



ÓBUDA UNIVERSITY
REJTŐ SÁNDOR FACULTY OF LIGHT INDUSTRY
AND ENVIRONMENTAL ENGINEERING



*Biosphere and Environmental Safety
VI.th International Symposium-2022*

Frist Announcement

Online 2-Day Event

VI.th. International Symposium on

***“Biosphere &
Environmental
Safety”***

May 5th – 6th, 2022

**RKK – Óbuda University
H-1034 Doberdó Str. 6
Budapest, HUNGARY**



*Biosphere and Environmental Safety
VI.th International Symposium-2022*

VIth International Symposium

Organization & Committees

Principal Organisers:

- International Council of Environmental Engineering Education (ICEEE)
 - Institute of Environmental Engineering & Natural Sciences (KTI)
 - Rejtő Sándor Faculty of Light Industry & Environmental Engineering (RKK)
 - Óbuda University (ÓU/ÓE)
-



*Biosphere and Environmental Safety
VI.th International Symposium-2022*

VIth International Symposium

Principal Publishing Partners:

- Tájökológiai Lapok: Hungarian Journal of Landscape Ecology (SCOPUS)
 - Euro-Mediterranean Journal for Environmental Integration (<https://www.springer.com/journal/41207>)
 - ISBN Proceedings book (978-963-449-285-6)
-

VIth International Symposium on
“Biosphere & Environmental Safety”
with the following keywords:

*Air, Biosphere, Environment, Food, Health, IT, Pollution, Quality, Safety, Security,
Soil, Waste, Water,*

is carrying out under the auspices of:

Prof. Dr. Levente KOVÁCS

Rector

Óbuda University

Presidency of the Conference:



Dr. László KOLTAI

Dean

Rejtő Sándor Faculty of Light Industry & Environmental Engineering

Dr. Rita BODÁNE-KENDROVICS

Director, Institute of Environmental Engineering & Natural Sciences

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INVITATION

Welcome Message

Dear Distinguish Friends, Guests & Colleagues

According to World Health Organization (2016), around 24% of global deaths are caused by violations of environmental protocols. People required fresh water to drink, clean air to breathe, and places to live free of toxic substances and hazards through sustainable environmental practices to secure future growth potentials and help build prosperous communities.

Currently, we are witnessing global climatic, biological & geological transformations taking place on the Planet & having a significant impact on all aspects of modern human life. Biosphere changes affect all countries & continents, their negative consequences are felt not only by underdeveloped states, but also by states that are usually referred to as "post-industrial", i.e. states with a high level of economic development & advanced technologies.

On the basis of environmental monitoring data, the current state of the environment is characterized, especially in areas of intensive industrial production, negative anthropogenic factors are identified that violate the ecological balance in the territories of active resource extraction, & the environmental threats arising in this connection. It is noted that in the context of increasing economic activity & global climate change, compliance with environmental safety requirements becomes a factor capable of ensuring sustainable economic development.

In the context of large-scale environmental degradation, ensuring sustainable socio-economic development is impossible without achieving the required level of environmental safety, which allows carrying out production activities without going beyond the capacity of the biosphere. The main approaches of the Symposium-2022 are mentioned below.

- Discusses a new environmental strategy based on the biosphere approach & taking into account the regularities of biosphere development & includes supplementary material on the influence of technologies on global climate change, the development of natural disasters & biosphere degradation.
- Highlights the contradictions between the market economy & ecology as well as the Symposium-2022 provide new facts about the global environmental crisis to be expected in the following 10 years.
- Ensuring environmental security is among the global strategic tasks. This problem is related to the rapidly aggravating threats caused by increasing population growth on the Earth, diminishing life-supporting resources, technologies, global climate change, & escalating natural disasters.
- Environmental safety becomes the most important factor controlling human survival on the Planet.

The VIth International Symposium-2022 examines the state of natural environment & the causes of its degradation using the biospheric approach. The increasing human population has resulted in people being more involved in research & innovation to find means of dealing with the increasing demands for food. The 21st century has witnessed numerous challenges affecting human life. One of these challenges is problems encountered in achieving food security by many nations across the globe, resulting in many people being unable to meet their basic human need of access & affordable food. The innovation of human beings is in increasing food production & ensuring food security through biotechnology. As such biotechnology plays a part in food security which refers to the secure, adequate supply of food for everyone.

