



Scientific Program

12th ICEEE–2021 International Conference

“Global Environmental Development & Sustainability: Research, Engineering & Management”

November 18 – 19, 2021 RKK – Óbuda University, Budapest, Hungary

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Day 1 – November 18, 2021

09:00 – 09:15

Opening Ceremony and Introduction

Plenary Session

Chair: Rita BODÁNE-KENDROVICS

09:15 – 09:40

INTERNATIONAL STANDARDS FOR ENVIRONMENTAL MANAGEMENT SYSTEM, AND RESOURCE EFFICIENCY

Sadhan Kumar GHOSH¹, Sannidhya Kumar GHOSH²

¹Department of mechanical Engineering, Jadavpur University, Kolkata, India, ²Department of Civil, Environmental and Architectural Engineering, University of Colorado Boulder, USA

09:40– 10:10

SYMBIOSIS and “BIOSPHERES” in SOIL-PLANT-MICROBE-INTERRELATIONS and SOIL-ENVIRONMENT-HUMAN HEALTH (Doctor’s Program founded by Prof. M. KECSKÉS, in Hungary)

Borbála BIRÓ¹, Hosam BAYOUMI Hamuda², Klára CZAKÓ VÉR³

¹Department of Agri-Environmental Studies, Szent Istvan University, Budapest, Hungary,

²Institute of Environmental Engineering and Natural Sciences, Rejtő Sándor Faculty of Light Industry and Environmental Engineering, Óbuda University, Budapest, Hungary, ³University of Pécs, Faculty of Technology and Informatics, Pécs, Hungary

10:10 – 13:20

Keynote Session

Chair: Borbála BIRÓ

10:10 – 10:30

ENVIRONMENTAL DEVELOPMENT & SUSTAINABILITY: TECHNOLOGY & MANAGEMENT

Hosam E.A.F. BAYOUMI HAMUDA

Institute of Environmental Engineering and Natural Sciences, Rejtő Sándor Faculty of Light Industry and Environmental Engineering, Óbuda University, Budapest, Hungary

10:30 – 10:50

INDIAN HUNGARIAN RESEARCH COOPERATION POSSIBILITIES IN THE FIELD OF ENVIRONMENTAL DEVELOPMENT & SUSTAINABILITY

Hilda FARKAS

Embassy of Hungary 2/50-M Niti Marg, Chanakyapuri, New Delhi 110-021, India

10:50 – 11:10

MAPPING THE ENVIRONMENTAL DAMAGES CAUSED BY CONSTRUCTION OF THE ROAD “RRUGA E ARBËRIT”

Edmond HOXHA¹, Klea MECI²

¹Department of Mineral Resources, Faculty of Geology and Mine, Polytechnic University of Tirana, Rr. Elbasanit, Tirana, Albania, ²Department of Mineral Resources, Faculty of Geology and Mine, Polytechnic University of Tirana, Rr. Elbasanit, Tirana, Albania

11:10 – 11:20

EFFECT OF CLIMATE CHANGE ON SOIL MICROBIOME AND RESISTOME

Lyudmyla SYMOCHKO^{1,2}

¹Uzhhorod National University, Uzhhorod, Ukraine, ²Institute of Agroecology and Environmental Management of NAAS, Kyiv, Ukraine

11:20 – 11:40

NEW STRATEGY TO ENHANCE THE REUSE OF TREATED WASTEWATER BY PROMOTING SMART IRRIGATION SYSTEMS IN THE MENA REGION USING BIOPOLYMER

Faissal AZIZ^{1,2}

¹Laboratory of Water, Biodiversity & Climate Change, Semlalia Faculty of Sciences, University Cadi Ayyad, Marrakech, Morocco, ²National Centre for Research and Studies on Water and Energy (CNEREE), University Cadi Ayyad, Marrakech, Morocco

11:40 – 12:00

THE BEHAVIOR OF ECO-FRIENDLY CERAMIC MATERIALS BASED GOLD MINING TAILINGS

Nedjima BOUZIDI¹, Athmane BOUZIDI², Amina BAZIZ¹

¹Laboratory of Materials Technology and Process Engineering (LTMGP), University of Bejaia, Algeria, ²Electrical Engineering Laboratory (LGE), TarguaOuzemmour Road, Bejaia, Algeria



