



INTERNATIONAL CONFERENCE AND EXHIBITION

for Renewable Energy, Oil, Gas
and Climate Change

iREGO 2026



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المؤتمر والمعرض الدولي للطاقة
المتجددة والنفط والغاز وتغيّر المناخ
International Conference and
Exhibition for Renewable Energy,
Oil, Gas and Climate Change

مجمع قاعات ريكسوس
2026 - 27 أبريل

البرنامج العام للجلسات العلمية iREGO 2026



المؤسسة الوطنية للنفط
National Oil Corporation
مركز بحوث النفط
Petroleum Research Center



قصر المعرفة للتدريب
والمعارض والمؤتمرات

المنظمون



المؤسسة الوطنية للنفط
National Oil Corporation



وزارة النفط والغاز
Ministry of Oil & Gas

الرعاية
الاستراتيجية

الراعي البرونزي



الراعي الفضي



الراعي الذهبي



الراعي الشرفي



الراعي التقني



First Day

الكلمات الافتتاحية

التوقيت	البرنامج
10:45AM - 09:00AM	التسجيل
10:55AM - 10:45AM	آيات من القرآن الكريم
11:00AM - 10:55AM	النشيد الوطني
11:10AM - 11:00AM	كلمة رئيس المؤتمر
11:20AM - 11:10AM	كلمة رئيس مجلس إدارة المؤسسة الوطنية للنفط
11:30AM - 11:20AM	كلمة مدير عام مركز بحوث النفط
11:50AM - 11:30AM	كلمات الرعاية (الذهبي، الفضي، البرونزي، التقني)
12:00PM - 11:50AM	كلمة رئيس اللجنة العلمية، كلمة رئيس اللجنة التحضيرية كلمة مسجلة قصر المعرفة
12:30PM - 12:00PM	افتتاح المعرض التقني المصاحب للمؤتمر

القاعة الرئيسية Keynote Speakers المتحدثون الرئيسيون

رئيس الجلسة: د. محمد التوهامي | المساعد: د. مفتاح الذيب

Affiliation	Lecture Topic	Speaker	Time
Head of Department of Analysis and Quality Control Arabian Gulf Oil Company	Intelligent Photocatalysis: Advancing Clean Energy and Environmental Remediation through Smart Nanomaterials	Riyadh Ikreedeegh Libya	12:30PM 13:00PM
Professor of Environmental Sciences Mansoura University	From Reporting to Empowerment: Integrating Carbon Certificates and CBAM Reports into Libyan Sustainability Strategies Towards National Protocols for Carbon Footprint Training	Zeinab Abouelnaga Egypt	13:00PM 13:30PM
بداية الجلسات العلمية للأوراق البحثية في القاعتين (1) - (2)			13:30PM 14:45PM

القاعة الرئيسية Panel Discussion Program برنامج الحواريات

Objective	Title	Opening Session	Time
To present the overarching framework for transitioning toward emission reduction, highlighting the role of management and governance in supporting this pathway.	Emission Reduction and Decarbonization A Unified Institutional Vision	National Oil Corporation 	13:30PM 14:15PM
Objective	Title	Second Panel Discussion	Time
To clarify how governance and compliance are managed across all affiliated companies, with a focus on unified performance indicators and reporting systems.	Decarbonization Governance: Performance Indicators and Reporting Mechanisms	National Oil Corporation 	14:15PM 15:00PM

Saturday, April 25, 2026 (Afternoon)

Room 1 (13:30 - 14:45)

Session: Energy, digital transformation, and oil technologies

رئيس الجلسة: د. أسامة التليسي | المساعد: أ. سهيلة كريم

Time	Paper code	Paper title	Authors
13:30PM 13:55PM	ID_125	Monetization of Remotely Located Gas by GTL Technology and the Initiation of the Journey Towards Transforming Libya into a Zero-Flaring Nation	Abdulrazag Shebli Eftikhar Ahmed
13:55PM 14:20PM	ID_117	Radiative emissions resulting from the generation of electricity from non-renewable and renewable sources	Ezeddine Hamida
14:20PM 14:45PM	ID_116	AI-Enabled Cybersecurity for Sustainable Operations in the Oil and Gas Sector: Supporting Energy Efficiency and Climate Risk Reduction	Marwah Abouawn
14:45PM	End of the first day's sessions of the conference		

