Draft Lecture Schedule – October 21

Time		Locations			
From	To	Room 1	Room 2	Room 3	Room 4
9:00	9:30	**Opening Session** **Welcome to Create by Dr Spyros Voutetakis, Director of CERTH/CPERI,** **and Prof Efstratios Stylianides Vice Rector for Research Aristotle University of Thessaloniki** **Welcome and PRES Conference Overview by Professor Dr. Jiří Jaromir Klemeš, PRES President**			
9:30	10:30	**Plenary Lecture** **Professor Dr. Zdravko Kravanja** **Sustainable Systems Synthesis and Optimization for Efficient Utilization of Resources and Reduction of Greenhouse Gas Emissions**			
10:30	11:00	**Coffee Break**			
		SPIL Symposium	**Sustainable and circular systems**	**Solar Energy**	**Cleaner production**
11:00	11:20	**Z. ABDUL MANAN** **PRES19.0296. Heat Exchanger Network Retrofit Considering Physical Distance, Pressure Drop and Available Equipment Space**	I.H. Gue PRES19.0257. Determining the Causality between Drivers of Circular Economy using the DEMATEL Framework	G. Martínez-Rodríguez PRES19.0198. Multi-Objective Optimisation of Flat Plate Solar Collector-Networks	D. Al-Mohannadi PRES19.0310. Resource Integration and CO2 Conversion in Industrial Clusters
11:20	11:40		C. Hsion PRES19.0094. Circular Sustainability Optimisation Model for Diverse Oil Crops Feedstock System via Element Targeting Approach	J. Ocon PRES19.0188. High Renewable Energy (Solar Photovoltaics and Wind) Penetration Hybrid Energy Systems for Deep Decarbonization in Philippine Off-grid Areas	**H.L. Lam** **PRES19.0068. Integration of Analytic Network Process in Adaptive Lean and Green Processing**
11:40	12:00	P.S. Varbanov PRES19.0377. Data Extraction for Heat Integration and Total Site Analysis: A Review	A.H. Tarighaleslami PRES19.0197. Sustainable Energy Transition toward Renewable Energies in the New Zealand Dairy Industry: An Environmental Life Cycle Assessment	**L. Čuček** **PRES19.0340. Synthesis of Solar Thermal Network for Domestic Heat Utilization**	
12:00	12:20	X. Liu PRES19.0402. Integrating Hydrogen Turbines into Refinery	K. Siemanond PRES19.0232. Stochastic Supply Chain Optimization with Risk Management		S. Boldyryev PRES19.0157. Sustainability Improvement of Kazakh Chemical Industry via Process Integration: A

		Hydrogen Network for Power Recovery			Case Study of Calcium Chloride Production
12:20	12:40	V. Nevrlý PRES19.0038. Municipal Solid Waste Container Location Based on Walking Distance and Distribution of Population	**R.R. TAN** **PRES19.0190. An Optimization Model for Circular Economy Planning**	V. Selleneit PRES19.0210. System Efficiency Rating of Industrial Utilities in Electricity Grids with a high share of Variable Renewable Energies	R. Gomilšek PRES19.0451. Towards GHG Emissions Neutrality of Aluminium Slug Production: An Industrial Study
12:40	13:00	J. Kůdela PRES19.0085. Strategic Multi-Stage Planning of Waste Processing Infrastructure		P.G. Jara PRES19.0160. Cost Saving Potential of Grid-tied Solar Photovoltaic-based Hybrid Energy System in the Philippine Industrial Sector	S. Maggiore PRES19.0116. The Potential Energy Efficiency Improvements for the Italian Pulp and Paper Industry
13:00	14:10	**Lunch**			
14:10	15:00	**Poster presentations**			
		Synthesis	**Heat transfer**	**Chemicals**	**Power systems**
15:00	15:40	L. Liu PRES19.0033. Simultaneous Synthesis of Heat Exchanger Network and Utility System Considering Inter- and Inner-stage Heaters	**J. TALER** **PRES19.0428. New analytical-numerical method of simple modelling of tubular cross-flow heat**	A. Kiss PRES19.0467. Rethinking Energy Use for a Sustainable Chemical Industry	J. Kilby PRES19.0002. Comparative Critique on Power Generation in Wind Turbines
15:20	15:40	Á. Orosz PRES19.0414. Simultaneous Synthesis of Processes with its Heat Exchanger Networks: P-graph Approach		**J. Labidi** **PRES19.0103. Production Of Chemical Precursors from Polysacharide**	D.I. Kim PRES19.0063. Development of PANI Layer as a Buffer Layer for Perovskite Solar Cell
15:40	16:00	**J. Du** **PRES19.0045. Simultaneous Synthesis of Controllable Heat Exchanger Networks**	Z. Guo PRES19.0133. Optimization of Gravity-Driven Granular Flow Around the Tube for Heat Transfer Enhancement		D. Trigkas PRES19.0052. Energy Management in an Islanded Multi-Node Microgrid Based on Nonlinear Model Predictive Control (NMPC)
16:00	16:20		Z. Said PRES19.0494. Evaluation of an Evacuated Tube Solar Collector Using Al2O3 Based Nanofluids	T. Leungcharoenwattana PRES19.0225. Influence of Partially-Substituted Zr into Mg4.78Al Layered Double Oxide on Glycerol Conversion to Valuable Specialty Bio-Based Chemicals	**S. NIŽETIĆ** **Photovoltaic technologies and overview of cooling techniques for performance improvement**
16:20	16:40	K. Yoro PRES19.0061. Multi-period Heat	C. Chen PRES19.0081. Impact of Cumulative	T. Kumpradit PRES19.0247. Novel Alternative Production	