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- 12:00 – 12:20** **CONTAMINATION MONITORING AND RISK ASSESSMENT IN THE CRITICAL ZONE WITH A VIEW ON HEALTH, FOOD AND WATER PROTECTION UNDER CLIMATE CHANGE CONDITIONS: CHALLENGES, TECHNIQUES AND CASE STUDIES: A GLOBAL PERSPECTIVE**
Gyozo JORDAN¹, Zsolia KOVACS², Silvana BELTRAN³, Péter SZABO⁴
¹Research Centre for Astronomy and Earth Sciences, ELKH, Budapest, Hungary, ²Faculty of Engineering, University of Pannonia, Veszprem, Hungary, Faculty of Engineering, University of Pannonia, Veszprem, Hungary, ³Theoretical and Experimental Ecology Station SETE, Moulis, France, ⁴Faculty of Natural Sciences, ELTE University, Budapest, Hungary
- 12:20 – 12:40** **WATER MANAGEMENT ISSUES IN SPAIN AND PORTUGAL AT BEGINNING OF 2020S**
Sándor J. ZSARNÓCZAI
Óbuda University, Rejtő Sándor Faculty of Light Industry and Environmental Engineering, Institute of Environmental Engineering and Natural Sciences, Budapest Hungary
- 12:40 – 13:00** **CHALLENGES AND ASSETS IN THE SANITATION OF CITIES IN REPUBLIC OF BENIN (WEST AFRICA)**
Léocadie ODOULAMI
Pierre PAGNEY Laboratory, Climate, Water, Ecosystem and Development LACEEDE / DGAT / FASHS / 1 University of Abomey-Calavi (UAC), Cotonou, Republic of Benin (West Africa)
- 13:00 – 13:20** **GEOSYNTHETICS IN SUSTAINABLE INFRASTRUCTURES**
Abdelwahab TAHSIN
Arab Consulting Engineers Office, Dokki, Giza, Egypt
- 13:20 – 14:00** **Lunch Break**
- 14:00 – 15:00** **Oral Technical Session (1)**
Chair: Hosam Bayoumi Hamuda
- 14:00 – 14:10** **THE EFFECTS OF WOODEN BUILDING MATERIALS ON THE INDOOR AIR QUALITY OF HOUSES**
Csilla PATKÓ
University of Technology and Economics Department of Building Constructions, Budapest, Hungary
- 14:10 – 14:20** **IMPACT OF LANDFILL GASES ON THE SURROUNDING POPULATION – A MODELLING APPROACH**
Bogdana VUJIĆ^{1*}, Mira RADENOVIĆ², Una MARČETA¹ Maja PETROVIĆ³
¹University of Novi Sad, Technical faculty “Mihailo Pupin”, Đure Đakovića bb, Zrenjanin, Serbia, ²City of Novi Sad, City Council, ³University of Novi Sad, Faculty of Technical Sciences, Novi Sad, Serbia
- 14:20 – 14:30** **REJUVENATION OF SOIL ORGANIC CARBON THROUGH SOIL AMENDMENTS: A NOVEL APPROACH TO MANAGING HEAVY METALS IN SOIL AND PLANTS**
P. SENTHILVALAVAN¹, V. VINOTHKUMAR¹, M.V. SRIRAMACHANDRASEKHARAN¹, R. MANIVANNAN¹, C. RAVIKUMAR², T. VASANTHAKUMAR³
¹Department of Soil Science and Agricultural Chemistry, Faculty of Agriculture, Annamalai University, Annamalainagar, Tamilnadu, India, ²Department of Agronomy, Faculty of Agriculture, Annamalai University, Annamalainagar, Tamilnadu, India, ³Department of Chemical Engineering, Faculty of Engineering and Technology, Annamalai University, Annamalainagar, Tamilnadu, India
- 14:30 – 14:40** **USE OF VEGATABLE OILS AS INSULATING DIELECTRIC LIQUID IN ELECTRICITY INDUSTRY**
Ildikó BOCSI¹, Mária SZEBENI¹, Zoltán JUVANCZ^{2*}, Rita BODÁNE-KENDROVICS², Krisztina DEMÉNY², Árpád KÁRPÁTI³
¹TPV Diagnosztikai és Kutató Kft, Budapest, Hungary, ²Institute of Environmental Engineering and Natural Sciences, Rejtő Sándor Faculty of Light Industry and Environmental Engineering, Óbuda University, Budapest, Hungary, ³Environmental Engineering, Institute, University of



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Pannonia, Hungary

14:40 – 1450

NEW TRENDS AND UTILISATION OF MATERIALS IN PROTECTION AGAINST FLOOD

Lydia SOBOTOVA, Miroslav BADIDA, Veronika GUMANOVA

Department of Engineering of Environment, Faculty of Mechanical Engineering, Technical University of Košice, Kosice, Slovakia

14:50 – 15:00

TOXICITY OF GRAPHENE OXIDE IN BIOLOGICAL SYSTEMS

Asmaa RHAZOUANI^{1,23*}, Halima GAMRANI², Khalid AZIZ⁴, Mustapha My BOUYATAS², Lhoucine GEBRATI⁵, Faissal AZIZ^{1,3}

¹Laboratory of Water, Biodiversity & Climate Change, Faculty of Sciences Semlalia, Cadi Ayyad University, Marrakech, Morocco, ²Team of Neurosciences, Pharmacology and Environment (ENPE), Faculty of Sciences Semlalia, Cadi Ayyad University, Marrakech, Morocco, ³National Centre for Studies and Research on Water and Energy (CNEREE), Faculty of Technical Sciences, Cadi Ayyad University, Marrakech, Morocco, ⁴Laboratory of Materials, Biotechnology, and Valorization of Natural Resources, Department of Chemistry, Faculty of Sciences, University Ibn Zohr, Agadir, Morocco, ⁵Laboratory of Materials, Processes, Environment and Quality, Cadi Ayyad University, Safi, Morocco

15:00 – 16:00

Oral Technical Session (2)

Chair: Zoltán JUVAN CZ

15:00 – 15:10

EFFECTS OF LAND USE LAND COVER CHANGES ON HYDROLOGICAL SYSTEM IN THE CASE OF ETHIOPIA

Anmut Enawgaw KASSIE

Department of Natural Resources Management; Debre Markos University Burie Campus, Ethiopia

15:10 – 15:20

ENGINEERING OF HIGHLY BRACHYCHITON POPULNEUS SHELLS@POLYANILINE BIO-SORBENT FOR EFFICIENT REMOVAL OF PESTICIDES FROM WASTEWATER: OPTIMIZATION USING BBD-RSM APPROACH

Khalid AZIZ¹, Rachid MAMOUNI¹, Nabil SAFFAJ¹, Faissal AZIZ^{2,3}

¹Laboratory of Materials, Biotechnology, and Valorization of Natural Resources, Department of Chemistry, Faculty of Sciences, University Ibn Zohr, Agadir, Morocco, ²Laboratory of Water, Biodiversity & Climate Change, Faculty of Sciences Semlalia, Cadi Ayyad University, Marrakech, Morocco, ³National Centre for Studies and Research on Water and Energy (CNEREE), Faculty of Technical Sciences, Cadi Ayyad University, Marrakech, Morocco.

