

PRES'22 Onsite Conference Schedule

PRES'22

This is a conference schedule for PRES'22 onsite participants

5 September (Monday) – 8 September (Thursday) 2022



5 September 2022 (Monday), Onsite	
Time	Brač 1
15:00 – 16:00	Registration
16:00 – 17:30	RESHeat Panel Discussion (Brač 1 + Live Streaming) Moderators: Paweł Ocioń, Petar Sabev Varbanov
17:30 – 17:45	Presentation by Guest of Honour – Structural Consideration of Sustainability via 25 Years of PRES by Ferenc Friedler, Széchenyi István University, Hungary (Brač 1 + Live Streaming) Co-Chairs: Jiří Jaromír Klemeš, Petar Sabev Varbanov
17:45 – 18:00	Presentation by Guest of Honour – The Importance of the PRES Conference Chain for Energy Savings and Pollution Reduction by Zdravko Kravanja, University of Maribor, Slovenia (Brač 1 + Live Streaming) Co-Chairs: Jiří Jaromír Klemeš, Sandro Nižetić
18:00 – 20:00	Welcome Reception

(GMT+2) Central European Summer Time.

6 September 2022 (Tuesday), Onsite			
Time	Brač 1	Brač 2	Korčula
08:00 – 09:00	Registration		
09:00 – 10:00 (60 min)	Opening Ceremony and Opening Lecture (Brač 1 + Live Streaming) Silver Jubilee of PRES conferences: Contributions to Process Integration Towards Sustainability - Jiří Jaromír Klemeš, Brno University of Technology, Czech Republic Co-Chairs: Sandro Nižetić, Petar Sabev Varbanov		
10:00 - 10:10	Group Photo Session		
10:10 – 10:30	Coffee Break and Poster Session 1		
10:30 – 11:15 (45 min)	Plenary Lecture 1 (Brač 1 + Live Streaming) Smart Renewable Energy Systems and Decarbonization - Henrik Lund, Aalborg University, Denmark Co-Chairs: Jiří Jaromír Klemeš, Sandro Nižetić		
11:15 – 13:05 (110 min)	Session: RESheat Chair: Paweł Ocioń Co-Chair: Petar Sabev Varbanov	Session: Energy Storage Chair: Ferenc Friedler Co-Chair: Petar Šolić	
13:05 – 13:55	Lunch		
13:55 – 15:55 (120 min)	Session: Cleaner Production & Circular Economy 1 Chair: Farooq Sher Co-Chair: Yee Van Fan	Session: Heat Integration and Energy Savings 1 Chair: Sebastian Werle Co-Chair: Hon Huin Chin	Session: Sustainable Energy Planning 1 Chair: Hrvoje Mikulčić Co-Chair: Zhang Sheng
15:55 – 16:25	Coffee Break and Poster Session 1		
16:25 – 18:05 (100 min)	Session: Women in PI Chair: Annamaria Vujanovic Co-Chair: Sheetal Jain	Session: Process Analysis and Modelling 1 Chair: Panos Seferlis Co-Chair: Hon Huin Chin	Session: Analysis for Sustainable System Chair: Sin Yong Teng Co-Chair: Ana Čulić

(GMT+2) Central European Summer Time. Note: Poster presenters have to display their poster based on the assigned session for a day and present during the evaluation for Q&A

7 September 2022 (Wednesday), Onsite		
Time	Brač 1	Brač 2
09:00 – 10:40 (100 min)	Session: Process Analysis and Modelling 2 Chair: Pavel Ditzl Co-Chair: Hon Huin Chin	Session: Renewable Energy and Utility System 1 Chair: Sandro Nižetić Co-Chair: Laszlo Hegely
10:40 – 11:10	Coffee Break and Poster Session 2	
11:10 – 11:55 (45 min)	Plenary Lecture 2 (Brač 1 + Live Streaming) The COVID-19 pandemic necessitates a shift to a plastic circular economy - Yong Sik Ok, Korea University, South Korea Co-Chairs: Yee Van Fan, Jiří Jaromír Klemeš	
11:55 – 12:40 (45 min)	Plenary Lecture 3 (Brač 1 + Live Streaming) Multi-Scale Systems Analytics for Energy and Environmental Sustainability - Fengqi You, Cornell University, United States Co-Chairs: Petar Sabev Varbanov, Jiří Jaromír Klemeš,	
12:40 – 13:40	Lunch	
13:40 – 15:30 (110 min)	Session: Sustainable Plastic Value Chain Chair: Lidija Čuček Co-Chair: Jiří Jaromír Klemeš	Session: Process Simulation 1 Chair: Juma Haydary Co-Chair: Sheetal Jain
15:30 – 15:50	Coffee Break and Poster Session 2	
15:50 – 18:00 (130 min)	Session: Renewable Energy and Utility System 2 Chair: Yasuki Kansha Co-Chair: Andreja Nemet	Session: Process Simulation 2 Chair: Fengqi You Co-Chair: Petar Sabev Varbanov
18:00 – 18:30	Free Time	
18:30 – 20:30	Bol Tour	

(GMT+2) Central European Summer Time. Note: Poster presenters have to display their poster based on the assigned session for a day and present during the evaluation for Q&A

8 September 2022 (Thursday), Onsite		
Time	Brač 1	Brač 2
09:00 – 10:40 (100 min)	Session: Mathematical Optimisation Chair: Zdravko Kravanja Co-Chair: Hon Huin Chin	Session: Waste and Wastewater Management 1 Chair: Anton Friedl Co-Chair: Yee Van Fan
10:40 – 11:10	Coffee Break and Poster Session 3	
11:10 – 13:00 (110 min)	Session: Cleaner Production & Circular Economy 2 Chair: Michael Walmsley Co-Chair: Martin Atkins	Session: Waste and Wastewater Management 2 Chair: Jian Li Hao Co-Chair: Panos Seferlis
13:00 – 14:00	Lunch	
14:00 – 15:40 (100 min)	Session: Sustainable Materials and Resources Chair: Timothy Walmsley Co-Chair: Benjamin Hung Yang Ong	Session: Reactors, catalyst engineering and fluid dynamics Chair: Árpád Tóth Co-Chair: Lubomír Klimeš
15:40 – 16:00	Coffee Break and Poster Session 3	
16:00 – 18:00 (120 min)	Session: Sustainable Energy Planning 2 Chair: Jakov Baleta Co-Chair: Petro Kapustenko	Session: Heat Integration and Energy Savings 2 Chair: Calin Cristian Cormos Co-Chair: Petar Sabev Varbanov
18:00 – 19:00	Free Time	
19:00 – 22:00	Gala Dinner – Closing, Award Ceremony, Introduction of PRES'23	