		Exchanger Network Synthesis with Temperature Intervals and Uncertain Disturbances	Fouling Characteristics on Full-cycle Operation Optimisation of Multi-effect Distillation Desalination System	of Bio-Based Chemicals Via One Pot Glycerol and Bio-Ethanol Conversion Using Impregnated 1 %Pd/Mg2Al-LDO Derived Catalysts	
16:40	17:00	**Coffee break**			
		Emissions	**Energy Storage**	**Waste-to-Energy**	**Control**
17:00	17:40	M. Symeonidou PRES19.0417. Development of an Optimization Tool for the Decarbonisation of Insular Communities	M. Grabo PRES19.0048. Numerical Investigation of the Temperature Distribution in PCM-integrated Solar Modules	S. Tomasek PRES19.0208. Feedstocks for Engine Fuels from Waste Polyolefins	R. Prokop PRES19.0412. Robust Control of Continuous Stirred Tank Reactor with Jacket Cooling
17:20	17:40	J. John PRES19.0497. Techno Economic Analysis of Carbon Dioxide Capture and Utilisation Analysis for an Industrial Site with Fuel Cell Integration	Y. Jiang PRES19.0151. Impacts of Supply-Demand Characteristics on Optimal Configuration of Energy Storage System with Multiple Types of Batteries	V. Lavrenov PRES19.0481. Comparison of Charcoal, Ceramics and Dolomite as a Bed Material in Two-Stage Pyrolytic Processing of Wood Waste into the Synthesis Gas	F. Zhang PRES19.0290. Time Delay Compensation Based Active Disturbance Rejection Control for Thermal Process
17:40	18:00	F. Huang PRES19.0501. Modeling of greenhouse gas emissions during wastewater treatment process and the preliminary study on its reduction with PID control	A. Kafetzis PRES19.0396. Flexible and Scalable Energy Management of Islanded Renewable Energy Sources Storage Systems	F. Pinto PRES19.0137. Production of Liquid Compounds by Co-Pyrolysis of Different Pre-Treated Biomasses Mixed With Plastic Wastes	M. Horváthová PRES19.0021. Convex-lifting-based Robust Control of a Laboratory Plate Heat Exchanger
18:00	18:20	N. Vasilas PRES19.0263. Process Synthesis and Controllability Assessment of CO2 Capture Plants in a Parallel Environment	V. Verda PRES19.0464. Optimal Configurations for the Integration of Power Cycles in Concentrated Solar Plants with Thermochemical Energy Storage	O. Tóth PRES19.0389. Production of Diesel Fuel with Alternative Components Content from Various Wastes	J. Lin PRES19.0080. Dynamic Optimization of Continuous Chemical Process with Batch Operation Variable: A Case Study of a Fluid Catalytic Cracking Unit with CO Promoter
18:20	18:40	D. Hoehn PRES19.0460. Product vs Corporate Carbon Footprint: A Case Study for the Spirit Drinks Sectors		Y. Lugovoy PRES19.0260. Pyrolysis of Agricultural Waste in the Presence of Fe-Subgroup Metal-Containing Catalysts	W. Xiao PRES19.0274. Parameters Optimization of MTBE Reactive Distillation Process with Response Surface Methodology
20:30		**Free time**			

