

**Ministry of Education and Science of Ukraine  
Lviv Regional State Administration  
Lviv Polytechnic National University  
Viacheslav Chornovil Institute of Sustainable Development  
Western Scientific Center of the National Academy of Sciences of  
Ukraine and the Ministry of Education and Science of Ukraine  
Ukrainian Ecological League**



## **PROGRAMME**

***OF THE 6<sup>TH</sup> INTERNATIONAL CONGRESS***

**SUSTAINABLE DEVELOPMENT: ENVIRONMENTAL  
PROTECTION. ENERGY SAVING.  
SUSTAINABLE ENVIRONMENTAL MANAGEMENT**

**Lviv  
23-25 September 2020**

### **CONGRESS CHAIRMAN:**

Oleh Matviyiv

PhD, Associate Professor, First Vice-Rector of the Lviv Polytechnic National University, Ukraine

### **CONGRESS COUNCIL:**

Oleh

PhD, Associate Professor, First Vice-Rector of the Lviv

Matviyiv

Polytechnic National University, Ukraine

Oleksandr

PhD, Professor, Rector of the State Ecological Academy of

Bondar

Postgraduate Education and Management, Kyiv, Ukraine

Volodymyr

PhD, Professor, Rector of the National Aviation University,

Isayenko

Kyiv, Ukraine

Serhiy

PhD, Professor, Rector of the Odesa State Ecological

Stepanenko

University, Odesa, Ukraine

Volodymyr

PhD, Professor, Vice-Rector of the Kremenchuk Mykhaylo

Nykyforov

Ostrogradskyy National University, Kremenchuk, Ukraine

Oleh

PhD, Professor, Vice-Rector of the Ivano-Frankivsk National

Mandryk

Technical University of Oil and Gas, Ivano-Frankivsk, Ukraine

Roman Drozd

PhD, Professor, Rector of the Pomeranian Academy in Slupsk, Poland

Yuriy

PhD, Corresponding Member, Head of the Institute of

Sniezhhin

Technical Thermophysics of the National Academy of Sciences of Ukraine, Kyiv, Ukraine

Henrih

PhD, Professor, Head of the Representative Office of the

Sobchuk

Polish Academy of Sciences, Kyiv, Ukraine

### **ORGANIZING COMMITTEE**

#### **General Chairman:**

Oleksandr Moroz

#### **Vice-Chairmen:**

Myroslav Malovanyy

Ihor Petrushka

Olena Popovych

#### **Members:**

Nataliya Vronska

Ivan Tymchuk

Oleksandr Ivashchuk

Maria Kanda

Anastasia Marakhovska

## **CONGRESS SCHEDULE**

### **September 23, Wednesday**

by 10<sup>00</sup>

#### **Registration of participants:**

<https://forms.gle/Andhxt7ZrYPwZm6v6>

#### **Plenary Session**

[Join the Plenary Session](#)

10 <sup>00</sup>	- 10 <sup>30</sup>	Opening of the Congress	
10 <sup>30</sup>	- 10 <sup>40</sup>		<b>Coffee-break</b>
10 <sup>40</sup>	- 12 <sup>40</sup>	Workshops	
12 <sup>40</sup>	- 12 <sup>50</sup>		<b>Coffee-break</b>
12 <sup>50</sup>	- 14 <sup>20</sup>	Workshops	

### **September 24, Thursday**

10 <sup>00</sup>	- 12 <sup>00</sup>	Workshops	
12 <sup>00</sup>	- 12 <sup>10</sup>		<b>Coffee-break</b>
12 <sup>10</sup>	- 14 <sup>10</sup>	Workshops	
14 <sup>20</sup>	- 14 <sup>30</sup>		<b>Coffee-break</b>
14 <sup>30</sup>	- 15 <sup>30</sup>	Workshops	

### **September 25, Friday**

10 <sup>00</sup>	- 11 <sup>00</sup>	Poster session	
		<a href="#">Join the Poster session</a>	
11 <sup>00</sup>	- 11 <sup>30</sup>	Closing of the Congress	
		<a href="#">Join the Closing of the Congress</a>	

**1-WORKSHOP «ENVIRONMENTAL ASPECTS, BIODIVERSITY  
PRESERVATION, MONITORING, AUDIT, SYSTEM ANALYSIS AND  
RISK ASSESSMENT»**