(GMT+2) Central European Summer Time. Note: Poster presenters have to display their poster based on the assigned session for a day and present during the evaluation for Q&A

Presentation Details for Parallel Sessions 6 September 2022 (Tuesday), Onsite	
08:00 – 09:00	Registration
09:00 – 10:00	Opening Ceremony and Opening Lecture (Brač 1)
10:00 – 10:30	Group Photo Session, Coffee Break and Poster Session 1
10:30 – 11:15	Plenary Lecture 1 (Brač 1)
11:15 – 13:05 (Brač 1)	Special Session: RESHeat (Renewable Energy System for Residential Building heating and Electricity Production) Chair: Paweł Ocloń Co-Chair: Petar Sabev Varbanov
11:15 – 11:45	1. PRES22.0527: Performance and Evaluation of the Operating Savings of Heat and Power Based on PV-Thermal Panels and RESHeat Storage for Restaurants, G. Gaurav, M.A. Yildirim, P. Ocloń*, P.S. Varbanov, J.J. Klemeš (Presenter: Prof. Ocloń) [Keynote]
11:45 – 12:05	2. PRES22.0526: Numerical Simulation of Integration of Sun-Tracked PVT Panels with Underground Energy Storage and Heat Pump Systems, S. Zhang*, P. Ocloń, P.S. Varbanov, J.J. Klemeš, O. Arsenyeva, P. Kapustenko (Presenter: Mr Zhang)
12:05 – 12:25	3. PRES22.0040: Thermal management of novel photovoltaic thermal collector: An experimental investigation, M. Jurčević*, S. Nižetić, D. Čoko, M. Arici, E. Giama, A. Papadopoulos (Presenter Mr. Jurčević)
12:25 – 12:45	4. PRES22.0291: Quaternion based solar irradiance forecast, A. Knolmajer*, A. Vathy-Fogarassy, A. Fodor (Presenter: Mr. Knolmajer)
12:45 – 13:05	5. PRES22.0048 The Estimation of Heat Transfer Area of Plate Heat Exchanger for Condensation of Vapour in the Presence of Noncondensing Gas as a Component of Heat Exchanger Networks (Presenter: Prof Kapustenko)
11:15 – 12:55 (Brač 2)	Session: Energy Storage Chair: Ferenc Friedler Co-Chair: Petar Šolić
11:15 – 11:35	1. PRES22.0447: Integration of Thermal Energy Storage in Industrial Food Processing Sites, K. Hall*, M. Atkins, S. Singh, S. Liu, J. Thomas, T. Walmsley (Presenter: Dr. Atkins)
11:35 – 11:55	2. PRES22.0419: Process Optimization of Calcium-Looping for Thermochemical Energy Storage, D. Rodrigues, L.F. Mendes, C.I.C. Pinheiro* (Presenter: Prof. Pinheiro)
11:55 – 12:15	3. PRES22.0354: Compressed Air Energy Storage technology integrated with the utility system at one oil Refinery, A. Gueifão, D. Pestana, H.A. Matos* (Presenter: Prof. Matos)
12:15 – 12:35	4. PRES22.0305: Mechanical Behavior and Fluid Dynamics Analyses of Metal Hydride for Hydrogen Storage Based on Triply Periodic Minimal Surface Structure, L.A. Lesmana*, M. Aziz (Presenter: Mr. Lesmana)
12:35 – 12:55	5. PRES22.0149: Techno-economic assessment of Oxy-Biomass Combustion and Power-to-Methane as an integrated system, S. García-

	Luna*, C. Ortiz, J.C. Serrano, J. Brey, R. Chacartegui (Presenter: Mr. García-Luna)
13:05 – 13:55	Lunch
13:55 – 15:55 (Brač 1)	Session: Cleaner Production and Circular Economy 1 Chair: Farooq Sher Co-Chair: Yee Van Fan
13:55 – 14:15	1. PRES22.0124: Presenting Climate-related Disclosures in the Automotive Sector: Practical Possibilities and Limitations of Current Reporting Prototypes and Methods, A. Suta*, Á. Tóth, K. Borbély (Presenter: Mr. Suta)
14:15 – 14:35	2. PRES22.0059: Solvent Recovery from Fibers in a Lignocellulose Biorefinery: An Experimental Feasibility Study, M. Lehr*, W. Wukovits, A. Friedl (Presenter: Mr. Lehr)
14:35 – 14:55	3. PRES22.0273: NOx Emissions from Ca-rich Fuel Conversion in Oxy-fuel Circulating Fluidized Bed Combustion, M. Baqain*, D. Neshumayev, A. Konist (Presenter: Ms. Baqain)
14:55 – 15:15	4. PRES22.0418: Integration of Membrane Processes for Decolourization of Starch Hydrolysates, C. Cabeza*, A. Ahmed, M. Minauf, M. Harasek (Presenter: Ms. Cabeza)
15:15 – 15:35	5. PRES22.0132: Influence of Acetic Acid as a Catalyst in Ethanol Organosolv Pretreatment of Wheat Straw for the Production of Colloidal Lignin Particles and Enzymatic Hydrolysis, J. Adamczyk*, F. Carvalho, S. Beisl, A. Friedl (Mr. Adamczyk)
15:35 - 15:55	6. PRES22.0067: Towards the Application of the Recycled Coarse Aggregate Sourced from Large Panel System Buildings in the Manufacturing of Self-Compacting Concrete, S. Malazdrewicz*, K. Ostrowski, Ł. Sadowski, T. Gawenda (Presenter: Mr. Malazdrewicz)
13:55 – 15:45 (Brač 2)	Session: Heat Integration and Energy Savings 1 Chair: Sebastian Werle Co-Chair: Hon Huin Chin
13:55 – 14:25	1. PRES22.0321: Fouling management in crude oil heat exchangers using plant data, Y. Kansha*, S. Horikoshi, H. Kiyomoto, S. Kato, X. Mei (Presenter: Prof Kansha) [Keynote]
14:25 – 14:45	2. PRES22.0531: Construction of Sectorial Industrial Thermal Energy Profiles, B.H.Y. Ong*, M. Schubaschitz (Presenter: Dr Ong)
14:45 – 15:05	3. PRES22.0424: Decarbonisation of process heat at a meat processing site using heat pumps, E. Klinac*, J. Carson, T. Walmsley, D. Hoang, Q. Chen, D. Cleland (Presenter: Ms. Klinac)
15:05 – 15:25	4. PRES22.0197: Energy-saving potential of an existing monomer production by combined process and inter-plant integration, S. Boldyryev*, T. Gil, A. Khussanov (Presenter: Prof Boldyryev)
15:25 – 15:45	5. PRES22.0445: Process Retrofit and Electrification of Milk Evaporator Systems, B. Lincoln*, L. Kong, T. Walmsley (Presenter: Mr. Lincoln)