Draft Lecture Schedule – October 22

Date/Time		Location			
From	To	Room 1	Room 2	Room 3	Room 4
9:00	10:00	**Plenary Lecture** **Professor Ir. Dr. Sharifah R. Wan Alwi** Centralised Large Scale Water Demand Planning and Management Across Industrial Sites			
10:00	10:30	Coffee Break			
		SPIL Symposium	**Heat transfer**	**Power generation**	**Waste utilisation**
10:30	10:50	**T. Walmsley** **PRES19.0405. Visualising Exergy Flows in Process Heat Transfer Networks**	**D. KUKULKA** **PRES19.0059. Experimental Comparison of the Condensation and Evaporation Heat Transfer Coefficients**	S. Qin PRES19.0097. Process Synthesis of an S-CO2 Brayton Cycle Operating at an Ultra-Supercritical Steam Cycle Level	R. Bedoić PRES19.0360. Experimental Analysis of Parameters Influencing Biodegradable Waste Pretreatment
10:50	11:10			T. Deng PRES19.0158. Transient Characteristic of Supercritical CO2 Brayton Cycle with PCM System in a High Frequency Oscillating Environment	O. Visnyei PRES19.0394. Bio-paraffin Mixture Production from Waste Lard
11:10	11:30	N.S. Lal PRES19.0179. Flexibility Analysis of Heat Exchanger Network Retrofit Designs using Monte Carlo Simulation	X. Tian PRES19.0074. Numerical Study of Flow and Heat Transfer in Gravity-Driven Particle Flow Around a Circular or Elliptical Tube	S. Lee PRES19.0125. Combustion and Emission Characteristics of a Diesel Powered Generator Running with Coffee Ground Pyrolysis Oil	**C.H. Ko** **PRES19.0258. Impact of Parameters of Municipalities on Quantities of the General and Recycled Urban Waste in Taiwan**
11:30	11:50	Y.V. Fan PRES19.0041. Graphical Break-Even Based Decision-Making Tool (BBDM) to Minimise GHG Footprint of Biomass Utilisation: Biochar by Pyrolysis	Y. Gu PRES19.0469. Condensation Heat Transfer Characteristics of Moist Air Outside Hydrophilic and Super-hydrophobic 3D Pin Fin Tube	E. Konečná PRES19.0231. Review of Gas Microturbine Application in Industry	
11:50	12:10	X. Jia PRES19.0317. Blue Water Footprint of the Czech Republic	P. Kapustenko PRES19.0330. The Effect of Plate Corrugations Geometry on Performance	**D. Misirlis** **PRES19.0323. Thermodynamic Analysis on the Performance of a**	F.Bahmed PRES19.0259. Fuels by Chemical Recycling of Waste Plastic and

