



3rd International Conference on Petroleum

Conference Program

KOYA
28 - 30 April 2024

ORGANIZERS



WMOGI2024

Iraq, including the Kurdistan Region, boasts the world's fifth-largest proven crude oil reserves, standing at 145 billion barrels, which represent 17% of the Middle East's proved reserves and 8% of global reserves. As the second-largest crude oil producer in OPEC, following Saudi Arabia, Iraq witnesses various types of waste resulting from oil and gas production activities. These wastes encompass the emission of polluted gases, oil and sludge, chemicals, disposal of molecular sieves and catalysts, as well as general waste. The volume of waste generated depends on the extent of production and drilling activities, as well as the petroleum and gas industries. While some of these materials are inherently hazardous, effective management can help reduce their environmental impact.

Building upon the success of the previous two conferences on petroleum, the organizers, namely Koya University, the University of Basrah, Missouri University of Science and Technology, and the President Jalal Talabani Foundation, have decided to continue this significant series by hosting the 3rd International Conference on Petroleum: Waste Management in the Oil and Gas Industry at Koya University in 2024. This event receives support from the Ministry of Higher Education and Scientific Research, both from the federal government of Iraq and the Kurdistan Regional Government of Iraq.

The conference aims to offer a platform for international participants, including academics, researchers, and industrial experts, to establish meaningful connections with organizations and professionals in this promising region. It serves as an avenue to foster research collaborations and training partnerships with Koya University and other educational institutions in the area.

Organizing Committee
WMOGI 2024 Conference

BACKGROUND

In the past decade, Koya University has held two important conferences regarding the oil and gas industry. The first International Conference on Petroleum and Mineral Resources was held in 2012 by Koya University and the Wessex Institute of Technology, UK. Under the title 'Petroleum 2012'. Following the success of the first conference, Koya University held, jointly with Missouri University of Science and Technology USA, the 2nd International Conference on "Environmental Impact of Oil and Gas Industries: Kurdistan Region of Iraq as a case Study (EIOGI 2017)". The organizers have decided to continue with the series of these important conferences and plan to hold the 3rd international conference on petroleum: waste management in oil and gas industry in Koya University in 2024. The Conference will offer international participants, including Academics, Researchers, and Industrial Experts, the possibility of establishing contacts with organizations and professionals of this uniquely promising region to be a platform to develop research and training links with Koya and other universities in the region.

OBJECTIVES:

The conference includes multiple objectives to improve the process of controlling the handling, transferring and treatment of wastes that produced from oil operations units, whether during drilling wells or during oil filtration and refining. The topics that will be raised are related to the infrastructure that complements the oil industrial operations, which ensures a clean environment free of pollutants and does not have a negative impact on human health. The sustainable development is a national priority for Iraq, and it comes through what it will achieve in terms of sustainability efforts to address the risks to which human groups close to oil projects or who live in the provinces of oil extraction and manufacturing are exposed. Good waste management means waste is not contaminating the air, land and water. Preventing waste, and reusing and recycling materials reduces environmental impacts. The introduced topics deals with many aspects related to solid waste management that resulting from drilling operations or when filtering oil from the mud carried from the ground and other impurities. Also, the extraction operations are accompanied by the release of large quantities of liquids carried with crude oil, either from groundwater gathered near the wells or from water, liquids and chemicals that are pushed into the wells to facilitate drilling operations and the internal construction of this oil well. Also, it deals with the large quantities of polluting gases released during Extraction or refining operations or when using fuel in vehicles. Improving waste management is a shared responsibility. Communities, residents, governments, businesses and manufacturers all have a role in being part of the solution.

