

University of Zagreb Faculty of Geotechnical Engineering



PROGRAM FOR 4th SCINETIFIC DOCTORAL CONFERENCE "RESEARCH IN ENVIRONMENTAL ENGINEERING"

Date: Monday 12th May 2025

9:00 – 9:15 CET Introductory Remarks

Assoc. prof. Ivana Grčić, PhD, Dean (UNIZG - GFV) Assist. Prof. Vlasta Zanki, PhD (UNIZG - GFV) Simone Grego, PhD, Chief of Groundwater Sustainability and Water Cooperation (UNESCO IHP)

Session 1. Invited Lecture

- 9:15 9:30 Ivan Güttler, PhD, Director General at DHMZ
- 9:30–9:45 Lucija Plantak, PhD, Head of the Scientific Committee and Steering Committee member UNESCO GWYN
- **9:45 9:50** Environmental Engineering Journal presentation Assist. Prof. Filip Dodigović, PhD and Assist. Prof. Dragana Dogančić, PhD (UNIZG GFV)

9:50 – 11:15 Session 2. <u>Water protection and sustainable management</u>

- 1. Rolind Urich "PROBLEMATIC TO THE SUSTAINABLE MANAGEMENT OF RURAL WATER SUPPLY PROJECTS IN THE FONGO-TONGO SUB-DIVISION, WEST CAMEROON"
- 2. Samreena Mohammed "EVALUATING GROUNDWATER QUALITY IN CENTRAL KERALA USING THE WATER QUALITY INDEX"
- 3. Dunja Turk "APPLICATION OF THE GC-MS/MS METHOD WITH μDROP SAMPLE PREPARATION IN SURFACE WATER CONTAMINATION RESEARCH"
- 4. Marija Kraševac Sakač "INTRODUCING ELECTROPHORESIS ON MICROCHIP FOR LOW-COST AND CONTACTLESS QUANTIFICATION OF CATIONS IN BOTTLED WATERS"
- 5. Iva Ćurić "ASSESSMENT OF REVERSE OSMOSIS PERMEATE FROM A HYBRID UF-RO PROCESS FOR IRRIGATION: A COMPARISON WITH FAO GUIDELINES"
- 6. Syed Muhammad Affaq "INTEGRATING IOT BASED E-INSPECTION FOR WATER QUALITY MONITORING IN BEVERAGE INDUSTRY"
- 7. Jovana Topalić VODE "APPLICATION OF THE RISK MODEL FOR WASTEWATER TREATMENT PLANTS WITHIN THE CIRCULAR ECONOMY"

11:15 – 11:30 Break

11:30–13:00 Session 3. Water management and climate change adaptation

- 8. Marin Paladin "HOW TO BRIDGE DRY AND RAINY PERIODS IN RURAL AREAS OF CROATIA?"
- 9. Imene Senadi "GIS AND HEC-RAS FOR SUSTAINABLE URBAN WATER PROTECTION: FLOOD RISK ANALYSIS AND MITIGATION IN THE AGRIOUNE WATERSHED"
- 10. Hrvoje Mostečak "ANALYSIS OF CLIMATE CHANGE ADAPTATION MEASURES USING ABSORPTIVE AND EVAPOTRANSPIRATIVE POTENTIAL: A CASE STUDY OF THE FACULTY OF GEOTECHNICAL ENGINEERING BUILDING"







- 11. Rihab Taguemount "ASSESSMENT OF CHANGES IN EXTREME PRECIPITATION INDICES: A CASE STUDY OF THE SOUMMAM WATERSHED, ALGERIA"
- 12. Ivo Mišur "PATENT LANDSCAPE OF TECHNOLOGIES FOR PROTECTING WATER RESOURCES"

13:00 – 13:45 Lunch Break

13:45 – 14:45 Session 4. <u>Waste management & Circular economy</u>

- 13. Islam Toriqul "CONTRIBUTION OF FAECAL SLUDGE AND SOLID WASTE TO REDUCE CARBON EMISSIONS AROUND MYMENSINGH CITY OF BANGLADESH"
- 14. Ivana Piljek Miletić "LANDFILL MANAGEMENT IN KRAPINA ZAGORJE COUNTY"
- 15. Ivan Mesić "STATE OF LANDFILLS IN THE REPUBLIC OF CROATIA AND TYPES OF WASTE IN LANDFILLS"
- 16. Chukwudi Nzoiwu "APPLICATION OF MULTI-CRITERIA DECISION ANALYSIS IN DETERMINING SUITABLE WASTE-TO-ENERGY TECHNOLOGY FOR AWKA, NIGERIA"