The COVID-19 pandemic disease now affects the entire world & has many major effects on the global economy, environment, health, & society. Focusing on the harm COVID-19 poses for human health & society. The world is unsure about the possible determining factors of the COVID-19 pandemic, which

need to be known through conducting nonlinearity relationships, which caused the pandemic crisis. The study should examine the nonlinear relationship between COVID-19 cases & carbon damages, managing financial development, renewable energy consumption & innovative capability in a cross section of most global countries.

Advances in sector of vaccinology & immunology dependency on innovations in biotechnology, especially genomics, signature tagged mutagenesis, proteomics, immune modulation, computational simulations & complicated system analysis. These fields gain experience quickly growing or developing knowledge which increased realizations of the human immune system & pathogens.

Artificial intelligence is an important field of computer science & engineering to make machine capable to show intelligence like human. The idea of artificial intelligence is discovered upon the concept which human think & reasoning procedures is conventionally expressed, collected & conventionally embedded into machines. Artificial intelligence includes intelligent agents (e.g., systems which recognize their environment & make decisions & take actions) to execute operation like reasoning, planning, knowledge extraction, learning, perception, communication, moving & also handling & operating objects.

The field of Artificial Intelligence (AI) is flourishing thanks to large investments & big companies with heavy ecological footprints can use it to make their activity more sustainable. This field focuses on multiple areas where AI can be helpful in achieving such goals. Thanks to the use of artificial intelligence – specifically relationships between both people & computers (for example, different elevation or land cover datasets, or hydrologic models, are consistently labelled with clear, uniform & unambiguous descriptors).

Artificial intelligence plays an important role in achieving not only environmental but all other Sustainable Development Goals- from ending hunger & poverty to achieving sustainable energy & gender equality to protecting & preserving biodiversity.

Artificial intelligence has the potential to accelerate global efforts to protect the environment & conserve resources by detecting energy emission reductions, CO₂ removal, helping develop greener transportation networks, monitoring deforestation, & predicting extreme weather conditions. Artificial intelligence provides means to tackle the most pressing environmental challenges such as climate change, biodiversity & conservation, ocean health, water issues, healthy air, weather forecast & disaster resiliency.

Several studies have demonstrated the negative impacts of environmental pollution on population health; in general, few studies have examined the potential differential effects on the physical health of middle-aged & older populations. It is widely recognized that non-communicable chronic diseases have become more prevalent than infectious diseases in the world. Environmental pollution is associated with a range of chronic conditions & represents a major public health burden.

Environmentally, problems of air pollution are occurred in many of worldwide. Recent studies demonstrated that environmental pollution significantly increased the number of chronic diseases as well as the risk of being sick, thereby highlighting the corrosive effect of pollution on physical health status. This negative effect was stronger as pollution intensity grew. The growing prevalence of chronic conditions over the last 20 years has become a serious health problem & the main cause of premature mortality.

Pollution problems are severe in Worldwide. Presently, air pollution is a burning problem for every part of the globe. More than 100 pollutants which pollute air have been identified. They may be in the form of solids, liquids or gases. They differ significantly from place to place depending upon the particular complex of contaminant source & atmospheric conditions. The air pollutants emitted from both natural as well as anthropogenic sources. Air pollution has become a severe environmental stress to crop plants due to increasing industrialization & urbanization during last few decades.

One way to reduce pollution is through green innovation which is defined as the implementation of new, or significantly improved, products, processes, marketing methods, organizational structures & institutional arrangements which, with or without intent, lead to environmental improvements compared to relevant alternatives. It is one of the most important choices that firms make to deal with environmental issues & build sustainable development. Green investment refers to the investment necessary to reduce greenhouse gas & air pollutant emissions, so green investment is also called environmental protection investment, ecological investment, etc.

In global, groundwater not only provides valuable freshwater resources but also supports agricultural cultivation & industrial production activities, playing an increasingly important role in human life, ecosystems, & sustainable development. However, many countries in the world are facing the pressure of water resources & environmental problems, such as water shortage, water pollution, & frequent occurrence of extreme hydrological events under the influence of climate change & anthropogenic activities. Understanding the quality & associated hydrogeochemical evolution process of groundwater are urgently required for managing & utilizing groundwater resources in the world.

Drainage of treated wastewater to surface water is a severe threat to the health of aquatic organisms. A major human activity or natural event may cause changes to the surface attributes immediately or after a period of time. Water is the source of life. Facing the increasingly serious shortage of fresh water & pollution of the water, remote sensing-based monitoring of water has received widespread attention. Urban rivers are closely related to the lives of urban residents & remote sensing data has also been widely used to monitor changes in water quality of urban river.

