



Sessions

Occurrence and fate of pollutants in different environmental compartments /exposure/ remediation

- Atmospheric chemistry and air pollution
- Water chemistry, water pollution and water treatment
- Contaminants of emerging concern in focus (occurrence, analytical assessment, regulation, climate change impacts on the fate of contaminants)
- Manufactured particles in the environment (e.g. nanomaterials, microplastics)
- New process materials and methods for innovative treatment of waste streams
- Mining impact on the environment: threats, solutions for remediation and practice
- Bioremediation and Biodegradation

Environmental analytical chemistry, various aspects of

- Challenges in modern analytical chemistry - sustainable sample processing from simple to complex environmental matrices (EuChemS DAC-DCE)
- Advances in target and non-target screening in environment by HRMS
- New analytical methods for long-term monitoring of environmental pollutants (EuChemS DCE-IUPAC)
- Applications of data analytics and in-silico tools in environmental science and engineering

Environmental responses to exposure /effects/ hazards & risk assessment

- Metabolomics and genetic investigations in the context of environmental chemistry
- New strategies for the assessment of the risks from chemicals (EuChemS DCE-PARC)

Environmental chemistry and societal challenges

- Environmental Chemistry in Higher Education, Communication, Ethics, Legislation and Cultural Heritage
- Food (safety, up-cycling of agri-food by-products and sustainability, food packaging) (EuChemS DFC-DCE)
- Environmental chemistry for circular economy: Safe-by-design approaches and LCA-based assessment tools (EuChemS DCE - IUPAC)

October 1, 2024 Abstract submission opens

November 15, 2024 Early registration opens

January 25, 2025 Abstract submission deadline

March 7, 2025 Abstract acceptance notification

April 15, 2025 Early registration deadline

Conference Chairs

- **Ivana Ivančev-Tumbas**, University of Novi Sad, Serbia
- **Vladimir Beškoski**, University of Belgrade, Serbia

For detailed information, please visit the website at icce2025.com or contact the local ICCE 2025 team at icce2025@congrexpo.co.rs

UN policy for Sustainable Development



The event will consist of sessions and plenaries based around five main tracks (sustainable development and financing; peace and security; a digital future for all; youth and future generations; and global governance), and other topics that cut across all of the work of the UN, including human rights, gender equality and the climate crisis.

The Summit will conclude with a **Pact for the future** referring to:

- *Sustainable development and financing for development (FfD);*
- *International peace and security;*
- *Science, technology and innovation and digital cooperation;*
- *Youth and future generations; and*
- *Transforming global governance.*

More information on:

<https://www.un.org/en/desa/future-un-time-think-big-urges-guterres>

New projects



Project EnFoodLife

The objective is to establish an innovative cluster, **EnFoodLife**, in the Kuyavian-Pomeranian Voivodeship, based on the **Kujawsko-Pomorskie Science and Technology Center** named after prof. Jan Czochralski, as a pillar of the knowledge-based economy in the region. The activities of the EnFoodLife cluster will directly result from the identified Intelligent Specializations of Kuyavia and Pomerania, particularly IS Healthy and Safe Food and IS Health and Medical Tourism, discovered through the entrepreneurial discovery process.

Furthermore, it will become one of the key instruments for implementing the assumptions of the Regional Innovation Strategy RIS3 2021+.

Project outcomes

As a result of the project and the establishment of the **EnFoodLife Cluster**, KPCNT will become a crucial element of the laboratory for the research and development activities of the most important research teams in the voivodeship and for all entities operating within the cluster and utilizing its services. The laboratory space, shared by the cluster partners and made available for research services, will consist of:

- *Microbiology Laboratory*
- *Chemistry and Biochemistry Laboratory*
- *Food Testing Laboratory*
- *Mechatronics Laboratory*
- *Environmental Impact Laboratory*
- *Cognitive Science and IT Laboratory*
- *Artificial Intelligence and AI Ethics Laboratory*
- *Sports Medicine Laboratory*
- *Tissue and Cell Bank*

The **EnFoodLife Cluster**, built around the potential of the KPCNT, will serve as a seed for the development of a larger initiative, drawing inspiration from renowned non-university scientific institutions such as the Max Planck Society (Germany), the European Organization for Nuclear Research CERN (Switzerland), the Pasteur Institute (France), and the Massachusetts Institute of Technology MIT (USA).

