



Deutscher Akademischer Austauschdienst
German Academic Exchange Service



AGENDA

of the training activities at Dnipro University of Technology (DUT) on-line via distance platform Zoom in the frame of Educational Project “**EcoMining: Development of Integrated PhD Program for Sustainable Mining & Environmental Activities**”

06 – 10.09.2021

& Workshop

Innovative Technologies in Mining and Reclamation

Note: all sessions are scheduled in accordance with **Ukrainian** time and have **one** common access link (below)

Eco Mining invites you for the conference: Zoom.

<https://zoom.us/j/95746201542?pwd=U2JadlllS0wxOU13ZFdZeEZhWjhqQT09>

Conference ID: 957 4620 1542

Access code: 244550

06.09.2021, Monday

10.00 – 16.00 Session 1. **Environment and Restoration**

*CHAIRS: Prof. Dr. **Oleksandr KOVROV** and Dr. **Iryna KLIMKINA**, DUT*

- 10.00 Prof. Dr. **Hermann HEILMEIER**, TU Bergakademie Freiberg (TU BAF), Germany
Welcome introduction to the Project
BASIC ECOLOGICAL INDICATORS: Lecture
- 11.00 Questions and discussion
- 11.20 Prof. Dr. **Hermann HEILMEIER**, TU Bergakademie Freiberg (TU BAF), Germany
BASIC ECOLOGICAL INDICATORS: practical tasks
- 12.00 Prof. Dr. **Oleksandr KOVROV**, DUT
PHYTOREMEDIATION APPROACHES AND TECHNOLOGIES FOR SLOPE STABILITY ISSUES: Lecture
- 12.40 Questions and discussion
- 13.00 Break
- 14.00 Consultative work with PhD students (joint PhD supervision)
Discussion, on-line participants

07.09.2021, Tuesday

10.00 – 16.00 Session 2. **Responsible Mining**

*CHAIRS: Prof. Dr. **Oleksandr KOVROV** and Dr. **Iryna KLIMKINA**, DUT*

- 10.00 Prof. Dr. **Carsten DREBENSTEDT**, TU BAF, Germany
INNOVATIVE TECHNOLOGIES IN MINING AND TECHNICAL RECLAMATION: Lecture
- 11.00 Questions and discussion
- 11.20 Dr. **Dmytro VINIVITIN**, FERREXPO Poltava Mining, Ukraine
GEOMECHANICAL MODELING OF MINES AND DUMPS USING K-MINE TO MINIMIZE THE DISTURBED LANDS AREAS IN MINING OPERATIONS
- 11.40 Questions and discussion
- 12.00 Prof. Dr. **Alina DYCHKO**, Igor Sikorsky Kyiv Polytechnic Institute, Kyiv
ENVIRONMENTAL MONITORING FOR SUSTAINABLE MINING
- 12.25 Questions and discussion
- 12.30 Prof. Dr. **Yaroslav GUMENIUK**, National University of Life and Environmental Science of Ukraine
ELECTROSPARK SYNTHESIS OF METAL NANOPARTICLES AND PROSPECTS FOR THEIR USE
- 12.55 Questions and discussion
- 13.00 Break
- 14.00 Prof. Dr. **Vasyl POPOVYCH**, Lviv State University of LiveSafety, Head of the Institute of Civil Protection, Ukraine
RESTORATION OF MINING LANDS IN LVIV-VOLYN COAL BASIN
- 14.30 Questions and discussion
- 15.00 Consultative work with PhD students (joint PhD supervision)
Discussion, on-line participants

08.09.2021, Wednesday

10.00 – 16.00 Session 3. **Remote Sensing and Data Science; Environment**

*CHAIRS: Prof. Dr. **Oleksandr KOVROV** and Dr. **Iryna KLIMKINA**, DUT*

- 10.00 Dr. **Yurii BUCHAVYI**, DUT and Prof. **Viktoriya LOVYNSKA**, Dnipro State Agrarian and Economic University (DSAEU), Ukraine
DATA SCIENCE: ENVIRONMENTAL DATA PROCESSING
Case study “**Use of Data Science for assessment of bioproductivity manmade landfills**”
- 11.20 Questions and discussion
- 11.40 Prof. Dr. **Mykola KHARYTONOV**, DSAEU, Ukraine
SEWAGE SLUDGE AND BIODIGESTATE TESTING AS SOIL AMENDMENTS IN RECLAIMED MINELANDS
- 12.40 Questions and discussion
- 13.00 Break