			of Plate Heat Exchangers Subjected to Fouling	**Low-Enthalpy Geothermal Field Using a CO2 Supercritical Binary Cycle**	Biomass Mixture and Utilization of the Products
12:10	12:30	B.H. Y. Ong PRES19.0248. A Kraft Mill-Integrated Biorefinery for Biofuel Production	M. Picón Núñez PRES19.0193. Incorporating the Use of a Fouling Model in the Design and Operation of Cooling Networks		Z. Yao PRES19.0424. Treatment and Utilization of Solid Residues from Waste Combustion Facilities and Carbon Black Waste for a Sustainable Environment
12:30	13:40	**Lunch**			
13:40	14:30	**Poster presentations**			
		Process Integration	**Mathematical optimisation**	**Bioenergy**	**Work and Heat Integration**
14:30	14:50	S. Dalai PRES19.0485. Energy Savings in Cement Industry: Use of Heat Integration Approach and Simulation Tools	**F. YOU** **PRES19.0477. A Multiobjective Mixed-Integer Bilevel Linear Programming Approach to Global Crude Oil Purchase and Sale with Noncooperative Stakeholders**	J.D. Pascasio PRES19.0165. Waste Biomass Integration to Reduce Fuel Consumption and Levelized Cost of Electricity in Philippine Off-Grid Islands	F. Schlosser PRES19.0140. Heat Pump Integration by Pinch Analysis for Industrial Applications: A Review
14:50	15:10	**S. Magege** **PRES19.0215. Design and Scheduling of Batch Plants with Heat-Integration of Intermittently Available Continuous Streams**		E.K. Armah PRES19.0173. Biomethane Potential of Agricultural Biomass with Industrial Wastewater for Biogas Production	J. Seevers PRES19.0315. Integration of Heat Pump Storage Systems in Manufacturing Systems via Data Farming and Monte Carlo Simulation
15:10	15:30		J. Lee PRES19.0207. Fuzzy Optimisation Model for Supply Chain Network Synthesis in Municipal Solid Waste Management with Conflicting Objectives and Parametric Uncertainties	**C. Bouallou** **PRES19.0370. Novel Biomass Upgrading Plant as a Renewable Source of Added-Value Chemicals**	T. Li PRES19.0129. A Simulation-Optimisation Method for Targeting the Optimal Placement of Heat Pumps in Heat Exchanger Networks
15:30	15:50	E. Kirilova PRES19.0138. Simulation of Heat-integrated Autothermal Thermophilic Aerobic Digestion System Operating under Uncertainties through Artificial Neural Network	D. Schack PRES19.0147. Simultaneous Heat and Mass Flow Optimization of a Distillation Column Applying the FluxMax Approach		**C. Costa** **PRES19.0374. Synthesis of Work and Heat Exchange Networks Considering Practical Operating Constraints**
15:50	16:10	S.Y. Teng PRES19.0359. Deep Learning	T. Wang PRES19.0122. Multi-Objective Optimisation Method for Identifying	F. Vallejo PRES19.0382. Performance Evaluation of Biomass Blends with	

		Approach for Industrial Process Improvement	Retired Points of Electric Vehicle Batteries	Additives Treated by Hydrothermal Carbonization	
16:10	16:30	**Coffee break**			
		Process Integration	**Renewable energy and utility systems**	**Energy planning**	**Separation processes**
16:30	16:50	**N. Tahouni** **PRES19.0051. Total Site Heat Integration, Considering Optimum Pressure Drops**	**T. Damartzis** **PRES19.0319. Defossilising the Swiss Energy System: A Framework for Energy and Carbon Flows Modelling**	J.B.M. Biona PRES19.0278. A Systematic Approach to the Optimal Planning of Energy Mix for Electric Vehicle Policy	J. Bonet-Ruiz PRES19.0028. Integrated Reaction-Separation Processes Sequencing and Screening at Early Stages of Design
16:50	17:10			C. Galatsopoulos PRES19.0015. Optimal Planning for Introducing Hydrogen Systems in a Multi-node Smart Grid	R. Zhang PRES19.0401. Energy Integration of LNG Light Hydrocarbon Recovery and Air Separation
17:10	17:30	C. Langner PRES19.0105. Combined Flexibility and Energy Analysis of Retrofit Actions for Heat Exchanger Networks	M. Ostadi PRES19.0267. Exergy Analysis of a Process Converting Power and Biomass to a Liquid Fuel	**S. Voutetakis** **PRES19.0474. The Evolution of Ports into Innovation Hubs: A Proposal for the Adriatic Ionian Area**	**M. Miltner** **PRES19.0313. Application of Membrane Separation for Cleaning and Concentration of Nanolignin Suspensions in a Biorefinery Environment**
17:30	17:50	B. Li PRES19.0355. Comparison of Graphical Tools for Targeting and Retrofit of Heat Exchanger Networks	C.M. Odulio PRES19.0163. Technoeconomics of Reverse Osmosis as Demand-Side Management for Philippine Off-Grid Islands		
17:50	18:10	B. Liu PRES19.0127. Circulating Cooling Water System Optimisation under Uncertainty	Y.M. Kim PRES19.0077. Experimental Study of Lab-Scale Organic Rankine Cycle System for Heat and Water Recovery from Flue Gas in Thermal Power Plant	J. Li PRES19.0040. Modelling and Optimization of Hybrid Distributed Energy Systems for Remote Area Electrification: A Case Study in West China	C. Yin PRES19.0177. A Systematic Method for Integrating Reactor and Extractive Distillation Considering the Variation of Reactor Parameters
18:10	18:30	A. Shoaib PRES19.0455. Indirect Inter – Plant Water Integration (IPWI) with Regenerator Selection	K. Bär PRES19.0100. Combined Operation of Photovoltaic and Biogas Plants for Optimal Transformer Loading	J. Ongpeng PRES19.0008. Graphical Pinch Analysis Approach to Cash Flow Management in Engineering Project	M. Harasek PRES19.0338. Fully Resolved Computational (CFD) and Experimental Analysis of Pressure Drop and Blood Gas Transport in a Hollow Fibre Membrane Oxygenator Module
20:30		**Free time**			