SUNDAY: April 28, 2024 - Main Conference Hall

9:00 - 10:00	Registration
10:00 - 10:15	Welcoming Remarks by: Dr. Mohammed H.S. Zangana President of Koya University and the Conference Co-Chair.
10:15 - 10:25	Speech by: The Honorable Dr. Mohammed Sabir President of Jalal Talabani Foundation (PJTF) and the Conference Co-Chair.
10:25 - 10:35	Speech by: The Ministry of Higher Education and Scientific Research
10:35 - 10:45	Screening of a short video on Koya and Basrah Universities
10:45 - 11:00	Signing Memorandum of Understanding for Promoting Entrepreneurship and Green University Initiatives Between Accelerate India and Koya University
11:00 - 12:00	"Strategic Environmental Sustainability: Integrated Solutions for Waste Management, Future Outlook, and Higher Education Engagement in Environmental Protection". Chaired by: Dr. Jafar A. Ali Panelists are: 1. Mr. Ahmed Mufti , MNR Deputy Minister -KRG. 2. Dr. Nadheer A. Fazaa , Technical Advisor for the Ministry of Environment – Iraq. 3. Assist. Prof. Mohammed H. Ahmed , the Director General – Head of Apparatus of Supervision and Quality Assurance at the Ministry of Higher Education – KRG. 4. Dr. Halo Askari , Sulaymaniyah Branch Manager and Corporate Environmental Manager at Crescent Petroleum.

SUNDAY: April 28, 2024 - Main Conference Hall

12:00 - 12:20	Break
12:20 - 13:30	<p>"Exploring Waste Management in the Oil and Gas Industry: Current Status and Forward-Looking Strategies". Chaired by: Prof. Dr. Ammar A. Aldair. Panelists are:</p> <ol style="list-style-type: none"> 1.Mr. Mitchell Walbaum, Environmental Superintendent Crescent Petroleum – Dana Gas (Operator). 2.Ms. Karez Bahram, TTOPCO HSE Assistant Manager. 3.Mr. Wisam Salaman, AKT Reasercher. 4.Mr. Mohammed K. Ahmed, KNR -HSE Environmental Coordinator.
13:30 - 15:00	Lunch
15:00 - 15:20	Keynote Speech by: Razaq A. Khailan , Director at Board of Environmental Protection and Improvement on "The Role of the Board in identifying the Causes of pollution and Implementing Solutions"
15:20 - 15:40	Keynote Speech by: Prof. Dr. Muthanna Al-Dahhan , the Curators Distinguished Professor at the Missouri University of Science and Technology on "Advanced measurement and computing techniques for minimizing the wastes at the sources by advancing multiphase reactors"
15:40 - 16:00	Keynote Speech by: Dr. Luis Gomez , Chairman & Chief Executive Officer (CEO) MSI International Inc.(USA), on "Flowlines Multiphase Modelling to Assess the Risk of Under Deposit Corrosion (UDC)".
16:00 - 19:00	Group Tour to Historic Center of Koya City
19:00 - 21:00	Dinner at Koya Castle

Monday: April 29, 2024

Session One -A, " Wastes from Petroleum Refining Activities ", 09:30 – 10:30, Main Conference Hall. Session Chair: Dr. Haval R. Hawez.

9:30 - 9:50	"Potential of Advanced Oxidation Technologies For Treatment of Petroleum Industries Waste", Gassan Hodaifa
9:50 - 10:10	"Tracking The Heavy Metal Contaminants Entrained With The Flow Into A Trickle Bed Hydrotreating Reactor Packed With Different Catalyst Shapes Using Newly Developed Noninvasive Dynamic Radioactive Particle Tracking" Binbin Qi, Omar Farid, Alexandre França Velo, Jihane Mendil, Sebasti´an Uribe, Yasunobu Kaneko, Kei Sakakura, Yasuhito Kagota, Abdullah Alzubaidi, Muthanna Al-Dahhan
10:10 - 10:30	"Study The Influence Of Sulfur Content & Pressure Gradient For Iraqi Crude Oil Discharge Through Pipelines" Anwar N. Mohammed Ali, Ramzy S. Hamied, Khalid A. Sukkar, Zaidoon M. Shakor

Session One -B, " Wastewater Management ", 09:30 – 10:30, Hall A. Session Chair: Dr Ali Marzook.

