



MEPEC 2024
MIDDLE EAST PROCESS ENGINEERING
CONFERENCE & EXHIBITION

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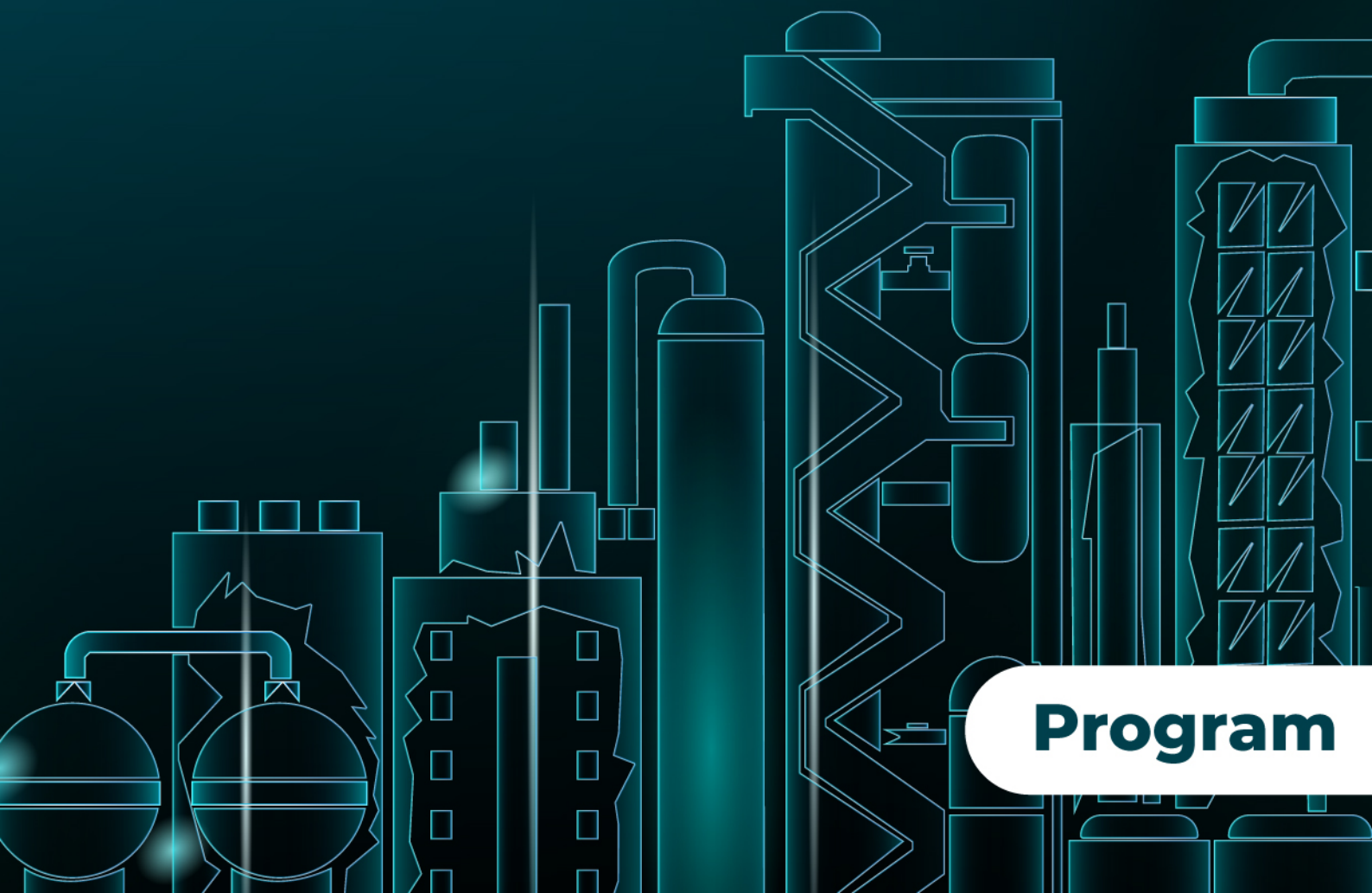
aramco 