13:55 – 15:55 (Korčula)	Session: Sustainable Energy Planning 1 Chair: Hrvoje Mikulčić Co-Chair: Zhang Sheng
13:55 – 14:15	1. PRES22.0005: Assessment of Flexible Thermochemical Energy Conversion and Storage System based on Chemical Looping Combustion, C.C. Cormos*, S. Dragan, L. Petrescu, A.M. Cormos (Presenter: Prof. Cormos)
14:15 – 14:35	2. PRES22.0127: Corporate Reporting of CO2 Emission Disclosures in Electric Vehicle Manufacturing: an Overview of Tesla Inc., G.S. Vig*, A. Suta, Á. Tóth (Presenter: Dr Tóth)
14:35 – 14:55	3. PRES22.0141: Solution to Inverse Heat Transfer Problems by Means of Soft Computing Approach and Its Comparison to the Well-Established Beck's Method, L. Klimeš*, P. Kamaryt, P. Charvat, M. Zalesak, M. Pesek (Presenter: Dr. Klimeš)
14:55 – 15:15	4. PRES22.0036: An Overview of Smart Management Approaches for Heating / Cooling Systems in Buildings, A. Culic*, S. Nižetić, P. Šolić, T. Perkovic, V. Congradac, A. Andjelkovic (Presenter: Ms. Čulić)
15:15 – 15:35	5. PRES22.0050: An Electrochemical-Thermal Multiphysics Model for Lithium Polymer Battery, M.R. Domalanta, M. Castro, J. Ocon, J.A. Del Rosario* (Presenter: Mr. Domalanta)
15:35 - 15:55	6. PRES22.0194: Graph Theory Approach for the Optimisation of Biomass Supply Network – Case Study for the Urban Areas, A. Kodba*, T. Pukšec, N. Duić (Presenter: Ms Kodba)
15:55 – 16:25	Coffee Break and Poster Session 1
16:25 – 18:05 (Brač 1)	Special Session: Women in PI Chair: Annamaria Vujanovic Co-Chair: Sheetal Jain
16:25 – 16:45	1. PRES22.0394: Shrimp shells waste valorisation: an integrated and selective process for astaxanthin extraction using deep eutectic solvents, F.A. Vicente*, S.P.M. Ventura, B.M. Vaz, I.L.D. Rocha, A. Dias, M.A.T. Acosta, U. Novak, B. Likozar (Presenter: Dr. Vicente)
16:45 – 17:05	2. PRES22.0395: Cascade utilization of food industry by-products in circular bioeconomy, M. Tišma*, A. Bucic-Kojic, M. Planinić, (Presenter: Prof. Tišma)
17:05 – 17:25	3. PRES22.0402: Different Scale Japanese Knotweed Extraction: An Environmental Impact Assessment, A. Oberlintner, K. Naumoska, U. Jug, R. Hren, L. Čuček, B. Likozar, U. Novak*, A. Vujanović (Presenter: Dr. Novak)
17:25 – 17:45	4. PRES22.0516: Comparison of Cascade and Separate Design of Rankine Cycle System for Integrating Low, Medium and High-Temperature Heat Sources, M. Dokl, R. Gomilšek, P. Varbanov, Y.V. Fan, Z. Kravanja, J.J. Klemeš, L. Čuček* (Presenter: Ms. Dokl)
17:45 – 18:05	5. PRES22.0521: The Impact of the COVID-19 Pandemic on Environmental Footprint: A Comparison to Pre-Pandemic Period, A. Copot, Y.V. Fan, R.I.G. Lucas, M. Dokl, K. Aviso, A. Vujanovic, D. Krajnc, J.J. Klemeš, R.R. Tan, L. Čuček* (Presenter: Ms. Copot)

16:25 – 17:55 (Brač 2)	Session: Process Analysis and Modelling 1 Chair: Panos Seferlis Co-Chair: Hon Huin Chin
16:25 – 16:55	1. PRES22.0166: Numerical Simulation of Ammonia Combustion in Experimental Premixed Swirl Burner - Comparison of Reduced Chemical Kinetics Models, J. Baleta, H. Mikulčić*, J. Wang (Presenter: Dr. Mikulčić) [Keynote]
16:55 – 17:15	2. PRES22.0210: Purification of syngas from RDF gasification: a techno-economic analysis, J. Haydary*, E. Rapčanová, M. Škilec (Presenter: Prof. Haydary)
17:15 – 17:35	3. PRES22.0278: A Prediction Model for Temperature Variation and Distribution Using Soft Sensing Method, F. Xu, Y. Sato, Y. Sakai, S. Sabu, H. Kanayama, D. Satou, Y. Kansha* (Presenter: Dr. Xu)
17:35 – 17:55	4. PRES22.0295: Analysis of Process Modeling in Modern Software Program to Support "Smart" Agriculture, M. Toguzova, M. Rakhymberdina*, N. Kulenova, Z. Shaimardanov, Z. Assylkhanova, B. Apshikur, N. Beisekenov (Presenter: Ms. Assylkhanova)
16:25 – 17:45 (Korčula)	Session: Analysis for Sustainable System Chair: Sin Yong Teng Co-Chair: Ana Čulić
16:25 – 16:45	1. PRES22.0047: An Innovative Polygeneration System Integrating Compressed Air Energy Storage (CAES) and Multi-effect Desalination for Efficient LNG Cold Energy Utilization, S.M. Alirahmi, T. Gundersen, H. Yu* (Presenter: Prof. Yu)
16:45 – 17:05	2. PRES22.0379: Process Design and Control of Emission Abatement Systems in High Performance Computing Infrastructures, A. Papadopoulos*, N. Vasilas, P. Seferlis (Presenter: Prof. Seferlis)
17:05 – 17:25	3. PRES22.0181 Comparative Life Cycle Analyses of Regular and Irregular Maintenance of Bridges with Different Support Systems and Construction Technologies, B. Eisinger Balassa*, A. Németh, Z. Major, O. Kegyes-Brassai (Presenter: Dr Eisinger Balassa)
17:25 – 17:45	4. PRES22.0042: Investigation of Thermal Properties of Freezed Tap, Demineralized and Sea Water, J. Bošnjak*, M. Jurčević, N. Bodrožić Čoko, S. Nižetić (Presenter: Ms. Bošnjak)
17:45 – 18:05	5. PRES22.0122: Synthesis of Multiperiod Heat Exchanger Networks: n-best Networks with Variable Approach Temperature, R. Lakner, Á. Orosz, B.S. How, F. Friedler* (Presenter: Dr How)