9:30 - 9:50	"Biological Treatments of Domestic Wastewater: Sustainable Strategies in Wastewater Treatment"
9:50 - 10:10	Hanaa A. Muhammad, Bakhtyar A. Othman "Study The Ability Of Three Fungal Isolates To Remove Different Dyes Under Different Growth Conditions" Hayman Mustafa, Taha Zrary, Sewgil Anwer
10:10 - 10:30	"Micropollutant Control in Wastewater Treatment: A Review of Harnessing Nitrification and Denitrification Biotrans-formation of Micropollutant" Hanaa A. Muhammad, Hikmat M. Masyab, Bakhtyar A. Othman, Yaseen N. Mahmood

Monday: April 29, 2024

Session One - C, " Wastes from Drilling Activities ", 09:30 – 10:30, Hall B. Session Chair: Prof. Dr. Ammar A. Aldair.

9:30 - 9:50	"Achieving Well Integrity and Minimizing Waste: Innovative Fluid Design for Sustainable Cementing Operations" Mustafa S. Abdulqader, Farhad Khoshnaw, Kamil Shahzad, Omar Elzanaty, Abdullah Abubaker
9:30 - 9:50	"Determination Of Heavy Metals In Water And Sediment Extract From Crude Oil In Northern Of Iraq" Tara F. Tahir, Hawrez J. Ahmed, Ali Ölçücü
9:30 - 9:50	"Environmental and Health Impacts of Drilling Fluids in the Kurdistan Region-Iraq" Mohammed J. Awl, Sarhad A. Farkha

Session Two -A, " Wastes from Petroleum Refining Activities ", 10:30 – 11:30, Main Conference Hall. Session Chair: Mr. Ahmed A. Maroof.

10:30 - 10:50	"High Sulfur Content PetCoke of Crude Residue in different fields from KRG Using as Fuel for heavy Industries" Sherwan M. Simo
10:50 - 11:10	"Fungal Population Analysis From Hydrocarbons Contaminated Soil Of Taq-Taq Oil Field/ Koya City Using Metagenomics Technique" Srwa A. Mohammed, Taha J. Omar, Ayad H. Hasan
11:10 - 11:30	"Removal And Determination Of Sodium Ion In Industrial Water By Synthesis Nanoporous Ionic Imprinted Polymer" Hassan N. Mohsen, Yehya K. Al-Bayati
11:30 - 11:50	Break

Monday: April 29, 2024

Session Two -B, " Wastewater Management ", 10:30 – 11:30, Hall A. Session Chair: Dr. Ethar Khalil.

10:30 - 10:50	"Environmental Site Assessment Of Daura Refinery Evaluation of Water Quality" Mahmood M. Barbooti
10:50 - 11:10	"Washing Water of Gas Stations: Characterization, and Treatment Proposal for Environmental Regulations" Mohammed J. Mohammed, Shaymaa R. Khorshead , Mohammed Amer Shahatha S. Ayob ,Thabit A. Ahmed
11:10 - 11:30	"Experimental Assessment Of Oily Wastewater Separation By Flotation Column" Areej Gh. Qaddoori
11:30 - 11:50	Break

Session Two -C, "Evaluation of Spills and Leakage during Oil and Gas Transportation and Storage ", 10:30 – 11:30, Hall B. Session Chair: Dr. Paiman S. Ahmed"

10:30 - 10:50	"Flowlines Multiphase Modelling to Assess the Risk of Under Deposit Corrosion (UDC)" Luis E. Gomez, Sarhad A. Farkha, Mohammed H.S. Zangana
10:50 - 11:10	"A Study of Using New Technology for Leak Detection in Oil and Gas Pipeline" Baqir N. Abdul Samed
11:10 - 11:30	"Further Application Of A Condition-Predictive Maintenance In Oil Industry Can Led To A Better Future Productivity" Sabah M. Jamel
11:10 - 11:30	Break
11:10 - 11:30	Keynote speech by: Prof. Dr. Gassan Hodaifa, Professor at Pablo de Olavide University. Sabah M. Jamel

Monday: April 29, 2024

Session Three -A, " Wastes from Petroleum Refining Activities ", 12:10– 13:10, Main Conference Hall. Session Chair: Prof. Dr. Muneer Ismael.