Saturday, April 25, 2026 (Afternoon)

Room 2 (13:30 - 14:45)

Session: Sustainability, climate, and environmental policies

رئيس الجلسة: أ. أسامة الغول | المساعد: أ. عبد الفتاح عبدو

Time	Paper code	Paper title	Authors
13:30PM 13:55PM	ID_55	Solar-Powered AI Weather and Air Quality Station for Industrial Safety and Residential Environmental Monitoring	Yousef E. Abulahbas, Abdulfattah ALghariani, Ali Hassan Oun, Mohamed Gariani, Ahmed Altaeb
13:55PM 14:20PM	ID_06	Study on the Possibility of Extraction Silver from Radiographic films	Esraa m. Ali, Basma m. Altunsi, Abubakr I. Alhaji
14:20PM 14:45PM	ID_45	دراسة بحثية تشبيهية حول بعض الظواهر المصاحبة للتحليل بمتسلسلة فورييه للإشارات المتقطعة كما في دوائر القدرة الإلكترونية في منظومات الطاقات المتجددة	خديجة أبو بكر خشبية, ريم غيث أبو زويطة, كلثوم محمد أبوراس
14:45PM	End of the first day's sessions of the conference		

Second Day

القاعة الرئيسية Keynote Speakers المتحدثون الرئيسيون

رئيس الجلسة: د. مفتاح الذيب | المساعد: د. محمد التوهامي

Affiliation	Lecture Topic	Speaker	Time
Petroleum Engineer Petroleum Research Center	Phenomenon of Fluids Re-distribution in Re-Pressurized Reservoirs	Emad Kaawan Libya	09:00AM 09:30AM
Lecturer at the University of Oxford	Applications of Artificial Intelligence in Renewable Energy	Noureddin Sadawi Libya	09:30AM 10:00AM
بداية الجلسات العلمية للأوراق البحثية في القاعتين (1) - (2)			09:00AM 14:55PM

القاعة الرئيسية Panel Discussion Program برنامج الحواريات

Objective	Title	Opening Session	Time
To discuss how renewable energy strategies and projects are designed to support emission reduction targets	Renewable Energy Projects Supporting Climate Goals ion	Renewable Energy Authority 	10:30AM 11:15AM
Objective	Title	Second Panel Discussion	Time
To present financing structures, contracting models, and operational frameworks that ensure projects are bankable and investment-ready.	Financing and Operation of Renewable Energy Projects	Renewable Energy Authority 	11:15PM 12:00PM

Sunday, April 26, 2026 (Morning)

Room 1 (09:00 - 11:30)

Session: Energy, digital transformation, and oil technologies

رئيس الجلسة: د. ريم الطالب | المساعد: أ. سهيلة كريم

Time	Paper code	Paper title	Authors
09:00AM 09:25AM	ID_01	PV-powered net zero-energy houses in Libya: a case study	Mohamed Sbetta, Mohamad Abdunnabi, Yosof Khalifa
09:25AM 09:50AM	ID_124	Barium Sulfate Scale Formation, Inhibition and NORM Accumulation in Oilfield Water Injection Process	Mohamed Abo-isha Kahrwad
09:50AM 10:15AM	ID_114	Extraction and Analysis of Morphometric Characteristics Using Digital Elevation Model (DEM) and Geographic Information Systems (GIS): A Case Study of Arzat Valley Basin, Nalut, Libya	Omar Daw Oune, Mohamed E. Omar
10:15AM 10:40AM	ID_84	Integrating AI and Metaverse Technologies for Big Data Optimization in Renewable Energy	KHADIJA ABUZAGIA
10:40AM 11:05AM	ID_113	AI-Driven Cybersecurity Framework for Energy Research Infrastructure and Geoscience Data Systems	Marwah Abouawn
11:05AM 11:30AM	ID_40	Multiscale Simulation of Nanostructured TiO2, ZnO, and MAPbI3: Bridging DFT Electronic Properties with Optical Absorption Modeling	Abdussalam A. Ahmaid, Abdulhakim A. Jangher
11:30AM 11:55AM	Coffee break & Poster Sessions		

Sunday, April 26, 2026 (Morning)