Environmental pollution from petroleum compounds has become a major problem, both biologically & economically. Oil spills in aquatic ecosystems are among the worst catastrophic events that can affect & compromise aquatic life. The contamination of aquatic ecosystems with oil may be caused by accidental oil leakage from petroleum reservoirs & oil deposits, damage to pipelines, oil extraction platforms, & discharge of effluents from refineries, etc. Crude oil is a toxic compound mixture with a high potential for bioaccumulation in the body of aquatic organisms.

Plastics continue to have a critical & essential role in human society such as food packing, product packages & building materials. Plastic waste spreading around our planet has become one of the biggest concerns of this century. Massive production & use of plastic products bring convenience to people while leading to the accumulation of plastic pollutants in the environment. In total, 80% of plastic wastes can accumulate in landfills or be released into natural environments. Every year, open oceans are dumped with an estimated 4.8 to 12.7 million tons of plastics due to improper waste management strategies. The recycling is much less than the generated plastic waste & accounts for only 9% of the total plastic waste discarded. In the meantime, it has been recognized as a global sustainability priority to study & mitigate pollution of plastics & the associated unknown impacts from ultrafine plastic particles. Microplastics particles, for instance, have been detected in the aquatic environment globally & have raised scientific interests & environmental concerns. The larger plastics in turn are fragmented by chemical reactions, UV radiations, wave action & biodegradation to form small plastic pieces, termed microplastics. Microplastic pollution has gradually become a global problem & attracted much attention from scientists. Plastic particles have invaded almost every ecosystem of the earth & their significance can be marked by the fact that they are even seen in drinking water.

The pollution of soils & plants & their location in different climatic, physiographic & geochemical conditions require not only constant monitoring of the soil condition, but also the development of differentiated approaches to assess & prevent the risk of pollution. The development of technologies for the rehabilitation of soil properties, including its fertility is also a challenge. The problem of soil monitoring & rehabilitation is becoming increasingly topical due to population expansion to abandoned mining areas & other industrial areas. It was especially important evaluate the variation & spatial

distribution of natural & man-made associations of macro & microelements as a key to understanding the dynamics of sustainability of natural & anthropogenic substances and their spatial structures formed in soils that we need to know to return to safe operation of polluted land.

The socio-environmental crisis & the complexity of urban problems highlight the importance of better understanding the emergence & configuration of social innovation ecosystems & their impact on cities.

The globalization index is composed of economic, social, & political factors. Economic globalization is generally the combination of financial factors as well as trade dimensions. Many empirical studies investigated the effects of globalization on the ecological footprint. In 2018, global energy utilization increased by 2.9% & this rate of increase was almost doubled compared with the average rate of 1.5% per annum in the preceding 10 years. In addition, the overall resource consumption has already surpassed the resource generating capacity of the earth causing an ecological deficit that can have detrimental effects on global population.

Despite the economic development, the majority of world nations could not develop their industrial sector to the desired extent. Therefore, the financial sector has an undeniable role in the structural transformation & energy transition of these nations. This structural transformation helps in the reduction of environmental pressure since the service sector produces less ecological damages.

The ecological footprint is a strategy advanced by the Global Footprint Network (2020) to quantify human requirements on natural capital—the number of natural resources required for an individual or an economy.

The Earth has undergone warming & cooling numerous times since its formation over billions of years ago. These changes have emanated from several atmospheric & land use systems leading to natural disasters which are the biggest global, regional & local challenges in recent years.

Climate adaptation & low-carbon investment in areas such as climate change, renewable energy, & clean technology in green investment. Considering pollution control within environmental protection investment is green investment in a narrow sense, while a broader definition of green investment should consider multiple aspects of the environment, the economy, & society. Climate change has a large impact on tourism activities in terms of the change of spatial & temporal distribution of temperatures, the availability of beaches for recreation, & the quality of the coastal environment. Climate change will have far-reaching effects on many aspects of human activity, including agricultural & industrial productivity, real estate markets, human health, & even recreational opportunities. Crafting efficient climate policy requires a comprehensive understanding of these many consequences.

Today, climate change primarily takes the form of an increase in temperature which induces a global rise in sea level. The low-lying coastal areas, including but not limited to coastal tourism, will be at risk depending on the preparedness & the resilience of different societies. Coastal tourism is a climate-dependent industry & is closely linked to natural resources such as climate, beaches & sea.