The Definitive Event for Process Engineering in the Middle East

Digitalizing Process Engineering for a Sustainable Future

MAY 6-8, 2024 | Dhahran Expo, Kingdom of Saudi Arabia

mepec.org



Program

Day 1 - Monday, 06 May 2024

Kingdom of Saudi Arabia

07:30 - **Registration**

08:00 - 09:00 **VIPs & Guests Arrival**

09:00 - 09:20 **Opening Remarks from 2024 MEPEC Conference Chairman**

📍 Hall 1

Master of Ceremony

Eithne Treanor FOUNDER & CEO, E Treanor Media

Speaker

Walid A. Al Naeem Vice President & Chief Engineer, Aramco

09:20 - 09:40 **Keynote Session: Sustainable future - Key insights into the opportunities for Middle Eastern energy**

📍 Hall 1

Highlight Shell's progress toward its sustainability goals, core beliefs, and its revised Energy Transition Strategy. Provide insights and learnings from some of the changes taking place within Shell assets

Facilitator

Eithne Treanor FOUNDER & CEO, E Treanor Media

Keynote Speaker

Elise H Nowee President, Shell Catalysts & Technologies

09:40 - 10:00 **Keynote Session: Scaling Technologies for the Future: Our Approach to Collaborative Development and Innovation**

📍 Hall 1

How the process technology development landscape has changed over time, including the specific needs today. Need for accelerated development and deployment - how to manage risk and leverage new approaches. Collaboration between Operators and Technology providers. Collaboration between technology companies.

Facilitator

Eithne Treanor FOUNDER & CEO, E Treanor Media

Keynote Speaker

Bryan Glover Chief Growth Officer & CTO, Honeywell

10:00 - 11:00 **Break & Exhibition Networking**

11:00 - 12:00 **Strategic Panel: Role of Process Excellence in Driving Sustainability**

📍 Hall 1

How to leverage the power of process excellence to cope with the upcoming storm of global climate risks.

Moderator

Eithne Treanor FOUNDER & CEO, E Treanor Media

Speakers

Hassan Hussain Al Hosani Senior Vice President Projects and Technical, ADNOC Refining
Ebubekir Koyuncu Chief Executive Officer, Air Products Qudra
Tim McMinn Vice President Process Engineering & Products, ExxonMobil Technology and Engineering Company (EMTEC)
Mahdi F. Aladel Chief Executive Officer, Aramco Ventures

12:00 - 13:00 **Exhibition Networking**

13:00 - 14:00 **Technical Session I**

Process Excellence I 📍 Session Room A, Hall 2	New Energies I 📍 Session Room B, Hall 2	Digitalization I 📍 Session Room C, Hall 2	Decarbonization & Energy Transition VII 📍 Session Room D, Hall 2
<p>Moderator Kelepile E. Meleloe Process Engineer, GME Operations Engineering Solutions Department, Aramco</p> <hr/> <p><i>Managing High-Risk Transitions: How Petro Rabigh Partnered with Grace to Deliver Refinery Value and Successfully Manage Technology Change</i></p> <p>Speakers Graeme MacAulay Technical Service Manager, W.R. Grace & Co Ahmed Aladwani Process Engineer, Petro Rabigh</p> <hr/> <p><i>Leverage Process Simulation Tool for FCC Catalyst Selection</i></p> <p>Speaker Mohammad Rakib Research Science Specialist, Aramco</p> <hr/> <p><i>Elimination of Dry-out Gas Flaring during Natural Gas Liquids Recovery Process Start-up</i></p> <p>Speakers Abdulaziz Alaqi Operations Engineer, Aramco Ahmed Al Ahmed Process Engineer, Aramco</p>	<p>Moderator Dr. Basim Abussaud Faculty, King Fahd University of Petroleum & Minerals (KFUPM)</p> <hr/> <p><i>Overcoming Modularisation Challenges for Low Carbon Hydrogen (LCH) Plants</i></p> <p>Speaker Eric Maina Engineering Manager, MCDERMOTT</p> <hr/> <p><i>Ereact™: Production of Chemicals and Sustainable Aviation Fuels Using Electrified Synthesis Gas Generation</i></p> <p>Speakers Aadesh Harale Research Science Specialist, Aramco Adam Kadhim Product Line Director, Topsoe</p> <hr/> <p><i>Technoeconomic Study on the Thermochemical Recycling of Waste Plastic to Produce Dimethyl Ether</i></p> <p>Speaker Mohammad Awwad Master's Degree Student, KAUST Catalysis Center</p>	<p>Moderator Dr. Steve Hall, Independent Industry Consultant</p> <hr/> <p><i>End-to-End Optimization of Stabilization Columns through Advanced Process Control</i></p> <p>Speakers Alaa Aljassim Process Engineer, Aramco Waled Bin Howiml Process Engineer, Aramco</p> <hr/> <p><i>AI-Enhanced Gasoline Blending System for Refineries</i></p> <p>Speaker Abdul Gani Abdul Jameel Assistant Professor, King Fahd University of Petroleum & Minerals (KFUPM)</p> <hr/> <p><i>AI Approach to Real Manufacturing World: AI Solution for an HCR Plant and AI Hybrid Solution for a TDM Plant</i></p> <p>Speaker Chang-Ha Lee CEO & Professor, DogWoodAI & Yonsei University</p>	<p>Moderator Dr. Nasiru M. Tukur Engineering Consultant, P&CSD, Aramco</p> <hr/> <p><i>A Plant's Sustainability By Utilizing Flare Gas Recovery System</i></p> <p>Speakers Abdulaziz Al Qubali Project Engineer, Aramco Naseem Al Rashedi Supervisor Engineer, Aramco</p> <hr/> <p><i>Incremental Approach to Decarbonization for Steam Crackers</i></p> <p>Speaker Jose De Barros Vice President, Ethylene Business Group, Lummus Technology</p> <hr/> <p><i>Unlocking Sustainable Chemistry: Landfill Gas Utilization for Green Chemical Production</i></p> <p>Speaker Sami Alrashidi Technology Management Engineer, SIRC Saudi Investment Recycling Company</p>