Draft Lecture Schedule – October 23

Date/Time		Location				
From	To	Room 1	Room 2	Room 3	Room 4	Room 5
9:00	10:00	**Plenary Lecture** **Prof Yutao Wang** Ecological Capital: Concept, Measurement and Governance				
10:00	10:30	**Coffee Break**				
		SPIL Symposium	**Energy Storage**	**Bioenergy**	**Energy systems**	**Water and wastewater management**
10:30	10:50	**R. LAKNER** **PRES19.0452. Systems Analysis of Electricity Transmission Networks for Improved Sustainability**	J.A. Stampfli PRES19.0146. Batch Process Integration: Management of Capacity-Limited Thermal Energy Storage by Optimization of Heat Recovery	A. Xia PRES19.0427. Fermentative Hythane Production via Two-stage Fermentation of Algal Bloom Biomass	**T. Ma** **PRES19.0489. Geometrical Optimization of Thermoelectric Generator Integrated Recuperator Using a Combined Method**	C. Hörstmann PRES19.0228. Microbial Pb(II) Precipitation: The Effects of Aeration Conditions and Glucose Presence on a Lead-Mine Consortium
10:50	11:10		E. Guelpa PRES19.0463. Design Optimization of Thermochemical Storage System for 100% Renewable Power Production	**R. Lin** **PRES19.0502. Enhancing Gaseous Biofuel Production in A Cascading Bioenergy System**		M.M. Roestorff PRES19.0281. The Cr(VI) Bioremediation Potential of Chlamydomonas Debaryana
11:10	11:30	S.R. Wan Alwi PRES19.0353. CO2 Total Site Planning with Centralised Multiple Headers	A. Ekhtiari PRES19.0024. Gas Networks, Energy Storage and Renewable Power Generation		R. Peesel PRES19.0131. Transition of Steam Utility Systems to Solid Biomass-Fuelled Boilers and Biomethane-Fuelled Fuel Cells in the Wet Pet Food Processing Industry	K. Malunga PRES19.0291. Redox Potential and Proton Demand in an Anaerobic Palladium (II) Reducing Culture of Desulfovibrio Desulfuricans Seroval
11:30	11:50	H.H. Chin PRES19.0153. Application of Pinch Analysis to Opportunistic Maintenance Management	R. Agner PRES19.0311.Robust Control of Heat Exchangers in Stratified Storage Systems – Simulation and Experimental Validation	G. Oluleye PRES19.0301. A Framework for Biogas Exploitation in Italian Waste Water Treatment Plants	L. Hegely PRES19.0366. Reduction of the Energy Demand of Second-Generation Bioethanol Production by Heat Integration and	**E.M. N. Chirwa** **PRES19.0154. Biodegradation of Fluoranthene in an Aerated Biofilm Reactor with**