14:45 – 15:15 Session 5. <u>Geoengineering</u>

- 17. Goran Jeftić "CRUSHED PV GLASS AS A SUSTAINABLE ADDITIVE FOR ENHANCING CLAY IN INFRASTRUCTURE PROJECTS"
- 18. Marina Poposka "NEAR-DISTANCE SPECTRAL PARAMETER KAPPA CALCULATIONS FOR STATIONS INSTALLED IN N. MACEDONIA"
- 15:15 15:30 Break

15:30 -17:00 Session 6. Air pollution prevention and climate change mitigation

- 19. Chandan Roy "EPIDEMIOLOGICAL BURDEN AND TRENDS OF NEONATAL AND UNDER-FIVE MORTALITY FROM LOWER RESPIRATORY INFECTIONS ASSOCIATED WITH PM2.5 POLLUTIONS IN INDIA: A SYSTEMATIC ANALYSIS OF THE GLOBAL BURDEN OF DISEASE STUDY (1990-2021)"
- 20. Leah Eneotse Adayi "AIR ASSESSMENT AND SPATIAL ANALYSIS OF AIR POLLUTANT CONCENTRATION AT CENTRAL MARKET AND KAWO MOTOR PARK"
- 21. Katarzyna Kauch "MICROBIOLOGICAL AIR QUALITY IN HOSPITAL FACILITIES -PREVENTION AND POLLUTION CONTROL STRATEGIES"
- 22. Franciska Erdelj "GENOTOXIC PROPERTIES OF IAQ CONTAMINANTS AND IMPLICATIONS FOR BUILDING SUSTAINABILITY ASSESSMENT"
- 23. Martina Leskovar "LIFE-CYCLE GLOBAL WARMING POTENTIAL: KEY INDICATOR FOR SUSTAINABLE BUILDINGS"
- 24. Ivana Gagro "IMPACT OF USING LCA ANALYSIS ON THE SELECTION OF ROOF STRUCTURES FOR FAMILY HOMES"
- 25. Branko Nađ "LIGHT POLLUTION IN CROATIA A GROWING PROBLEM FOR ASTROPHOTOGRAPHERS"

17:00 Closing remarks





Conference will be held in hybrid mode: <u>online via Microsoft Teams and at Faculty of Geotechnical</u> Engineering University of Zagreb, Croatia.

ONLINE CONFERENCE LINK:

https://teams.microsoft.com/l/meetup-

join/19%3ameeting_YTFmYTkwOWQtNTkxOCooYjE4LWIxYjYtM2UxM2ZiMjNmMTI5%4othread .v2/o?context=%7b%22Tid%22%3a%223473d8a1-e006-4790-9575e3695e0b16ed%22%2c%22Oid%22%3a%229b2899fa-b98d-44e1-8353-9526doce8ba4%22%7d

- The allocated time for presentations is 10 minutes, followed by 5 minutes for discussion.
- The Book of Abstracts will be published online.
- The best abstracts and presentations in each topic will be invited to prepare a scientific article for possible publication in the Environmental Engineering Journal. The journal has been indexed in the Chemical Abstracts Service Source Index (CASSI) since issue 3(2).
- A certificate of attendance for the entire conference will be provided upon request

Head of the Conference: Assistant professor Vlasta Zanki, PhD

Scientific Committee: Prof. Aleksandra Anić Vučinić, PhD, Prof. Ranko Biondić, PhD, Emeritus Professor Mladen Božičević, PhD, Assoc. Prof. Boris Kavur, PhD, Prof. Ivan Kovač, PhD, Assist. Prof. Robert Pašičko, PhD, Assist. Prof. Vlasta Zanki, PhD

Head of the Scientific committee: Prof. Nikola Sakač, PhD

Organizational Committee: Assist. Prof. Vlasta Zanki PhD, Lucija Plantak PhD, GWYN Scientific Committee, Arno Dalmatinac univ. mag. ing. amb. and Iva Majer univ. bacc. oec.

Head of the Organizational Committee: Lucija Plantak, PhD