---

**2-WORKSHOP «RENEWABLE AND NONTRADITIONAL ENERGY  
SOURCES»**

Login to the MSTeams platform:

<https://teams.microsoft.com/l/meetup-join/19%3a7e5c140bd6d54e0dbbf6431251980d22%40thread.tacv2/1600277197797?context=%7b%22Tid%22%3a%227631cd62-5187-4e15-8b8e-ef653e366e7a%22%2c%22Oid%22%3a%226898a3c8-f48c-47cc-8fac-fe031ef6d147%22%7d>

**Workshop leaders: Yu. G. Masikevych, PhD, Professor**

**V. M. Shandiy, PhD, Professor**

**Ya. M. Gummytsky, PhD, Professor**

**Workshop secretary: O. V. Lyuta, PhD, Associate Professor**

**September 23, Wednesday**

- |                  |                    |  |
|------------------|--------------------|--|
| 10 <sup>40</sup> | - 10 <sup>55</sup> | Stepova O.V., Ganoshenko O.M. «Modeling the risks of safe operation of oil pipelines»  |
| 10 <sup>55</sup> | - 11 <sup>10</sup> | Ratushnyak M.M. «Improving the system of utilization of solid household waste on the territory of Ukraine, on the example of the city of Chortkiv, Ternopil oblast»              |
| 11 <sup>10</sup> | - 11 <sup>25</sup> | Dychko A.O., Remez N.S. «Methods of fuzzy sets in simulation of unobserved states of the environment»  |
| 11 <sup>25</sup> | - 11 <sup>40</sup> | Olifir Yu.M., Gabryel A.Y., Partyka T.V., Gavryshko O.S. «Degradation processes in agrobiocenoses of light gray forest soils under conditions of prolonged anthropogenic impact» |
| 11 <sup>40</sup> | - 11 <sup>55</sup> | Petrushka I.M. «Prediction of the environmental risk of spent batteries on the environment»  |
| 11 <sup>55</sup> | - 12 <sup>10</sup> | Savitskyi M., Babenko M., Spyrydonenkov V. «Ukrainian national eco-certification system of the buildings»  |
| 12 <sup>10</sup> | - 12 <sup>25</sup> | Shmandiy V.M. «Processing of agro-industrial waste with the receipt of adsorbents for wastewater treatment»  |
| 12 <sup>25</sup> | - 12 <sup>40</sup> | Dunayevska N.I. «Introduction of technologies for replacing fossil fuels in the energy sector with solid biomass (technical and legal solutions)»                                |

12<sup>40</sup> - 12<sup>50</sup>

### **Coffee-break**

12<sup>50</sup> - 13<sup>05</sup> Chernyak L.M., Mikheev O.M., Madzhd S.M., Lapan O.V.,  
Dmytrukha T.I., Petrusenko V.P. «Scientific bases of  
generalization of the qualitative assessment of the ecological  
state of soil contaminated with oil products»

13<sup>05</sup> - 13<sup>20</sup> Vasyutynska K.A. «Ecological urbanization as a factor of  
emergencies in the regions of Ukraine»

13<sup>20</sup> - 13<sup>35</sup> Gavryshko M.I. «Environmental aspects of alcohol industry  
enterprises at the present stage of development»

13<sup>35</sup> - 13<sup>50</sup> Yurchenko Ye.L. «Analysis of parameters of the  
environmental impact of construction by assessing the  
carbon footprint of buildings»

13<sup>50</sup> - 14<sup>05</sup> Dychko A.O. «Methods of fuzzy sets in simulation of  
unobserved states of the environment»

14<sup>05</sup> - 14<sup>20</sup> Nosyk A. «On the issue of the current state of bioenergy  
development in Ukraine

