CONFERENCE PROGRAM

Time	SUNDAY, 19.6.2016
13:00 - 15:30	**Registration**
16:00 - 16:10	**Bus Departure from the Hotel Vile Park** (200 m from Grand Hotel Bernardin, 50 m from Hotel Histrion)
17:00 - 21:30	**ECOS Welcome Reception and the 40th Anniversary of the Int.Journal Energy** (Postojna Cave)
21:30 - 22:40	**Arrival to the Hotel Vile Park**

Time	MONDAY, 20.6.2016				
08:00 - 09:30	**Registration**				
09:30 - 10:15	**Opening ceremony** (Emerald Ballroom)				
10:20 - 12:20	**Plenary Lectures** (Emerald Ballroom) **Matija Tuma:** *Prof. Dr. Zoran Rant* **Osamu Motojima**: *The Role of Fusion Energy in the Future Energy Mix for the Sustainable Development of the World*				
12:30-14:00	**Lunch Break**				
14:00-14:50	**Keynote Lecture** (Emerald 1) **Henrik Lund:** *Smart Heat Europe - The design of smart heating as part of future Sustainable Energy Solutions*				
	EMERALD 1	**EMERALD 2**	**MEDITERANEA 1**	**ADRIA 1**	**ADRIA 2**
15:00-16:20	**ORC**	**Refrigeration & air conditioning; Heat pumps**	**District energy systems & Smart Cities**	**Process integration, simulation & optimization of energy systems**	**Engines, furnaces & boilers, combustion/gasification**
	Carlo Francesco Palumbo: *Design and CFD analysis of a Ljungström turbine for an ORC based Waste Heat Recovery system*	**Marija Macenić:** *Impact of borehole cement-bentonite grout's thermal conductivities on a long-term ground-source heat pump efficiency*	**Ryohei Yokoyama:** *Optimal Operation of Heat Supply Systems With Piping Network*	**Tuong-Van Nguyen:** *Thermodynamic modelling of the offshore processes for oil and gas production*	**Paul Sapin:** *Wall temperature and system mass effects in a reciprocating gas spring*
	Rémi Dickes: *ORCmKit : an open-source library for organic Rankine cycle modeling and analysis*	**Josipa Kapuralić:** *Comparing seasonal performance factor of different heat pump systems for residential HVAC in the Dfb climate area of Republic of Croatia*	**Jelena Ziemele:** *Sensitivity analysis for district heating system model for transition from fossil fuel to renewable energy sourses*	**Ryohei Yokoyama:** *Performance Comparison of Energy Supply Systems Under Uncertain Energy Demands Based on a Mixed-Integer Linear Model*	**Roberta Masci:** *An analytical thermodynamic model for gas turbine blade cooling: prediction of first stage NGV blades temperature and cooling flow-rates*
	Stephane Schuller: *Technical and economical optimization of an ORC dedicated to the production of electricity from a geothermal source using genetic algorithm*	**Philipp Mehrfeld:** *Influences on the SeasonalPerformance of Heat Pump Systems Investigated Via Dynamic Simulations*	**Tjaša Čož:** *Exergoeconomic optimization of a district cooling network*	**Hassan Harb:** *Development of grey-box models for energy management applications*	**Vladimir Stevanović:** *Dynamics of wet flue gas desulfurization in spray absorber*
	Dominik Meinel: *Flexible Two-Stage Turbine Bleeding Organic Rankine Cycle for the Simultaneous Generation of Heat and Power*	**Gerrit Bode:** *Mode and storage based control of a heat pump system with a geothermal field*	**Henrik Saxen:** *Energy efficient district heating in areas with low-energy buildings*	**Riccardo Bergamini:** *Development of Simplified Process Integration Methodologies in medium size industries*	**Tuong-Van Nguyen:** *Techno-economic analysis of gas liquefaction systems - modelling, optimisation and thermodynamic uncertainties*
16:20-16:50	**Coffee Break**				

Time	MONDAY, 20.6.2016				
	EMERALD 1	**EMERALD 2**	**MEDITERANEA 1**	**ADRIA 1**	**ADRIA 2**
16:50-18:10	**Energy and buildings**	**Refrigeration & air conditioning; Heat pumps**	**Exergy based methods and thermo-economic analysis & optimization**	**Biomass/biofuels; biorefinery concepts; waste-to-energy**	**Power generation and CHP with fossil fuels and nuclear**
	Thomas Schütz: *Clustering algorithms for the selection of typical demand days for the optimal design of building energy systems*	**Michael Noeding:** *Operation Strategy for Heat Recovery of Transcritical CO2 Refrigeration Systems with Heat Storages*	**Noam Lior** *Exergo-economic Analysis of Hybrid Power Cycles using Multiple Heat Sources of Different Temperatures*	**Malgorzata Wilk:** *Mineral phase transformation of biomass ashes – thermal analysis and FactSage calculations*	**Zygmunt Kolenda** *Thermodynamic analysis of electricty production using Hih Temperature Gas Cooled Nuclear Reactor HTGR with Additional Coolant Heating up to 1600°C.*