15:20 – 15:30

WATER CIRCULARITY TO ACHIEVE SDG 6 THROUGH TREATMENT OF WASTEWATER

Sadhan Kumar GHOSH^{1,2}, Dineshkumar M.¹

¹Department of Mechanical Engineering, Jadavpur University, Kolkata, India, ²President, International Society of Waste Management, Air and Water (ISWMAW), Kolkata, India

15:30 – 15:40

REMOVAL OF PHENOLIC COMPOUNDS FROM OLIVE MILL WASTEWATER BY NOVEL LOW-COST BIOSORBENT: OPTIMIZATION OF PREPARATION CONDITIONS AND ADSORPTION PROCESSES

Imane HAYDARI^{1,2*}, Laila MANDI^{1,2}, Amina LISSANEDDINE^{1,2}, Khalid AZIZ³, Naaila OUAZZANI^{1,2}, Faissal AZIZ^{1,2}

¹Laboratory of Water, Biodiversity, and Climate Change, Faculty of Sciences Semlalia, Cadi Ayyad University, Marrakech, Morocco. ²National Center for Research and Studies on Water and Energy (CNEREE), Cadi Ayyad University, Marrakech, Morocco, ³Laboratory of Materials, Biotechnology, and Valorization of Natural Resources, Department of Chemistry, Faculty of Sciences, University Ibn Zohr, Agadir, Morocco.



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- 15:40 – 15:50** **THE EFFECT OF SOIL COMPACTION UNDER DIFFERENT RATES OF BIOCHAR ON SOME PHYSICAL AND HYDRODYNAMICAL SOIL CHARACTERISTICS AND IN SOYBEAN (GLYCINE MAX L) PRODUCTIVITY**
Evan DAYOUB
Department of soil and water sciences, Faculty of Agriculture / Tishreen University, Latakia, Syria.
- 15:50 – 16:00** **SPATIAL EVOLUTION OF SURFACE WATER QUALTE, WADI KEBIR WATERSHED (North-East ALGERIA)**
H. BOUDRA¹, A. DROUCHE², F. ZAH², F. BOUAICHA¹, W. MELOUAH³, W. BOUKHATEM¹
¹Geology and Environment Laboratory, University of Constantine 1, Road Ain El Bey Zouaghi Slimane Constantine, Algeria, ²Geological Engineering Laboratory (LGG), Mohammed Seddik Benyahia University, Jijel, Algeria, ³Laboratory of Underground Oil, Gas and Aquifer Reservoirs, Faculty of Hydrocarbons, Renewable Energies and Earth and Universe Sciences Kasdi Merbah University, Ouargla, Algeria.
- 16:00 – 17:00** **Oral Technical Session (3)**
Chair: Lóránt SZABÓ
- 16:00 – 16:10** **REMOTE SENSING: DETERMINATION OF SOIL SALINITY IN MEDITERRANEAN REGION USING UNMANNED AERIAL VEHICLE**
Kaoutar LKIMA^{1,2,3}, Francisco Pedrero SALCEDO³, Faissal AZIZ^{1,2*}
¹Laboratory of Water, Biodiversity & Climate Change, Semlalia Faculty of Sciences, University Cadi Ayyad, Marrakech, Morocco, ²National Centre for Research and Studies on Water and Energy (CNEREE), University Cadi Ayyad, Marrakech, Morocco, ³Department of Irrigation, CEBAS-CSIC, Campus Universitario de Espinardo, Murcia, Spain.
- 16:10 – 16:20** **HYDROGEOLOGICAL STUDY OF THE SAF-SAF WATERSHED SKIKDA NORTH-EAST ALGERIA**
Meriem BOUKHATEM, R. GUERIREM, N. CHABOUR, F. BOUAICHA, H. BOUDRA, S. CHELLAT
Geology and Environement Laboratory, University of Constantine 1, Road Ain El Bey Zouaghi Slimane Constantine, Algeria.
- 16:20 – 16:30** **FORAMINIFERS AS POLLUTION BIO-INDICATOR AT AL HARIQA OIL HARBOUR OF TOBRUK, LIBYA**
Eihab A.S. MOHAMED¹, Ahmed M. MUFTAH^{2*}, Osama R. SHALTAMI²
¹Jaowfe Company for Oil Technology, Ganfouda, Libya, ²University of Benghazi, Faculty of Science, Department of Earth Sciences, Benghazi, Libya.
- 16:30 – 16:40** **PLASTICS CIRCULAR ECONOMY USING PYROLYSIS TECHNOLOGY**
Sadhan Kumar GHOSH^{1,2}, Sampad Kumar DAS¹
¹Department of mechanical Engineering, Jadavpur University, Kolkata, India, ²President, International Society of Waste Management, Air and Water (ISWMAW), Kolkata, India.
- 16:40 – 16:50** **OIL POLLUTION IN THE PORT OF BENGHAZI CITY AT NORTHEAST OF LIBYA**
Osama R. SHALTAMI¹, Fares F. FARES¹, Osama A. EL-FALLAH¹, Farag M. EL OSHEBI¹, Hwedi ERRISHI² and Salah S. EI-EHFIFI³
¹Department of Earth Sciences, Faculty of Science, Benghazi University, Libya, ²Department of Geography, Faculty of Arts, Benghazi University, Libya, ³National Oil Corporation (NOC), Exploration Department, Libya.
- 16: - 17:00** **THE INFLUENCE OF PROPANE-FUELED FLAME WEEDING ON MICROBIOLOGICAL PROCESSES IN THE SOIL**
Iryna GUMENIUK, Alla LEVISHKO, Olena DEMYANYUK, Oleksandr BOTSULA, Yevheniia TKACH
Institute of Agroecology and Environmental management of National Academy of Agrarian Sciences of Ukraine, Kyiv, Ukraine.