14:00 - 14:30 **Break & Exhibition Networking**

14:30 - 15:30 **Technical Session II**

Process Excellence II 📍 Session Room A, Hall 2	Decarbonization & Energy Transition I 📍 Session Room B, Hall 2	Digitalization II 📍 Session Room C, Hall 2	Process Excellence XI 📍 Session Room D, Hall 2
<p>Moderator Shakeel Kadri Executive Director & CEO, CCPS</p> <hr/> <p><i>Manage Process Safety By Making an Big Impact on Nuisance Alarm Management</i></p> <p>Speaker Jai Chainani Senior Process Control Engineer, Aramco</p> <hr/> <p><i>Achieving Operational Excellence through SSX</i></p> <p>Speaker Mohammad Albuzaid Organizational Development Consultant, KANZ</p> <hr/> <p><i>Evaluation of the Disposal of a Sour Water Stream to Protect the Integrity of a Flare System in an Oil and Gas Processing Facility</i></p> <p>Speaker Simon Wohnsiedler Lead Process Engineer, Aramco</p>	<p>Moderators Tim McMinn Vice President Process Engineering & Products, ExxonMobil Technology and Engineering Company (EMTEC) Dr. Debalina Sengupta Program Director, Coastal Resilience, Texas Sea Grant, Texas A & M University</p> <hr/> <p><i>Valorizing Biomass Waste into Activated Carbon for a Low Carbon Economy</i></p> <p>Speakers Manar Al Attar Process Engineering Student, International Maritime College of Oman Anfal Al-Shezawi Process Engineer (Student), International Maritime College of Oman</p> <hr/> <p><i>Reduction of CO2 Emissions on the Crude Desalting Systems: A Focus on Fourth-Generation Dual-Frequency Electrostatic Technology</i></p> <p>Speakers John Philip Marshal Process Engineer, SLB Arun Goel Concept Solution Engineering Manager, SLB</p> <hr/> <p><i>Membrane Reactors for Low Carbon Hydrogen Production</i></p> <p>Speaker Alaa Albasry Associate Engineer, Aramco</p>	<p>Moderator Faisal Ahmad Raza Technical Expert - Process, SLB Saudi Arabia</p> <hr/> <p><i>Enhancing Reaction Furnaces Temperature Monitoring through Machine Learning</i></p> <p>Speaker Abdullah Alhumaid Associate Engineer, Aramco</p> <hr/> <p><i>Digitization of Gas-Oil Separation Plant (GOSP) Space Using an Hybrid/AI Model</i></p> <p>Speakers Faisal Ahmad Raza Technical Expert - Process, SLB Saudi Arabia Mohamed Nassar MENA -Tech Sales Process Twin & APM, SLB</p> <hr/> <p><i>Advanced Process Control Tools Toward Plant Optimization.</i></p> <p>Speakers Almuhannad Basuni Advanced Process Control Engineer, Saudi Aramco Mobil Refinery Company Ltd. (SAMREF) Safi M. AlBuhairi SAMREF, Saudi Aramco Mobil Refinery Company Ltd. (SAMREF)</p>	<p>Moderator Dr. Mohamed Bin Shams Chair and Associate Professor, Department of Chemical Engineering, University of Bahrain</p> <hr/> <p><i>Evaluation of the Maturity LEVEL of the Process Safety Culture for OIL and Gas Industry Workers in a Region of the Middle EAST</i></p> <p>Speaker Leonardo Cotrufo Lead Engineer, Aramco</p> <hr/> <p><i>Samref SRU Catalyst Management, Retrofit and Optimization Initiatives during the 2023 T/A</i></p> <p>Speakers Khalid Ghazal Technical Process Engineering (Sulfur & Amine Specialist), Saudi Aramco Mobil Refinery Company Ltd. (SAMREF) Marc Elia Regional Sales Manager, Axens</p> <hr/> <p><i>Consequences and Mitigations to High Sulfur Condenser Inlet Temperature</i></p> <p>Speaker Ziyad Alshahrani Process Engineer, Aramco</p>

