



**conect**

Conference of Environmental  
and Climate Technologies

**11-13 May 2022**

**ON SITE AND ONLINE**

# Conference Program

## Conference Topics:

Sustainability of Technology  
Development

Renewable Energy

Green Transport Systems

Biofuels and Alternative Fuels

Bioeconomy and Low Carbon  
Development

Smart Energy and Zero Carbon  
Technologies

System Approach Integration in  
Energy Sector

Resilience

Resource Efficiency, Circular Economy  
and Eco-design

Pollution Prevention

Energy Efficiency Improvement

Energy and Carbon Markets

Energy and Environmental  
Modelling

Energy Management, Policy and  
Economics

Heat and Power Generation, incl.  
District Heating and/or Cooling

Organised by:



## About CONECT

CONECT – International Scientific Conference of Environmental and Climate Technologies – is organised by the Institute of Energy Systems and Environment, Riga Technical University.

Its main aim is to acquaint researchers with achievements in the area of energy systems and environmental engineering and to give the scientists, PhD students and professionals an opportunity to present and publish the results of their research.

The best conference papers will be published in the international scientific journal “**Environmental and Climate Technologies**”. The journal is indexed in **Scopus** and **Web of Science**.

## Venue

The conference will be held online from 11-13 May 2022. Conference will be held on Zoom platform and on site in Riga Technical University. Online participants will receive instructions and links for joining the conference via e-mail.

## Conference language

The official conference language is English.

## Connection time and registration for Conference

**Wednesday, 11 May from 8:30–9:00**

**Thursday, 12 May from 8:30–9:00**

**Friday, 13 May from 8:30-9:00**

## Guidelines

### Oral presentations

All presenters are kindly asked to join the Conference 10 minutes before the sessions in order to prepare for presenting and check their connection. A Technical Assistant and a Session Chair will be available online to provide the assistance.

Duration of each oral presentation in plenary session is 15-25 minutes (as scheduled in the program) and 5 minutes for questions and discussions. Duration of each oral presentation in other sessions is 12 minutes and 3 minutes for questions and discussions.

### Poster presentations

There are two poster sessions scheduled:

- ONLINE SESSION – May 11 – May 13, you will receive access information via e-mail
- ON SITE SESSION – on Thursday, 12 May from **17:15–18:15**

Suggested template of the posters is available on CONECT web page and posters should be saved in .pdf format before submission. For online exhibition purposes authors need to prepare an audio file that will be available together with poster for online exhibition visitors. On site poster presentations will have 3 minutes each with possibility of follow up questions.

## Scientific Committee / Editorial Board of the CONECT 2022:

**Dagnija Blumberga**, Riga Technical University, Latvia  
**Ivars Veidenbergs**, Riga Technical University, Latvia  
**Timo Laukkanen**, Aalto University, Finland  
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**Fosca Conti**, University of Padova, Italy