14<sup>20</sup> - 14<sup>50</sup>

### **DISCUSSION**

### September 24, Thursday

- 10<sup>00</sup> - 10<sup>15</sup> Kuzyk M.P. «Use of solar PV / T devices in a building with a Trombe-Michel wall»
- 10<sup>15</sup> - 10<sup>30</sup> Lytvynenko V. «Modelling of wastewater biochemical treatment from hexamethylenediamine»
- 10<sup>30</sup> - 10<sup>45</sup> Kuzyk M.P., Lys S.S. «Optimization of the angles of inclination to the horizon of flat solar energy panels on the territory of Ukraine»
- 10<sup>45</sup> - 11<sup>00</sup> Bezsonov Ye.M. «Energy niche of species as a comprehensive criterion for assessing the ecological safety of aquatic ecosystems»
- 11<sup>00</sup> - 11<sup>15</sup> Danylyuk O.S. «Landscape planning organization of residential complexes within the coastal protective zones in the city of Kyiv»
- 11<sup>15</sup> - 11<sup>30</sup> Masikevych A.Yu. «A systematic approach to reducing the hazard level of mountain ecosystems of the Eastern Carpathians»
- 11<sup>30</sup> - 11<sup>45</sup> Storoshchuk U.Z. «Relevance of sorting solid household waste and their separate collection»
- 11<sup>45</sup> - 12<sup>00</sup> Milinevskyy G.P. «Compact device for monitoring aerosol air pollution»
- 12<sup>00</sup> - 12<sup>10</sup> **Coffee-break**
- 12<sup>10</sup> - 12<sup>25</sup> Hlukhaniuk A., Chyzhovych R., Kuzminchuk T., Ivashchuk O., Semenyshyn Ye. «Evaluation of solvent polar properties influence on the efficiency of extraction in the process of obtaining raw materials for alternative fuel production»
- 12<sup>25</sup> - 12<sup>40</sup> Nazarevych L.Ye. «Seismic hazard of territories in conditions of mining (on the example of the Western region of Ukraine)»
- 12<sup>40</sup> - 12<sup>55</sup> Pryshliak N.V. «Development of bioenergy as a component of ensuring energy security of Ukraine»
- 12<sup>55</sup> - 13<sup>10</sup> Tokarchuk D.M. «Concept of biomass and its energy potential»
- 13<sup>10</sup> - 13<sup>25</sup> Tkachenko T.M., Tkachenko O.A., Voloshkina O.S. «Prospects for the design of small architectural forms using alternative energy sources»
- 13<sup>25</sup> - 13<sup>40</sup> Soroka M. "Use of sensory IOT-technologies for the purposes of air quality monitoring"
- 13<sup>40</sup> - 13<sup>55</sup> Palamarenko Ya.V. «Ensuring energy autonomy of agricultural enterprises based on biomass»

13 <sup>55</sup>	- 14 <sup>10</sup>	Novikova Yu.I. «Complexes of insects of invasive plant species on the territory of the Belarussian Lakeland»
14 <sup>10</sup>	- 14 <sup>20</sup>	<b>Coffee-break</b>
14 <sup>20</sup>	- 14 <sup>35</sup>	Khirivskyy R.P. «Features of the implementation of natural resource potential of the united territorial communities of Ukraine in the context of implementation of the reform of local self-government»
14 <sup>35</sup>	- 14 <sup>50</sup>	Milinevsky G. «Extended air pollution airvisual monitoring network in Kyiv city»
14 <sup>50</sup>	- 15 <sup>20</sup>	<b>DISCUSSION</b>

**3-WORKSHOP «INNOVATIVE NATURE PROTECTION  
TECHNOLOGIES. TECHNOLOGIES FOR EFFICIENCY INCREASE  
FROM USING MATERIALS, WATER AND ENERGY.  
ECO-INOVATIONS IN ARCHITECTURE»**

Login to the MSTeams platform:

<https://teams.microsoft.com/l/meetup-join/19%3aabe721b5a1404568ab57da7a113303f6%40thread.tacv2/1600277447746?context=%7b%22Tid%22%3a%227631cd62-5187-4e15-8b8e-ef653e366e7a%22%2c%22Oid%22%3a%226898a3c8-f48c-47cc-8fac-fe031ef6d147%22%7d>

<b>Workshop leaders:</b>	<b>H. V. Sakalova, PhD, Professor</b> <b>V. D. Pohrebennyk, PhD, Professor</b> <b>V. V. Dyachok, PhD, Professor</b>
<b>Workshop secretary</b>	<b>A. O. Marakovska, engineer</b>