Global climate has undergone unprecedented changes due to several natural- & human induced factors. Residents undertake temporal evacuations with financial assistance from local financial institutions.

Global warming has resulted in the formation of several large-scale climate events in the twenty-first century. Sea level rise has resulted in the submersion of coastal lands (1 km–2 km l& residual inland). Notable among these is sea level rise which is an adverse impact of global warming. This has eventually amplified submersion & occasional flooding tide in low-lying coastal environments.

The coasts of sub-Saharan Africa & those along the Pacific particularly have not been spared from the harsh effects of climate hazards. For instance, the WHO in 2002 estimated an annual death rate of about 150,000 caused by climate hazards in the sub-Saharan region every year. Concurrently, urbanization is a sensitive indicator that has exacerbated climate hazards in cities due to poor planning & the changes done to land cover. In growing coastal cities, sea level rise, inundation & submersion among other climate hazards have claimed lives & destroyed properties worthy. This phenomenon is again driven by human activities such as deforestation of mangroves & coconut trees that play primary roles in carbon

sequestration & serve as coastal defence systems. A consistency ratio of 10% based on pairwise comparisons of risks along with associated impacts show the judgements from respondents are pragmatic. Crop productions are highly vulnerable to climatic changes associated with the increase in annual temperature & changing patterns of rainfall. The increasing average annual temperature change has the potential to distort the productivity growth of major agricultural crops & aggravate food security conditions in world.

As biotechnology, phytoremediation uses the potential of plants to remove pollutants & contaminants from the environment, which occurs through different processes. Most phytoremediation studies for water purification focus on the use of aquatic macrophytes. These plants species have different levels of contaminant tolerance & when used in combination in a decontamination system, they provide an environmentally sustainable & economically viable technology. Moreover, ornamental plants can be used to compose buffer strips mitigating contamination of rural areas in the vicinity of contaminant sources & the resulted biomass used for bioenergy production. However, more studies also need to assess the ornamental quality of plants produced in contaminated environments as well as the accumulation of contaminants in the marketable organs of ornamental plants, such as flowers & foliage, aiming to evaluate the feasibility & safety of their commercialization. Ornamental plants can be used for Phytostabilization, promoting the beautification of contaminated sites, tourism & environmental education.

Impacts of Eco-Innovation on the Environmental Safety are become modern technology to increase the development & more biosphere security. The concept of eco-innovation has begun to be considered as a solution to preventing environmental damage, especially since the 1990s. Eco-innovation is expected to reduce amounts of waste, air pollution, & material resource usage. However, the effect of eco-innovation on environmental & financial performance has received limited attention. While factors such as global agreements, market conditions, technologies & regulations have important implications for the environment, eco-friendly investment can still be considered an additional charge for companies. New technologies have significantly changed production concepts. It has been a matter of curiosity to us how this situation will change financial & environmental performance.

The use of pesticides, insecticides, & fertilizers has become indispensable in agricultural production for higher yield of crops in order to meet the growing demands for food on a global level. Out of the total consumption of 6 million tons worldwide of these chemicals, only 1% reaches the target pest & the rest ends up in different environmental segments posing a potential risk to non-target organisms.

There is growing recognition of the potential environmental & socio-economic benefits of applying a circular approach to urban organic waste management through resource recovery. Decisions around planning & implementing circular urban waste systems require estimates of the quantity of resources available in waste streams & their potential market value. However, studies assessing circular economy potential have so-far been conducted mostly in high-income countries, yet cities in low- & middle-income countries have different challenges when developing a circular economy.

Global environmental investment, as an effective means of world investment, provides financial & human support for globe's green technology innovations that require a large amount of capital investment. The proportion of global environmental investment reflects the importance that the global attaches to green technology innovation. Environmental investment & the application of green technologies is bound to influence global energy efficiency.

Subsequently, energy value & environmental concerns rise to imperil the sustainability of the developing economy. Oppositely, renewable energy is shaped after topped off natural resources to upgrade energy security & obliging the issues of environmental change & a worldwide temperature alteration. Renewable energy implies a fundamental component for achieving continuous economic advancement. The energy significantly boosts the level of economic growth according to the energy-led growth hypothesis &

energy reduction policies effectively depressed the level of economic growth. This relationship is also called unidirectional association between energy & growth; therefore, the energy acts as the complement of the other inputs & imperative ingredient of the production process.