### Our Partners:



## WEDNESDAY, 11 May *ONLINE AND ON SITE*

08:30 – 09:00	Registration
08:45 – 09:00	Online connection time
09:00 – 09:10	Conference opening
	<b>PLENARY SESSION I</b>
	<b>Moderator: Gatis Bazbauers, Riga Technical University, Latvia</b>
09:10 – 09:40	The European energy transition with reflection to energy security <b>Peter D. Lund</b> , Aalto University, Finland
09:40 – 09:55	Bioeconomy Sector Lights up Problems of Energy Sector <b>Dagnija Blumberga</b> , Riga Technical University, Latvia
09:55 – 10:10	The concept of Social Farming and its impact on society and communities <b>Thomas Van Elsen</b> , University of Kassel / Petrarca, Germany
10:10 – 10:25	Break
	<b>PANEL SESSION I: Bioeconomy</b>
	<b>Moderator: Francesco Romagnoli, Riga Technical University, Latvia</b>
10:25 – 10:40	Advisory structures to support the development of Social Farming <b>Lena Franke</b> , Thomas van Elsen, University of Kassel / Petrarca, Germany
10:40 – 10:55	Bioeconomy in the shade of Green Deal: the system dynamic approach <b>Vladimirs Kirsanovs</b> , Kristiana Dolge, Girts Bohvalovs, Anda Blumberga, Dagnija Blumberga Riga Technical University, Latvia
10:55 – 11:10	Impact of Social Farming on development marginalized regions <b>Thomas Van Elsen</b> , Alexandra Retkowski, University of Kassel / Petrarca, Germany
11:10 – 11:25	Optimization of yeast cultivation factors for improved SCP production <b>Kriss Spalvins</b> , Svetlana Raita, Dagnija Blumberga, Riga Technical University, Latvia
11:25 – 11:40	Feeding Management optimization in livestock farms with anaerobic digestion plant: a Discrete Stochastic Programming (DSP) model <b>Lucio Cecchini</b> , Daniela Pezzolla, Massimo Chiorri, Giovanni Gigliotti, Biancamaria Torquati, University of Perugia, Italy
11:40 – 11:55	Assessing Bioeconomy Development Opportunities in the Latvian Policy Planning Framework <b>Krista Laktuka</b> , Dagnija Blumberga, Riga Technical University, Latvia Stelios Rozakis, Technical University of Crete, Greece
11:55 – 12:10	Scientific, Technical and Economic Features of Hydrogen Fuel Application in Heat Supply Systems <b>Gennadii Varlamov</b> , Dagnija Blumberga, Ivan Mitchenko, Zhang Weijie, Jiang Jianguo Kyiv Politechnic Institute, Ukraine
12:10 - 12:25	Life Cycle Inventory for safflower production in Southern Europe <b>Lucia Rocchi</b> , Michela Farneselli, Luisa Paolotti, Beatrice Falcinelli, Marcello Guiducci, Antonio Boggia, University of Perugia, Italy
12:25 – 13:15	Lunch Break

<b>PANEL SESSION II: Bioresources</b>	
	<b>Moderator: Valeria Mezzanotte, University of Milano-Bicocca, Italy</b>
13:15 – 13:30	Research and Development of Sound Scattering Structures using Secondary raw Recycled Materials <b>Kamyab Mohammadi</b> , Raimondas Grubliauskas, Vilnius Gediminas Technical University, Lithuania Maksims Feofilovs, Riga Technical University, Latvia
13:30 – 13:45	Disinfectants impact on water quality <b>Ieva Andriulaityte</b> , Marina Valentukeviciene, Vilnius Gediminas Technical University, Lithuania
13:45 – 14:00	Experimental studies and theoretical modelling for diesel engine running on biodiesels from South African sunflower and canola oil <b>Christopher Chintua Enweremadu</b> , Olusegun D. Samuel, Hilary Limo Rutto, University of South Africa, South Africa
14:00 – 14:15	Bioresource value model: a TIMES-based approach <b>Maksims Feofilovs</b> , Ilze Luksta, Ieva Laganovska, Pauls Asaris, Dagnija Blumberga, Riga Technical University, Latvia
14:15 – 14:30	Effect of organic fertilization on the physiological status of tomatoes under abiotic stress. <b>Kostadin Kostadinov</b> , Radoslav Chipilski, Stoyan Filipov, Agricultural University, Bulgaria
14:30 – 14:45	Algae culture conditions and process parameters for phycoremediation and biomaterials production <b>Marta Bertolini</b> , Fosca Conti, University of Padova, Italy
14:45 – 15:00	A life cycle assessment of high characteristics drop-in biofuels from residual soft wood <b>Stefan Puschnigg</b> , Karin Fazeni-Fraisl, Energieinstitut an der Johannes Kepler Universität Linz, Austria
15:00 – 15:15	Break
<b>PANEL SESSION III: Climate Policies</b>	
	<b>Moderator: Aiga Barisa, Riga Technical University, Latvia</b>
15:15 – 15:30	The performance and emission characteristics assessment hybrid biodiesel/ethanol blends in a diesel engine <b>Shumani Ramuhaheli</b> , Vasudeva Rao Veeredhi, Christopher Chintua Enweremadu University of South Africa, South Africa
15:30 – 15:45	LCA of Zero Valent Iron Nanoparticles Encapsulated in Algal Biomass for the Polishing of Treated Effluents <b>Valeria Mezzanotte</b> , Marco Mantovani, Martina Invernizzi, Elena Collina, University of Milano-Bicocca, Italy Francesco Romagnoli, Baiba Ievina, Riga Technical University, Latvia Elena Ficara, Technical University of Milan, Italy
15:45 – 16:00	Modelling and Evaluation of the Effectiveness of Low Height Barriers <b>Domininkas Sarpalius</b> , Raimondas Grubliauskas, Vilnius Gediminas Technical University, Lithuania

