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3rd International Conference on Sustainable Futures: Environmental, Technological, Social and Economic Matters

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3rd International Conference on Sustainable Futures: Environmental, Technological, Social and Economic Matters

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Abstract. This paper represents a preface to the Proceedings of the 3rd International Conference on Sustainable Futures: Environmental, Technological, Social, and Economic Matters (ICSF 2022) held at the Kryvyi Rih, Ukraine, 24–27 May 2022. Background information and the organizational structure of the meeting, program committee, and acknowledgments of the contributions of the many people who made the conference a success are presented.

1. Background

The **International Conference on Sustainable Futures: Environmental, Technological, Social and Economic Matters (ICSF)** is a peer-reviewed international conference, which is the premier interdisciplinary forum for life scientists, social scientists, engineers, and practitioners to present their latest research results, ideas, developments, and applications (figure 1).

Since 2020, ICSF occupies contributions in all aspects of sustainable development, focused on the intersection of sustainability, environment and technology, and their more significant





Figure 1. ICSF 2022 logo.

implications for a corporation, government, education institutions, regions, and society both at present and in the future [1–3].

ICSF 2022 has two presentation levels, Pre-conference Workshops and Main Conference.

1.1. Sustainable Development of Mining Science and Industry (SusDevMiningSci'2022)

Sustainable development of Mining Science and Industry workshop (SusDevMiningSci'2022) is a peer-reviewed international workshop devoted to the latest scientific and technological achievements in mine safety, geological study, and safeguarding of mineral resources.

SusDevMiningSci'2022 Program Committee chair is Dr. Serhii Chukharev (figure 2).

1.2. Geography for Sustainable Development (GSD-2022)

Geography for Sustainable Development (GSD-2022) is a peer-reviewed international workshop. During the GSD-2022, the researchers who are committed to the problems of geography for sustainable development can present their latest research findings, ideas, developments and programs.

GSD-2022 main topics of interest are:

- Geographical bases of sustainable future: methodological bases
- Problems and prospects for the development of physical and socio-economic geography in the context of sustainable future
- Regional problems of sustainable future and local lore research of territories
- Cartographic research and geoinformatics: theory and practice
- Noosphere nature management is the key to a sustainable future
- The theory of sustainable future in geographical education

GSD-2022 Program Committee chair is Dr. Olga Bondarenko (figure 3).



Figure 2. SusDevMiningSci'2022 session chairs: Serhii Chukharev, Yulian Hryhoriev, Andrii Striuk, and Serhiy Semerikov.

1.3. Biodiversity and Ecosystems Sustainability (BiodES-2022)

Biodiversity and Ecosystems Sustainability (BiodES) is a peer-reviewed international workshop focusing on solving problems of biodiversity conservation and ecosystem sustainability from the point of view of applied science and education, which is the important basis for solving global problems of the mankind and sustainable futures.

BiodES-2022 contributes to all aspects of solving problems of biodiversity conservation and ecosystem sustainability by reflecting the environmental, technological, physiological and biochemical aspects of the problem; methods of application of modern information and communication technologies and mathematical approaches for their solution; discussion of modern educational concepts aimed at solving the problems of ecosystem sustainability with the purpose of sustainable development of the future.

BiodES-2022 main topics of interest are:

- Biodiversity in animals and plants as the indicator of ecosystem sustainability
- Ecological monitoring in preservation of biodiversity and ecosystem sustainability
- Physiological, biochemical and technological aspects of biodiversity and ecosystem



Figure 3. Olga Bondarenko at the GSD-2022.

sustainability

- Sustainable development in the context of global climate change
- Biodiversity and ecosystem functioning
- Risks to human well-being from the degradation of ecosystems and species

BiodES-2022 Program Committee chair is Dr. Viacheslav Osadchy (figure 4).