	Olivier Dumontu: *Economic assessment of energy storage for load shifting in Positive Energy Building*	**Adriana Reyes-Lúa:** *Optimal operation and control of vapor-compression cycles*	**Fabian Bühler** *Energy, Exergy and Advanced Exergy Analysis of a Milk Processing Factory*	**Pratham Arora:** *Greener Alternatives for Ammonia Production*	**Ligang Wang** *Multi-objective superstructure-free synthesis and optimization of thermal power plants*
	Jan Schiefelbein: *Clustering of buildings within city districts to reduce runtime for energy system placement optimization*	**Paride Gullo:** *Thermodynamic Performance Evaluation of a R744 Refrigeration System with Parallel Compression by employing the Advanced Exergy Analysis*	**Stefanie Tesch** *Exergoeconomic analysis applied to the process of regasification of LNG integrated into an air separation process*	**Ayse Dilan Celebi:** *Early-stage decision making approach for the selection of optimally integrated biorefinery processes*	**Igor Kuštrin** *Practical Approach to Optimization of Operation of Three Units in Power Plant Ljubljana*
	Henryk Wolisz: *Cost optimal dimensioning of energy system components for smart buildings considering changing end-consumer energy market models*	**Emi Matsu:** *Developed and Applied Performance Evaluation Methods of the VRF System*	**Julio Augusto Mendes da Silva**: *Allocation of waste and resources in multiproduct plants: thermoeconomics and LCA*	**Andrej Senegačnik:** *Gasification and combustion reactor geometry design of a Fast Internal Circulating Fluidized Bed Gasifier*	**Eike Mollenhauer** *Increasing the Flexibility of Combined Heat and Power Plants with Heat Pumps and Thermal Energy Storage*

Time	TUESDAY, 21.6.2016					
08:30- 09:15	**Keynote Lecture** (Emerald 1) **Gan Zhong Xue:** *A novel approach to the optimization of complex energy systems by integration of information, internet, and entropy minimization, and its practical demonstrations*					
	EMERALD 1	**EMERALD 2**	**MEDITERANEA 1**	**MEDITERANEA 2**	**ADRIA 1**	**ADRIA 2**
09:25-10:45	**ORC**	**Energy and buildings**	**Energy in transportation**	**Power generation and CHP with fossil fuels and nuclear**	**System operation, control, diagnostics & prognosis**	**Environmental, social and sustainability issues associated with energy systems, industrial production, and transportation**
	Lorenzo Tocci: *Thermodynamic and technical criteria for the optimal selection of the working fluid in a mini-ORC*	**Sanja Stevanovic:** *Search for the optimal shape of fixed external shading*	**Zlatina Dimitrova:** *Environomic design of hybrid electric vehicles*	**Jure Smrekar:** *NOx reduction and efficiency improvement of a 210 MWt coal-fired boiler with biomass co-firing*	**Christophe Weber:** *Analysis of different fouling predictive models in a Heat Exchanger from experimental data*	**Claudia Pavarini:** *Embodied energy in international trades of goods and services: an Input-Output analysis based on WIOD*
	Rodolfo Taccani: *A thermodynamic feasibility study of an Organic Rankine Cycle (ORC) for Heavy Duty Diesel Engine (HDDE) waste heat recovery in off-highway applications*	**Marc Baranski:** *An Algorithm for Stepwise Exergy-based Model Predictive Control of Building HVAC Supply Chains*	**Alice Bittante:** *Mixed integer optimization of an LNG supply chain in the Baltic Sea region*	**Turgay Koroglu:** *Performance Analysis of a Steam Power plant with district heating*	**Elfie Méchaussie:** *Methodology for streams definition in Total Site Analysis*	**Giorgio Bonamini:** *Sustainable use of energy for irrigation purposes in rural areas of developing countries*
	Alberto Benato: *Recovering gas turbine high-temperature exhaust heat using organic Rankine cycle with mixture as working fluid*	**Camelia Stanciu:** *Analysis of climatic conditions effect on heating and cooling loads for a household*	**Matteo Piacentini:** *Thermodynamic analysis and system simulation of a "optimized cascade" LNG process*	**Liqiang Duan:** *Performance study of a 1000 MW coal-fired power plant integrated with the tower solar energy collector system*	**Paolo Sementa:** *Experimental analysis of a DI Air-assisted PFI gasoline in a small engine*	**Dominik Franjo Dominković:** *A Novel Optimization Model for Sustainable Energy Supply of Local Communities*
	Steven Lecompt: *Thermo-economic optimization methodology for organic Rankine cycles*	**Valeria Strokova:** *The efficiency of using antifreezing agents in monolithic construction*	**Francesco Baldi:** *The application of process integration to the optimisation of cruise ship energy systems: a case study*	**Michalis Agraniotis:** *Modern design concepts for thermal power generation towards highest efficiency, increased utilization and reduced carbon footprint*	**Mounir Asli**: *Numerical And Experimental Investigation Of Simultaneous Heat And Mass Transfer Within Bio-Based Material*	**Lydia Stougie:** *Environmental and exergetic sustainability assessment of power generation from biomass*