16:00 – 16:15	Zoysia Soil-less Green Roof's Performance: A Life Cycle Assessment <b>Desirée Muscas</b> , Fabiana Frota de Albuquerque Landi, Claudia Fabiani, David Grohmann, Lucia Rocchi, University of Perugia, Italy
16:15 – 16:30	Genericization of Historical Bricks by Supervised Agglomerative Clustering of Hygrothermal Properties and Delphin Simulation Results data <b>Ritvars Freimanis</b> , Zigmārs Zundans, Roberts Balins, Ruta Vanaga, Andra Blumberga, Riga Technical University, Latvia
16:30 – 16:45	Barriers and driving factors for sustainable development of CO2 utilisation <b>Jelena Pubule</b> , Riga Technical University, Latvia
16:45 – 17:00	Environmental Assessment of fresh sausage transformation process in the Italian context: an LCA study <b>Luisa Paolotti</b> , Lucia Rocchi, Antonio Boggia, University of Perugia, Italy
18:00	Social Dinner

## THURSDAY, 12 May *ONLINE AND ON SITE*

08:30 – 09:00	Registration
08:45 – 09:00	Connection time
09:00 – 09:10	Questionnaire
	<b>PLENARY SESSION II</b>
	<b>Moderator: Dagnija Blumberga, Riga Technical University, Latvia</b>
09:10 – 09:35	Life Cycle Sustainability evaluation of potential bioenergy development for landfills in Colombia <b>Mabell Ruiz</b> , National University of Colombia, Colombia
09:35 – 09:55	Multiplayer game for energy communities <b>Andra Blumberga</b> , Riga Technical University, Latvia
09:55 – 10:10	Building capacity to address climate and environmental issues: the necessity of interdisciplinary competencies to educate students <b>Timothée Toury</b> , Université de Technologie de Troyes, France
10:10 – 10:25	Break
	<b>PANEL SESSION IV: Energy Efficiency</b>
	<b>Moderator: Claudio Rochas, Riga Technical University, Latvia</b>
10:25 – 10:40	Decreasing the Load of Air to Water Heat Pump Systems on Electrical Grids <b>Heino Pihlap</b> , Alo Allik, Siim Muiste, Estonian University of Life Sciences, Estonia
10:40 – 10:55	How Germany can achieve Climate Neutrality – 5 Studies in Comparison <b>Theresa Reinhardt</b> , Laura Hofmann, Amélie Oberdorfer, Christoph Schmidt, Viktor Wesselak, University of Applied Sciences Nordhausen, Germany
10:55 – 11:10	Differential evolution optimization advantages in transition to energy communities. System dynamic model for multi-family buildings <b>Ruta Vanaga</b> , Ģirts Bohvalovs, Ritvars Freimanis, Vita Brakovska, Andra Blumberga, Riga Technical University, Latvia
11:10 – 11:25	Assessing CO <sub>2</sub> Concentration in a Converted Church and Its Interrelation with Occupancy and Activity Levels <b>Carlos Jimenez-Bescos</b> , Oslo Metropolitan University, Norway Peter Chisnall, GreenPeaches, UK
11:25 – 11:40	Comparison of Changes in Electricity Consumption Distribution in Day and Night Scale Caused by Nord Pool Spot Prices Volatility <b>Heiki Lill</b> , Heino Pihlap Estonian University of Life Sciences, Estonia
11:40 – 11:55	Hydronic road-heating systems: environmental performance and the case of Ingolstadt Ramps <b>Arslan Ahmed</b> , Markus Goldbrunner, Technische Hochschule Ingolstadt, Germany Fosca Conti, Technische Hochschule Ingolstadt, Germany/ University of Padova, Italy Peter Bayer, MLU Halle-Wittenberg, Germany