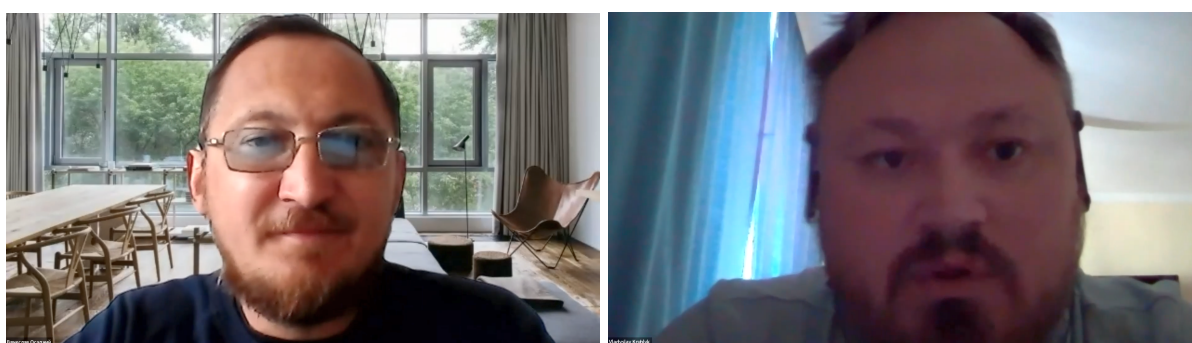


Figure 4. BiodES-2022 session chairs: Viacheslav Osadchy, and Vladyslav Kruhlyk.

1.4. Water Management and Environmental Engineering (WaterManEnvE-2022)

Water Management and Environmental Engineering (WaterManEnvE-2022) is a peer-reviewed international workshop occupies contributions in all aspects of water management and environmental engineering, environmental education and modern educational technologies.

WaterManEnvE-2022 main topics of interest are:

- Water management and water resources use
- Monitoring of water resources
- Irrigation and drainage
- Water treatment and water supply
- Hydraulic engineering & hydraulics
- Hydropower, etc.

WaterManEnvE-2022 Program Committee chairs is Dr. Serhii Klimov (figure 5).

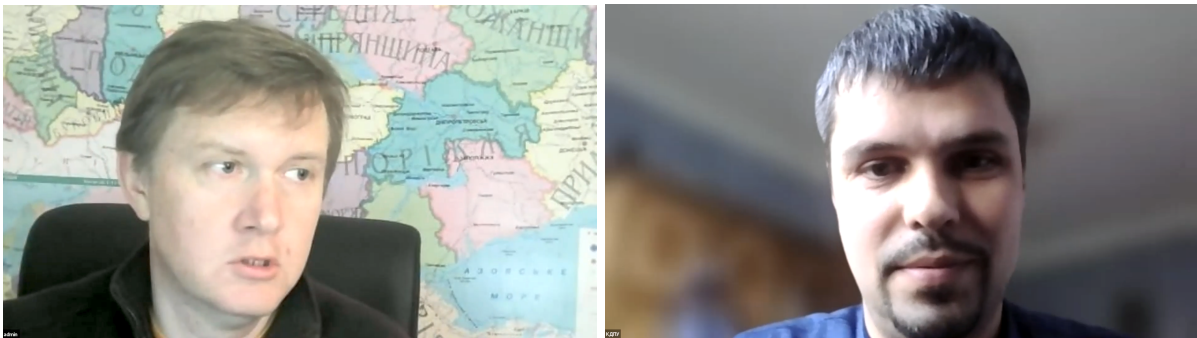


Figure 5. WaterManEnvE-2022 session chairs: Serhii Klimov, and Pavlo Nechypurenko.

1.5. *Innovative Approaches for Solving Environmental Issues (IASEI-2022)*

Innovative Approaches for Solving Environmental Issues (IASEI-2022) is a peer-reviewed international workshop focusing on advanced research in environmental science.

IASEI-2022 main topics of interest are:

- Environmental protection
- Nuclear and radiation safety
- Complex, economic and technological solutions
- Problems of training and advanced training of specialists in the field of energy and ecology

IASEI-2022 Program Committee chair is Dr. Andrii Iatsyshyn (figure 6).