- 14.00 Dr. **Alla SAMARSKA**, Academician V. Lazarian Dnipro National University of Railway Transport
ENVIRONMENTALLY SAFE ALTERNATIVES TO HERBICIDES FOR SUSTAINABLE VEGETATION CONTROL: Lecture
 Practical task for selection of method for neutralization of waste water
- 15.30 Results discussion Questions and discussion
- 16.00 Consultative work with PhD students (joint PhD supervision)
 Discussion, on-line participants

09.09.2021, Thursday

10.00 – 16.00 Session 2. **Environmental Geochemistry; Green Mining Economy**

*CHAIRS: Prof. Dr. **Oleksandr KOVROV** and Dr. **Iryna KLIMKINA**, DUT*

- 10.00 Prof. Dr. **Oliver WICHE**, TU BAF, Germany
GEOCHEMICAL APPROACHES FOR ENVIRONMENTAL ASSESSMENTS: Lecture and practical tasks
- 12.00 Results discussion
- 13.00 Break
- 14.00 Dr. **Kateryna POLLACK**, Technical Projectmanager, BALANCE Erneuerbare Energien GmbH-Ein Unternehmen der VNG-Gruppe
IMPLEMENTATION OF RENEWABLE ENERGY INTO THE MINING
- 14.40 German experience of preparation and defense the PhD thesis
- 15.00 Questions and discussion
- 15.30 Consultative work with PhD students (joint PhD supervision)
 Discussion, on-line participants

10.09.2021, Friday

10.00 – 18.00 Workshop
“Innovative Technologies in Mining and Reclamation”

WELCOMING GREETINGS

- 10.00 **Tanja BEYER**, Consul General, Consul of German Embassy, German Consulate General in Donezk with location in Dnipro:
Susanne BANDAU, DAAD Lector, DAAD representative in Dnipro
 Prof. Dr. **Oleksandr SHASHENKO**, Vice Rector DUT on International Affairs
- 10.20 Round table&Discussion
STRUCTURE AND REQUIREMENTS OF a PhD STUDY: GERMAN AND UKRAINIAN EXPERIENCE
 Prof. Dr. **Hermann HEILMEIER**, TU BAF, Germany
GERMAN APPROACHES FOR A PHD STUDY
 Dr. **Iryna KLIMKINA**, DUT, Expert of Sectoral Accreditation Council, National Agency for Higher Education Quality Assurance (Ukraine)
REQUIREMENTS FOR A PhD PREPARATION AND DEFENSE IN UKRAINE

- 13.00 Break
- 14.00 **Poster Session and Presentations of Participants on the topic: “INNOVATIVE TECHNOLOGIES IN MINING AND RECLAMATION”**
- 16.45 – Final Competition Session for Best Poster; Certificates
- 17.00 Moderator: Prof. Dr. **Hermann HEILMEIER**, TU BAF, Germany

Participant' presentations (14.00 – 16.45, Friday 10, 2021)

(oral presentation withing 7 min and 3 min for questions)