11:55 – 12:10	Impact of Covid-19 on energy consumption in public buildings <b>Agris Kamenders</b> , Anda Jekabsone, Marika Rosa, Riga Technical University, Latvia
12:10 – 12:25	Analysis of heat pumps efficiency in selected locations – a case study <b>Agata Oltarzewska</b> , Dorota Anna Krawczyk, Doctoral School of Bialystok University of Technology, Poland
12:25 – 13:15	Lunch Break
	<b>PANEL SESSION V: Renewable Energy Technologies</b>
	<b>Moderator: Timo Laukkanen, Aalto University, Finland</b>
13:15 – 13:30	Experimental validation of a solid sorption mathematical model <b>Nayrana Daborer-Prado</b> , Gayaneh Issayan, Bernhard Zettl, University of Applied Sciences Upper Austria, Austria
13:30 – 13:45	Analysis of MPC application for domestic solar hot water system using TRNSYS and Matlab <b>Mikelis Dzikevics</b> , Riga Technical University, Latvia
13:45 – 14:00	Production of biodiesel using phosphate rock as a heterogeneous catalyst. An optimized process using surface response methodology <b>Hilary Rutto</b> , Janet Kiprono, Tumisan Seodigeng, Vaal University of Technology, South Africa
14:00 – 14:15	Prospects of wood pellet production and business models in Kazakhstan - a case study <b>Timur Kogabayev</b> , Anne Poder, Estonian University of Life Sciences, Estonia
14:15 – 14:30	The comparison of RES sustainable development in the main sectors of economy <b>Lauma Balode</b> , Kristiāna Dolge, Dagnija Blumberga, Riga Technical University, Latvia
14:30 – 14:45	Investigation of heat pump efficiency in Baltic states using TRNSYS simulation tool <b>Tomas Kropas</b> , Giedrė Streckienė, Vilnius Gediminas Technical University, Lithuania Vladimirs Kirsanovs, Mikelis Dzikevics, Riga Technical University, Latvia
14:45 – 15:00	Solar Energy Based charging for vehicles at fuel stations <b>Gunars Valdmanis</b> , Madara Rieksta, Gatis Bažbauers, Riga Technical University, Latvia
15:00 – 15:15	Break
	<b>PANEL SESSION VI: Energy Sector Policies</b>
	<b>Moderator: Gennadii Varlamov, Kyiv Politechnic Institute, Ukraine</b>
15:15 – 15:30	The use of acoustic effects for the prevention and elimination of fires as an element of modern environmental technologies <b>Jacek Wilk-Jakubowski, Grzegorz Wilk-Jakubowski, Radosław Harabin</b> , Poland Valentyna Loboichenko, Roman Shevchenko, Victor Strelets, Alexander Levterov, Alexander Soshinskiy, Nataliia Tregub, Oleksii Antoshkin, Poland, Ukraine



15:30 – 15:45	Challenges & opportunities for sustainable transport policy development – results from stakeholder interviews in Latvia <b>Aiga Barisa</b> , Riga Technical University, Latvia
15:45 – 16:00	Thermochemical treatment of biomass waste as a tool for carbon capture and added value material production <b>Lauris Arbidans</b> , Māris Kļaviņš, Valdis Bisters, Linda Ansone-Bertina, University of Latvia, Latvia
16:00 – 16:15	Mitigating Overvoltage in Power Grids with Photovoltaic Systems by Energy Storage <b>Sarah Landl</b> , Harald Kirchsteiger, University of Applied Sciences Upper Austria, Austria
16:15 – 16:30	Passenger transport shift to green mobility – assessment using TIMES model <b>Ieva Pakere</b> , Signe Allena-Ozolina, Dzintars Jaunzems, Ritvars Freimanis, Andra Blumberga, Gatis Bazbauers, Riga Technical University, Latvia
16:30 – 16:45	Influence of Data Reduction methods on economic evaluation of energy-communities <b>Fernando Carreras</b> , Gerald Steinmaurer University of Applied Sciences Upper Austria, Austria
16:45 – 17:00	District heating production tariff benchmark for energy regulation policy <b>Ugis Sarma</b> , Gatis Bazbauers, Riga Technical University, Latvia
17:00 – 17:15	Break
17:15 – 18:15	<b>POSTER SESSION - ON SITE</b>
	<b>Moderator: Agris Kamenders, Riga Technical University, Latvia</b>