1.6. *Main Conference*

Workshops and conference presentations are grouped into 7 tracks (figure 7):

- Sustainable Development of Mining Science and Industry [4–15]
- Innovative Approaches for Solving Environmental Issues [16–27]
- Geotechnical and Geoenvironmental Engineering. Sustainable Mining [28–39]
- Sustainable Environment and Environmental Management [40–50]
- Sustainable Energy, Building and Architecture, Materials and Technologies [51–58]
- Biodiversity and Ecosystems Sustainability [59–77]
- Sustainable Cities and Society. Governance, Legislation and Policy for Sustainability [78–87]

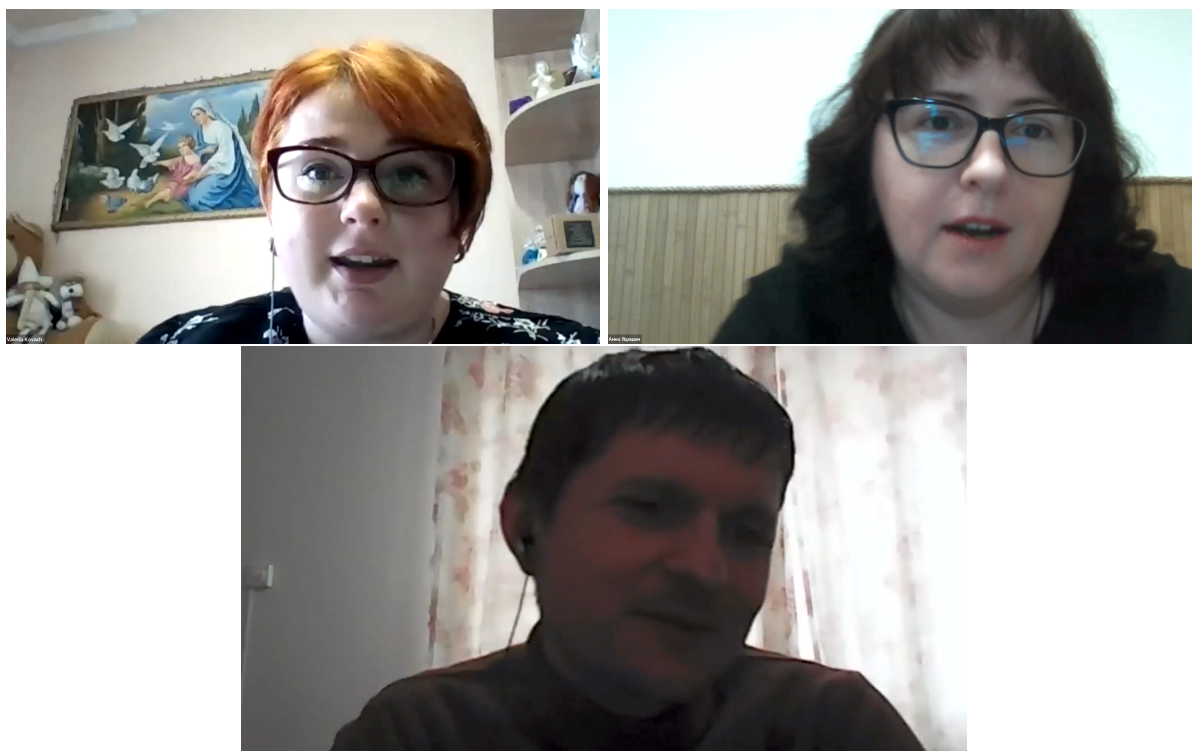


Figure 6. IASEI-2022 session chairs: Valeriia Kovach, Anna Iatsyshyn, and Andrii Iatsyshyn.

This volume contains the papers presented at ICSF 2022: 3rd International Conference on Sustainable Futures: Environmental, Technological, Social, and Economic Matters held on May 24-27, 2022 in Kryvyi Rih, Ukraine.

On the first stage, authors were invited to submit abstracts (<https://www.morressier.com/call-for-abstracts/ICSF-2022>). There were 169 submissions. Each abstract was reviewed by 2 program committee members. The committee decided to accept 152 abstracts [88].

On the second stage, authors of accepted abstracts were invited to submit full research papers including surveys, tutorials, perspective/colloquia articles in conference topics of interest (<https://www.morressier.com/call-for-papers/6127d6ec0bfa8e001283d3a2>). There were 125 submissions received. Each submission was reviewed by at least 3 program committee members. The committee decided to accept 84 papers.

The spread of the coronavirus that causes COVID-19 and the ongoing Russian invasion of Ukraine has changed the conference organization (figure 8). Therefore, the 3rd International Conference on Sustainable Futures: Environmental, Technological, Social and Economic Matters (ICSF 2022) took place on 24–27 May 2022 at the Kryvyi Rih National University, Ukraine, both in-person and online.