					Vapour Recompression Heat Pump	**Biosurfactant Producing CSTR Staged in Series**
11:50	12:10	X. Wang PRES19.0162. Assessment of Greenhouse Gas Emissions from Various Energy Sources	**M. WALMSLEY** **PRES19.0416. Cost of Energy Storage Technologies in the New Zealand Context**	K. Rungphanich PRES19.0224. Chance Constrained Optimization of Biodiesel Supply Chain	Y. Wang PRES19.0183. Integration of Low-grade Waste Heat System Based on Lithium Bromide Refrigeration in a Polysilicon Industry	
12:10	12:30	A. Gholamzadeh Chofreh PRES19.0334. Strategic Plan Method for Future Renewable Energy Technologies		A. Stepacheva PRES19.0246. Deoxygenation of Fatty Acids in Supercritical Hexane over Bimetallic Catalyst for Biodiesel Production	L. Li PRES19.0108. Economic, Exergy, Environmental (3E) Analysis of Methanol Production from Shale Gas	J. Tendenedzai PRES19.0294. The Effect of Glucose and Nitrogen Supplementation on Cell Metabolic Activity and the Reduction of Selenite to Elemental Selenium by Pseudomonas Stutzeri NT-I
12:30	13:40	**Lunch**				
13:20	13:40	**Special session: CO2 capture and utilisation**	**Work and Heat Integration**	**Bioenergy**	**Energy planning**	**Water and wastewater management**
13:40	14:00	**C. CORMOS** **PRES19.0011. Reducing Carbon Footprint of Energy-Intensive Applications by CO2 Capture Technologies: An Integrated Technical and Environmental Assessment**	B. Anaya PRES19.0441. Validation of Aspen Plus Dynamics Model with an Experimental Vapour Compression Refrigeration Cycle	L. Wu PRES19.0003. Design and Integration of Bio-Oil Co-Processing with Vacuum Gas Oil in a Refinery	S. Chen PRES19.0093. Low Carbon Transition Pathway of Power Sector with High Penetration of Renewable Energy	M. Ravagnani PRES19.0372. Water Distribution Networks Optimization Using Disjunctive Generalized Programming
14:00	14:40		J. Jimenez PRES19.0458. Hybrid Methodology for Targeting Heat Recovery and Power Generation with Optimal Site Operating Conditions	G. Butera PRES19.0031. Biomass Conversion to Methanol Integrating Solid Oxide Cells and Two-Stage Gasifier: Effects of Carbon Dioxide Recirculation and Pressurized Operation	L. Mallier PRES19.0148. Short-term Planning of Combined Heat and Power Plants Participating in the Electricity Day-ahead Market	**Z. Liu** **PRES19.0423. Design of Property-based Water-using Networks with the Operator Potential Concept and a Linear Programming Approach**
14:20	14:40	S. Zhang PRES19.0065. Economic and Environmental Optimisation Framework for Carbon Capture Utilisation and Storage Supply Chain	D. Kim PRES19.0336. Organic Rankine Cycle with Pure and Mixed Working Fluids for LNG Cold Energy Recovery	**K. Aviso** **PRES19.0276. Fuzzy Optimization of Direct and Indirect Biomass Co-Firing in Power Plants**	C. Jia PRES19.0159. Multi-Regional Energy Industrial Water Withdrawal Research under Different Energy	