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17:00 – 18:00 **Poster Technical Session (1)**

Chair: Hosam BAYOUMI HAMUDA

17:00 -17:05 **MODERN AGROTECHNOLOGIES OF CORN CULTIVATION IN CONDITIONS OF CLIMATE CHANGE**

Olena DEMYANYUK¹, Lyudmyla SYMOCHKO^{1,2}, Dmitry SHATSMAN¹

¹Institute of Agroecology and Environmental Management of NAAS, Kyiv, Ukraine,

²Uzhhorod National University, Faculty of Biology, Uzhhorod, Ukraine.

17:05 – 17:10 **CONNECTION BETWEEN EARTHWORMS AND SOIL PARAMETERS**

Csaba CENTERI^{1*}, Zsolt BIRÓ¹, Claudia Mária KING¹, Márton VONA², Viktória VONA², Barbara SIMON³

¹Institute of Wildlife Management and Nature Conservation, Hungarian University of

Agriculture and Life Sciences, Gödöllő, Hungary, ²Csernozjom Ltd., Hungary, ³Institute of

Environmental Sciences, Hungarian University of Agriculture and Life Sciences, Gödöllő, Hungary

17:10 – 17:15 **GREEN CHEMISTRY: IONIC LIQUIDS IN INDUSTRIAL APPLICATIONS**

Cemile Ceren TOSUN¹, Arife Candas Adiguzel ZENGİN^{2*}

¹Uşak University, Leather, Textile and Ceramic Design Application and Research Center, 64000,

Uşak, Turkey, ²Ege University, Engineering Faculty, Leather Engineering Department, 35100,

Bornova, Izmir, Turkey.

17:15 – 17:20 **STUDY OF THE RECYCLING OF SOLID BARITE WASTES AS MAIN CONSTITUENT IN CERAMIC COMPOSITION**

Nedjima BOUZIDI¹, Athmane BOUZIDI², Omar DJEZAIRI¹

¹Laboratory of Materials Technology and Process Engineering (LTMGP), University of Bejaia,

Algeria, ²Electrical Engineering Laboratory (LGE), TarguaOuzemmour Road, Bejaia, Algeria.

17:20 – 17:25 **BIOINDICATION OF SOIL AS ADDITIONAL TOOL FOR ECOLOGICAL MONITORING**

Olga HAFIYAK¹, Lyudmyla SYMOCHKO^{1,2}

¹Uzhhorod National University, Uzhhorod, Ukraine, ²Institute of Agroecology and Environmental

Management of NAAS, Kyiv, Ukraine.

17:25 – 17:30 **SYNTHESIS OF SILVER AND GOLD NANOPARTICLES USING MELISSA OFFICINALIS L. LEAF EXTRACT**

R. MARIYCHUK¹, R. SMOLKOVÁ¹, A. ELIAŠOVÁ¹, L. GRISHCHENKO², V.V. LISNYAK²

¹Department of Ecology, Faculty of Humanities and Natural Sciences, University of Prešov,

Prešov, Slovakia, ²Faculty of Chemistry, Taras Shevchenko National University of Kyiv, Kyiv,

Ukraine.

17:30 – 17:35 **AIR POLLUTION MODELLING SOFTWARE PERFORMANCE COMPARISON - A CASE STUDY OF KOMÁROM ROAD**

Marko JOVANOVIĆ¹, Bushra AFTEH², Bogdana VUJIĆ¹, Una MARČETA¹, Jelena VUKOVIĆ³

¹University of Novi Sad, Technical Faculty “Mihajlo Pupin”, Zrenjanin, Serbia

²Department of Meteorology, Eötvös Loránd University, Budapest, Hungary

³Faculty of Technology Zvornik, Republic of Srpska, Bosnia and Herzegovina

17:35 – 17:40 **MANAGEMENT AND SUSTAINABLE DEVELOPMENT OF ECOTOURISM DESTINATIONS**

Vuk MIRČETIĆ¹, Predrag TODOROV², Adriana RADOSAVAC^{3*}

Faculty of Applied Management, Economics and Finance, Belgrade, Serbia

17:40 – 17:45 **REPRODUCTION OF POTENTIAL SOIL FERTILITY AND THE STATE OF THE ENVIRONMENT AT THE WASTE APPLICATION FROM PIG COMPLEXES**

Stanislav DEHODIUK¹, Olena LITVINOVA², Dmytro LITVINOV², Yuliia BORKO¹

¹National Science Center «Institute of Agriculture NAAS Ukraine, Chabany, Ukraine;

²National University of life and environmental sciences of Ukraine, Kyiv, Ukraine