**September 23, Wednesday**

- |                  |                    |  |
|------------------|--------------------|--|
| 10 <sup>40</sup> | - 10 <sup>55</sup> | Ablieieva I.Y. «Bioremediation of oil-contaminated soils using anaerobic digestate»  |
| 10 <sup>55</sup> | - 11 <sup>10</sup> | Tuzyak V.Ye. «Industrial waste recovery – sustainable development and ecological safety of the environment»  |
| 11 <sup>10</sup> | - 11 <sup>25</sup> | Kaspruk V.B., Balaban S.M. «Improving the environmental situation in the production of dry building mixtures»  |
| 11 <sup>25</sup> | - 11 <sup>40</sup> | Velychko S.V. «Assessment of the possibility of extending life of sludge fields by building dams»  |
| 11 <sup>40</sup> | - 11 <sup>55</sup> | Kushnir O. V. «Improving the quality of asphalt concrete pavement based on the use of polymer waste»   |
| 11 <sup>55</sup> | - 12 <sup>10</sup> | Zablodskyy M.M., Kovalchuk S.I., Spodoba M.O. «Innovative system for processing poultry by-products with the influence of an electromagnetic field and autonomous energy supply» |
| 12 <sup>10</sup> | - 12 <sup>25</sup> | Slyuzar A.V., Kalymon Ya.A. «Purification of fuel gases from hydrogen sulfide by the quinhedron method in two stages»  |
| 12 <sup>25</sup> | - 12 <sup>40</sup> | Tsapko Yu., Bondarenko O., Mazurchuk S., Marchenko N., Buys'kykh N. «Identification of typical variety-forming wood defects»   |



12 <sup>40</sup>	- 12 <sup>50</sup>	<b>Coffee-break</b>
12 <sup>50</sup>	- 13 <sup>05</sup>	Povzun O.I. «Silicate material based on waste from mining and processing plants of Kryvbas»
13 <sup>05</sup>	- 13 <sup>20</sup>	Oliferchuk V.P. «Bioregulation of disturbed soil ecosystems»
13 <sup>20</sup>	- 13 <sup>35</sup>	Skrypchuk P.M. «IT solutions for the processing of regenerative biomass»
13 <sup>35</sup>	- 13 <sup>50</sup>	Vakal S. «Ecological and economic fundamentals of novel types capsulated fertilizers development»
13 <sup>50</sup>	- 14 <sup>05</sup>	Antonenko N., Rumilets T., Bakhtin D. «Healthy environment as one of the key performance indicators of library space»
14 <sup>05</sup>	- 14 <sup>20</sup>	Mokryy V., Moroz O., Petrushka I., Kazymyra I., Grechanyk R. «Adaptive planting for restoring the biodiversity of technogenic landscapes»
14 <sup>20</sup>	- 14 <sup>35</sup>	Mokryy V., Petrushka I., Kazymyra I., Grechanyk R., Schultheiss J., Reiss M. «Strategies of forest adaptation to climate change»
14 <sup>35</sup>	- 15 <sup>05</sup>	<b>DISCUSSION</b>

## September 24, Thursday

- 10<sup>00</sup> - 10<sup>15</sup> Oliynyk Yu.O. «Investigation of the efficiency of electric pulse plant for the treatment of manure runoff from pig farms»
- 10<sup>15</sup> - 10<sup>30</sup> Mandryk S.T. «Influence of phosphorus oxide on the dynamics of carbon dioxide absorption by chlorophyll-synthesized microalgae in the presence of sulfur dioxide»
- 10<sup>30</sup> - 10<sup>45</sup> Sakalova G.V., Vasylynych T.M. «Method of utilization of bentonite»
- 10<sup>45</sup> - 11<sup>00</sup> Khomyn Ya.Ye. «Impact of climate changes and global warming trends in architecture»
- 11<sup>00</sup> - 11<sup>15</sup> Sabadash V.V. «Use of natural zeolites to obtain Polylactide»
- 11<sup>15</sup> - 11<sup>30</sup> Pohrebennyk V., Bejanidze I., Kharebava T., Didmanidze N., Davitadze N., Petrov O. «Electrical conductivity of ion-exchange membranes in solutions of simple electrolytes»
- 11<sup>30</sup> - 11<sup>45</sup> Tsvilynyuk O.M., Telehiy L.V. «Use of salicylic acid in the cultivation of Beta vulgaris L. plants in the context of sustainable agricultural production»
- 11<sup>45</sup> - 12<sup>00</sup> Protsenko S.B., Kizeev M.D., Novitska O.S. "Analysis of methods for determining the initial data in the calculation and design of sewage treatment plants"