10:45-11:05	**Coffee Break**					

Time	TUESDAY, 21.6.2016					
	EMERALD 1	**EMERALD 2**	**MEDITERANEA 1**	**MEDITERANEA 2**	**ADRIA 1**	**ADRIA 2**
11:05-12:45	**Refrigeration & air conditioning; Heat pumps**	**Exergy based methods and thermo-economic analysis & optimization**	**Energy Storage (thermal, electric, hydrogen, alternatives)**	**Energy policy & planning**	**Chemical reactions & reaction engineering**	**Biomass/biofuels; biorefinery concepts; waste-to-energy**
	Jose Blancarte: *Easy Advance Control for energy efficiency applied to a poultry factory*	**Enrico Sciubba:** *An Exergy Interpretation Of The Hess-Murray Law*	**Ligang Wang:** *Modeling and optimization of an integrated hydrogen generation device driven by solar energy*	**Daniel Favrat:** *The information platform energy scope.ch on energy transition*	**Daniel Florez-Orrego:** *Exergy Modeling and Optimization of An Ammonia Production Plant*	**Matteo Morandin:** *Thermochemical recycling of plastics for production of chemical intermediates a Swedish chemical complex site*
	Löffler Michael: *Transient refrigeration cycles - simulation results*	**Enrico Sciubba:** *Exergy dynamics of a sphere undergoing a non-equilibrium concentration transient*	**Nathanael Beeker:** *An optimization algorithm for load-shifting of large sets of electric hot water tanks*	**Ville Olkkonen:** *Benefits of DSM measures in the future Finnish energy system*	**Mathias Penkuhn:** *Comparison of different ammonia synthesis train configurations with the aid of advanced exergy analysis*	**Mohamed Magdeldin:** *Techno-economic assessment of hydrothermal liquefaction of lignocellulosic biomass, a Finnish case study*
	Paride Gullo: *Comparative Exergoeconomic Analysis of Various Transcritical R744 Commercial Refrigeration Systems*	**Hossein Khajeh Pour:** *Extended Exergoenvironmental Method as a Tool for Environmental Responsibility Accounting in Complex Energy Systems: Case Study of Assaluyeh*	**Adriano Sciacovelli:** *Adiabatic compressed air energy storage - a study on dynamic performance with sensible and latent thermal storage*	**Ana Cristina Ferreira:** *Emergy Evaluation of Regions and Sub-Regions: Application to Portugal*	**Zornitza Kirova-Yordanova:** *Exergy-Based Estimation and Comparison of Urea and Ammonium Nitrate Production Efficiency and Environmental Impact*	**Assaad Zoughaib:** *Multi-objective optimization of H2 and heat generation from waste wood*
	Elie Keryakos: *Modeling of Frost Growth and Evaporation of Refrigerant Blends in a Fin-and-Tube Heat Exchanger*	**Young Duk Lee:** *Exergetic and exergoeconomic evaluation of a SOFC/engine hybrid power generation system*	**Alexander Studniorz:** *Active PCM cold storage in off grid telecommunication base stations- potential assessment of primary energy savings*	**Jakob Kopiske:** *Power plant flexibility and the value of flexibility in power systems with high shares of variable renewables: a scenario outlook for Germany in 2035*	**Francesco Desogus:** *Design of a chemical reactor under microwave irradiation in resonance conditions*	**Danahe Marmolejo-Correa:** *Advances on Exergy Targeting of a Biofuel Plant*
	Emi Matsu: *Developed and Applied Performance Evaluation Methods of the VRF System*	**Waldyr Gallo:** *Exergy assessment of the compression systems and its prime movers for a FPSO unit*	**Alberto Benato:** *Economic and energy analysis of a Thermal Energy Storage power system*	**Paula Ferreira:** *Electricity planning in Algeria*	**Marco A. Barranco-Jiménez:** *Thermoeconomic optimization for an endoreversible chemical engine model*	
12:45-14:00	**Lunch Break**					

Time	TUESDAY, 21.6.2016				
14:00- 14:45	**Keynote Lecture** (Emerald 1) **Christian Bahl:** *Trends And Frontiers In Solid State Energy Conversion - Materials And Technologies*				
	EMERALD 1	**EMERALD 2**	**MEDITERANEA 1**	**ADRIA 1**	**ADRIA 2**
14:55-16:15	**Refrigeration & air conditioning; Heat pumps**	**Energy and buildings**	**Power generation and CHP with RENEWABLES and WASTE**	**Energy policy & planning**	**Energy in transportation**
