



NATIONAL INSTITUTE
OF CHEMISTRY



University of Maribor
Faculty of Chemistry and
Chemical Engineering



EUROPEAN UNION
EUROPEAN REGIONAL
DEVELOPMENT FUND



REPUBLIC OF SLOVENIA
MINISTRY OF ECONOMIC DEVELOPMENT
AND TECHNOLOGY



SRIP KROŽNO
GOSPODARSTVO

TBMCE 2019

24. – 25. 10. 2019
Grand Hotel Bernardin
Portorož, Slovenija

PRELIMINARNI PROGRAM KONFERENCE
PRELIMINARY CONFERENCE PROGRAMME

V preliminarinem programu lahko pride do sprememb.
The preliminary programme may be subject to change.



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“Naložbo sofinancirata Republika Slovenija in Evropska unija iz Evropskega sklada za regionalni razvoj”
“This investment is co-financed by the Republic of Slovenia and the European Union Fund for Regional Development”



REPUBLIKA SLOVENIJA
**MINISTRSTVO ZA GOSPODARSKI
RAZVOJ IN TEHNOLOGIJO**



REPUBLIC OF SLOVENIA
**MINISTRY OF ECONOMIC DEVELOPMENT
AND TECHNOLOGY**

“Dogodek poteka pod pokroviteljstvom Ministrstva za gospodarski razvoj in tehnologijo”
“The event is under the patronage of Ministry of Economic Development and Technology”

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Ustne predstavitve, paneli, družabni dogodki / Oral Presentations, Panel Discussions, Social Events

Sreda / Wednesday, 23. 10. 2019	
17:00 - 19:00	Registracija / Registration
19:00 - 22:00	Spoznavni večer / Get together

Četrtek / Thursday, 24. 10. 2019		
9:00 - 10:00	Registracija / Registration	
10:00 - 10:30	Otvoritev / Opening Ceremony Ministrstvo za gospodarski razvoj in tehnologijo, KI, FKKT, ŠGZ	
10:30 - 11:15	Plenarno predavanje / Plenary Lecture 133 - Multiscale approach for the design of integrated waste-based facilities Mariano Martín Martín , University of Salamanca, Spain Predsednik / Chair: Zdravko Kravanja	
11:15 - 11:30	Odmor za kavo in poster sekcija / Coffee break and Poster Session	
11:30 - 13:30	Sekcija A / Sessions A Predsednik / Chair: Primož Oven & Kathleen Aviso	Sekcija B / Sessions B Predsednik / Chair: Raymond Tan & Andreja Nemet
11:30 - 11:50	116 - The influence of safety factor on the optimal design of underground lined rock cavern Stojan Kravanja , University of Maribor, Slovenia	120 - Competence model for factories of the future Tanja Batkovič , Jožef Stefan IPS & University of Maribor, Slovenia
11:50 - 12:10	107 - Small scale incineration plant for energy recovery from sewage sludge: system development and testing Tine Seljak , University of Ljubljana, Slovenia	123 - Education for Zero Waste and Circular Economy Sector in Europe Peter Glavič , University of Maribor, Slovenia
12:10 - 12:30	143- Evaluation of Environmental Impacts of Urea Production from Renewable Sources Annamaria Vujanović , University of Maribor	103 - EduZWaCE Knowledge Hub: A resource centre to support training on circularity and zero waste Cristina Sousa Rocha , LNEG, Portugal
12:30 - 12:50	102 - Use of supercritical water for degradation of polyethylene waste Mojca Škerget , University of Maribor, Slovenia	73 - Ekstraktivi lesa robinije kot spojine z dodano vrednostjo Viljem Vek , University of Ljubljana, Slovenia
12:50 - 13:10	108 - Modeling the Ripple Effects of Geopolymer Substitution in Construction Kathleen Aviso , De La Salle University, Philippines	115 - Chitosan-based films upgraded with locally available natural plant extracts Uroš Novak , National Institute of Chemistry, Slovenia
13:10 - 13:30	96 - An ICT platform facilitating Circular Economy Business Models Georgios Tsimiklis , Institute of Communication & Computer Systems (ICCS), Greece	135 - Bio-based resins for coatings Nataša Čuk , HELIOS TBLUS Količevo, d.o.o., Slovenia
13:30 - 15:00	Kosilo / Lunch Break	
15:00 - 17:30	Panel Discussions	
15:00 - 16:40	Panel 1: Ongoing projects and internationalization in Circular Economy	
16:40 - 17:10	Odmor za kavo in poster sekcija / Coffee break and Poster Session	
17:10 - 18:00	Panel 2: Education for zero waste and circular economy	
18:00 - 20:00	Prosti čas / Free Time	
20:00 - 23:00	Večerja / Gala Dinner	