Room 2 (09:00 - 11:30)

Session: Sustainability, climate, and environmental policies

رئيس الجلسة: د. عبدالرزاق الشبلي | المساعد: أ. بسمة التونسي

Time	Paper code	Paper title	Authors
09:00AM 09:25AM	ID_99	Solar-powered reverse osmosis brackish water treatment for residential use in Tripoli	Abrar Arafa, Doaa Altajer
09:25AM 09:50AM	ID_22	Sewage Sludge as a Valuable Resource for Sustainable Photocatalytic Nanomaterials	Abdelmoumin Zerga, Riyadh Ikreedeegh, Hajar Alias
09:50AM 10:15AM	ID_34	Techno-Economic Comparative Analysis of RO-PV and MSF-PTC Desalination systems: A case study of AlZawia, Libya	Rana Redha AL-Bisht, Dr. Ibrahim Ali Salem
10:15AM 10:40AM	ID_85	Examining the Effect of SEC Courtyard Orientation and Proportions on Its Efficiency and Solar Performance	Walid S. Suliman, Dr. Giamal A. Mashina
10:40AM 11:05AM	ID_121	Operational Noise Assessment in an Oil Refinery: Field Measurements and Compliance Benchmarking Against OSHA, NIOSH, and EU 2003/10/EC	Abdulathim Juroud, Hamza Atallah
11:05AM 11:30AM	ID_81	Production of Sodium Hypochlorite from Brine of the West Tripoli Desalination Plant Using a DSA Titanium Anode	Rayhan A. Al-Ghoul, Abu Bakr I. Al-Haji, Al-Najeh Al-Tayeb Ahmed Abdulkader
11:30AM 11:55AM	Coffee break & Poster Sessions		

Sunday, April 26, 2026 (Afternoon)

Room 1 (12:00 - 14:55)

Session: Energy, digital transformation, and oil technologies

رئيس الجلسة: د. فتحي الهاشمي | المساعد: أ. أنبار عرفة

Time	Paper code	Paper title	Authors
12:00PM 12:25PM	ID_107	Green Hydrogen Production Using Wind Energy: A Comparison Between AWM and PEM Electrolyzers	Salah A.Masoud, Hana I. Elswie, Houssam Zennir, Benameur Afif, Mohammed Berka
12:25PM 12:50PM	ID_08	Harmonic Distortion and Filter Design for a 50 MW PV Plant Connected to a 66 kV	Najeya B. Elhatmi, Abubker Elhamid, Husein Meshreghi, Mohammed alnaas
12:50PM 13:15PM	ID_42	Machine Learning-Based Ensemble Models for Prediction of Reservoir Porosity	Reema O. Khalleefah
13:15PM 13:40PM	ID_25	Current developments in MAX-based nanomaterials for solar energy-driven applications: A Mini Review	Mohamed O. Madi, Riyadh R. Ikreedeegh, Wael Almusattar, Abulkasim Alzerzaha, Muhammad Tahir
13:40PM 14:05PM	ID_122	Production and Characterization of Biodiesel from Used Cooking Oil	Khaled Eladel, Sara Elshatewi, Moftah O. Mkhathresh
14:05PM 14:30PM	ID_103	توظيف تقنيات الذكاء الاصطناعي للكشف المبكر عن المخاطر التشغيلية في منصات النفط والغاز: (دراسة وتصميم)	آمال أبو عجيلة أو شاح, زينب أبو عجيلة أو شاح
14:30PM 14:55PM	ID_108	Hybrid Renewable Energy Applications: Wind-Powered Hydrogen Production and Storage	Salah A. Masoud

Sunday, April 26, 2026 (Afternoon)

Room 2 (12:00 - 14:55)