	Tsuyoshi Kawanami: *Performance Analysis of Magnetocaloric Heat Pump with Manganese-Based Compounds as a Magnetic Refrigerant*	**Gerardo Maria Mauro:** *Cost-optimal building thermal design in presence of multi-objective model predictive control for energy systems*	**Fabio Schiro:** *Stationary and transient models of a cooling system for improving the performances of a PV field*	**Sylvain Quoilin:** *Techno-economic evaluation of PV/battery systems in different EU countries under different self-consumption regulation schemes*	**Juliano Noetzold:** *Experimental Analysis of the Automotive Air Conditioning for Off-Road Agricultural Vehicles*
	Shigeki Hirano: *Three Dimensional Molding of Manganese Related Magneto Caloric Material by use of Selective Laser Sintering Machine*	**Gerardo Maria Mauro:** *From a hospital Reference Building to all represented healthcare facilities: A new approach to assess energy performance and retrofit potentials*	**David MacPhee:** *Flexible Blade Design for Horizontal Axis Wind Turbines*	**Nasibeh Pouransari:** *Energy policy in Switzerland: energy strategy programs of the canton of Vaud*	**William David Valencia:** *Measurement and comparison of index of deterioration of two catalysts used with ethanol-gasoline blends (E10 and E20)*
	Tian Lei: *Optimization of Multi-layer Active Magnetic Regenerator towards Compact and Efficient Refrigeration*	**Akira Yoshida:** *A Comparison of Operational Planning Method for Home Energy Management System under Uncertainty*	**Ana Cristina Ferreira:** *Thermal-economic design of a solar dish Stirling cogeneration system using a multi-objective optimization approach*	**Imran Shabbir:** *Energy benchmarking as an energy efficiency tool: Case study on energy improvement potentials of Pakistan's Paper sector through energy benchmarking*	**Mikhail Sorin:** *Waste heat recovery and transport systems: thermodynamic and economic evaluation*
	U.Tomc, U.Plaznik, J.Tusek: *Caloric refrigeration and heat pumping at the University of Ljubljana*	**Johannes Fütterer:** *Simulation-based assessment of an easy-to-apply, automated tuning method for HVAC and building energy systems*	**Chantal Maatouk:** *Modeling and Parametric Analysis of a Waste –to-Energy Facilities performance for electrical energy production*	**Maike Hennen:** *How to Explore and Analyze the Decision Space in the Synthesis of Energy Supply Systems.*	
16:15-16:35	**Cofee Break**				

Time	TUESDAY, 21.6.2016					
	EMERALD 1	**EMERALD 2**	**MEDITERANEA 1**	**MEDITERANEA 2**	**ADRIA 1**	**ADRIA 2**
16:35-17:55	**Refrigeration & air conditioning; Heat pumps**	**Exergy based methods and thermo-economic analysis & optimization**	**Engines, furnaces & boilers, combustion/gasification**	**District energy systems & Smart Cities**	**Combined Energy & water interactions, use of water resources + Advanced fossil energy: clean coal, oil, natural gas, carbon dioxide capture, utilization & storage**	**Energy and transportation**
	Noé Demesa: *Efficient waste heat recovery in a cryogenic distillation air separation plant using heat pumps*	**Alencar Migliavacca:** *Exergy Analysis Applied To Aviaries For Broiler Production In Brazil*	**Asfaw Beyene:** *The Impact of Air Quality and Site Selection on Gas Turbine Engine Performance*	**Aira Hast:** *The role of storages in facilitating the adaptation of DH systems to large amount of variable RES electricity*	**Ana M Blanco-Marigorta:** *A critical review of definitions for exergetic efficiency in reverse osmosis desalination plants.*	**Eva Llera:** *Sustainability assessment of alternative fuels for freight transport: methodological approach and case study for liquefied natural gas*
	Primož Poredoš: *Thermo-Economic Assessment Based on Field Test Results for the Air-to-Water Heat Pump*	**Alicia Valero:** *Thermoeconomic Analysis Of A Cement Production Plant*	**Silvia Scorza:** *Design And CFD Analysis Of An Odontoiatric Turbine*	**Natalia Kabalina:** *Production of synthetic natural gas, synthetic gas and char in a polygeneration district heating and cooling system based on rdf gasification*	**Stefanie Tesch:** *Liquefaction of natural gas integrated into an air separation plant: Evaluation of a novel concept*	**Daniel Bender:** *Exergy-Based Analysis of Aircraft Environmental Control Systems – Integration into Model-Based Design and Potential for Aircraft System Evaluation*
	Valerius Venzik: *Propene/isobutane mixtures in heat pumps: an experimental investigation*	**Pieter Mergenthaler:** *Carbon black production analysed by exergy based methods*	**Alvaro Durante:** *Numerical model of an externally fired gas turbine, including an arbitrary number of stages in expansion and compression processes*	**Raluca Suciu:** *Towards Energy-Autonomous Cities: CO_2 Networks*	**Liqiang Duan:** *Study on a Ca-looping CO_2 capture system with recarbonation process and its integration with the coal-fired power plant*	**Blaž Luin:** *Impact of Traffic Congestions on Energy Consumption and Emissions*