The VI.th Symposium-2022 will provides the newest innovate approaches & methods to prevent the environment & secure the environmental elements (Air, Soil, Water, Biodiversity, Food, Health, etc.) based on researches on life sciences, engineering, modern biotechnology & also provide the platform for all experts from academia, industry & research laboratory to discuss the latest hot researches & achievements.

Based on the huge success of last events, I am strongly confident that the VI.th Symposium-2022 will be a great success & meet our expectations. Moreover, the VI.th Symposium-2022 offers a valuable platform to create new contacts in the field of Traditional & Alternative technologies, by providing valuable networking time for you to meet great personnel in the field.

The above facts indicate that improving environmental quality can significantly reduce health risks & increase social welfare. Based on the above, it can be seen that the bilateral relationship between these five factors Environmental Health, Quality, Regulations, Safety, Security level should be considered in the future of the scientific basic research all over the World.

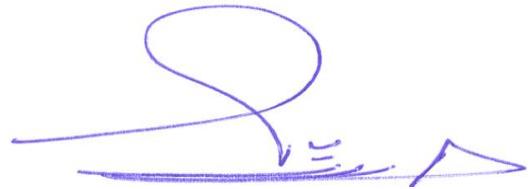
The International Council of Environmental Engineering Education (ICEEE) & the Óbuda University, Rejtő Sándor Faculty of Light Industry & Environmental Engineering (RKK) & Institute of Environmental Engineering & Natural Sciences have the great pleasure & cordially invite you to participate in the **FREE OF CHARGE** program of the VIth. International Symposium on Biosphere & Environmental Safety **ONLINE** event during 5th and 6th of May, 2022 at Óbuda University RKK, Budapest (Hungary).

Publication of the abstracts & full papers will be in the **ISBN Proceedings book** with the code: **978-963-449-285-6 or in other journals.**

For more information, please visit the following websites:

- <https://www.iceee.hu>
- <https://www.kti.rkk.uni-obuda.hu>

*I sincerely look forward to meet you & your colleagues in this event.
Yours Sincerely,*



*Prof. Dr. Hosam E.A.F. Bayoumi Hamuda
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SYMPOSIUM'S HIGHLIGHT TOPICS

Form the above mentioned reasons, the special VIth. International Symposium-2022 on Biosphere & Environmental Safety aims to provide a comprehensive perspective on changes in environmental quality affecting ecosystem & human health adopting global perspective concepts of climate change, modelling, & ecosystem services. For this purpose, valuable studies were gathered together for the special Symposium-2022. The majority of the selected papers will be focused on the quality of environmental elements (air, landscape, soil, water, food, health & waste) as well as treatment & systems of management.

The VI.th Symposium-2022 provides leading forum for the presentation (plenary, keynote, oral & poster) of new advances & research results in the fields of on Biosphere & Environmental Safety. Accordingly, Topics of interest for paper submission include, but are not limited to:

Session (A): Atmosphere Quality

- Air Pollutants & Crop Yields
- Air Pollution & Its Association with Acute Respiratory Infections
- Air Quality & Environmental Safety
- Exogenous Pollution & Green Innovation

Session (B): Hydrosphere Quality

- Assessment of Groundwater Hydrogeochemistry & Quality
- Assessment of Running & Potable Water Quality Parameters
- Biological & Microbiological Assessment of Surface & Groundwater
- Environmental Factors & Phytoplankton in Surface Water
- Heavy Metals in Surface Water & Their Ecotoxicological Implications
- Hydrogeological Engineering & Physicochemical Parameters in Surface Water
- Macro- & Microplastics in Running Water
- Membrane Technology, Process & System Design
- Water Desalination
- Water Pollution & Treatment Technology
- Water Resources Planning & Management

Session (C): Lithosphere Quality

- Application of GIS for Soil Suitability & Crop Productivity
- Application of Pesticides & Other Agrochemicals
- Dynamics Nutrient Cycling in Agroecosystems
- Environmental Impact Assessment on Soil Pollution
- Erosion & Sediment Control & Soil Microbes
- Microbial Communities & Bioremediation of Oil-Contaminated Agricultural Soils
- Organic & Inorganic Pollutants in Soil
- Remediation of Radioactive Soil
- Soil Biological & Physical Properties & Ecosystem Processes
- Soil Biota, Ecosystem Services & Land Productivity
- Soil Carbon & Nitrogen Stocks & Storage of Soil Microbiome
- Soil Quality, Biocontrol & Productivity