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Petek / Friday, 25. 10. 2019		
9:00 – 11:00	Sekcija A / Sessions A Predsednik / Tomaž Katrašnik & Jiri Klemeš	Sekcija B / Sessions B Predsednik / Chair: Mariano Martín & Lidija Čuček
9:00 – 9:20	131 - Problem analysis on the barriers toward a circular sanitation economy Michael Angelo Promentilla , De La Salle University, Philippines	122 - Green (electro)chemical method for noble metal recycling Milutin Smiljanić , National Institute of Chemistry, Slovenia
9:20 – 9:40	117 - Sustainability profit generated by the optimization of the continuous beams Tomaz Žula , University of Maribor, Slovenia	132 - Valorization of coal fly ash and mine waste as binder precursor for alkali-activated materials April Anne Tigue , De La Salle University, Philippines
9:40 – 10:00	113 - Modeling-Based Design of Biochemical Processes in Microscale-Based Technology Filip Strniša , University of Ljubljana, Slovenia	127 - The H2020 CINDERELA project — New Circular Economy Business Model for More Sustainable Urban Construction Kim Mezga , Slovenian national building and civil engineering institute, Slovenia
10:00 – 10:20	138 - Integrated approaches for sustainable and circular ports Cristian Chiavetta , ENEA, Italy	92 - Microstructural evaluation of fly ash based alkali-activated foams Katja Traven , Slovenian national building and civil engineering institute, Slovenia
10:20 – 10:40	136 - Taking a circular business model transformation past organisational barriers Jurij Giacomelli , Giacomelli Media Ltd, Slovenia	109 - The use of paper industry side product in construction Barbara Likar , Slovenian national building and civil engineering institute, Slovenia
11:40 - 12:10	Malica, kava in poster sekcija / Brunch, Proster Session	
12:10 – 12:30	Osrednje predavanje / Keynote lecture 97 - Thermodynamic Modelling Concepts for Sustainable Pollution Reduction Jiří Klemeš , Brno University of Technology, Czech Republic	
12:30 – 12:50	Osrednje predavanje / Keynote Lecture 151 – Probing electrochemical reactions in metal-organic batteries with ATR-IR <i>operando</i> spectroscopy Alen Vižintin , National Institute of Chemistry, Slovenia	
12:50 – 14:30	Panel Discussions	
12:50 – 13:40	Panel 3: Problematics of waste plastic and rubber disposal in collection centers	
13:40 – 14:30	Panel 4: Human resources – the importance of professional development for the transition to Circular Economy	
14:30 – 15:00	Zaključek / Farewell	

POSTERJI / POSTER SESSIONS

Št. /
Slot

- 129 - Investigation of Parameters in Waste Materials during Pretreatment
Aleksandra Petrovič, University of Maribor, Slovenia
- 111 - SPL recycling a business model for a single remote plant and products distribution
Dušan Klinar, Scientific Research Centre BISTRA, Slovenia
- 106 - Municipal Waste Composition Analyses – Approaches and Solutions for Czech Waste Management
Jiří Kropáč, Brno University of Technology, Czech Republic
- 95 - EMAS and Circular Economy - Regulatory relief measures and incentives for EMAS in Slovenia
Klavdija Rižnar, Scientific Research Centre BISTRA, Slovenia

- 5 130 - Anaerobic co-digestion of sewage sludge and *Typha latifolia* and the impact of cattle rumen fluid on biogas production
Aleksandra Petrovič, University of Maribor, Slovenia
- 6 121 - Coated magnetic nanoparticles as versatile carriers for adsorption of HREEs from wastewater
Irena Ban, University of Maribor, Slovenia
- 7 112 - Economic assessment of waste oil-in-water emulsions treatment processes
Zorka Novak Pintarič, University of Maribor, Slovenia
- 8 98 - The inhibition effect of natural Honey on corrosion of stainless steel in 17% HCl solution
Regina Fuchs-Godec, University of Maribor, Slovenia
- 9 104 - Lignin concentration during incubation of chicken manure with sawdust and wheat straw or *Miscanthus* overgrown with *Pleurotus ostreatus* fungi
Darja Pečar, University of Maribor, Slovenia
- 10 105 - The deformation of alkali activated materials at different curing temperature
Mark Češnovar, Slovenian National Building And Civil Engineering Institute, Slovenia
- 11 91 - Foundry wastes as potential precursor in alkali activation technology
Barbara Horvat, Slovenian National Building And Civil Engineering Institute, Slovenia
- 12 114 - Synthesis of Flexible Processes Under Variable Carbon Tax Rates
Klavdija Zirngast, University of Maribor, Slovenia
- 13 125 - Enzyme Inactivation using High Pressure Carbon Dioxide Technology
Maja Leitgeb, University of Maribor, Slovenia
- 14 134 - Enhanced inherent safety assessment during heat exchanger network synthesis
Andreja Nemet, University of Maribor, Slovenia
- 15 142 - Use of acid whey from dairy industry as a source of valuable bioactive proteins
Jernej Oberčkal, University of Ljubljana, Slovenia
- 16 141 - Use of whey from dairy industry for the production of starter cultures and antimicrobial metabolites
Diana Paveljšek, University of Ljubljana, Slovenia
- 17 118 - Pyrolysis – An Alternative Way of Recycling
Matevž Roškarič, University of Maribor, Slovenia
- 18 145 - Catalytic conversion of biomass-derived furfural into value-added chemicals
Aleksa Kojčinović, National Institute of Chemistry, Slovenia
- 19 Transportation Model for Carbon-Constrained Electricity Planning: An Application to the Aluminium Industry
Lidija Čuček, University of Maribor Slovenia
- 20 183 – Comparative Life Cycle Assessment of alternative packaging materials for beverage
Damjan Krajnc, University of Maribor, Slovenia
- 21 146 – Turning Wastewater Into Added-Value Products For Circular Economy In Agriculture
Project Water2Return – Recovery And Recycling Of Nutrients
Maja Berden Zrimec, AlgEn, Slovenia
- 22 144 - Energetical Performance of Heat Pump-Enhanced Solar Thermal considering Hourly-based Meteorological Data
Ben Abikoye, University of Cape Town, South Africa