Project TeBiCE

The Kuyavian-Pomeranian Voivodeship has been invited by the Venetian Agency for Innovation in the Primary Sector (Veneto Agricoltura Italia) to collaborate in preparing the project application for **TeBiCE - Territorial Biorefineries for Circular Economy**, under the Interreg Central Europe Program. The project application was positively evaluated and conditionally approved by the Monitoring Committee of the Interreg Central Europe Program on December 16, 2022. The project implementation will commence on April 1, 2023, and will continue until March 31, 2026.

In the Central Europe (CE) region, there are large quantities of unused biomass from primary production and agri-food sectors, suitable for processing in biorefineries as by-products, co-products, or waste. The objective defined for the **TeBiCE** project is to increase the efficiency of the public and private sectors in adopting circular economy solutions, ensuring a more efficient market for by-products and waste from primary production and agri-food processing sectors in the Central Europe region. The main challenge of the **TeBiCE** project is to eliminate obstacles in the implementation of the bioeconomy and circular economy in the CE region.

The implementation of the **TeBiCE** project includes, among other things, the development of a “common strategy for removing barriers in the market for by-products and waste from primary production and agri-food sectors in Central Europe,” the preparation of “technological and market forecasts,” the development of guidelines for policymakers in shaping priorities and (re)addressing towards common goals, proposals for “common standards for by-products and end-of-waste systems,” and pilot projects. The **TeBiCE** partnership actively promotes the establishment of new value chains based on cutting-edge technologies and new business models, generating a more efficient and competitive economy. Collaboration within the **TeBiCE** project involves partners with diverse competencies, ensuring a balanced approach and good territorial coverage of the Central Europe region.

TeBiCE Project Partners:

- Venetian Agency for Innovation – Veneto Region (Italy) – Lead Partner
- National Institute of Chemistry (Slovenia)
- Fraunhofer Italia Research Scarl - Innovation Engineering Center (Italy)
- Chemical Cluster Bayern (Germany)
- University of Warmia and Mazury in Olsztyn (Poland)
- Kuyavian-Pomeranian Voivodeship (Poland)

- Slovak Chamber of Commerce and Industry (Slovakia)
- Carinthia UAS - Non-Profit LLC (Austria)

Forum of Innovation, Science, Business and Local Government

Kujawsko-Pomorskie Forum of Innovation, Science, Business and Local Government 2024 – a conference promoting regional scientific, innovative potential and business cooperation within all sectors relevant to the development of the voivodeship, as well as the world. The initiator and organizer of the event is the Jan Czochralski Kujawsko-Pomorskie Science and Technology Center supported by a recognized, experienced, regional business environment institution - Toruń Regional Development Agency. The Strategic Partner of the event is the Kujawsko-Pomorskie Voivodeship.

Prof. Dr. Boguslav Buszewski and Dr. Magdalena Dobrogoszcz-Zalewska (Polonia),

Environmental education programs



VASILE ALECSANDRI
University of Bacau
Romania

**ENVIRONMENTAL
ENGINEERING**
doctoral field

Initiated as an international interdisciplinary domain, *Environmental Engineering* combines engineering principles and environmental domain for developing sustainable solutions to problems related to the protection and management of the environment. It focuses on global issues that require collaboration and coordination between countries and international organizations. These issues include climate change, transboundary pollution, natural resource management and biodiversity conservation.

The Environmental study program is

considered very important by most higher education institutions and also by international organizations such as: the United Nations, the World Health Organization, the World Bank and the International Monetary Fund, the Organization for Economic Cooperation and Development etc.