Session (D): Biodiversity & Landscape Security

- Biodiverse of Plant & Vegetation Communities

- Biodiversity Benefits of Ecological Intensification
- Biodiversity & Conservation
- Biodiversity & Ecosystem Functioning in Soil
- Biodiversity in Global Above- & Below-Ground Linking
- Biodiversity in Life Cycle Assessment
- Biodiversity Management
- Ecological Role of Biodiversity in Agroecosystems
- Future of Global Birds
- Grassland Biodiversity
- Honey Bees
- Landscape & Nature Protection
- Linking Agricultural Practice to Insect & Bird Populations
- Landscape Composition, Biodiversity & Natural Pest Control
- Landscape-Moderated Biodiversity Effects of Agri-Environmental Management
- Ornamental Plants
- Restoration & Landscape
- Sustainable Regulation in Agricultural Landscapes

Session (E): Food Quality

- Antimicrobial-Resistant Foodborne Pathogens
- Antioxidants
- Bioprocess & Biosystems Engineering
- Biosecurity Strategy for Agricultural & Food Industry
- Drought-Resistant Soil & Sustained Food Production
- Fermentation & Food Technology
- Food Safety & Environmental Sustainability
- Food Supply Chain More Eco-Friendly
- Global Food Security & Biodiversity
- Global Trends in Agriculture & Food Systems
- Microbial Pigments: Alternative to Synthetic Dyes & Food Additives
- Organic Agriculture & Global Food Supply
- Phytotoxic Effects of Antibiotics on Crop Plants
- Quality Control & Marketing of Food Products
- Pesticides & Decrease Pest Damage in Crop Production
- Use of Biotechnology in Solving Food Security Problem

Session (F): Health Insurance

- Artificial Intelligence & Health
- Biomechanics & Modelling in Mechanobiology
- COVID-19 Pandemic on Socio-Economic & Sustainability
- Diet & Mental Illness
- Drugs from Natural Sources
- Ecotoxicological Aspects
- Emergency Preparedness & Response
- Environmental Pollution & Physical Health
- Global Map of COVID-19 Vaccine Acceptance
- Health & Safety Management
- Healthy Eating
- Management & Healthcare
- Molecular Pharmacology

- Nutrition Therapy
- Plants & Essential Oils
- Probiotics & Prebiotics: Health Benefits & Therapeutic Potentials
- Probiotics & Human Health
- Probiotics & COVID-19, HIV infection, Anti-carcinogenic Diseases
- Prevalence, Knowledge & Potential Determinants of COVID-19

Session (G): Integration of Education, Science & Business in Modern Environment

- Artificial Intelligence in Environment: Technology & Data science Trends
- Biomass Conversion & Biorefinery
- Civil, Electrical & Mechanical Engineering in Environmental Quality
- Eco-Design & Environmental Safety
- Eco-Innovation & Environmental Safety
- Ecological Footprints of Environmental Resources
- Education Strategy in Natural & Engineering Sciences
- Environmental Investment & Resource Economics
- Environmental Modelling & Assessment
- Environmental Planning Education
- Environmental Technology & Innovation
- Financial Globalization, Economic Growth & Environmental Sustainability
- Humanities & Social Science in Environment
- Socio-Economics & Ecology
- Social Innovation Ecosystems
- Technological Innovation & Energy-Environmental Efficiency

Session (H) Environmental Science, Pollution & Technology

- Agroecology: New Research & Development
- Application of Bio(Phyto)remediation Technique
- Biotechnology & Bioengineering in Environment
- Bio- & Genetic Engineering in Environment
- Deforestation
- Green Nanotechnology in Environment
- Ecosystems for Water & Food Security
- Environmental Contamination
- Environmental Degradation
- Environmental Monitoring & Assessment
- Environmental Sustainability Assurance & Future Research
- Health, Quality & Security of Environment
- Hygienic Engineering & Environmental Design
- Microplastic & Nanoplastic Pollution in Environment
- Phytonanotechnology: Challenges & Future Perspectives
- Phytoremediation & Ornamental Plants
- Prevent, Control & Remediate Environmental Hazards
- Rehabilitation of Ecosystem
- Rhizosphere Microbiome
- Strategies of Cold-Adapted Microorganisms
- Toxicity & Genotoxicity of Domestic Sewage Sludge in Ecosystem