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- 17:45 – 17:50** **INFLUENCE OF OXIDANTS ON SORPTION OF IRON IONS ON CLINOPTILOLITE**
Stepan MILYOVICH, Snanislav KREMSA
Uzhhorod National University, Uzhgorod, Ukraine.
- 17:50 – 17:55** **HYDRAULIC INFRASTRUCTURES MANAGEMENT IN KETOU MUNICIPALITY IN REPUBLIC OF BENIN (WEST AFRICA)**
Léocadie ODOULAMI, Moranikédji Odile ADEBITE
Pierre PAGNEY Laboratory, Climate, Water, Ecosystem and Development LACEEDE / DGAT / FASHS / 1 University of Abomey-Calavi (UAC), Cotonou, Republic of Benin (West Africa)
- 17:55 – 18:00** **FEASIBILITY OF USING GREEN TEA POWDER AS A NATURAL ANTIOXIDANT AND STEVIA AS A SWEETENER IN NON-FERMENTED LAYER CAKE**
Leyla NNATEGHI¹, Fatemeh ZAREI², Hosam E.A.F. BAYOUMI HAMUDA³
¹Department of Food Sciences and Industries, Faculty of Agriculture, Varamin-Pishva Branch, Varamin, Iran, ²Food Sciences and Industries, Food and Drug Administration, Tehran, Iran, ³Institute of Environmental Engineering and Natural Sciences, Rejtő Sándor Faculty of Light Industry and Environmental Engineering, Óbuda University, Budapest, Hungary.

Day 2 – November 19, 2021

- 09:00 – 10:00** **Oral Technical Session (4)**
Chair: Krisztina DEMÉNY
- 09:00 – 09:10** **EXAMINATION OF SATURATED HYDRAULIC CONDUCTIVITY USING GRADING CURVE FUNCTIONS**
Emőke IMRE¹, László NAGY², Zsombor ILLÉS², Ágnes BÁLINT³, Daniel BARRETO⁴
¹Hydro-Bio-Mechanical Systems Research Center, Óbuda University, Budapest, Hungary, ²Department of Engineering Geology and Geotechnics, Budapest University of Technology and Economics, Budapest, Hungary, ³Institute of Environmental Engineering and Natural Sciences, Óbuda University, Budapest, Hungary, ⁴Edinburgh Napier University, UK
- 09:10 – 09:20** **ENVIRONMENTAL ODOR PROBLEM IN HUNGARY, LEGISLATION, MEASUREMENT POSSIBILITIES**
Csaba ÁGOSTON
Institute of Environmental Engineering and Natural Sciences, Rejtő Sándor Faculty of Light Industry and Environmental Engineering, Óbuda University, Budapest, Hungary
- 09:20 – 09:30** **ASSESSING SURFACE WATERS QUALITY OF EL MALLEH RESERVOIR**
Nouhaila MAZIGH, Abdeslam TALEB, Nihal BAJI, Badr FATHI, Mohammed MOUKHLISS, Ali EL BILALI
Laboratory of Environmental Process Engineering, Faculty of Science and Technology, University Hassan 2, Casablanca, Morocco
- 09:30 – 09:40** **RECOVERY OF SCANDIUM FROM THE BAUXITE RESIDUE BY SOLVENT EXTRACTION**
Ali Dawood SALMAN^{1,2*}, Tatjana JUZSAKOVA¹, Moayyed G. JALHOOM³, Thamer Adnan ABDULLAH¹, Phuoc-Cuong LE^{4,5}, Endre DOMOKOS¹
¹Sustainability Solutions Research Lab, University of Pannonia, Veszprém, Hungary, ²Department of Chemical and Petroleum Refining Engineering, College of Oil and Gas Engineering, Basra University, ³Department of Production Engineering and Minerals, University of Technology Baghdad-Iraq, ⁴Institute of Research and Development, Duy Tan University, Danang, Vietnam, ⁵Faculty of Environmental and Chemical Engineering, Duy Tan University, Danang, Vietnam.