Presentation Details for Parallel Sessions 7 September 2022 (Wednesday), Onsite	
09:00 – 10:40 (Brač 1)	Session: Process Analysis and Modelling 2 Chair: Pavel Ditl Co-Chair: Hon Huin Chin
09:00 – 09:20	1. PRES22.0444: Process Integration and Electrification through Exergy Pinch Analysis, T. Walmsley*, B. Lincoln, A. Pineda, L. Kong, (Presenter: Dr. Walmsley)
09:20 – 09:40	2. PRES22.0427: The Resilience Barriers of Automated Ground Vehicles from Military Perspectives, A. Hajdu, R. Krecht*, A. Suta, Á. Tóth, F. Friedler (Presenter: Mr. Krecht)
09:40 – 10:00	3. PRES22.0106: Effects of cascade events on the resilience of processing systems, Á. Orosz, F. Friedler* (Presenter: Mr. Orosz)
10:00 – 10:20	4. PRES22.0345: Modeling and Simulation of 3-Phase Separators in the Oil and Gas Industry with Emphasis on Water Quality, T. Jonach*, C. Jordan, B. Haddadi, M. Harasek (Presenter: Mr. Jonach)
10:20 – 10:40	5. PRES22.0257: A simulation study of the impact of gas composition and reservoir heterogeneity on the miscible sour gas injection process, M. Koyanbayev*, L. Wang, M.R. Hashmet (Presenter: Mr. Koyanbayev)
09:00 – 10:40 (Brač 2)	Session: Renewable Energy and Utility System 1 Chair: Sandro Nižetić Co-Chair: Laszlo Hegely
09:00 – 09:20	1. PRES22.0285: Optimization of envelopes, systems and storage for transition of building stocks to zero energy districts, G. Aruta*, F. Ascione, N. Bianco, M. Mastellone, G.M. Mauro (Presenter: Dr. Aruta)
09:20 – 09:40	2. PRES22.0052: Techno-economic evaluation of biomass-to-ammonia-to-power as an energy storage method, D. Wen*, M. Aziz (Presenter: Mr. Wen)
09:40 – 10:00	3. PRES22.0076: Techno-economic analysis of different liquid air energy storage configurations, Z. Liu, D. Kim, T. Gundersen* (Presenter: Ms. Liu)
10:00 – 10:20	4. PRES22.0077: Multiphysics Modeling of a Low Voltage Acid-Alkaline Electrolyzer, M. Castro, P.Y.A. Chuang, J. Ocon* (Presenter: Mr. Castro)
10:20 – 10:40	5. PRES22.0316: Co-pyrolysis of woody biomass and oil shale in a batch reactor in CO ₂ , CO ₂ -H ₂ O, and Ar atmospheres, A. Lyons Ceron*, A. Konist (Presenter: Mr. Lyons Ceron)
10:40 – 11:10	Coffee Break and Poster Session 2
11:10 – 11:55	Plenary Lecture 2 (Brač 1)
11:55 – 12:40	Plenary Lecture 3 (Brač 1)
12:40 – 13:40	Lunch
13:40 – 15:30 (Brač 1)	Session: Sustainable Plastic Value Chain Chair: Lidija Čuček Co-Chair: Jiří Jaromír Klemeš

13:40 – 14:10	1. PRES22.0029: Sustainability of a Plastic Recycling/Symbiosis Network via Energy Quality Pinch Analysis, P.S. Varbanov*, H.H. Chin, J.J. Klemeš, L. Čuček (Presenter: Dr. Varbanov) [Keynote]
14:10 – 14:30	2. PRES22.0523: An Intelligent Waste Bins Model for Efficient Separation and Recovery of Packaging Waste, R. Pučnik, M. Dokl, K. Aviso, Y.V. Fan, A. Vujanovic, R.R. Tan, J.J. Klemeš, L. Čuček* (Presenter: Mr. Pučnik)
14:30 – 14:50	3. PRES22.0475: Plastic Waste Supply Chain Optimisation with Data-Driven Approach Considering Polymers Heterogeneity, H.H. Chin*, P.S. Varbanov, J.J. Klemeš, R.R. Tan, K. Aviso (Presenter: Dr Chin)
14:50 – 15:10	4. PRES22.0020: Life Cycle Assessment Approaches of Plastic Recycling with Multiple Cycles, Y.V. Fan*, L. Čuček, J.J. Klemeš, A. Vujanovic, P.S. Varbanov (Presenter: Dr. Fan)
15:10 – 15:30	5. PRES22.0292: Catalytic pyrolysis of municipal plastic wastes (MPW) for the production of valuable chemical products, P. Costa*, F. Pinto, P. Marques, F. Paradela, R. Mata (Presenter: Dr. Costa)
13:40 – 15:30 (Brač 2)	Session: Process Simulation 1 Chair: Juma Haydary Co-Chair: Sheetal Jain
13:40 – 14:10	1. PRES22.0129: Biomass oxy-fuel combustion as a renewable energy technology for power generation to replace fossil fuels, H. Yaqoob, H. Abbas, O. Abid, F. Sher*, Y.H. Teoh, M.A. Jamil, T. Ahmed (Presenter: Dr. Sher) [Keynote]
14:10 – 14:30	2. PRES22.0375: Techno-Economic Analysis of Dimethyl Ether Biofuel Production Plant Based on Sewage Sludge Gasification, F. Negri, A. Nova, D. Basso, F. Manenti* (Presenter: Dr. Negri)
14:30 – 14:50	3. PRES22.0524: Techno-economic Analysis comparison of Supercritical Fluid and Soxhlet Extraction for the Recovery of Palm oil from Spent Bleaching Earth, M. Haruna, W. Oladosu*, N. Salami (Presenter: Dr. Oladosu)
14:50 – 15:10	4. PRES22.0185: The Effect of the Presence of Mist in the Proposed Sonophotocatalytic Wastewater Treatment Process, S. Kato, Y. Sakai, Y. Sato, Y. Kansha* (Presenter: Mr Kato)
15:10 – 15:30	5. PRES22.0003: Integrating a Fischer-Tropsch Fuel Production Process in Pulp Mills, D. Klüh*, M. Gaderer (Presenter: Mr. Klüh)
15:30 – 15:50	Coffee Break and Poster Session 2
15:50 – 18:00 (Brač 1)	Session: Renewable Energy and Utility System 2 Chair: Yasuki Kansha Co-Chair: Andreja Nemet
15:50 – 16:20	1. PRES22.0446: Decarbonising the New Zealand Process Heat Sector through Digitalization and enhanced Process, Heat Pump and Renewable Energy Integration, M. Walmsley*, S. Al-Habsi, M. Atkins, B. Young, D. Cleland, M. Apperley, J. Carson, D.V. Bertram, Q. Chen, W. Yu, P. Patros, T. Walmsley (Presenter: Prof. Walmsley) [Keynote]
16:20 – 16:40	2. PRES22.0330: Energy Management in Microgrids Using Model Predictive Control Empowered with Artificial Intelligence, D. Trigkas*, G.