Session: Sustainability, climate, and environmental policies

رئيس الجلسة: أ. أسامة الغول | المساعد: أ. عبد الفتاح عبدو

Time	Paper code	Paper title	Authors
12:00PM 12:25PM	ID_75	Removal of Oil Spill and its Derivatives Spilled in Seawater by Using Natural Materials	Masouda Farhat, Ibrahim Gargar, Itawel O. Taleb amar, Elfitouri K. Ahmied
12:25PM 12:50PM	ID_88	Impact of Distributed PV Generation on Voltage Profile and Power Losses in the Gharyan 66 kV Network	Ihab Mustafa Alshtewi
12:50PM 13:15PM	ID_119	A Review of Gas Turbine Emissions: From Environmental Challenge to Diagnostic Tool	Hussein A M Hussein
13:15PM 13:40PM	ID_120	Enhancing Pipeline Sustainability: The Role of Drag Reducing Agents in Mitigating Climate Change Impacts in Crude Oil Transportation	Salah M. Algoul
13:40PM 14:05PM	ID_92	Evaluating the Suitability of Libyan Quartz Sands Samples for Solar Grade-Silicon	Eng. Abdulhalim A. Ben Halim, Prof. Mustafa F Abusaid
14:05PM 14:30PM	ID_87	Production of Electrical Energy Using Low-Emission Fuel Produced from Wastewater Sludge Anaerobic Digestion	Mohamed Ali El-Behlil, Khalifa M. Algheryani
14:30PM 14:55PM	ID_111	Analysis of stress and deformation of a solar PV stand structure under different parameters	Maram A. Zbida , Sundus A. Rezg, Esam Hamza, Khaled M. Ahmida, Ahmed Khalifa, Abdussalam A. Ahmed

Monday, April 27, 2026 (Morning)

Room 1 (09:00 - 11:30)

Session: Energy, digital transformation, and oil technologies

رئيس الجلسة: د. عز الدين حميدة | المساعد: أ. أسامة الغول

Time	Paper code	Paper title	Authors
09:00AM 09:25AM	ID_73	Smart Oil Vision: Integrating Artificial Intelligence and Geographic Information Systems for Intelligent and Sustainable Energy Operations in the Oil Sector	Ahmed Ashlam, Almahdi Araba, Abdelatti Blg
09:25AM 09:50AM	ID_65	Models for Predicting Refrigeration Coefficient of Performance of Simple and Multi-Stage Propylene Refrigeration Cycles	Najat A. Alsouqia, Asma E. Etoumi, Mohamed Madi
09:50AM 10:15AM	ID_77	Evaluating the Impact of Grid-Connected Photovoltaic Systems via Different Modeling Techniques with MPPT Control	Marwah A. Nasrst, Abdullah A. Fadhel, Nadia F. Alazrag
10:15AM 10:40AM	ID_70	Hydrogen Embrittlement Damage on High Strength Natural Gas Pipeline Steel at Aqueous Environments	Hanan S. Habishi, Hussein A. Masrub, Marai khalifa
10:40AM 11:05AM	ID_49	عاكس جهدي متعدد المستويات ذي المتجهات الفراغية المتعامدة OVT مع مرشح غير فعال في دائرة العاكس الجهدي المساعد	طارق العائب, منصور سالم حشاد, طه حسين السباعي, محمد الهادي السائح
11:05AM 11:30AM	ID_112	Advanced Spatio-Temporal Statistical Modeling of Rainfall in the Arzat Valley Basin, Nalut	Al-Siddiq Al-Muntasir, Mohamed E. Omar
11:30AM 11:55AM	Coffee break & Poster Sessions		

Monday, April 27, 2026 (Morning)

Room 2 (09:00 - 11:30)

Session: Sustainability, climate, and environmental policies

رئيس الجلسة: أ. عبد الرزاق الشبلي | المساعد: أ. يوسف أبو الأحباس

Time	Paper code	Paper title	Authors
09:00AM 09:25AM	ID_58	تأثير تراكم ملوحة متدرجة على نمو وتزهير شتلات المانجروف الرمادي (Avicennia marina) تحت ظروف المشتل	عبد الناصر قنبور, سميرة أحمد محمد, وعد بنور الكموشي
09:25AM 09:50AM	ID_48	استثمار الطاقة الشمسية في ليبيا: مقارنة استراتيجية مع النموذج المغربي لتجاوز تحديات التحول الصناعي	أ. لمياء عبد الواحد, د. نعيمة الكباشي, أ. منال جيطة
09:50AM 10:15AM	ID_79	Technoeconomic visibility study of solar photovoltaic systems in Buildings	Abdelsalam M. Eljarm, Mona R. AbdElmalik
10:15AM 10:40AM	ID_109	واقع استخدام الطاقات المتجددة في ليبيا	أ.م.د. فوزي محمود اللافي الحسومي
10:40AM 11:05AM	ID_57	زلزال كريت سنة 365م: كارثة طبيعية غيرت وجه الساحل الليبي	ناصر محمد دياب, عبدالقادر محمد الأعوج