## FRIDAY, 13 May *ONLINE AND ON SITE*

08:30 – 09:00	Registration
08:45 – 09:00	Connection time
09:00 – 09:10	Best paper announcement
	<b>PLENARY SESSION III</b>
	<b>Moderator: Andra Blumberga, Riga Technical University, Latvia</b>
09:10 – 09:35	Resilience and risk reduction strategies facing climate change <b>Fausto Marincioni, Università Politecnica delle Marche, Italy</b>
09:35 – 09:55	Bridging engineering and social science in energy transition modeling <b>Gatis Bazbauers, Riga Technical University, Latvia</b>
09:55 - 10:15	Break
	<b>PANEL SESSION VII: District Heating</b>
	<b>Moderator: Anna Volkova, Tallinn University of Technology, Estonia</b>
10:15 – 10:30	Energy cascades: Barriers and drivers <b>Kertu Lepiksaar, Tallinn University of Technology, Estonia</b>
10:30 – 10:45	Simulation case studies on cascaded low-temperature sub-networks in district heating <b>Hanne Kauko, Sintef, Norway</b>
10:45 - 11:00	Cascading of sub-LTDHN in existing HTDHN - Techno-economic scalability and operational dynamics analyses <b>Stefan Reuter, Austrian Institute of Technologie, Austria</b>
11:00 - 11:15	Individual buildings to self-sufficient energy community – What it takes? <b>Vita Brakovska, Girts Bohvalovs, Andra Blumberga, Ruta Vanaga, Ritvars Freimanis</b> Riga Technical University, Latvia
11:15 - 11:30	Can suitable business models promote 5GDHC implementation? <b>Lina Murauskaite, Lithuanian Energy Institute, Lithuania</b> Ieva Pakere, Marika Kacere, Riga Technical University, Latvia Anna Volkova, Tallinn University of Technology,, Estonia Pie Huang, Dalarna University, Sweden
11:30 - 11:45	Emissions and efficiency limits of small scale biomass heating systems: regulations, standards, and eco-labels <b>Vivita Priedniece, Vladimirs Kirsanovs, Ivars Veidenbergs, Dagnija Blumberga, Riga Technical University, Latvia</b>
11:45-13:00	Lunch Break
	<b>PANEL SESSION VIII: State Research Program</b>
	<b>Moderator: Anna Kubule, Riga Technical University, Latvia</b>
13:00 - 13:15	Assessment of Latvia's renewable energy supply-demand economic potential and policy recommendations <b>Armands Gravelins, Riga Technical University, Latvia</b>
13:15 - 13:30	Energy and climate modelling towards net zero emissions <b>Dzintars Jaunzems, Riga Technical University, Latvia</b>

13:30 - 13:45	The pathway to energy efficient future for Latvia (EnergyPath) <b>Kristiana Dolge</b> , Riga Technical University, Latvia
13:45 - 14:00	Development of heat supply and cooling systems in Latvia <b>Ieva Pakere</b> , Riga Technical University, Latvia
14:00 - 14:15	Improvement of building energy efficiency technologies (I-BEET) <b>Ruta Vanaga</b> , Riga Technical University, Latvia
14:15 - 14:30	Assessment and analysis of energy efficiency policy (AAEEP) <b>Andra Blumberga</b> , Riga Technical University, Latvia
14:30 - 14:45	Sustainable and renewable transport policy formulation in Latvia (4muLATE) <b>Aiga Barisa</b> , Riga Technical University, Latvia
14:45 - 15:00	Conference closing
	<b>Study Tour Session in Laboratories</b>
15:00 - ...	Laboratory of Environmental Monitoring
	Laboratory of Combustion Processes
	Laboratory of Energy Efficiency
	Laboratory of Bio-systems
	Laboratory of Solar Systems