14.00	P.1. The efficiency of growing seeds on different types of soil	Kyrylo ZVORYHIN , PhD student, DUT, Ukraine
14.10	P.2. Phytoremediation of reclaimed coal dumps in Western Donbass of Ukraine	Serhii KRASOVSKYI , PhD student, DUT, Ukraine
14.20	P.3. Integral assessment of the state of Dnipro water reservoir in Kyiv according to the types of water use	Anna KOVPAK , PhD student, National University of Life and Environmental Science of Ukraine
14.30	P.4. Environmentally safe utilisation of waste in the anaerobic conversion process	Viktoriia CHUBUR , PhD student, Sumy State University, Ukraine
14.40	P.5. Production of the sorption sheet from composite materials as a liquidation agent for spill response of hazardous materials	Mykola KALYMBET , PhD student, Dnipro National University of Railway Transport named after V.Lazaryan
14.50	P.6. Ecological situation in the zone of influence of waste accumulation sites	Kateryna KOROL , PhD student, Lviv State University of Life Safety, Lviv, Ukraine
15.00	P.7. Metal nanoparticles as an alternative in the agro-industrial complex	Serafym LOPATKO , PhD student, National University of Life and Environmental Science of Ukraine
15.15 – 15.30 Break		
15.30	P.8. Land cover mapping by remotely sensed imagery with multifractional classes	Artem ANDREIEV , PhD student, Scientific Centre for Aerospace Research of the Earth (CASRE), Ukraine
15.40	P.9. Changes in the Species Diversity of Sandy Spit Mollusk Groups in the North of the Black Sea-Azov Basin Under the Influence of Ecological Changes in the Environment	Antonina MIRZOEVA , PhD student, Bogdan Khmelnytsky Melitopol State Pedagogical University, Ukraine
15.50	P.10. The small-scale variation of herb-layer community structure in a riparian mixed forest	Yuliia ZHUKOVA , Oles Honchar Dnipro National University, Ukraine
16.00	P.11. Reclamation During Mining, Case: Gara Djebilet Iron Mine, Tindouf	Nassima CHEBEL , PhD student, École nationale supérieure des Mines et de la métallurgie Amar Laskri, Annaba, Algeria
16.10	P.12. Two case studies of site reclamation and environmental pollution control: Iron ore and/or Phosphorite (North-east of Algeria)	Amir BOUSTILA , PhD student, Badji Mokhtar University, Algeria
16.20	P.13. Environmentally-efficient approaches to oil and gas producing sites	Vasyl-Danylo LIAKH , Bachelor student, Technical University of Košice, Slovakia
16.30	P.14. Integrated development of titanium-zirconium deposits in Ukraine	Ivan NAZAROV , Bachelor student, DUT, Ukraine
Posters		
P.15.	Biotechnological approach in wastewater algolization for reducing phosphate pollution of surface bodies	Marharyta KULBACH , Master student, DUT, Ukraine
P.16.	Investigation the possibility of <i>Chlorella vulgaris</i> use for treatment of highly mineralized mine wastewater	Daryna SHYLO , Master student, DUT, Ukraine
P.17.	Role of earthworms (Lumbricidae) in the formation of the aggregate structure of anthropogenic soils	Hanna TUTOVA , PhD student, Bogdan Khmelnytsky Melitopol State Pedagogical University, Ukraine
P.18.	Energy capacity biomass of crops grown in two land reclamation profiles	Svitlana LEMISHKO , PhD, Dnipro State Agrarian and Economic University