	Ruzhu Wang: *Study on Performances of A Novel Residential Air Source Heat Pump System for Heating*	**Timo Blumberg:** *Comparative exergoeconomic evaluation of two modern combined-cycle power plants*	**Gabriel Pena:** *Optimizing the power output and efficiency of an externally fired gas turbine*	**Jelena Ziemele:** *Smart Metering Effect to Energy Efficiency*		
18:20-20:00	**Scientific Committee Meeting**					

Time	WEDNESDAY, 22.6.2016					
08:30- 09:15	**Keynote Lecture** (Emerald 1) **Jean-Pierre Bedecarrats :** *Potential role and challenges of thermal energy storage*					
	EMERALD 1	**EMERALD 2**	**MEDITERANEA 1**	**MEDITERANEA 2**	**ADRIA 1**	**ADRIA 2**
09:25-10:45	**Refrigeration & air conditioning; Heat pumps**	**Exergy based methods and thermo-economic analysis & optimization**	**ORC**	**Energy Storage (thermal, electric, hydrogen, alternatives)**	**Heat & mass transfer, fluid dynamics**	**Power generation and CHP with fossil fuels and nuclear**
	Yuqi Shi: *Experimental Study of a Novel Ejector-absorption Refrigeration Cycle Driven by Multi-heat sources*	**Johannes Wellmann:** *Exergy-based methods applied for the evaluation of a CSP plant in combination with a desalination unit*	**Asfaw Beyene:** *Design Challenges of Low Grade Heat Recovery ORCs for Low Power Output*	**Adriano Sciacovelli:** *Liquid air energy storage – operation and performance of the first pilot plant in the world*	**Dimitrios Korres:** *Thermal analysis of an entire Flat Plate Collector with a Serpentine flow system and determination of the water and air flow and convection regime*	**Sotirios Karellas:** *Simulation Research on the Optimal Operation of Flue Gas Pre-Dried Lignite-Fired Power Plant Firing High Moisture Lignite*
	Antonio Gallego: *Thermodynamic modelling and exergetic analysis of ammonia-water absorption refrigeration system.*	**Nilton Fukushima:** *Exergetic Analysis Of Stillage Concentration*	**Van Long Le:** *Performance Evaluation Of An Organic Rankine Cycle (ORC) Connected To Two-Phase Closed Thermosyphons.*	**Annelies Vandersickel:** *Small-scale Pumped Heat Electricity Storage for decentralised combined Heat and Power Generation*	**Ioannis Alexopoulos:** *Simulation of a Heat Exchanger Using Comsol*	**Julia Hentschel:** *Dynamic simulation of a 550MWel coal fired power plant for extended secondary control power output*
	Jonas Kjaer Jensen: *Design of an ammonia-water hybrid absorption-compression heat pump for district heating with the utilisation of a geothermal heat source.*	**Goran Vučković:** *Improving the results of exergy analysis and exergoeconomics evaluation for the complex energy system using the CFD technique*	**Giovanni Manente**: *A systematic comparison between single and dual pressure Organic Rankine Cycles*	**Donald Olsen:** *Systematic Thermal Energy Storage Integration in Industry Using Pinch Analysis*	**Shobhana Singh:** *Performance study of a fin and tube heat exchanger with different fin geometry*	**Aldo Bischi:** *Scheduling optimization of Combined Heat and Power units with multiple degrees of freedom based on the superposition principle*
	Bosheng Su: *Proposal and mechanism analysis of a two-stage liquid desiccant dehumidification system driven by low-temperature heat source*	**Juan Carlos Pacheco:** *Finite-time thermoeconomic optimization of a non-endoreversible Novikov power plant model under different regimes of performance with Dulong-Petit's heat transfer law*	**Turgay Koroglu:** *Advanced Exergoeconomic Analysis of Organic Rankine Cycle Waste Heat Recovery System of a Marine Power Plant*	**Elie Terzibachian:** *A modeling and simulation approach for thermal energy storage devices*	**Mladen Tomic:** *Experimental investigation of thermal and fluid flow processes in a matrix heat exchanger*	**Yi Chen:** *Investigation of an ammonia-water combined power and cooling system driven by jacket water and exhaust gas heat of internal combustion engine*
10:45-11:05	**Coffee Break**					

Time	WEDNESDAY, 22.6.2016					
	EMERALD 1	**EMERALD 2**	**MEDITERANEA 1**	**MEDITERANEA 2**	**ADRIA 1**	**ADRIA 2**
11:05-12:45	**Refrigeration & air conditioning; Heat pumps**	**Power generation and CHP with RENEWABLES and WASTE**	**Energy Storage (thermal, electric, hydrogen, alternatives)**	**Environmental, social and sustainability issues associated with energy systems, industrial production, and transportation**	**Energy policy & planning**	**Heat & mass transfer, fluid dynamics**