Third Day

القاعة الرئيسية Keynote Speakers المتحدثون الرئيسيون

رئيس الجلسة: د. محمد التوهامي | المساعد: د. مفتاح الذيب

Affiliation	Lecture Topic	Speaker	Time
Professor of Physical Chemistry Government College University Faisalabad	From Data to Devices: AI in Energy Chemistry and Solar Innovation	Muhammad Janjua Pakistan	09:00AM 09:30AM
Assistant Professor of Chemical Engineering King Fahd University of Petroleum and Minerals	Advances in Hydrogen Production by Organic Degradation	Muhammad Tayyab Saudi Arabia	09:30AM 10:00AM
بداية الجلسات العلمية للأوراق البحثية في القاعتين (1) - (2)			09:00AM 13:40PM

11:05AM 11:30AM	ID_63	تصميم وتشغيل وحدة هضم حيوي لمخلفات الأبقار بهدف معالجة المخلفات العضوية وإنتاج الغاز الطبيعي	عبد الناصر قنبر، سميرة محمد، إبراهيم انبية، حسام الكموشي، مأمون بليل
11:30AM 11:55AM	Coffee break & Poster Sessions		

Monday, April 27, 2026 (Afternoon)

Room 1 (12:00 - 14:30)

Session: Energy, digital transformation, and oil technologies

رئيس الجلسة: د. فتحي الهاشمي | المساعد: أ. سهيلة كريم

Time	Paper code	Paper title	Authors
12:00PM 12:25PM	ID_29	Solar Radiation Thermal Effect on Solar PV Panels Dedicated For Water Pumping in a Desertic Environment – Part 1	A. Moussi, Memiche Meriem
12:25PM 12:50PM	ID_69	Wind Farm layout Optimization in Sabratha using Local Beam Search Algorithm	RA. AHMID
12:50PM 13:15PM	ID_18	Technoeconomic visibility study of solar photovoltaic systems in Buildings	Enas Jamal Bin Obied, M. F. Bara
13:15PM 13:40PM	ID_118	An environmentally friendly oil waste incinerator featuring an integrated water filtration system, designed for high combustion efficiency	Haytham A. Ali
13:40PM 14:05PM	ID_128	Managing Iron Sulfide Hazards in Crude Oil Storage Tanks: Operational Lessons from Zelten GOSP	Hamza Mustafa
14:05PM 14:30PM	ID_130	Stratigraphic Analysis of 3-D and 2-D Seismic Data to Delineate Porous Carbonate Debris Flows and MTD facies in Tertiary Strata Along the North-eastern Margin of the Ajdabiya Trough, North-East Sirt Basin, Libya	Hussin. B. Ghanush

Monday, April 27, 2026 (Afternoon)

Room 2 (12:00 - 14:05)

Session: Sustainability, climate, and environmental policies

رئيس الجلسة: د. أسامة التليسي | المساعد: أ. أسامة الغول

Time	Paper code	Paper title	Authors
12:00PM 12:25PM	ID_51	تقييم الرواسب الطينية كسوائل حفر بمنطقة عين الغزالة شمال شرق ليبيا	إناس بشير الطيب
12:25PM 12:50PM	ID_123	Hybrid Nuclear–Renewable Energy Systems for Future Power Generation: Applications in the Libyan Oil and Gas Sector	Seja A. Dardour
12:50PM 13:15PM	ID_98	Development of a hybrid artificial lift system utilizing PIPESIM software, (Field, Libya)	Ibrahim Al-dukali, Hamad Abu Azoum, Ousama Alghoul, Mohammed Ahfaf, Ebtehal Alzain, Mohammed Elokshi
13:15PM 13:40PM	ID_127	Impact of Supply Chain Management on Energy Transition and Environmental Sustainability: The Role of Knowledge Management and Green Innovations	Salem Younes

13:40PM 14:05PM	ID_129	company's technical and scientific contribution in the relevant field of Oil Marketing	Anas M. Elshibani
14:30PM	Closing ceremony and honoring the participants		



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