P.19.	List of the main types of work aimed at biological stage of land reclamation	Olexandr GAVRYUSHENKO , Dr. Dnipro State Agrarian and Economic University
P.20.	Hygromorphic spectrum of two reclaimed minelands vegetation in the Western Donbass	Yuriy RUDAKOV , Dr., Dnipro State Agrarian and Economic University
P.21.	Crops residues energy potential estimation in pilot pyrolysis unit	Serhii MARKOV , Master student, Dnipro State Agrarian and Economic University
P.22.	Energy crops cultivation in reclaimed minelands	Diana BILAN , Master student, DSAEU
P.23.	Environmental health risk assessment caused with monazite sands distribution along coastal line of Azov sea	Artem ANDREIEV , PhD student, Scientific Centre for Aerospace Research of the Earth (CASRE), Ukraine
P.24.	Purification of chromium-containing waste water by magnetic adsorbents	Liliya FROLOVA , Prof. Dr., Ukrainian State University of Chemical technology
P.25.	Assessment of atmospheric emissions from the agglomeration unit (PMA) in the case of SIDER EL HADJAR COMPLEX – Algeria	Fares BOUTARFA , PhD student, University Badji Mokhtar – Annaba, Algeria
P.26.	Cenomorphic spectrum of two reclaimed minelands vegetation in the Pavlograd land reclamation station	Olga SUMYATINA , Master student, Dnipro State Agrarian and Economic University, Ukraine
P.27.	The dynamic of invertase activity distribution with depth in reclaimed minelands	Oleksandr KULIK , Master student, Dnipro State Agrarian and Economic University
P.28.	Moorish flower lawn: advantages, disadvantages and experience of use	Veronika ATAMANCHUK , Master student, DUT, Ukraine
P.29.	Several invasive plant species that threaten the ecosystems of Ukraine	Anastasiia FEDORYNENKO , Master student, DUT, Ukraine
P.30.	Investigation of the Ailanthus altissima application for phytoremediation purposes	Zlata SUSHKO , Bachelor student, Dnipro University of Technology
P.31.	Ecological structure of soil macrofauna in the assessment of the results of forest park planting reconstruction	Alevtyna HOLOVNIA , PhD student, Oles Honchar Dnipro National University, Ukraine
P.32.	The impact of blasting on quarry water	Iryna DAVYDOVA , Assoc. Prof., PhD Iryna Davydova, Zhytomyr Polytechnic State University
P.33.	Method for mechanical loosening the solid rock using undercut anchor	Michał SIEGMUND , Constructor in Division of Machines and Equipments, KOMAG Institute of Mining Technology, Gliwice, Poland
P.34.	Borehole drilling parameters for determining the optimum size of granite stone blocks	Dr. Andrii PANASIUK , Zhytomyr Polytechnic State University
P.35.	Quality control of drilling operations	Dr. Volodymyr SHLAPAK , Zhytomyr Polytechnic State University
P.36.	Accounting, analysis and audit in ensuring the sustainable development of green economy	Dr. Mariia NEZHYYA , Kyiv National University of Trade and Economics, Ukraine
P.37.	Reconstruction of facades of existing brick multi-storey buildings on the basis of modern building energy saving technologies	Iryna MONIUK , PhD student, Dnipro University of Technology
	Natural self-restoration of woody plants	Marina SHAMRAY , Oles Honchar Dnipro National University, Ukraine
	Impact of environmental regulation on competitiveness of mining companies	Dr. Liudmyla HATSKA , Taras Shevchenko National University, Kyiv
	Energy security of Ukraine: realities and prospects	Oksana MYKOLIUK , Prof. Dr., Khmelnytskyi National University, Ukraine
	Quality control of drilling operations	Dr. Volodymyr SHLAPAK , Zhytomyr Polytechnic State University, Ukraine
	Borehole drilling parameters for determining the optimum size of granite stone blocks	Dr. Andrii PANASIUK , Zhytomyr Polytechnic State University, Ukraine
	Moorish flower lawn: advantages, disadvantages and experience of using	Viktoriiia HINTER , st., Ukrainian State University of Chemical technology
	Open pit mine planning and design	Youcef BEKHOUCHE , PhD student, École nationale supérieure des Mines et de la métallurgie Amar Laskri, Annaba, Algeria