	Louis Lamarche: *Direct Expansion Ground-Coupled Heat Pump using R744 as Refrigerant*	**Pascal Stouffs:** *Theoretical and experimental investigations on the instantaneous heat transfer in the cylinder of an Ericsson engine*	**Benoit Michel:** *Thermodynamic analysis of thermochemical storage process using open fixed bed reactor with several salts*	**Andreas Bertram:** *Environmental Impact of Hydraulic and Chemical Stimulations in Geothermal Applications*	**Uroš Stritih:** *Integration of Renewable energy sources and Forecast of development of electricity consumption in the Slovenian transmission network till 2050*	**Giampaolo Manfrida:** *Fluid Dynamics Assessment Of Tesla Turbine Rotor*
	Louis Lamarche: *Short-Time modeling of geothermal systems*	**Juan Camilo Lopez:** *Thermoeconomic analysis of a sugarcane cogeneration system trough subcycle decomposition*	**Ioannis Alexopoulos:** *Simulation of a PCM heat tank using Comsol*	**Jorge Cunha:** *A cross-country assessment of energy- related CO_2 emissions: A combined decomposition and decoupling approach*	**Amer Karabegović:** *Local community as the pillar of developing a sustainable energy strategy*	**Enrico Sciubba:** *Microfluidic in-chip temperature control via heat of mixing release*
	Ruzhu Wang: *Investigation on annual energy performance of VWV air-source heat pumping system*	**Juan Camilo Lopez:** *Thermoeconomic analysis of a solar assisted sugarcane congeneration system*	**Michael Angerer:** *Simulation of the flexibilisation of a cogeneration combined cycle plant by thermochemical energy storage*	**Lidia Lombardi:** *Prioritization of wind turbine systems based on pro-ecological exergy tax*	**Victor Codina Girones:** *Optimal use of biomass in large-scale energy systems: insights for energy policy*	**Federico Fontana:** *CFD modelling to aid the design of steel sheet multistage pumps*
	Nordin Aranzabal: *Enhanced thermal response test using fiber optics for a double U-pipe borehole heat exchanger analysed by numerical modeling*	**Barbara Hetterich:** *Optimal energy supply system and hourly operation plan for the TUM campus Garching using linear programming model URBS*	**Youssef Mazloum:** *Exergoeconomic analysis and optimization of a novel isobaric adiabatic compressed air energy storage system*	**Anabela C. Alves:** *Comparing Lean-Green models for eco-efficient production*	**Georg Wagener-Lohse:** *Waking the sleeping giant – deriving a strategy for dynamic renewable heat markets in Germany*	**Jifeng Song:** *A simpler finite element method for the flux density distribution of a parabolic trough concentrator*
		Túlio Freitas: *Methodology to evaluate windfarms feasibility - study of case*		**Christiane Lohse:** *Environmental impact analysis, monitoring, and assessment of hydrogeothermal systems*	**Sergio Juárez-Hernández:** *Energy and CO_2 emissions of the Mexican white maize agroindustry*	**Moritz Gleinser:** *New approach for transient simulation of closed batch evaporation in a plate heat exchanger*
12:45-14:00	**Lunch Break**					

Time	WEDNESDAY, 22.6.2016					
14:00- 14:45	**<u>Keynote Lecture</u>** (Emerald 1) **Peter Novak:** *Sustainable energy or exergy system?*					
	EMERALD 1	**EMERALD 2**	**MEDITERANEA 1**	**MEDITERANEA 2**	**ADRIA 1**	**ADRIA 2**
14:55-16:15	**ORC**	**Power generation and CHP with RENEWABLES and WASTE**	**Energy and buildings**	**Nonbiomass RENEWABLE thermal systems**	**Engines, furnaces & boilers, combustion/gasification**	**Environmental, social and sustainability issues associated with energy systems, industrial production, and transportation**
	Mauro Reini: *Multiple Expansion ORC For Small Scale – Low Temperature Heat Recovery*	**Lidia Lombardi:** *Analysis of environmental impact of wind turbines at increasing size*	**Kevin Sartor:** *Exergy analysis applied to performance of buildings in Europe*	**Dimitrios Korres:** *Optical and thermal analysis of a new U-type Evacuated Tube Collector with a Mini-Compound Parabolic Concentrator and a cylindrical absorber.*	**Vittorio Tola:** *Optimization Of A Syngas Purification Line And CO_2 Capture Systems Integrated With A Small-Scale Up-Draft Gasifier*	**Biljana Milutinović:** *Life Cycle Assessment Of Waste Management Scenarios With Energy Recovery Using Multi-Criteria Analysis: Case Study Of City Of Niš*
	Jean-François Oudkerk: *Development of a library of volumetric expander models and of a model reduction method for dynamic simulation purposes.*	**Michela Costa:** *Numerical analysis of a compression ignition engine powered in the dual-fuel mode with syngas and biodiesel*	**Muhyiddine Jradi:** *Towards Energy Efficient Office Buildings in Denmark: The Maersk Building Case Study*	**Daniel R. Rousse:** *A one year performance comparison of transparent and unglazed transpired collector*	**Ricardo Hartmann:** *Thermodynamic Approach To Assess Premixed Spherical Flame Propagation: Calculation of Laminar Flame Speed, Radius Profile and Exergy Destruction Using Experimental Pressure Traces as Input*	**Biljana Milutinović:** *Environmental, Economic And Technical Assessment Of Rubber Bledns With Multi-Criteria Analysis*