POSTER SESSION ON-SITE / VIRTUAL EXHIBITION

1.	What are the linkages between climate and economy? Bibliometric analysis.	<b>Kristiana Dolge</b> , Dagnija Blumberga Riga Technical University, Latvia
2.	Bibliometric review on state of the art biobased epoxy using microbial oils.	<b>Maksims Feofilovs</b> , Kriss Spalvins, Karlis Valters Riga Technical University, Latvia
3.	Potential of Using WVO for a Restaurant EV Charging Station	<b>Aiman Albatayneh</b> German Jordanian University, Jordania
4.	The effects of meteorological and hydrological conditions on nutrient losses from agricultural areas in Latvia	<b>Ieva Siksnane</b> , Ainis Lagzdins Latvia University of Life Sciences and Technologies, Latvia
5.	The effect of Fresnel lens focal point location on heat transfer in phase change material enhanced dynamic solar facade	<b>Janis Narbutis</b> , Andra Blumberga, Zigmars Zundans, Ritvars Freimanis, Roberts Balins, Ruta Vanaga Riga Technical University, Latvia
6.	Forestry sector resource optimization with TIMES	<b>Ieva Laganovska</b> , Maksims Feofilovs, Dagnija Blumberga Riga Technical University, Latvia
7.	Peat production for horticultural use in the Latvian context: sustainability assessment through LCA modelling	<b>Riccardo Paoli</b> , Maksims Feofilovs, Agris Kamenders, Francesco Romagnoli Riga Technical University, Latvia
8.	Magnesia Composites Formation as a Result of Furniture Production Wood Waste Processing	<b>Olga Miryuk</b> Rudny Industrial Institute, Kazakhstan
9.	Non-incomes risk mitigation mechanisms for cultural heritage: role of insurances facing Covid-19	<b>Andrea Jonathan Pagano</b> , Francesco Romagnoli Riga Technical University, Latvia Emanuele Vannucci University of Pisa, Italy
10.	Specific calculations of a radiant capillary heat exchanger's power for heating and cooling	<b>Stanislavs Gendelis</b> , Jevgenijs Dzerins, Jevgenijs Telicko, Andris Jakovics, Indulis Bukans University of Latvia, Latvia
11.	Decision making for energy efficiency measures in residential buildings - what influence the most?	<b>Selina Vancane</b> Riga Technical University, Latvia
12.	PCM modified gypsum hemcrete with increased heat capacity for nearly zero energy buildings	<b>Girts Bumanis</b> , Diana Bajare Riga Technical University, Latvia
13.	Indoor air quality guidelines connection to IAQ certification and labelling process	<b>Aneka Klavina</b> , Klinta Luize Sprudza, Buka Berzina, Ruta Kauce, Zanna Martinsone Riga Stradins University, Latvia
14.	The Impact of Volatile Electricity Stock Prices on the Consumption of the Heat Pump	<b>Heino Pihlap</b> , Estonian University of Life Sciences, Estonia
15.	Sound Absorption: Dependence of Rubber Particles Impurities in Tyre Textile Fiber	<b>Robert Ružickij</b> , Raimondas Grubliauskas Vilnius Gediminas Technical University, Lithuania