Session (I): Carbon Emission & Renewable Energy

- Biomass, Bioenergy & Renewable Energy Technologies
- Biomass Energy Consumption & Ecological Footprint

- Carbon Footprint
- Energy & Environmental Issues
- Energy-Saving Technology Investment
- Environmental Regulations & Carbon Emission
- Greenhouse Gas Emissions
- Energy Investment & Environmental Sustainability
- Renewable Energy: Sources & Environmental Economic Growth
- Solar Radiation, Saving Time, Water & Energy

Session (J): Climatic Changes & Biosphere

- Climate Change & Adaptation in Agro-Ecosystems
- Climate Change & Crop Production
- Climate Change & Environmental Sustainability
- Climate Change & Future of Agricultural Land
- Climate Change & Global Environmental Change
- Climate Change & Human Security & Next Generation
- Climate Change & Socio-Economic Scenario & Tourism
- Climate Change & Spreading of Diseases
- Climate Change & Water Pollution
- Climate Insecurities & Global Food Security

Session (K): Waste Management

- Biogenic Municipal Waste & Biofuel Production
- Bioremediation & Management of Hazardous & Radioactive Waste
- Circular Economy Potential of Urban Organic Waste
- Ecotoxicological Evaluation & Treatment of wastewater
- Microbial Systems & Technology for Pollutant Removal
- Municipal Wastewater Treatment Plants & Environmental Management
- Socio-Environmental Conflict: Mining & Industrial Wastes
- Sustainable Use & Waste Management of Plastics
- Waste Management (Air, Water, Soil, Industrial, etc.)

IMPORTANT DEADLINES

- | | |
|-----------------------------------|-------------------|
| – Registration Deadline: | February 27, 2022 |
| – Abstract Submission Deadline: | March 13, 2022 |
| – Full paper Submission Deadline: | March 31, 2020 |
| – Symposium Date: | May 5-6, 2022 |

REGISTRATION FEE IS FREE OF CHARGE

Participants will receive:

- Program of the Symposium-2022 & Certificate of participation
- Publication of the abstracts & full papers in the **ISBN 978-963-449-285-6** Proceedings book

TIME OF ORAL & POSTER PRESENTATIONS

The official **language** of all the presentations including oral, poster speaker or video presentations is **English** & all the relevant **submissions** should be made in **English**.

Presentation Type:	Total Allotted Time:
– Plenary speaker	– 30 min
– Keynote speaker	– 20 min
– Featured speaker	– 10 min
– Poster	– 5 minutes

CALL FOR ABSTRACTS & PAPERS

The VIth International Symposium-2022 call for Abstracts & paper is now open.

If you missed the deadline, contact the Chair of the VIth International Symposium for latest information on abstract submission.

Abstract & Paper Submission Guidelines:

- There is a possibility to publish your full paper(s) in for example:
 - Tájökológiai Lapok: Hungarian Journal of Landscape Ecology (SCOPUS)
 - Euro-Mediterranean Journal for Environmental Integration (<https://www.springer.com/journal/41207>)
 - ISBN Proceedings book (978-963-449-285-6), and
 - Others
- Abstracts & full papers are to be submitted in the form of template in MS Word format in portrait layout through e-mail will be accepted.
- Abstracts & full papers must be in **English**, in **Word Doc (Docx) format**, & should not exceed **250 words for the abstracts, & papers** have to be **minimum 6 & maximum 15 pages** long.
- **Biography** should be written up to **100** words.
- An **acknowledgement** mail will be sent to you in 24 hours upon receiving the abstract. Ensure to check your email frequently for further communications.
- Abstract will be **reviewed** by the committee and you will receive an e-mail notification within 24-48 hours of abstract submission.
- All the abstracts must be submitted before the **deadlines** provided.
- The **presenting author** should obtain necessary regulatory permissions & take responsibility for the accuracy of the results.
- An e-mail confirming the receipt of abstract or paper, including an abstract or paper number, will be sent to the submitting (**corresponding**) author. This number should be quoted for all further correspondence.
- **Modification** of submitted abstracts or papers will be permitted only if the author informs Symposium Chair through email prior 30 days of the Symposium.
- Abstracts or the papers will be **reviewed** by committee & selected for oral/poster presentation on the basis of merit. The Symposium Committee reserves the right to select papers & posters for presentation.
- The **acceptance & mode** of presentation will be intimated to authors via e-mail within 7 working days from the date of submission.
- Please read the **submission requirements** carefully as submissions will not be changed later. Where possible abstracts or papers will be published as received & the organizers reserve the right to make changes for editing purposes. It is the responsibility of the main author to ensure that submitted abstracts or papers have been edited before submission to minimize errors in the program.

