardo Buonomo, Oronzio Manca, Ferdinando Menale, Sergio Nardini

Numerical Investigation on the Effects of the Setting of the Load Control System of a Formula SAE Single-Cylinder Turbocharged Engine on Fuel Efficiency and Performance

Sandro Raspanti, Marco Ciampolini, Simone Bigalli, Alessio Fabia, Luca Romani, Giovanni Ferrara

Exergo-economic and exergo-environmental analysis of a binary geothermal power plant with solar boosting

Emanuele Giusti, Pietro Ungar, Lorenzo Ciappi, Claudio Zuffi, Daniele Fiaschi, Giampaolo Manfrida, Lorenzo Talluri

Re-designing District Heating networks through innovative CO2 solutions

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Heat transfer effect on experimental maps of automotive compressor

Vittorio Usai, Carla Cordalonga, Silvia Marelli

An investigation on the intake process of a four-stroke spark ignition engine for aircraft applications

F. Anaclerio, A. Viggiano, F. Fornarelli, V. Magi, P. Caso, M. Simonetti, D. Sparaco