Vasile Alecsandri University of Bacau, through its comprehensive structure and mission (teaching and research), considered the domain to be a priority due to the regional needs but also the partnerships with the academic, economic, social environment at the national and international level. The PhD in *Environmental Engineering* represents the peak of academic education in this field, offering a framework for conducting advanced research and developing solutions applicable to various industrial and social sectors. Through doctoral programs, researchers have the opportunity to explore complex issues, develop new technologies and methods, and propose effective policies and strategies for environmental protection.

The University of Bacau was among the first institutions of Romania introducing a doctoral program in *Environmental Engineering* and being certified in this field. The activity and topics addressed by the doctoral supervisors and doctoral students include important subjects in the field as: water management, air and soil quality, waste management, biodiversity conservation, etc.

The domain has been progressively developed through the contribution of doctoral supervisors and coordination teams, but also through purchasing the best equipments and organization of dedicated laboratories for obtaining results recognized at national and international level.



The initiator of this doctoral program is Prof. PhD. Eng .habil. Dr. h. c. Valentin Nedeff. Among the important results obtained there are the following doctoral theses in international co-supervision:

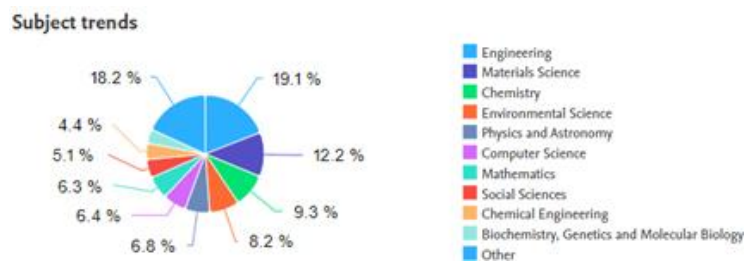
1. *Microsimulation of road traffic as a tool in the development of sustainable action plans against noise in urban areas*, in co-supervision with the *University of Cadiz*, Spain;

2. *Studies and research regarding the evaluation of technological aspects for the post-closure period of municipal solid waste deposits*, in co-supervision with the *University Polytechnic of Turin*, Italy;
3. *Studies and research on the influence of physical environmental factors on the germination and growth of some crop plant species*, in co-supervision with the *University of the State of Moldova*.

The performed research has been disseminated in prestigious international journals but also in numerous international scientific events. The topics developed are: *innovative methods for water treatment, solutions for air and soil depollution, integrated waste management, the use of biochar for the remediation of contaminated soils*, etc. <https://www.ub.ro/sustineri-publice-teze-de-doctorat>



Collaboration between various disciplines has allowed researchers to develop proper solutions which received international recognition. According SCOPUS, the scientific papers published belong to the following trends:



Numerous collaborations with national and international educational institutions (*Gheorghe Asachi* Technical University of Iasi, *Alexandru Ioan Cuza* University of Iasi, State University of Moldova, University of Cadiz Spain, Angel Kanchev University of Ruse Bulgaria, Université du Québec à Montréal, Canada, University of Orléans, France, etc.) has been developed leading to good results for the research teams that have finalized important scientific papers and doctoral theses.

Some examples of successful doctoral theses have to be mentioned:

- Prof. PhD .Eng. habil. Denisa Nistor- coordinator:

1. *Contributions regarding the use of clay-based materials in the production of catalysts for the depollution of industrial waters* in collaboration with Université du Québec, Canada;
2. *Studies and research on the use of non-conventional materials for the removal of some polluting substances from wine* in collaboration with the Technical University of Moldova, Republic of Moldova.

- Prof. PhD habil. Adriana-Luminita Finaru-coordinator:

1. *Studies and research on the possibility of increasing the acoustic comfort in a room used for speech*, national in collaboration with, *Alexandru Ioan Cuza University of Iași, Romania*;
2. *Sustainability of the methodology for obtaining pyrazolo[3,4-d]thiazoles and pyrazolo[3,4c] pyrazoles*, in collaboration with the University of Orléans, France.