	Gravanis, K. Diamantaras, S. Voutetakis, S. Papadopoulou (Presenter: Mr. Trigkas)
16:40 – 17:00	3. PRES22.0530 Thermodynamic Modelling of High-Temperature Cascaded Transcritical CO ₂ Heat Pump Cycle Structures with Internal Heat Exchange, L. Kong*, T. Walmsley, D. Hoang, Q. Chen, F. Schlosser, J. Carson, D. Cleland (Presenter: Ms. Kong)
17:00 – 17:20	4. PRES22.0425: Integrating Hybrid Offshore Energy in the Decarbonisation of Industrial Processes: A Case Study on Factory-Edge Load Profiles, M. Taylor*, D.V. Bertram (Presenter: Mr. Taylor)
17:20 – 17:40	5. PRES22.0467: Offshore floating charging platform for all-electric vessels powered with renewable energy sources: techno-economic feasibility and emission reduction potential, L. Frković*, B. Čosić, T. Pukšec, N. Vladimir (Presenter: Mr. Frković)
17:40 – 18:00	6. PRES22.0262: Optimal Design and Integration of Distributed Energy Systems into Unbalanced Distribution Networks, I. De Mel*, O. Klymenko, M. Short (Presenter: Ms. De Mel)
15:50 – 18:00 (Brač 2)	Session: Process Simulation 2 Chair: Fengqi You Co-Chair: Petar Sabev Varbanov
15:50 – 16:20	1. PRES22.0188: Optimisation of Pressure-Swing Distillation Separation of a Maximum Azeotropic Mixture, L. Hegely*, Ö.F. Karaman, P. Lang (Presenter: Dr. Hegely) [Keynote]
16:20 – 16:40	2. PRES22.0377: Conceptual Process Design to Generate H ₂ from H ₂ S for Cleaner Processing of Sulphur-containing Resources, A. Nova, F. Negri, F. Manenti* (Presenter: Ms. Nova)
16:40 – 17:00	3. PRES22.0436: Numerical analysis of an air humidification system using computational fluid dynamics, M. Zarrabi, M. Pourhoseinian, S. Sharifian, N. Asasian-Kolur, B. Haddadi*, C. Jordan, M. Harasek (Presenter: Prof Harasek)
17:00 – 17:20	4. PRES22.0192: Regenerative braking optimization of lightweight vehicle based on vehicle model, Z. Pusztai*, K. Péter, F. Szauter, F. Friedler (Presenter: Mr. Pusztai)
17:20 – 17:40	5. PRES22.0343: CFD simulations of packed-bed combustion: Accounting for irregularities in particle orientation in the estimation of bed radiative properties, J. Strouhal*, T. Jurena (Presenter: Mr. Strouhal)
17:40 – 18:00	6. PRES22.0150: Influence of Geometry and Mechanical Load on the Delamination in the Graphene/Polymer Nanocomposite Under Axial Load, A. Apostolov*, T. Petrova, E. Kirilova, R. Vladova, N. Vaklieva-Bancheva, T. Rangelov (Presenter: Mr. Apostolov)
18:00 – 18:30	Free Time
18:30 – 20:30	Bol Tour

Presentation Details for Parallel Sessions 8 September 2022 (Thursday), Onsite	
09:00 – 10:40 (Brač 1)	Session: Mathematical Optimisation Chair: Zdravko Kravanja Co-Chair: Hon Huin Chin
09:00 – 09:20	1. PRES22.0038: A systematic review and state-of-the-art applications of the most popular heuristic optimizers in sustainable energies, P. Ifaei, A.S. Tayerani Charmchi, S. Heo, C. Yoo* (Presenter: Dr. Ifaei)
09:20 – 09:40	2. PRES22.0439: A Bilevel Optimisation Program for the Indirect Source Sink Profile, R. Agner*, B.H.Y. Ong, B. Wellig (Presenter: Mr. Agner)
09:40 – 10:00	3. PRES22.0502: Open-source Tool for Heat Exchanger Network Synthesis, K. Hall, T. Walmsley*, A. Nemet, M.R. Walmsley (Presenter: Mr. Hall)
10:00 – 10:20	4. PRES22.0183: Determination of Air-Side Nusselt Numbers for Four Row Fin-and-Tube Heat Exchangers Using CFD Simulations - Individual Correlations for Each Row and Average Correlations for the Entire Heat Exchanger, M. Marcinkowski*, D. Taler, J. Taler, K. Węglarz (Presenter: Mr. Marcinkowski)
10:20 – 10:40	5. PRES22.0216: Segregated Targeting of Hydrogen Allocation Network using Pinch Analysis, G. Shukla, N.D. Chaturvedi* (Presenter: Mr. Shukla)
09:00 – 10:40 (Brač 2)	Session: Waste and Wastewater Management 1 Chair: Anton Friedl Co-Chair: Yee Van Fan
09:00 – 09:20	1. PRES22.0045: Environmental Impact Assessment of Chitosan Production from Shrimp Shells Waste, R. Hren, L. Čuček, U. Novak, B. Likozar, F.A. Vicente, A. Vujanovic* (Presenter: Dr. Vujanovic)
09:20 – 09:40	2. PRES22.0004: Modeling of forecasting crop yields based on Earth remote sensing data and remote sensing methods, M. Sadenova*, N. Beisekenov, Y. Ualiyev, N. Kulenova, P.S. Varbanov (Presenter: Dr. Sadenova)
09:40 – 10:00	3. PRES22.0179: Process Simulation and Life Cycle Assessment of Dilute Sodium Hydroxide Pretreatment of Wheat Straw, D. Dimande*, W. Wukovits, D. Koch, B. Mihalyi, A. Friedl (Presenter: Ms. Dimande)
10:00 – 10:20	4. PRES22.0182: Sustainable Wastewater Management in Industrial Laundries, M. Prochazkova, V. Máša* (Presenter: Ms. Prochazkova)
10:20 – 10:40	5. PRES22.0361: Plug-in hybrids vs battery powered vehicles – challenges of charging infrastructure on a university campus, M. Cabalka*, P. Charvat, J. Fišer, P. Popela, M. Pesek (Presenter: Mr. Cabalka)
10:40 – 11:10	Coffee Break and Poster Session 3
11:10 – 13:00 (Brač 1)	Session: Cleaner Production and Circular Economy 2 Chair: Michael Walmsley Co-Chair: Martin Atkins