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- 09:40 – 09:50** **EVALUATION OF TOXICITY AND BIOSORPTION FOR THE REMOVAL OF HEXAVALENT CHROMIUM USING FRESHWATER MICROALGAE**
Karim SBIHI^{1,2*}, Khalid AZIZ³, Faissal AZIZ²
¹Laboratory of Biotechnology, Materials and Environment, Natural Substances and Environment Team, Polydisciplinaire Faculty, University Ibn Zohr, Taroudant, Morocco, ²National Centre for Research and Study on Water and Energy (CNEREE), University Cadi Ayyad, Marrakech, Morocco. ³Laboratory of Materials, Biotechnology, and Valorization of Natural Resources, Department of Chemistry, Faculty of Sciences, University Ibn Zohr, Agadir, Morocco, ⁴Laboratory of Water, Biodiversity & Climate Changes, Semlalia Faculty of Sciences, Marrakech, Morocco
- 09:50 – 10:00** **STABILITY OF THE SLOPES LINKED TO A NEO-TECTONIC ACTIVITY, MAHOUNA, NORTH-EAST, ALGERIA**
H. BOUSBA¹, C. BENABBAS², Z. ZOUAK¹, R. MARMI¹, N. CHABOUR¹, S. CHELLAT¹
¹Laboratoire de géologie et environnement, Université Constantine 1, Constantine, Algérie, ²Université Salah Bou Bnider, Constantine 3, Constantine, Algérie.
- 10:00 – 11:00** **Oral Technical Session (5)**
Chair: Csaba ÁGOSTON
- 10:00 -10:10** **IMPACTS OF CONTAMINATED WATER ON REAL ESTATE VALUES**
Slimani CHAHID¹, Farhaoui MOHAMED²
¹Law School, Sidi Mohamed Ben Abdellah University, ESSOR Lab, Fes, Morocco ²Law School, Sidi Mohamed Ben Abdellah University, ESSOR Lab, Fes, Morocco.
- 10:10 – 10:20** **PHYSICO-CHEMICAL PROPERTIES OF THERMAL WATERS IN THE GUELMA REGION, NORTH-EAST ALGERIA**
M. HACID¹, K. BENMARCE², O. MELOUAH³, N. CHABOUR¹
¹Geology and Environment Laboratory, University of Constantine 1, Road Ain El Bey Zouaghi Slimane Constantine, Algeria, ²Geosciences laboratory, university of Setif 1., Algeria, ³Laboratory of Underground Oil, Gas and Aquifer Reservoirs, Faculty of Hydrocarbons, Renewable Energies and Earth and Universe Sciences Kasdi Merbah University, Ouargla, Algeria.
- 10:20 -10:30** **THE IMPORTANCE OF SUSTAINABLE DAIRY FUNCTIONAL FOOD PROCESSING**
Mohammad MOHAMMAD, Orsolya SZIGETI
Department of business and management, Hungarian University of Agriculture and Life Sciences MATE, Kaposvár Campus, Gödöllő, Hungary
- 10: 30 – 10:40** **NEXUS BETWEEN THE MINERAL RESOURCES ABUNDANCE, RENEWABLE ENERGY POLICIES AND ECONOMIC GROWTH, AND THEIR CONNECTION WITH CO2 EMISSIONS IN TRANSITION COUNTRIES**
Dina MALGAZH DAROVA¹, Imre NAGY²
¹Faculty of Economic Sciences, Hungarian University of Agriculture and Life Sciences, Hungary, ²Faculty of Sciences, University of Novi Sad, Serbia.
- 10:40 – 10:50** **URBAN AND INDUSTRIAL SURFACE WATER POLLUTION AND THEIR IMPACTS ON THE ENVIRONMENT. CONSTANTINE CITY CASE STUDY, NORTH-EAST OF ALGERIA**
Rima KIFOUCHE¹, K. BOUFAA², .F. BOUAICHA¹, O. BOUTERAA¹, H. SHOUT¹
¹Laboratoire de géologie et environnement, Université Constantine 1, Route Ain El Bey Zouaghi Slimane Constantine, Algeria, ²Université Frères Mentouri Constantine 1, Algeria.
- 10:50 – 11:00** **THE QUALITY ASSESSMENT OF DRINKING WATER FROM DISTRICT ABBOTTABAD, KPK, PAKISTAN**
Zahid MEHBOOB¹, Nadia SHUJAHAT¹, Mukhtiar HUSAIN¹, Samiyah TASLEEM²
¹Department of Biochemistry, Faculty of Health Science, Hazara University Mansehrar, Pakistan, ²Department of Microbiology, FUUAST-Karachi and University of Karachi. Pakistan.



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11:00 – 12:20 **Oral Technical Session (6)**

Chair: Hosam BAYOUMI HAMUDA

11:00 – 11:10 **THE ROLE OF SYMBIOTIC INTERRELATIONS IN THE AVAILABILITY OF NUTRIENTS FOR FIVE COVER CROPS**

Sundoss KABALAN, Katalin JUHOS, Javid AAQIB, Borbála BIRO

Doctoral School of Horticulture, Hungarian University of Agriculture and Life Science (MATE), Budapest, Hungary.

11:10 – 11:20 **A RELATION BETWEEN EXTREME DAILY PRECIPITATION AND EXTREME SHORT TERM PRECIPITATION**

Yanina L. ROMERO¹, J. BESSEMBINDER², N.C. van de GIESEN³, F.H.M. van de VEN³

¹The Netherlands, ²Royal Netherlands Meteorological Institute, De Bilt, The Netherlands, ³Water Management, Faculty of Civil Engineering and Geosciences, Delft University of Technology, Delft, The Netherlands.

11:20 – 11:30 **IMPACT OF BRASSWARE UTENSILS INDUSTRY ON THE ENVIRONMENT, CONSTANTINE, NORTH-EAST OF ALGERIA**

Amina BOUSSELIOU¹, N. CHABOUR¹, H. BELAIDI¹, I. BOUDRA^{2,3,4}, S. CHELLAT¹

¹Geology and Environment Laboratory, University of Constantine 1, Constantine, Algeria

²Constantine 1 University, Department of Chemistry, Pollution and Water Treatment Laboratory, Constantine, Algeria, ³August 1955 University of Skikda, Department of Chemistry, Skikda, Algeria, ⁴Environmental Molecular and Structural Chemistry Research Unit Constantine, Algeria.

11:30 – 11:40 **A NOVEL-TYPE ANALYTICAL SOLUTION OF THE PROBLEM OF SIMULTANEOUS CONVECTION AND MULTI COMPONENT DIFFUSION PROCESS THROUGH POROUS MEDIA**

Ágnes BÁLINT^{1,2}, István NIKOLÉNYI³, Csaba MÉSZÁROS³

¹Institute of Environmental Engineering and Natural Sciences, ²Hydro-Bio-Mechanical Systems Research Centre, Óbuda University, Budapest, Hungary, ³Department of Mathematics and Basic Sciences, MATE, Gödöllő, Hungary

11:40 – 11:50 **SEPARATION STUDIES ON BINARY MIXTURE OF BIOMASS-DERIVED GAMMA-VALEROLACTONE AND TOLUENE**

Munaf AL-LAMI, László T. MIKA

Department of Chemical and Environmental Process Engineering/Budapest University of Technology and Economics, Budapest, Hungary