Audience	<p>Regina VECKALNE, PhD student, Riga Technical University, Latvia</p> <p>Krystyna DRAMARETSKA, PhD, National University of Life and Environmental Sciences of Ukraine</p> <p>Victoria BUDAKOVA, PhD student, Bogdan Khmelnytsky Melitopol State Pedagogical University, Ukraine</p> <p>Zlata SUSHKO, Bachelor student, DUT, Ukraine</p> <p>Polina TELYUK, PhD student, Bogdan Khmelnytsky Melitopol State Pedagogical University, Ukraine</p> <p>Kateryna MALTSEVA, PhD student, Bogdan Khmelnytsky Melitopol State Pedagogical University, Ukraine</p>	<p>Senouci KHOULOUD, PhD student, Algeria</p> <p>Dr. Alina TROIAN, National University of Life and Environmental Sciences of Ukraine</p> <p>Dr. Olena ZHYTKEVYCH, UACU</p> <p>Ava UMEROVA, PhD student, Bogdan Khmelnytsky Melitopol State Pedagogical University, Ukraine</p> <p>Olena DZIUBAN, PhD student, Bogdan Khmelnytsky Melitopol State Pedagogical University, Ukraine</p> <p>Vladyslav DOLYNNYI, PhD student, Bogdan Khmelnytsky Melitopol State Pedagogical University, Ukraine</p>
Experts	<p>Prof. Dr. Hermann HEILMEIER, TU BAF</p> <p>Prof. Dr. Carsten DREBENSTEDT, TU BAF</p> <p>Prof. Dr. Michael SCHLOEMANN, TU BAF</p> <p>Dr. Oliver WICHE, TU BAF, Germany</p> <p>Prof. Dr. Borys SOBKO, DUT, Ukraine</p> <p>Prof. Dr. Vasyl POPOVYCH, Head of the Institute of Civil Protection, Lviv, Ukraine</p> <p>Prof. Dr. Mykola KHARYTONOV, DSAEU</p> <p>Prof. Dr. Oleksandr KOVROV, DUT, Ukraine</p> <p>Prof. Dr. Artem PAVLYCHENKO, DUT</p> <p>Prof. Dr. Valerii KOLESNIK, DUT, Ukraine</p> <p>Prof. Dr. Oleksii LOZHNIKOV, DUT, Ukraine</p> <p>Prof. Dr. Viktoriia LOVYNSKA, DSAEU</p> <p>Dr. Iryna KLIMKINA, DUT, Ukraine</p> <p>Dr. Yurii BUCHAVYI, DUT, Ukraine</p> <p>Dr. Liliya FROLOVA, USUCT, Dnipro</p> <p>Dr. Nadiia MARTYNOVA, Botanical Garden of Oles Honchar DNU, Ukraine</p> <p>Prof. Dr. Yuriy TKALICH, DSAEU, Ukraine</p> <p>Dr. Olena ZOLOTOVSKA, DSAEU</p> <p>Dr. Oleg ANISIMOV, DUT, Ukraine</p> <p>Dr. Pavlo KHAZAN, Member of Dnipropetrovsk Regional Council, Environment & Energy Committee</p> <p>Prof. Dr. M. CHETTIBI M., Baji Mokhtar Annaba University, Algeria</p> <p>Dr. D. NETTOUR, National Higher School of Mining and Metallurgy. Mining, Metallurgy and Materials Laboratory L3M, Annaba, Algeria</p>	<p>Dr. Olena BORYSOVSKA, DUT Ukraine</p> <p>Dr. Olena ONYSHCHENKO, Independent researcher, Germany</p> <p>Dr. Volodymyr KOZECHKO, DSAEU</p> <p>Dr. Oleksandr MYTSYK, DSAEU, Ukraine</p> <p>Dr. Serhii SHEVCHENKO, DSAEU</p> <p>Dr. Nataliia HONCHAR, DSAEU, Ukraine</p> <p>Dr. Anna HOTVIANSKA, DSAEU, Ukraine</p> <p>Dr. Yuriy RUDAKOV, DSAEU, Ukraine</p> <p>Dr. Oleksandra LOHUNOVA, Head of “Sustainable Development Platform” NGO, Consultant to the UNECE Industrial Accidents Convention, Austria</p> <p>Prof. Dr. Nadiia REZNIK, National University of Life and Environmental Sciences of Ukraine, Kyiv (NULESU)</p> <p>Prof. Tetiana BALANOVSKA, NULESU</p> <p>Dr. Natalia DRAHNIEVA, NULESU</p> <p>Dr. Oksana HAVRYSH, NULESU</p> <p>Dr. Hanna KHARCHENKO, NULESU</p> <p>Prof. Dr. Lesia SHKITSA, Ivano-Frankivsk National Technical University of Oil and Gas</p> <p>Prof. Mykhailo LIAKH, Ivano-Frankivsk NTU of Oil and Gas, Ukraine</p> <p>Dr. Teodoziia YATSYSHYN, Ivano-Frankivsk NTU of Oil and Gas, Ukraine</p>