More than 130 attendees from 14 countries are joined to ICSF 2022 using Zoom. The presentation slots were defined as follows:

- invites talks (30 min): 20 min presentation, 10 min question answering and discussion,
- other talks (15 min): 10 min presentation and 5 minutes question answering and discussion.

The full program is available at the <https://icsf.ccjournals.eu/2022/> where details of the sessions, usually headed by one or more invited presentations. Video records of talks are available at the *Not So Easy Science* YouTube channel (<https://www.youtube.com/channel/UCh3gego79m-ofCiNEgEzMuA>).



Figure 7. Main Conference session chairs: Serhiy Sakhno, Tetiana Vakaliuk, and Hanna Danylchuk.

2. ICSF 2022 program committee

- Dr. *Rovshan Abbasov*, Head of the Department of Geography and Environment at Khazar University and the Representative of the Pure Earth International Organization in Azerbaijan, Azerbaijan
- Assoc. Prof. *Leon A. Abdillah*, Associate Professor of Computer Science and Information Systems, Department of Information Systems, Universitas Bina Darma, Palembang, Indonesia
- Dr. *Khairulla Aben*, Underground Mine Planning Manager, Mining Department, Eurasian Resources Group, Nur-Sultan, Kazakhstan
- Dr. *George Abuselidze*, Professor of Economics and Business, Department of Finance, Banking and Insurance, Batumi Shota Rustaveli State University, Batumi, Georgia
- *R. S. Ajin*, Hazard Analyst (Geology) with the Kerala State Disaster Management Authority (KSDMA), Thiruvananthapuram, India, and Research Fellow with the Resilience Development Initiative (RDI), Bandung, Indonesia
- PhD *Tetiana Alokina*, Senior Researcher, Leading researcher of section of geology and

TCH > War

The occupiers hit Kryvyi Rih with three missiles: the enterprise was destroyed

18:02, 25.05.22 1 min

Share: [f](#) [t](#) [w](#) [a](#) [s](#) [l](#)

Photo: TCH.ua

The Russian troops fired missiles at Kryvyi Rih and also fired from "Uragan" multiple launch rocket system two communities in the Kryvorizkyi district.

FEED

The Russians have intensified bombers to search for positions of the Ukrainian air defense - the Ministry of Defense

18:15, 25.05.22

"Poland is seriously preparing": the Ukrainian ambassador said that Russia could fire on this country

17:49, 25.05.22

"You will have to send your own troops into battle": Yermak called the only way to prevent a world war

17:48, 25.05.22

"The longer this war lasts, the greater the price will be": Zelenskyy urged the partners to send weapons to Ukraine

17:22, 25.05.22

"Russian invaders want to destroy everything there": Zelenskyy described the situation in the Donbas as "very difficult"

14:58, 25.05.22

Russian propaganda connects the origin of monkeypox to fictional Ukrainian "biological laboratories"

14:47, 25.05.22

"Sievierodonetsk is barely alive": Haidai said that the situation in the Ukrainian Luhansk region is getting worse every hour

14:29, 25.05.22

Shmyhal Explained How Ukraine Will Help Europe to Survive Without Russian Coal and Reduce Consumption of Russian Gas

Figure 8. Conference in Kryvyi Rih during the War (<https://tinyurl.com/ynkyucf5>).

environmental problems of ore deposits State Scientific Institution "Center for problems of marine geology, geocology and sedimentary ore formation of the National Academy of Science of Ukraine", Kryvyi Rih, Ukraine

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3. Conclusion

The vision of the ICSF 2022 is to create a leading interdisciplinary platform for researchers, practitioners and educators, to present and discuss the most recent innovations, trends, and concerns as well as practical challenges encountered and solutions adopted in the fields of sustainability.

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We are looking forward to excellent presentations and fruitful discussions, which will broaden our professional horizons. We hope all participants enjoy this conference and meet again in a more friendly, hilarious, and peaceful further ICSF 2023. The next meeting in the series is the 4th International Conference on Sustainable Futures: Environmental, Technological, Social and Economic Matters, 2023, Kryvyi Rih, Ukraine (<https://icsf.ccjournals.eu/2023/>).

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