	Paulo de Mello: *A novel scroll expander for radial leakage investigation*	**Borcilă Bogdan:** *A New Scheme of Performance Computation for Solar Stirling Motors with Cogeneration, using Fresnel Mirrors, developed in the framework of Thermodynamics with Finite Speed and Direct Method.*	**Umberto Desideri:** *Design methodology of passive houses in different climatic zones in Italy*	**Anna Wallerand:** *Targeting optimal design and control of solar heated industrial processes: MILP models and results for a solar heated dairy*	**Wojciech Stanek:** *Thermodynamic assessment of an integrated mild oxy combustion power plant*	**Hossein Khajeh Pour:** *Establishing Local Emission Standard Level for Large Energy Systems*
	Julio Augusto Mendes da Silva: *Deep water cooled ORC for FPSO applications*	**Tatiana Potapenko:** *The study of lightning protection features for a wind mill by the method of tracing the lines of stream function*	**Alex Bertrand:** *Integrated domestic waste water heat recovery at urban scale*	**Christos Markides:** *Experimental validation of a 3-D dynamic solarthermal collector model under time-varying environmental conditions*	**Mauro Venturini:** *Set-up of NARX Models for Heavy-Duty Gas Turbine Start-up Simulation*	**Maria Jaen:** ***HYACINTH**: Hydrogen Aceptance In the Transition pHase*
16:15-16:35	**Cofee Break**					

Time	WEDNESDAY, 22.6.2016				
	EMERALD 1	**EMERALD 2**	**MEDITERANEA 1**	**MEDITERANEA 2**	**ADRIA 1**
16:35-17:55	**Energy and buildings**	**Power generation and CHP with RENEWABLES and WASTE**	**District energy systems & Smart Cities**	**Process integration, simulation & optimization of energy systems**	**Basic & applied thermodynamics**
	Soteris Kalogirou: *Exergy Analysis of a Naturally Ventilated Building Integrated Photovoltaic (BIPV) System*	**Rodolfo Taccani:** *Parametric analysis of a solar thermal small scale power plant*	**Mattias Vesterlund:** *Cost Optimization of District Heating Networks with Multiple Heat Production Plants*	**Franziska Klaucke:** *Demand Response Potential at the Chemical Industry: Review*	**Assaad Zoughaib:** *Exergy recovery during LNG gasification using ambient air as heat source*
	Soteris Kalogirou: *Thermal Analysis of a Building Integrated Photovoltaic (BIPV) System*	**Andrea Catalano:** *Simulation and comparative Thermoeconomic analysis of Central Receiver Concentrated Solar plants using air as heat transfer fluid*	**Tetsuya Wakui:** *Optimal Operational Management of Residential Energy Supply Networks with Power and Heat Interchanges*	**Alicia Valero:** *Assessment of the "thermodynamic rarity" of clean and efficient technologies*	**Delfino Ladino-Luna:** *On The Local Stability By Simplified Expression Of Efficiency Of A Carnot Cycle Type*
	Hang Dao: *Modelling and Residential Energy Analysis in Finland and Portugal-Towards Net Zero Energy House*	**Paula Ferreira:** *Limitations of thermal power plants to solar and wind development in Brazil*	**Alberto Pizzolato:** *Robust design of large district heating networks through topology optimization*	**Edgar Fernando Cortes Rodriguez:** *Heat integration of a vinasse concentration system and juice evaporation system to the conventional ethanol production process*	**Jean-Noël Jaubert:** *Mathematical constraints for an optimal design of temperature-dependent attractive parameter expressions in cubic equations of state*
	Rory Greenan: *Adaptive Reuse of Chimney Flues in Historic Buildings in Australia*	**Mexitli Sandoval:** *Feasibility analysis of an electricity, cooling and heating microgrid developed for a University Campus in Lisbon, Portugal using Combined Heat, Cooling and Power*		**Kevin Sartor:** *Experimental validation of heat transport modelling in district heating network*	
20:00-24:00	**Gala Dinner** (In front of hotel Histrion - old Church)				

Time	THURSDAY, 23.6.2016				
08:30- 09:15	**Keynote Lecture** (Emerald 1) **Özer Arnas:** *Correct Use of Thermodynamics*				
	EMERALD 1	**EMERALD 2**	**MEDITERANEA 1**	**ADRIA 1**	**ADRIA 2**
09:25-11:05	**Exergy based methods and thermo-economic analysis & optimization**	**ORC**	**Power generation and CHP with RENEWABLES and WASTE**	**Fuel Cells**	**Energy Storage (thermal, electric, hydrogen, alternatives)**