11:10 – 11:40	1. PRES22.0410: Rising Energy and Feedstock Prices Affect the Cost of Green and Blue Hydrogen, P. Dittl*, R. Šulc (Presenter: Prof. Dittl) [Keynote]
11:40 – 12:00	2. PRES22.0031: Pinch Analysis Approach for Segregated Targeting Networks with Forbidden Matches, S. Jain*, S. Bandyopadhyay, P.S. Varbanov, J.J. Klemeš (Presenter: Dr. Jain)
12:00 – 12:20	3. PRES22.0030: An Optimal Green Profitable Multigeneration Network of Freshwater, Hydrogen, and Crypto Products Considering Water-Exergy-Carbon-Cost Nexus, A.S. Tayerani Charmchi, P. Ifaei, S. Heo, T. Woo, C. Yoo* (Presenter: Mr. Tayerani Charmchi)
12:20 – 12:40	4. PRES22.0033: Data-driven Optimization of Biomass Retrofitting Pathway to Empower Circularity for the Oil and Gas Transition, L.S. Yeo, S.Y. Teng, C.H. Lim, W. Ng, H.L. Lam, J. Sunarso, B.S. How* (Presenter: Mr. Yeo)
12:40 – 13:00	5. PRES22.0260: A comparative study of Biomethane liquefaction processes, J. Al Khoury*, C. Bouallou, M. Nemer (Presenter: Mr. Al Khoury)
11:10 – 12:50 (Brač 2)	Session: Waste and Wastewater Management 2 Chair: Jian Li Hao Co-Chair: Panos Seferlis
11:10 – 11:30	1. PRES22.0054: Short Review on the Feasibility Assessment of the Recycling of Oil Refinery Wastes in Cementitious Composites, P. Niewiadomski*, M. Nieświec, M. Cisiński, Ł. Sadowski (Presenter: Dr. Niewiadomski)
11:30 – 11:50	2. PRES22.0288: Winery Wastewater Treatment Technologies: Current Trends and Future Perspective, V. Miklas*, M. Touš, M. Miklasová, V. Máša, D. Horňák (Presenter: Mr. Miklas)
11:50 – 12:10	3. PRES22.0299: Visible-Light-Driven Photocatalytic Degradation of Rhodamine B Using WO ₃ -based Particles, N. Mzimela*, E.M.N. Chirwa, S.M. Tichapondwa (Presenter: Ms. Mzimela)
12:10 – 12:30	4. PRES22.0429: Efficacy of Limestone and Laterite Mine Waste in the Passive Treatment of Acid Mine Drainage, C.O. Turingan*, J. Delantar, A.C. Arceo, C.S. Hong, C.I. Sungcang, L.K. Villanueva, L. Bautista-Patacsil, A. Beltran, A. Orbecido (Presenter: Mr. Turingan)
12:30 – 12:50	5. PRES22.0430: Calcium alginate encapsulated pillared clay beads for adsorption of Ni(II) from aqueous solution, H. Najafi, N. Asasian-Kolur*, S. Sharifian, B. Haddadi, C. Jordan, M. Harasek (Presenter: Mr. Jordan)
13:00 – 14:00	Lunch
14:00 – 15:40 (Brač 1)	Session: Sustainable Materials and Resources Chair: Timothy Walmsley Co-Chair: Benjamin Hung Yang Ong
14:00 – 14:20	1. PRES22.0417: Effect of Date Palm Fiber Content on Properties of Concrete, N. Aminova, K. Sikora* (Presenter: Dr. Sikora)
14:20 – 14:40	2. PRES22.0250: A Machine Learning-accelerated Density Functional Theory (ML-DFT) Approach for Predicting Atomic Adsorption Energies on Monometallic Transition Metal Surfaces for Electrocatalyst Screening,

	J.G. Tomacruz, K.E. Pilario, M.F. Remolona, A.A. Padama, J. Ocon*, (Presenter: Mr. Tomacruz)
14:40 – 15:00	3. PRES22.0231: Environmental Impact and Cost Comparison of Different Partition Walls, E. Atienza*, J. Ongpeng (Presenter: Mr. Atienza)
15:00 – 15:20	4. PRES22.0351: Effects of Initial pH and CuS/ZnS Loading in Rhodamine B Photodegradation Under Visible Light Irradiation, R. Mugumo*, S.M. Tichapondwa, E.M.N. Chirwa (Presenter: Ms. Mugumo)
15:20 – 15:40	5. PRES22.0259: Carbon footprint of hydrogen produced within the electrolyser plant: A case study in Croatia, I. Pivac*, J. Šimunović, F. Barbir, S. Nižetić (Presenter: Mr. Šimunović)
14:00 – 15:40 (Brač 2)	Session: Reactors, Catalyst Engineering and Fluid Dynamics Chair: Árpád Tóth Co-Chair: Lubomír Klimeš
14:00 – 14:20	1. PRES22.0369, Spray/wall interaction modeling of biodiesel blends, M. Trgovec-Greif*, J. Baleta, A. Petračić, A. Sander, M. Vujanović (Presenter: Prof. Baleta)
14:20 – 14:40	2. PRES22.0332: Analysis of dynamic behavior of gas bubbles and solid particles in an oscillatory baffled reactor and its application to design of hydrogenation process, M. Nabeshima, H. Matsumoto*, A.B. Hamzah, S. Yoshikawa, S. Ookawara (Presenter: Ms. Nabeshima)
14:40 – 15:00	3. PRES22.0279: Modelling and Design of Optimal Internal Loop Air Lift Reactor Configurations Through Computational Fluid Dynamics, F. Ramonet*, B. Haddadi, C. Jordan, M. Harasek (Presenter: Mr. Ramonet)
15:00 – 15:20	4. PRES22.0261: Numerical modelling of high-temperature tube heat exchangers, K. Węglarz*, D. Taler, J. Taler, M. Marcinkowski (Presenter: Ms. Węglarz)
15:20 – 15:40	5. PRES22.0145: Investigation of vertical axis wind turbine design approaches - An overview, P. Bosnic*, I. Pehnec, M. Jurčević (Presenter: Mr. Bosnic)
15:20 – 16:00	Coffee Break and Poster Session 3
16:00 – 18:00 (Brač 1)	Session: Sustainable Energy Planning 2 Chair: Jakov Baleta Co-Chair: Petro Kapustenko
16:00 – 16:20	1. PRES22.0432: Thermal Processing of Waste Biomass as an Element of the Circular Economy Assumptions, S. Werle* (Presenter Prof. Werle)
16:20 – 16:40	2. PRES22.0012: Optimal design and management of a sustainable Biodiesel / Diesel supply chain operating under uncertainties, E. Ganev*, E. Kirilova, Y. Dzhelil, N. Vaklieva-Bancheva (Presenter: Dr Ganev)
16:40 – 17:00	3. PRES22.0021: Mega-scale decarbonized industrial park (Mega-DIP): Development of flexible renewable energy grid networks in petrochemical industry using multi-stage stochastic optimization, S. Heo, S. Kim, T. Woo, S. Hwangbo, C. Yoo* (Presenter: Mr. Heo)