- The author has to make the mode of presentation clear at the time of submission of abstracts.
- Please choose the **session of topic** most related to your abstract. However, the Committee reserves the right to decide on the definitive topic after abstract selection.
- An automatically generated **confirmation** will be sent to the contact person's email address. If you do not receive it within six hours (& it will not be in your spam folder, either), please contact us at bayoumi.hosam@uni-obuda.hu
- The usage of the **template** of abstract & full paper is **obligatory**.

BEST PRESENTATION & POSTER AWARDS

This award recognizes individuals from poster presenters who have display their outstanding research & findings for an innovative future. Recipients of the award are considered to be the Best Poster Presenter of the Symposium-2022.

Criteria:

- All presented abstracts will automatically be considered for the Award.
- All the presentation will be evaluated in the conference venue
- All the awards will be selected by the judges of the award category
- The winners will be formally announced during the closing ceremony.
- The winners will receive award certificate.
- The awards will be assessed as far as plan & format, intelligence, argumentation & approach, familiarity with work, engaging quality, message & primary concerns, parity of content visuals & by & large impression.

VIth International Symposium-2022 Excellence Awards for best papers & presentation was instituted sine the year 2010 & have been given to the researchers for significant papers, to municipalities, temples, industries for their significant achievement in environmental health, quality, safety, etc. as well as the protection of the environment from pollution. The awards of the VIth International Symposium-2022 were given to the most outstanding researchers of the symposium under below three categories.

SELECTION PROCESS

1. CRITERIA FOR THE SESSION'S BEST PRESENTATION AWARD

Each & every presentation was evaluated by two evaluators & the average mark of both evaluators was taken as the final mark. The best presentation from sessions was selected based on the final mark received from the evaluators & the final decision was given by the Symposium's Chair. Below criteria were taken into consideration for this award & marks are given out of 100.

1. Value of the Content (30%)
2. Clarity of Presentation (20%)
3. Appropriate Audio Visual Aids (20%)
4. Ability to Connect with the Audience (10%)
5. Proper Timing (20%)

2. CRITERIA FOR THE BEST POSTER PRESENTATION AWARD

Every poster presentation is evaluated by a special evaluator based on below criteria & the presentation with the highest mark was selected as the best poster presentation award. The final mark is given out of 100.

1. Depth of Content (40%)
2. Introduction & Abstract (15%)
3. Content knowledge & organization (20%)
4. Poster Design & Overall Visual Appeal (10%)
5. Verbal Interaction (15%)

3. CRITERIA FOR THE OVERALL BEST PRESENTATION AWARD & BEST STUDENT PRESENTATION AWARD

Presentations of each technical session with the highest marks were recommended for these two awards. They were evaluated by a special committee headed by the Symposium's Chair according to the below criteria.

1. Total Marks gained in the presentation (100%)
2. Significance of the paper to the field (30%)
3. Theoretical contribution (15%)
4. The ability of practical implementation (20%)
5. Use of appropriate methodological rigor (20%)
6. Originality (15%)

The organizing committee is waiting for your join the atmosphere of the VIth. International Symposium-2022 in Budapest & contribute to these exciting debates on the Biosphere & Environmental Safety in order to shape the future of our biotic & abiotic factors in our planet!

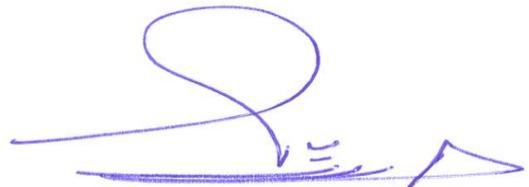
Based on the huge success of last events, I am strongly confident that the VIth Symposium-2022 will be a great success & meet our expectations. Moreover, the VIth Symposium-2022 offers a valuable platform to create new contacts in the field of Traditional & Alternative technologies, by providing valuable networking time for you to meet great personnel in the field.

In case you might have any queries or requirements please do not hesitate to contact me by replying to this e-mail.

I sincerely look forward to meet you & your colleagues in this event.

Yours Sincerely,

Best regards,



*Prof. Dr. Hosam E.A.F. Bayoumi Hamuda
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