12:10 - 12:30	<p>"New Dual Modality Technique Of Gamma-Ray Densitometry (GRD) And Optical Fiber Probe (OFP) To Investigate Line-Averaged Diameter Profiles Of Gas, Liquid, And Solid Holdups Along The Height Of A Slurry Bubble Column"</p> <p>Omar Farid, Binbin Qi, Sebastián Uribe, Abdullah Alzubaidi, Muthanna Al-Dahhan</p>
12:30 - 12:50	<p>"Catalytic Electrochemical Elimination of Phenol from Refinery Wastewater by using Basket Electrochemical Reactor with Rotating Anode"</p> <p>Saad A. Hasan, Saad A. Jafar</p>
12:50 - 13:10	<p>"Advanced Two-Tip Optical Fiber Probe Technique To Measure Local Gas And Liquid Saturations And Velocities Within Various Commercial Catalyst Shapes In Pilot Plant Trickle Bed Reactors (TBR)s"</p> <p>Mohammed Al-Ani, Abdullah Alzubaidi, Muthanna Al-Dahhan, Yasunobu Kaneko</p>
13:10 - 15:00	Lunch

Session Three -B, "Wastewater Management", 12:10– 13:10, Hall A, Session Chair: Dr.Bnar J. Ahmed

12:10 - 12:30	<p>"Evaluation And Study Of Some Chemical And Microbiological Characteristics Of Industrial Water Waste From Three Oil Companies"</p> <p>Khairallah M. Abdullah Al-Obaidy, Abdulmajeed Kh. Ahmed</p>
12:30 - 12:50	<p>"Desalinating Associated Oil Water Production And Reduce The Power Concept In Air Gab Membrane Distillation Process By Using Modified Solar Parabola Trough Reflector"</p> <p>Safaa Alfaiz, Mustafa H. Salman</p>

Monday: April 29, 2024

12:50 - 13:10	"Waste Management in Oil & Gas Industry: Case study Iraq" Najem A. Al-Rubaiey
13:10 - 15:00	Lunch

Session Three -C, " Solid Waste Management ", 12:10– 13:10, Hall B, Session Chair: Dr. Hamed Samir.

12:10 - 12:30	Keynote speech about "Environmental Site Assessment" by Dr. Mahmood M. Barbooti
12:30 - 12:50	"The Electrocoagulation Coupled With Adsorption For Wastewater Treatment – OWL" Zainab Abdulhadi ,Prof. Dr. Thamer J. Mohammed,Prof. Dr. Abdulmun'em A. Karim
12:50 - 13:10	"Waste Management Of Spent Molecular Sieve For Safe Disposing Or Reusing Bazyan Petroleum Refinery (Sulfur Bed) As A Case Study" Heaven E. Mahmood, Dunya I. Saleh, Jaafar M. Smail, Fakhri H. Ibraheem
13:10 - 15:00	Lunch

15:00 - 15:20	Keynote speech by: Prof. Dr. Joseph D. Smith , Professor at Missouri University of science and technology on "Advanced Emissions Monitoring from Elevated Gas Flares for Early Warning System and Optimization of Plant Operations"
---------------	--

Monday: April 29, 2024

**Session Four, "Gas Wastes Management", 15: 20– 16:20, Main Conference Hall.
Session Chair: Mr. Fakhri Hamadallah Ibrahim.**