16.	Development of a Smart Automated Greenhouse	<b>Siim Poom</b> , Kertu Lepiksaar, Anna Volkova, Tallinn University of Technology, Estonia
17.	Removal of Cd, Cu, Ni, and Pb from Nanoscale Zero-Valent Iron Amended Soil Using 0.1 M Acetic Acid Solution	<b>Vaidotas Danila</b> , Tomas Januševičius Vilnius Gediminas Technical University, Lithuania
18.	Regional aspects in ecological policy implementation in the Republic of Kazakhstan and the Russian Federation	<b>Larisa Bozhko</b> Kazakhstan
19.	The Share of Energy Consumption by End Use in Electrical Residential Buildings in Jordan	<b>Aiman Albatayneh</b> German Jordanian University, Jordan
20.	The analysis of water mass movement in Lake Kisezers for evaluation of environmental sustainability	<b>Janis Dumpis</b> , Ainis Lagzdīņš, Ivo Sics Latvia University of Life Sciences and Technologies, Latvia
21.	Perceptions, choices and usage of ecological household chemicals: results from an online citizen survey in Latvia	<b>Aneka Klavina</b> , Maija Kalpisa, Linda Paegle, Lasma Akulova, Ivars Vanadzins Riga Stradins University, Latvia
22.	Dynamics Analysis of Wind Energy Production by Closed Loop Conveyor with Flat Blades	<b>Vitaly Beresnevich</b> , Marina Cerpinska, Janis Viba, Martins Irbe Riga Technical University, Latvia
23.	Legal Framework analysis for CO2 utilisation in Latvia	<b>Viktorija Terjanika</b> , Emils Zarins, Jelena Pubule Riga Technical University, Latvia
24.	Hydraulic structures and HPPs as a flow measuring devices	<b>Eva Bilkova</b> , Petr Nowak, Mikheil Sanikidze, Ketevan Tskhakaia CTU in Prague, Czech Republic
25.	Impact assessment of the renewable energy policy scenarios – a case study of Latvia	<b>Marika Kacare</b> , Ieva Pakere, Armands Gravelsins, Andra Blumberga Riga Technical University, Latvia
26.	Assessing the effectiveness of forestry and agricultural policies in national energy and climate plans	<b>Lauma Balode</b> , Dagnija Blumberga Riga Technical University, Latvia
27.	Influence of the COVID-19 pandemic on exposure to chemical substances in Latvia: data from the HBM4EU citizen survey and a focus group discussion	<b>Lasma Akulova</b> , Linda Paegle, Linda Matisane, Inese Martinsone, Ivars Vanadzins Riga Stradins University, Latvia
28.	Bioeconomy Towards Green Deal Target through Fuzzy Cognitive maps	<b>Tereza Bezrucko</b> , Liga Sniega, Dace Lauka, Dagnija Blumberga Riga Technical University, Latvia
29.	Analysis of Electric Scooter Use in Riga and Its Potential for GHG Emission Reduction in Urban Transportation	<b>Aivars Rubenis</b> , Armands Celms, Aivars Ratkevics Latvia University of Life Sciences and Technologies, Latvia
30.	Agro Biopolymer: A Sustainable Future of Agriculture - State of Art Review	<b>Nidhiben Patel</b> , Maksims Feofilovs, Dagnija Blumberga Riga Technical University, Latvia
31.	Supercritical CO2 extraction of fish roe	<b>Ilze Luksta</b> , Kriss Spalvins Riga Technical University, Latvia

32.	Non-Formal Education: will the bioeconomy and Green Deal goals be achieved?	<b>Antra Kalnbalkite</b> , Jelena Pubule, Dagnija Blumberga Riga Technical University, Latvia
33.	Photovoltaic Failure Classification Analysis in Terms of Characteristic Curve	<b>EL AMIM Abderrazzak</b> , Sarikh Salima, Raoufi Mustapha, Bennouna Amin Cadi Ayyad University Marrakesh, Morocco
34.	Sustainable facility location: a case study in the field of biorefineries	<b>Giuseppe Tomasoni</b> , Massimo Collotta, University of Brescia, Italy Warren Mabee, Queen's University, Canada Pascale Champagne, Mining and Environment Research Centre, Canada
35.	Transition to climate neutrality at University Campus. Case Study in Europe, Riga	<b>Ketija Bumbiere</b> , Aiga Barisa, Jelena Pubule, Dagnija Blumberga Riga Technical University, Latvia Tomás Gómez-Navarro, Universitat Politècnica de València, Spain
36.	Towards climate neutrality via sustainable agriculture in soil management	<b>Agita Gancone</b> , Jelena Pubule, Ruta Viznere, Daina Kaleja, Dagnija Blumberga Riga Technical University, Latvia
37.	Bioresource Value Model. Case of crop production	<b>Ilze Luksta</b> , Maksims Feofilovs, Dagnija Blumberga Riga Technical University, Latvia
38.	The presence of phthalates and policies to reduce their circulation in products and the environment	<b>Zanna Martinson</b> , Berta Pulmane, Inese Martinson Riga Stradins University, Latvia
39.	Establishment of Biotesting System to Study Features of Innovative Multifunctional Biotextile	<b>Dace Grauda</b> , Nikole Krasnevska, Andra Mikelsone, Karlis Zagata, Valters Gobins, Davis Rasals, Inese Vilcane University of Latvia, Latvia Dalius Butkauskas, Regina Vysniauskiene, Vida Ranceliene, Ieva Ignatavičiene, Rimantas Petrošius Nature Research Centre, Lithuania Inga Lasenko, JLU Technologies Ltd, Riga Technical University, Latvia
40.	Methodology for composite index for a sustainable assessment for fish feed	<b>Beate Zlaugotne</b> , Jelena Pubule, Dagnija Blumberga Riga Technical University, Latvia
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