11:50 – 12:00 **IMMOBILIZATION AND CHARACTERIZATION OF WATER-INSOLUBLE FE COMPLEXES AS MOLECULAR CATALYSTS FOR WATER OXIDATION**

Sahir M. AL-ZURAJI¹, József S. PAP²

¹Surface Chemistry and Catalysis Department, Centre for Energy Research, Budapest, Hungary,

²Doctoral School on Materials Sciences and Technologies, Óbuda University, Budapest, Hungary

12:00 – 12:10 **DIFFERENT POLYMERS MODIFIED MAGNETIC MWCNTS FOR HYDROCARBONS REMOVAL FROM WATER**

Thamer Adnan ABDULLAH^{1,2}, Tatjana JUZSAKOVA¹, Ali D. SALMAN¹, Rashed T. RASHEED², Balázs ZSIRKA³, Sebestyen VIKTOR¹

¹Sustainability Solutions Research Lab, University of Pannonia, Veszprém, Hungary

²Chemistry Branch, Applied Sciences Department, University of Technology, Baghdad, Serbia,

³Laboratory for Surface and Nanostructures (LASUNA), University of Pannonia, Veszprém, Hungary

12:10 – 12:20 **DISSOLVED ORGANIC MATTER DIFFERENCES IN THE SOIL AS AFFECTED BY THE EXTRACTION METHOD**

Thulfiqar AL-GRAITI, Gergely JAKAB, Zoltán SZALAI

Department of Environmental and Landscape Geography, Institute of Geography and Earth



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Sciences, Faculty of Science, Budapest, Hungary.

12:20 – 13:20 **Poster Technical Session (2)**

Chair: Hosam BAYOUMI HAMUDA

12:20 – 12:25 **INFLUENCE OF VITERI VITERI 8-4-5 FERTILIZER ON SOWING QUALITIES OF CEREALS AND LEGUMIN CROPS SEEDS**

Olga KICHIGINA, Mychailo ZOLOTOV, Olena DEMYANYUK, Yuliya TSYBRO

Institute of Agroecology and Environmental Management of NAAS, Kyiv, Ukraine

12:25 – 12:30 **RICHNESS IN POLYMETALLIC MINERALISATION Fe, Pb, Zn, Ba AND HYDROTHERMAL SPRING OF MOUNT M'CID AICHA, TELLIAN ATLAS, NORTH-EAST OF ALGERIA**

H. BELAIDI¹, S. MANSOURI², A. BOUZENOUNE², A. BOUSSELIU¹, S. KITOUNI³, S. CHELLAT¹

¹*Laboratoire de géologie et environnement, Université Constantine 1, Constantine, Algeria,*

²*Laboratoire de génie géologie (LGG), Université Mohamed El Sedik Ben Yahia, Jijel, Algeria,*

³*Département Génie des Procédés, Faculté Génie des Procédés. Université Salah Boubnider Constantine 3, Algeria.*

12:30 – 12:35 **MORPHOTAXONOMICAL INVESTIGATION AND HORTICULTURAL APPLICABILITY OF FESTUCA WAGNERI TAXA**

Dániel BALOGH*¹, Attila FÜRÉSZ¹, Éva Horváthné BARACSI², Gergely PÁPAY¹, Virág KALCSÓ¹, Károly PENKSZA¹

¹*Department Of Botany, Hungarian University Of Agronomy And Life Sciences, Gödöllő, Hungary,* ²*Institute for Horticulture, Hungarian University Of Agronomy And Life Sciences, Gödöllő, Hungary*

12:35 – 12:40 **EVALUATION OF MICROAEROBIC AND AEROBIC XYLENE DEGRADATION POTENTIAL OF PSEUDOMONAS SP. STRAIN MAP12 AND SPHINGOBIUM SP. STRAIN AS12 ISOLATED FROM PETROLEUM-CONTAMINATED GROUNDWATER OF SIKLÓS, HUNGARY**

Sinchan BANERJEE¹, András TÁNCICS¹

Hungarian University of Agriculture and Life Sciences, Institute of Aquaculture and Environmental Safety, Department Molecular Ecology, Gödöllő, Hungary

12:40 – 12:45 **IMPACT OF WASTE ON THE ENVIRONMENT STUDY OF POLLUTANTS STATISTIC AND SOLUTIONS, CITY OF CONTANTINE, NORTH-EAST OF ALGERIA**

H. BELAIDI¹, K. Belouad¹, A. BOUSSELIU¹, S. KITOUNI², S. CHELLAT¹

¹*Laboratoire de géologie et environnement, Université Constantine 1, Constantine, Algeria,*

²*Département Génie des Procédés, Faculté Génie des Procédés, Université Salah Boubnider Constantine 3, Algeria.*

12:45 – 12:50 **Design Guidelines for Mechanically Stabilized Earth Wall**

Abdelwahab TAHSIN

Arab Consulting Engineers Office, Dokki, Giza, Egypt

12:50 – 12:55 **EFFECT OF ADDING POTASSIUM HUMATE AT DIFFERENT LEVELS OF MOISTURE TENSION IN SOME PHYSICAL PROPERTIES OF SOIL AND IN GROWTH OF ZEA MAIZE**

Jihad IBRAHIM¹, Evan DAYOUB²

¹*Department of Soil and Water Sciences, Faculty of Agriculture, Tishreen University, Lattakia, Syria*