12<sup>00</sup> - 12<sup>30</sup>

## **DISCUSSION**

#### **4-WORKSHOP «EDUCATION AND REARING FOR SUSTAINABLE DEVELOPMENT»**

---

#### **5-WORKSHOP «ECONOMIC-MANAGEMENT SUPPORT FOR CONSTRUCTION, IMPLEMENTATION AND COMMERCIALIZING OF ECO-INNOVATIONS IN THE SYSTEM OF SUSTAINABLE DEVELOPMENT»**

---

#### **6-WORKSHOP «DEVELOPMENT OF ENVIRONMENTAL TOURISM IN SUSTAINABLE DEVELOPMENT ASPECT»**

---

#### **7-WORKSHOP «CIVIL SAFETY IN THE ASPECT OF SUSTAINABLE DEVELOPMENT»**

---

Login to the MSTeams platform:

<https://teams.microsoft.com/l/meetup-join/19%3a647fc817fab342808382c873dd35a80f%40thread.tacv2/1600278609231?context=%7b%22Tid%22%3a%227631cd62-5187-4e15-8b8e-ef653e366e7a%22%2c%22Oid%22%3a%226898a3c8-f48c-47cc-8fac-fe031ef6d147%22%7d>

**Workshop leaders:**      **O. P. Mitryasova, PhD, Professor**  
                                     **A. A. Terebukh, PhD, Professor**  
**Workshop secretary**    **M. I. Senkiv, PhD, Lecturer**

#### **September 23, Wednesday**

- 10<sup>40</sup>      - 10<sup>55</sup>      Mitryasova O.P. «European measurements of water security in the practice of implementing education for sustainable development»
- 10<sup>55</sup>      - 11<sup>10</sup>      Paranyak N.M., Datsko O.S., Vytrykush N.M., Romaniv A.S. «Assessment of technogenic and natural risks in the context of sustainable development»
- 11<sup>10</sup>      - 11<sup>25</sup>      Paranyak N.M., Datsko O.S., Vytrykush N.M., Romaniv A.S. «New challenges to sustainable development in a pandemic»
- 11<sup>25</sup>      - 11<sup>40</sup>      Kostyuchko V.M. «Features of the organization of ecological travel (on the example of Central Gorgany)»
- 11<sup>40</sup>      - 11<sup>55</sup>      Krektun B.V., Zhylishchych Yu.V., Krektun N.M. «Socioecological aspects of modernization of the environmental management system»
- 11<sup>55</sup>      - 12<sup>10</sup>      Mamchur Z.I. «Education for sustainable development in the training of biologists and ecologists»

12 <sup>10</sup>	- 12 <sup>25</sup>	Dutsyak I.Z. «Safe technologies in tourism in the context of a pandemic»
12 <sup>25</sup>	- 12 <sup>40</sup>	Deyneko N.V. «Improving the management system of the transition zone from a dangerous event to an emergency situation»
12 <sup>40</sup>	- 12 <sup>50</sup>	<b>Coffee-break</b>
12 <sup>50</sup>	- 13 <sup>05</sup>	Schultheiß J., Senkiv M. «Digital cultural landscapes – new opportunities and values for Ukrainian landscape development»
13 <sup>05</sup>	- 13 <sup>20</sup>	Terebukh A.A. «Parameters of sustainable development of tourism»
13 <sup>20</sup>	- 13 <sup>35</sup>	Moroz L.I. «Quantifying the economic damage from coronavirus infection diseases»
13 <sup>35</sup>	- 13 <sup>50</sup>	Yatsyshyn T. «Innovative waste processing technologies»
13 <sup>50</sup>	- 14 <sup>20</sup>	<b>DISCUSSION</b>