The numerous projects developed by the doctoral supervisors also contributed to the development of international relations in the field of Environmental Engineering. Thus, doctoral students and members of the coordination teams were able to complete various research internships at important universities from Europe. Some examples of such project follow: *Life + GREEN PRODUCTS*; Project FDI-SSD-0123/2021: *Internationalization of master's and doctoral university studies - support of the performance and training of young people through and for research*, Project CNFIS-FDI_0132/2022, *Academic mobility-support of increasing the international visibility of IOSUD-UBC, MOB-INTERVIZ-UBC*; Project FDI-F_0055_2023, etc. These projects expand partnerships and intensify academic mobility.



In the context of international mobility the contribution of the Francophone University Agency (AUF) has to be mentioned. AUF international mobilities, both at doctoral and post-doctoral level, offer valuable opportunities for students and researchers to expand their academic horizons and contribute to research projects of global importance. Within these programs, more than 30

AUF students from countries such as Senegal, Ivory Coast, Congo, Burkina Faso, Tunis, Morocco, Togo, Algeria etc. participated in research internships at the *Vasile Alecsandri University of Bacau*.

The AUF students have been successfully involved in the research developed and numerous paper published in international journals resulted from this cooperation.



The doctoral supervisors and the students took part in the organization or support for the scientific events organized in the University and by the other partners from Romania or abroad, like: OPROTEH; CISA, EE&AE, etc.



It is also necessary to mention the international recognition by the introduction in the most important databases of the scientific journals coordinated by the people involved in the field of Environmental Engineering, namely,:

- *Scientific Study & Research – Chemistry and Chemical Engineering, Biotechnology, Food Industry (ISI)*;
- *Journal of Engineering Studies and Research*.



The PhD in environmental engineering is an essential component in the global efforts to protect

and manage natural resources in a sustainable manner. By promoting advanced research, developing new technologies and adopting an interdisciplinary approach, PhD students contribute significantly to solving specific environmental challenges. Investing in doctoral education and supporting research is crucial to ensure a sustainable future.

The continuous development of the field of Environmental Engineering is essential to respond to the challenges related to the protection and management of natural resources, climate change, sustainability, etc. This field is rapidly evolving due to technological advances, scientific research and changes in environmental policies and regulations.

All these issues are a priority for the Faculty of Engineering of the *Vasile Alecsandri* University of Bacau as well as for the supervisor team of the doctoral field of Environmental Engineering, composed by: Prof. PhD .Eng. Dr .h.c. Valentin NEDEFF; Prof. PhD. Adriana FINARU, Prof. PhD. Eng. Denisa NISTOR, Assoc. prof .PhD .Eng. Lăcrămioara RUSU, Assoc .prof. PhD.Eng. Mirela PANAINTE-LEHADUS, Assoc. prof PhD .Eng. Emilian MOSNEGUTU, Assoc. prof. PhD. Eng. Narcis BARSAN, Assoc. prof. PhD .Eng. Florin-Marian NEDEFF, Assoc. prof .PhD .Eng. Alexandra-Dana CHITIMUS, Assoc. prof. PhD.Eng. Claudia-Manuela TOMOZEI, Assoc. prof. PhD. Eng. Oana IRIMIA.

<https://www.ub.ro/domenii-si-conducatori-de-doctorat>, <https://www.ub.ro/rezultate-obtinite-la-scoala-de-studii-doctorale>

Prof. PhD Habil. Valentin Nedeff and Assoc. prof. PhD. Eng Narcis Barsan



DCE publication
Environmental Science and Pollution Research (ESPR), *A scientific journal with a broad interdisciplinary outlook.*

IF = 5.19, Q1

JCI = 0.99

Total Citations

164,197

Newsletter issue contributors:

Michaela Dina Stanescu (Romania - editor), Boguslav Buszewski and Magdalena Dobrogoszcz-Zalewska (Poland), Valentin Nedeff and Narcis Barsan (Romania), Vladimir Beskoski and Ivana Ivancev Tumbas (Serbia)