	Mauro Reini: Application of the Mixed Integer Linearized Exergoeconomic (MILE) method with evolutionary optimization to a CHP and DH	**Adriano Desideri:** *Steady-state and dynamic modeling of a 1 MWel commercial waste heat recovery ORC power plant*	**Luca Migliari:** *Seasonal capability of a small size CSP plant for providing dispatch power*	**Jarek Milewski:** *Influence of solid impurities in the MCFC cathode inlet gas mixture*	**Sarah Hamdy:** *Evaluation of cryogenics-based energy storage concepts*
	Mauro Reini: Exergy analysis with variable ambient conditions	**Olivier Dumont:** *Energy performance and economic evaluation of a HP/ORC (heat pump/organic rankine cycle) system with different hot water tank storage configurations*	**Mario Petrollese:** *Techno-economic analysis of an hybrid CSP-CPV power plant*	**Mitja Mori:** *The Influence of Operational Phase on Environmental Impacts of a Fuel Cell based UPS*	**Sergio Balderrama:** *Techno-economic evaluation of micro-grids including PV and Li-Ion batteries in the Bolivian context*
	Izabela Henriques: Exergy destroyed in the arteries due to stenosis	**Davide Ziviani:** *Organic Rankine cycle modeling and the ORCmKit library: analysis of R1234ze(Z) as drop-in working fluid replacement of R245fa for low-grade waste heat recovery*	**A. Medina:** *Thermodynamic Model of a Hybrid Brayton Thermosolar Plant*	**Andrej Lotrič:** *Compact Heat Integrated Methanol Steam Reformer – High Temperature PEM Fuel Cell System*	**Piotr Krawczyk:** *Comparative energy and exergy analysis of compressed air energy storage and liquid air energy storage systems*
	Kai Whiting: Bio-products: Addressing the problem of fossil fuel exergy replacement costs in the grave to cradle exergy assessment	**Christoph Kirmse:** *Performance of working-fluid mixtures in an ORC-CHP system for waste-heat recovery*	**Yury Koshlich:** *Automated Dispatch Control System Of Thermal Solar Power Plant*	**Shivom Sharma:** *Multi-objective Optimization of Solid Oxide Fuel Cell–Gas Turbine Hybrid Cycle for Uncertain Market Conditions*	**Lauren Farcot:** Numerical investigation of a continuous thermochemical heat storage reactor
	Saeed Sayadi: *Exergoeconomic Analysis for Buildings Energy Systems*	**Martina Ciani Bassetti:** *Thermal decline mitigation of a geothermal ORC system by hybridization with a concentrating solar power system and a thermal storage*	**Daniel Tavares:** *Energy Opportunities in a Tyre Plant*		
11:05-11:25	**Coffee Break**				

Time	THURSDAY, 23.6.2016				
	EMERALD 1	**EMERALD 2**	**MEDITERANEA 1**	**MEDITERANEA 2**	**ADRIA 1**
11:25-12:25	**District energy systems & Smart Cities**	**Combined Power generation and CHP with RENEWABLES and WASTE and Nonbiomass RENEWABLE thermal systems**	**Engines, furnaces & boilers, combustion/gasification**	**Biomass/biofuels; biorefinery concepts; waste-to-energy**	**Basic & applied thermodynamics**
	Elisa Guelpa: *Thermal load peak shaving in district heating systems through optimization of users request*	**Feng Liu:** *Thermodynamic performances on typical days of a steam generation system with a solar assisted absorption heat transformer*	**Sergio Rech:** *Comprehensive zero-dimensional model for spark ignition engine in-cylinder calculation*	**Urban Žvar Baškovič:** *Feasibility analysis of 100% tyre pyrolysis oil in a common rail Diesel engine*	**Mathilde Blaise:** *Optimization of an irreversible Carnot engine with a changing phase working fluid*
	Stefano Coss: *Industrial prosumer integration for providing optimal energy service(s) to district heating systems*	**Matteo Bortolato:** *Nanofluids application in direct absorption solar collectors: review and numerical model*	**Alfonso Biondi:** *Process simulation of an air cooled gas turbine blade*	**Tomas Mora:** *Finite rate reaction mechanism adapted for modeling and simulation of pseudo-equilibrium cellulose pyrolysis*	**Mathilde Blaise:** *Optimization of CARNOT engine*
	Daniel Woldemariam: *District heating-driven membrane distillation in industrial-scale bioethanol production: Techno economic study*	**Rok Stropnik:** *Connecting Individual Residential Hydrogen CHP Energy Systems With Renewables Into Different Sized Grids*	**Massimiliano Zito:** *Design and CFD analysis of a Curtis turbine stage*	**Francesco Desogus:** *Setup of an experimental system to study the gas phase kinetics in pyrolysis processing*	**Romain Privat:** *10 years with the PPR78 model: capabilities and limitations of predictive cubic equations of state involving classical mixing rules*
12:30-13:15	**Clossing Session and Welcome to ECOS 2017 (Emerald 1)**				
13:15-14:30	**Lunch Break**				