					Development Scenarios: A Case Study of China	
14:40	15:00	K. Chen PRES19.0191. Hollow Fibre-based Rapid Temperature Swing Adsorption Process for Carbon Capture from Coal-fired Power Plants	P. Ifaei PRES19.0050. Comparative Water-Power Nexus and Economic Analyses of a Novel Combined Ejector Heat Pump and Steam Power Plant to Tackle Drought		**P. Liu** **PRES19.0086. How to Deal with Existing Coal Production Capacity on a Low-Carbon Transition Pathway? A Case Study of China**	L.S. Tabana PRES19.0135. Adsorption of Phenol from Wastewater Using Modified Layered Double Hydroxide Clay
15:00	15:20	Y. Kansha PRES19.0219. Comparative Study of CO2 Capture Processes by Energy and Characteristics Bases	**Y. Zhuang** **PRES19.0044. An Efficient Sequential Approach for Work-Heat Exchange Networks Synthesis Combined with Meta-Heuristic Strategies**	J. Kuljiraseth PRES19.0199. Co-Production of 1,2-propandiol and Ethyl Lactate from the Conversion of Glycerol co-fed with Bio-Ethanol over Reduced Cu0.3Mg1.7Al LDH-derived Oxide Catalyst without External Hydrogen		M. Vocciante PRES19.0314. Heavy Metals Removal and Recovery from Hazardous Leather Sludge
15:20	15:40	G. Shavalieva PRES19.0443. Sustainability Analysis of Phase-Change Solvents for Post-Combustion CO2 Capture		S. Desjardins PRES19.0043. Use of Acidophilic Bioprospected Microalgae with Industrial Off-Gas Emissions for the Production of Biodiesel	M. Stöckl PRES19.0211. An Approach to Calculate Electricity Costs for the German Industry for a System Efficient Design by Combining Energy Efficiency and Demand Response	N. Mbonambi PRES19.0321. Biological Remediation of Chromium (VI) in Aquifer Media Columns
15:40	16:00	**Coffee Break**				
		Materials	**System analysis**	**Energy modelling**	**Energy design**	**Sustainable processing**
16:00	16:20	J. Boo PRES19.0099. Fabrication of a Hemispheric Patterned PDMS Stamp Using Polystyrene Beads and Its Application to Dye-Sensitized Solar Cells	A.J. Isafiade PRES19.0269. Review of Mass Exchanger Network Synthesis Methodologies	M. Stark PRES19.0110. Design Parameters of Steam Accumulators for the Utilization in Industrial Solid Biomass-Fuelled CHP Plants	I. Kistelegdi PRES19.0408. Energy Design Synthesis for Buildings: An Example	M. Leitgeb PRES19.0023. Immobilized Laccase for Sustainable Technological Processes
16:20	16:40	V. Kafarov PRES19.0418. Effects of	R. Bergamini PRES19.0047. Simplification of	P. Kazepidis PRES19.0500. Systematic	P. Jozwiak PRES19.0399. Thermal	M. Sadenova PRES19.0089. Possible

		Corrosion on the Microstructure, Hardness, and Microhardness of ASTM A335 P92 Steel	Data Acquisition in Process Integration Retrofit of a Milk Powder Production Facility	Design of Post-Combustion Phase-Change Solvent-Based CO2 Capture Processes	Effects of Natural Gas and Syngas Co-Firing System on Heat Treatment Process in the Preheating Furnace	Alternatives for Cost-Effective Neutralisation of Fluoroanhydrite Minimising Environmental Impact
16:40	17:00	V. Ved PRES19.0022. Catalyst Coatings Carriers Based on Boron-Silicon Glass Crystalline Compositions	J.K. Kaldellis PRES19.0422. Cogeneration Unit Optimum Sizing for a University Campus	T.E. Igboamalu PRES19.0006. Microbial Fuel Cell Power Output and Growth: Effect of pH on Anaerobic Microbe Consortium	J. Jang PRES19.0111. Exhaust Gas Emission Reduction Through DME Engine Modification from Diesel Engine with Mechanical Type Injection System	P. Lang PRES19.0368. Optimisation of Waste Solvent Regeneration with Two Batch Distillation Columns of Different Size
17:00	17:20	V. Doluda PRES19.0280. Ni Impregnated into Hypercrosslinked Polystyrene for N-Methyl-D-Glucosamine Synthesis	C. Cui PRES19.0254. Modelling and Dynamic Behaviour Analysis of the Steam Supply System for Double-Reactor and Multi-Turbine Nuclear Power Plant	M. Al-Asadi PRES19.0220. Dry Reforming of Waste Polymers in Horizontal Reactor to Syngas Production	J. Zhang PRES19.0305. Research on External Fuel Exergy Contribution to the Multi-Energy Integrated System	D. Adenuga PRES19.0285. Ternary Ag/AgCl/BiOCl Synthesis and the Effects of its Constituents on Phenol Degradation
20:30		**Conference and awards dinner - Closing**				

Full List of Posters (Draft)