12:55 – 13:00 **EDUCATION TO SUPPORT THE DEVELOPMENT OF A CIRCULAR ECONOMY APPROACH**

Rita BODÁNE-KENDROVICS

Institute of Environmental Engineering and Natural Sciences, Rejtő Sándor Faculty of Light Industry and Environmental Engineering, Óbuda University, Budapest, Hungary

13:00 – 13:05 **THE HYDROGEN IS HOPE AND REALITY**

Lóránt SZABÓ

Institute of Environmental Engineering and Natural Sciences, Rejtő Sándor Faculty of Light



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13:05 – 13:10 **INFLUENCES OF MICROBIAL ACTIVITIES IN THE INSECTICIDES TREATED SOIL**

Bence AKLI, Hosam E.A.F. BAYOUMI HAMUDA

Institute of Environmental Engineering and Natural Sciences, Rejtő Sándor Faculty of Light Industry and Environmental Engineering, Óbuda University, Budapest, Hungary

13:10 – 14:30 **Oral Technical Session (7)**

Chair: Sándor J. ZSARNÓCZAI

13:10 – 13:20 **LITHIUM AND HEAVY METAL CONCENTRATION ANALYSIS IN SAJÓ VALLEY**

Ágnes BÁLINT^{1,2}, Péter, LENGYEL³, Péter ENDRÓDY³, Csaba MÉSZÁROS⁴

¹Institute of environmental Engineering and Natural Sciences, ²Hydro-Bio-Mechanical Systems Research Centre, Óbuda University, Budapest, Hungary, ³Szent István University, Gödöllő, Hungary, ⁴Department of Mathematics and Basic Sciences, MATE, Gödöllő, Hungary.

13:20 – 13:30 **ENVIRONMENTAL AND ECOLOGICAL IMPACTS OF ILLEGAL DUMPING**

Bianka Júlia HORVÁTH, Hosam E.A.F. BAYOUMI HAMUDA

Institute of Environmental Engineering and Natural Sciences, Rejtő Sándor Faculty of Light Industry and Environmental Engineering, Óbuda University, Budapest, Hungary

13:30 – 13:40 **BIOMONITORING OF LICHEN AS A BIOINDICATOR OF ATMOSPHERE QUALITY IN ULAANBAATAR, MONGOLIA**

Tsend-Ayush ERDENEJARGAL, Hosam E.A.F. BAYOUMI HAMUDA

Institute of Environmental Engineering and Natural Sciences, Rejtő Sándor Faculty of Light Industry and Environmental Engineering, Óbuda University, Budapest, Hungary

13:40 – 13:50 **ANALYSING OF ANTHROPOGENIC IMPACTS IN SEMI-NATURAL AREA**

Krisztina DEMÉNY

Institute of Environmental Engineering and Natural Sciences, Rejtő Sándor Faculty of Light Industry and Environmental Engineering, Óbuda University, Budapest, Hungary

13:50 – 14:00 **SMART-BUILT ENVIRONMENT: REVIEW**

Zeinab ESMAIL

Aechitecture, Ybl Miklós Faculty of Building Science, Óbuda University, Budapest, Hungary

14:00 – 14:10 **CLIMATIC CHANGES AND NATURAL DISASTERS AFFECTING THE GLOBAL ENVIRONMENT**

Hosam E.A.F. BAYOUMI HAMUDA

Institute of Environmental Engineering and Natural Sciences, Rejtő Sándor Faculty of Light Industry and Environmental Engineering, Óbuda University, Budapest, Hungary

14:10 – 14:20 **WATER MANAGEMENT IN SELECTED EU MEMBER STATES IN 2010S**

Sándor J. ZSARNÓCZAI^{1*}, Balázs MEDVECZKY²

¹Óbuda University, Rejtő Sándor Faculty of Light Industry and Environmental Engineering, Institute of Environmental Engineering and Natural Sciences, Budapest Hungary, ²Hungarian University of Agriculture and Life Sciences, Doctoral School of Economic and Regional Sciences

14:20 – 14:30 **SOME CASES OF BACKWARD EROSION/LIQUEFACTION PIPING FROM HUNGARY**

Emőke IMRE¹, Edina KOCH², Ágnes BÁLINT^{3,1}, László NAGY⁴, Zsombor ILLÉS⁴, Daniel BARRETO⁵

¹Hydro-Bio-Mechanical Systems Research Center, Óbuda University, Budapest, Hungary, ²Széchenyi István University, Győr, Hungary, ³Institute of Environmental Engineering and Natural Sciences, Óbuda University, Budapest, Hungary, ⁴Department of Engineering Geology and Geotechnics, Budapest University of Technology and Economics, Budapest, Hungary, ⁵Edinburgh Napier University, UK

Closing Ceremony



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 - The participants will have the link of the Conference
 - The time of the Conference is related to the **Hungarian time**.
- ✚ Please check the time with your time at home
- ✚ The time is very limited
- ✚ The official language of all the presentations including oral or poster speaker is English
- ✚ Please make yourself available at least 30 minutes before your scheduled talk time
- ✚ While joining the conference, please make sure you give permissions for the Screen sharing, Microphone & speakers to reduce the technical issue later.
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- ✚ The presentation will be done through your Screen sharing.

Time of Presentations Online (Microsoft Teams)

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

The deadline for sending the full manuscript is extended to be November 28, NO MORE EXTENSION

The next scientific MEETING WILL BE ON the VI. International Symposium-2022 which will be during the 5th and 6th of May, 2022 in Budapest. The title of the Symposium is Environment Safety and Security of Biosphere.

*******Good Luck*******