17:00 – 17:20	4. PRES22.0428: COVID-19 Challenges, opportunities - A valuable lesson for the future sustainable development of energy management, A. Zafeiriou*, G. Chantzis, A. Papadopoulos (Presenter: Ms. Zafeiriou)
17:20 – 17:40	5. PRES22.0243: Sustainability Assessment Framework Incorporating Interval Parameters, P. Sharma*, S. Bandyopadhyay (Presenter: Mr. Sharma)
17:40 – 18:00	6. PRES22.0139: Multiperiod Energy Planning for Heavy Emitting Industries, P.N. S Bhasker Nair, D. Foo*, R.R. Tan, M. Short (Presenter: Mr. S Bhasker Nair)
16:00 – 18:00 (Brač 2)	Session: Heat Integration and Energy Savings 2 Chair: Calin Cristian Cormos Co-Chair: Petar Sabev Varbanov
16:00 – 16:20	1. PRES22.0353: Simultaneous Synthesis of Heat-Integrated Water Network with the Two-Step Approach, A. Nemet*, N. Ibrić, M. Bogataj, E. Ahmetović, Z. Kravanja (Presenter: Dr. Nemet)
16:20 – 16:40	2. PRES22.0426: Use of refrigerant blends to improve thermal efficiency of heat pump cycles, J. Carson*, J. Taylor, D. Hoang, T. Walmsley, Q. Chen, D. Cleland, (Presenter: Dr. Carson)
16:40 – 17:00	3. PRES22.0028: A Hybrid Evolutionary Algorithm for Multi-Objective Heat Exchanger Network Retrofit for Multi-Period Processes, J.A. Stampfli*, D.G. Olsen, B. Wellig, R. Hofmann (Presenter: Mr. Stampfli)
17:00 – 17:20	4. PRES22.0313: Thermodynamic analysis of LNG regasification process, S. Yadav*, R. Banerjee, S. Seethamraju (Presenter: Mr. Yadav)
17:20 – 17:40	5. PRES22.0534: What to Do with Greenhouse Gases? A Chemical Network Analysis, S.Y. Teng*, J. Jansen (Presenter: Dr Teng)
17:40 – 18:00	
18:00 – 19:00	Free Time
19:00 – 22:00	Gala Dinner – Closing, Award Ceremony, Introduction of PRES'23

PRES'22 Onsite Poster Presentation Schedule

Poster Session 1 (6 September 2022) – 13 posters

Title	Author	Presenter
PRES22.0064 Silver Jubilee of PRES conferences: Contributions to Process Integration Towards Sustainability	J.J. Klemeš*, P. Varbanov, Y.V. Fan, P. Seferlis, X.C. Wang, B. Wang	Prof Klemeš
PRES22.0049 Cost Analysis of a Sodium-ion Battery Pack for Energy and Power Applications using Combined Multi-physics and Techno-Economic Modeling	M.R. Domalanta, M. Castro, J.A. Del Rosario, J. Ocon*	Mr. Domalanta
PRES22.0074 Mechanical size reduction of lignocellulosic biomass: A mini-review	L. Kratky*, T. Jirout	Dr. Kratky
PRES22.0087 Economic Assessment of Green Hydrogen Production from Biomass Gasification with Chemical Absorption and Membrane-based CO2 Capture	C.C. Cormos*, M. Dragan, C. Dinca, A.M. Cormos, S. Dragan, I.D. Dumbrava, F.M. Ilea, S.C. Galusnyak	Prof. Cormos
PRES22.0088 Experimental investigation and modelling of PSA Oxygen Generator in Context of Oxy-fuel Combustion	M. Nedoma*, M. Netušil, P. Ditl	Dr. Netušil
PRES22.0097 Energy Density Optimization in a Primary Alkaline Battery using Multiphysics Modeling	M. Castro, J.A. Del Rosario, J. Ocon*	Mr. Castro
PRES22.0147 Techno-economics of “Teal” Hydrogen Production via Combined Steam Methane Reforming and Biomass Gasification	J. Cagape, K.A. Danganan, C.J. Galang, J.G. Tomacruz, M. Castro, J. Ocon*	Mr. Tomacruz
PRES22.0148 Assessment of Modelling Approaches for Partial Phase Changes of PCMs	M. Zalesak*, L. Klimes, P. Charvat, J. Duda	Mr. Zalesak
PRES22.0153 The Potential of Oxygen-Pressure Swing Adsorption Unit with Battery Electricity Storage System	R. Šulc*, P. Ditl	Dr. Šulc
PRES22.0155 Experimental Study of Oxygen Separation in Oxygen-Pressure Swing Adsorption Unit	R. Šulc*, M. Kos	Dr. Šulc
PRES22.0157 Technology roadmap for plastic waste utilization based on sustainability criteria. Case study: medium-sized municipality in latin america during covid-19 pandemic	V. Kafarov*, A.F. León-Esteban, L. Carreño-Villareal, S. Peña-Ruiz	Prof. Kafarov
PRES22.0161 Computer aided assessment of impact of plastic waste on environment during covid-19 pandemic in urban areas of developing countries.	D. Romo-Bucheli*, V. Kafarov, D. Rojas-Casadiegos, N. Galvan-Alvarez	Dr. Romo-Bucheli
PRES22.0173 Impact of products demands uncertainties at optimal design of a sustainable dairy supply chain: A case study of Bulgaria	E. Kirilova, N. Vaklieva-Bancheva, R. Vladova, T. Petrova, D. Nikolova, E. Ganev*, Y. Dzhelil	Dr. Ganev