ID	Title	Authors	Presenter
PRES19.0005	Computational Method Study on Drag Coefficient of Butterfly Porous Fence	Zhenya Duan, Zhujun Lan, Jin Su, Kai Wang, Chi Zhou, Junmei Zhang	Z. Duan
PRES19.0007	Energy Output from a Dual Chamber Anoxic Biofilm Microbial Fuel Cell Subjected to Variation in Substrate Concentration	Tony E. Igboamalu, Benjamin Needham-Clark, Mpumelelo T. Matsena, Evans M.N. Chirwa	T.E. Igboamalu*
PRES19.0010	Nonlinear Finite Element Analysis-Based Flow Distribution Model for Engineering Practice	Tomáš Létal, Vojtěch Turek, Dominika Fialová	T. Létal*
PRES19.0013	Waste CO2 Separation Technologies: A Technical Overview	Lukas Kratky	L. Kratky*
PRES19.0014	Fish Waste Treatment Technology in Biorefinery Concept	Lukáš Krátký, Petr Zamazal, Tomáš Jirout	L. Kratky*
PRES19.0016	Recovery and Application of Low-grade Thermal Resources in the Mining Industry	Shannon Heather McLean, Jeff Chenier, Sari Muinonen, Corey Laamanen, John Ashley Scott	S. Mclean*
PRES19.0025	Biomethane production and its applications: a technological review and assessment of Spain	P.M. Bello Bugallo*, T. Lago Rodríguez	P.M. Bello Bugallo*
PRES19.0027	The Longitudinal Flow of Oil and Petroleum Products in the Channels and Pipes: Part II	Valery Ved, Leonid Tovazhnyansky, Yuriy Tolchinsky, Akhmetbek Mussabekov, Aliya Suigenbayeva, Abdilla Saipov	V. Ved*
PRES19.0029	Energy and Water Consumption of a Stand-alone Plant for Hydrogen Production from Molasses - a Parametric Study	Robert Grabarczyk, Marian Trafczyński, Krzysztof Urbaniec, Jacek Wernik	J. Wernik*
PRES19.0030	Enhanced Superstructure-based Model for Synthesis of Sub-ambient Heat Exchanger Networks with Expansion Process	Rui Yang, Yu Zhuang, Lei Zhang, Linlin Liu, Jian Du	Y. Zhuang
PRES19.0032	Mining Technologies for Deep Mines: Strategies for Increased Productivity and Long-Term Economic and Environmental Sustainability	Kyle Moreau, Ron Bose, Helen Shang, John Ashley Scott	K. Moreau*
PRES19.0034	Effect of Supersonic Nozzle Structure on Vapor Spontaneous Condensation	Zhenya Duan, Longhui Liang, Yushen Xie, Zhiwei Ma, Chunliang Li	Z.Y. Duan*
PRES19.0035	On the Relationship between Private Transportation Expenditure and Socio-Demographic Variables	Giorgio Besagni, Corine Nsangwe Businge, Marco Borgarello	G. Besagni*
PRES19.0036	Forecasting of Waste Production Data with Changes in Credibility and Trend	Veronika Smejkalová, Radovan Šomplák, Vlastimír Nevrlý, Tomáš Holec	V. Smejkalová*
PRES19.0037	Implementation of Circular Economy through the Mathematical Programming for the Complex System Evaluation	Radovan Šomplák, Veronika Smejkalová, Vlastimír Nevrlý, Jaroslav Pluskal, Martin Pavlas	R. Šomplák*
PRES19.0046	Heat Exchanger Network Synthesis with Absorption Refrigeration Cycle Integrated Considering the Optimization of Operating Condition	Xiaojing Sun, Linlin Liu, Yao Sheng, Lei Zhang, Jian Du	L. Liu

PRES19.0054	Hydration of Cyclohexene to Cyclohexanol in a Hybrid Reactive Distillation with a Side Decanter	Ivan Marchante, Alexandra Elena Bonet Ruiz, Valentin Plesu, Jordi Bonet-Ruiz, Petrica Iancu, Joan Llorens	A.E. Plesu Popescu*
PRES19.0055	A Method for Evaluating Structural Changes of Energy Flow Process with the Case Study of China from 2005-2015	Honghua Yang, Linwei Ma, Zheng Li, Weidou Ni	H. Yang
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