## POSTER SESSION

1. Bugaieva L.M., Beznosyk Yu.O., Vilboi M.O. «Selection of flue gas cleaning methods using intelligent approaches»
2. Voloshkina O.S., Telyma S.V. «Available water supply as a major factor of the urban territories stable development»
3. Matsala M. «Mapping natural forests on the abandoned farmlands within Chernobyl Exclusion Zone»
4. Kryvenko O.G. «Study of spontaneous flora for greening roofs in the urban ecosystem of Kyiv»
5. Teodorovych L., Zenkevych A. ««Green Ways» as an important direction for the development of sustainable tourism in border areas»
6. Teodorovych L.V., Khodyko T.F. «Importance of developing ecotourism in small island countries»
7. Teodorovych L.V., Shevchuk A.S. «National natural parks as destinations for ecological tourism in Ukraine»
8. Belokon K.V. «Research of nickel-aluminum catalysts for deep oxidation of different phase composition»
9. Dzhumelya E.A., Pogrebennyk V.D. «Functioning of the environmental monitoring system of zone of influence of the mining and chemical enterprise during post-liquidation period»
10. Tiron-Vorobyova N.B., Danylyan A.G., Maslov I.Z., Romanovska O.R. «Electric corona discharge for disinfection and purification of ballast water in accordance with the international requirements of the D-2 IMO standard»
11. Lukyanchuk N. G. «Problems of parks in Lviv associated with regional climate changes»
12. Lukyanchuk N. G., Pylypchuk A. M. «Impact of «Enzym» Company on the state of natural plantations in Vynnyky forest park»
13. Lukyanchuk N.G., Stadnyk A.V. «Determination of the level of noise pollution from the railway within the city of Lviv»
14. Vronska N., Kostetska N. Popovych O., Yatchyshyn Yu. «Monitoring the impact of the «Goodvalley» enterprise»
15. Popovych O.R., Vronska N.Yu., Gavryshko M.I., Yatchyshyn Yu.Y. «Impact of the food industry on the environment»
16. Korchak M.S., Sivakova O.M., Fediv E.I. «Modern problems of green energy development in Ukraine»
17. Soroka M., Bočková S., Bohovic R., Hrnčiar M., Muroň M. Skalský M., Filippovová P. «The space satellite spectroscopy for assess Nitrogen Dioxide air pollution in Ukraine»



### **Lviv Polytechnic National University**

Stepan Bandera st. 12, Lviv, Ukraine, 79013

<http://lp.edu.ua/>

Tel. 0322 582 111

E-mail: [coffice@lp.edu.ua](mailto:coffice@lp.edu.ua)



### **V. Chornovil Institute of Sustainable Development**

#### **Department of Ecology and Sustainable Environmental Management**

St. George square 3/4, 8th educational building, room 122, 79013

<https://www.facebook.com/KafedraEzp/>

Tel. (032) 258-24-53

E-mail: [ezp.dept@lpnu.ua](mailto:ezp.dept@lpnu.ua), [mmal@lp.edu.ua](mailto:mmal@lp.edu.ua)

---

### **Ukrainian Ecological League**

Saksaganskyi st. 30, office 33, Kyiv, Ukraine, 01033

<http://www.ecoleague.net>

Tel. 044 251 13 32

E-mail: [vel@ecoleague.net](mailto:vel@ecoleague.net)

---

### **Lviv Regional State Administration**

Vynnychenko st. 18/18, Lviv, Ukraine, 79008

<http://loda.gov.ua>

Tel. 0322 999 205

E-mail: [press@loda.gov.ua](mailto:press@loda.gov.ua)

---

### **Western Scientific Center of the National Academy of Sciences of Ukraine and the Ministry of Education and Science of Ukraine**

Mateyko st. 4, Lviv, Ukraine, 79007

<http://znc.com.ua/ukr/index.php>

Tel./fax: (032) 297-07-74

E-mail: [zncnan@mail.lviv.ua](mailto:zncnan@mail.lviv.ua), [znc@ukrpost.ua](mailto:znc@ukrpost.ua)

---

### **Ministry of Education and Science of Ukraine**

Victory Avenue 10, Kyiv, Ukraine, 01135

<http://mon.gov.ua>

Tel. (044) 481-32-21, fax (044) 481-47-96

E-mail: [mon@mon.gov.ua](mailto:mon@mon.gov.ua)