Poster Session 2 (7 September 2022) – 13 posters

Title	Author	Presenter
PRES22.0064 Silver Jubilee of PRES conferences: Contributions to Process Integration Towards Sustainability	J.J. Klemeš*, P. Varbanov, Y.V. Fan, P. Seferlis, X.C. Wang, B. Wang	Prof Klemeš
PRES22.0177 Investigation and Modelling of Cylindrical Dividing Headers	D. Babička Fialová*, Z. Jegla	Ms. Babička Fialová
PRES22.0184 Integrated green hydrogen production by solid oxide electrolysis cells in energy industry: A review	S. Zhang, N. Zhang*	Mr. Zhang
PRES22.0187 Process Intensification with Microprocess Engineering	A. Verdnik, Z. Novak Pintarič, Z. Kravanja*	Ms. Verdnik
PRES22.0196 The Effect of Intermittency on Drop Size in a Liquid-Liquid Dispersion Agitated by High-Shear Sawtooth Impeller	R. Formánek*, R. Šulc	Mr. Formánek
PRES22.0200 Recent Progress in the Synthesis of Heat-Integrated Water Networks	E. Ahmetović*, N. Ibrić, A. Nemet, Z. Kravanja, I. Grossmann	Prof. Ahmetović/ Prof Zdravko
PRES22.0203 Kinetic Analysis of Pyrolysis of Sewage Sludge from Edible Oil Industry Wastewater Treatment Plant	N. Rašl, J. Stergar, D. Urbančl, D. Goricanec, L. Čuček, A. Petrovič*	Dr. Petrovič
PRES22.0234 Modeling of Alfalfa Yield Forecasting Based on Earth Remote Sensing (ERS) Data and Remote Sensing Methods	M. Sadenova*, N. Beisekenov, B. Apshikur, S. Khrapov, A. Kapasov, A. Mamysheva, J. Klemes (pres Chair)	Dr. Sadenova
PRES22.0256 Separation of Methylcyclohexane–Toluene Mixture Using Imidazolium Ionic Liquids	E. Graczová*, P. Steltenpohl	Prof. Graczová
PRES22.0293 Hydrothermal liquefaction of microalgae for the production of biocrude and value-added chemicals.	P. Costa*, R. Mata, F. Pinto, F. Paradela, F. Dutra, C. Matos	Dr. Costa
PRES22.0297 Using Remote Sensing Data to Support Intelligent Agricultural GIS to Monitor the Condition of Arable Land and Crops	M. Rakhymberdina*, N. Kulenova, Z. Shaimardanov, Z. Assylkhanova, M. Toguzova, D. Kassymov	Dr. Rakhymberdina
PRES22.0300 The Potential of Dynamic Filtration for Microalgae Harvesting	M. Hladíková*, R. Šulc	Ms. Hladíková
PRES22.0329 The Study of Heat Transfer Enhancement in Panel-Plate Heat Exchanger	O. Perevertaylenko, L. Tovazhnyanskyy, J.J. Klemeš, P. Arsenyev, O. Arsenyeva, P. Kapustenko*	Prof. Kapustenko

Poster Session 3 (8 September 2022) – 12 posters

Title	Author	Presenter
PRES22.0064 Silver Jubilee of PRES conferences: Contributions to Process Integration Towards Sustainability	J.J. Klemeš*, P. Varbanov, Y.V. Fan, P. Seferlis, X.C. Wang, B. Wang	Prof Klemeš
PRES22.0338 Modelling of fly ash impacting a powdery deposit consisting of randomly placed poly-sized spherical particles	J. Strouhal*, T. Jurena, Z. Jegla	Mr. Strouhal
PRES22.0363 Potential for Production of Energy and Valuable Products from Food Loss and Waste in Slovenia	J. Drofenik, D. Urbanč, B. Pahor, D. Goricanec, Z. Kravanja, Z. Novak Pintarič*	Mr. Drofenik
PRES22.0396 Fungal-based biotransformation of selected food industry by-products to produce sugar rich hydrolysates for bioethanol production	M. Tišma*, M. Planinić, A. Bucic-Kojic, A.M. Dukaric, A. Zeko-Pivač, A. Bošnjaković, G. Šelo	Prof. Tišma
PRES22.0442 Ahuora: Digital Twin Framework for Heat Exchange Network Retrofit	S. Burroughs*, P. Patros, K. Grant, T. Walmsley, B. Young	Dr. Walmsley
PRES22.0456 Fragmentation of disposed plastic waste materials in different aquatic environments	O. Plohl, N. Sep, L. Fras Zemljič, A. Vujanovic, M. Čolnik, Y.V. Fan, M. Škerget, J.J. Klemeš, L. Čuček, J. Volmajer Valh*	Ms. Sep / Dr. Čuček
PRES22.0476 The pollution of water with organophosphorus pesticides and environmentally friendly method for their determination	D. Majer, M. Finšgar*	Mr. Majer
PRES22.0500 Assessment of Industrial Applicability for Three-phase Fluidized Bed Absorption Technology used for Post-combustion CO ₂ Capture: A Dynamic Modelling Study	F.M. Ilea, A.M. Cormos*, S. Dragan, C.C. Cormos	Dr. Cormos
PRES22.0519 Comparative Life Cycle Assessment of Organic Rankine Cycle Considering Different Sustainable and Conventional Electricity Production Scenarios	G. Strajnar, M. Dokl, A. Vujanovic, L. Čuček*	Ms. Dokl
PRES22.0488 Integrating Building Information Modelling and Lean Construction Thinking for Improving Construction Management: From a Project Lifecycle View	S. Zhang, S. Yang, J.L. Hao*	Dr. Hao
PRES22.0190 Reduction of Energy Demand of Pressure-Swing Distillation by Splitting the Feed between the High- and Low-Pressure Columns	L. Hegely*, A. Muhammad, P. Lang	Dr. Hegely
PRES22.0322 Integrated absorption-adsorption process for waste free decontamination of gases from sulphur dioxide. Part 2: CFD modelling, kinetics and hydrodynamics of a single tray with a single bubble cap	A. Apostolov*, S. Paniowska, S. Stefanov, D. Dzhonova-Atanasova, E. Razkazova-Velkova	Mr. Apostolov