15:20 - 15:40	"Gas Flare Emission Evaluation And Management Using A New Air Assisted Flare Tip Design (CFD Analysis)" Ahmed Maarooof, Joseph D. Smith, Mohammed H. S. Zangana
15:40 - 16:00	"Carbon Capture and Storage in Iraq's Energy Sector: Evaluating Challenges and Opportunities, Case Study; Zubair Formation-Majnoon Oilfield" Ahmed K. Alhuseini
16:00 - 16:20	"CO2 Sequestration: An integrated Approach For Project Design and Evaluation" Salam Al-Rbeawi

TUESDAY: April 30, 2024

Session One -A, " Wastes from Drilling Activities ", 09:30 – 10:30, Main Conference Hall. Session Chair: Dr. Heven A. Mahmud

9:30 - 9:50	"The Optimum Bit Selection in Directional and Horizontal Wells by Neural Network Model" Ghassan H. Ali, Jawad R. Al-Assal, Abdulrhman Kh. Ahmed, Raad Sh. Qader
9:50 - 10:10	"Treatment of wastewater form well drilling by studying the effect of chains Length on permeability of water through PDMS" Fryad M. Sharif, Sohail Murad, Saif T. Manji
10:10 - 10:30	"Choosing the Suitable Drilling Fluid to use in Kura Chine-Anhydrite Formation in one of Iraqi Oil Fields" Ali S. Abbas, Ghassan H. Ali, Zaid N. Azzat, Sara H. Saleh

Session One -B, " Wastes from Gas Production and Processing Activities and Wastes from Petroleum Refining Activities", 09:30 – 10:30, Hall A. Session Chair: Dr. Ali Marzook.

9:30 - 9:50	"The Treatment of Produced Water Using EC-Adsorption Process Mustafa Raad Jaafar, Saleh Mahdi Mohammed, Osaid Junaid Gharbi" Najem A. Al-Rubaiey
10:10 - 10:30	"Hydrocarbon Condensates Wastes Treatment In Natural Gas Refining At The Production Process In North Gas Company-Kirkuk" Lujane Adnan

TUESDAY: April 30, 2024

Session Two -A, " Wastes from Gas Production and Processing Activities ", 10:30 – 11:30, Main Conference Hall. Session Chair: Prof. Dr. Ammar A. Aldair.

10:10 - 10:50	"Effect of Tetramethylammonium Hydroxide (TMA-OH) Cation Concentration on Omega Zeolite Crystal Size" Muwafaq M. Yahya , Rana T. A. Al-Rubaye , Aqeel A. T. Al-Ani
10:50 - 11:10	"Simulation Of Flare Gas Discharged From Oil Fields" Jafar A. Ali
11:10 - 11:30	"The Optimum Sulphur Recovery Process From NGC Sour Acid Gas: A Case Study And Simulation" Ribwar K. Abdulrahman, Mohammed H.S. Zangana, Ganank Srivastava
11:30 - 11:50	Break

Session Two -B, " Evaluation of Spills and Leakage during Oil and Gas Transportation and Storage and Wastes from Drilling Activities ", 10:30 – 11:30, Hall A. Session Chair: Ms. Hanaa A. Muhammed

10:30 - 10:50	"Estimating Natural Fractured Oil Reservoir Properties Using Well Test Techniques-Simulation And Analytical Study- ESL" Ghassan H. Ali , Muhammed A. Ismail, Mustafa S. Salman
10:10 - 10:30	"Super Hydrophobic Grafted Polyurethane for Oil Spill Remediation – ESL" Hadi S. Abbas
10:10 - 10:30	"Isolation Of Water Cones In Oil Wells Using Polymers – WDA" Muhammed A. Ismail, Ghassan H. Ali, Ammar M. Al-bayati
11:30 - 12:00	Break

TUESDAY: April 30, 2024

12:00 - 13:30	Closing of WMOGI 2024 Conference
13:30 - 15:00	Lunch

COUNTRIES



SPONSERS

GOLD SPONSER



SILVER SPONSER



MEDIA SPONSER



ORGANIZERS





ORGANIZERS



Koya University - Media Directorate
media@koyauniversity.org