15:30 - 16:30 **Technical Session III**

Process Excellence III	Decarbonization & Energy	Digitalization III	Digitalization VII
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📍 Session Room A, Hall 2	Transition II 📍 Session Room B, Hall 2	📍 Session Room C, Hall 2	📍 Session Room D, Hall 2
<p>Moderator Dr. S M Zakir Hossain Associate Professor, Department Of Chemical Engr., University of Bahrain</p> <hr/> <p><i>Chevron Lummus Global's Hydroprocessing Success at Jazan Refinery</i></p> <p>Speaker Suresh Kumar Nellore Process Design Engineer, Chevron Lummus Global (CLG)</p> <hr/> <p><i>An Optimal Crude Oil Selection in a Refinery with Lube Hydroprocessing Capacity</i></p> <p>Speaker Lujayn Alsayoof Economic Optimization Specialist, Bapco Refining</p> <hr/> <p><i>Enhancing Safety and Emergency Response in Industrial Processes: Implementation of HF Alky Critical Operating Parameter (COP) for Hazard Mitigation.</i></p> <p>Speaker Almuhannad Basuni Advanced Process Control Engineer, Saudi Aramco Mobil Refinery Company Ltd. (SAMREF)</p>	<p>Moderators Tim McMinn Vice President Process Engineering & Products, ExxonMobil Technology and Engineering Company (EMTEC) Dr. Debalina Sengupta Program Director, Coastal Resilience, Texas Sea Grant, Texas A & M University</p> <hr/> <p><i>Blue Hydrogen and Ammonia: Large Scale with Ultra Low Carbon Intensity</i></p> <p>Speaker Jesper Poulsen Licensing Manager, Topsoe</p> <hr/> <p><i>Performance Evaluation of Membrane Reactor for Low Carbon H2 Production</i></p> <p>Speaker Rakesh Kumar Lead Engineer, Research & Analytical Service Department, Aramco</p> <hr/> <p><i>Carbon Dioxide Transport with Impurities: Optimal Design and Operation of Pipelines</i></p> <p>Speaker Ahmed Alhajaj Assistant Professor, Khalifa University</p>	<p>Moderator Fawaz Sahan Senior Engineering Consultant, IIoT Leader and Chairman of Instrumentation Standards, Aramco</p> <hr/> <p><i>Industrial Internet of Things Architecture Standardization (Benefits, Challenges & Remediations)</i></p> <p>Speakers Dr. Mohammed A Alsaed Engineering Consultant, Aramco Omar Alabdulwahed Sr. Industrial Computer Engineer, Aramco</p> <hr/> <p><i>Physics-Informed Automated Discovery of Kinetic Rate Models</i></p> <p>Speaker Miguel Ángel de Carvalho Servia PhD Candidate, Imperial College London</p> <hr/> <p><i>Innovative Process Analyzer Technology for Measuring Gas Composition</i></p> <p>Speaker Ali Aldossary Engineering Specialist, Aramco</p>	<p>Moderator Dr. Steve Hall, Independent Industry Consultant</p> <hr/> <p><i>Enhancing Ethylene Steam Cracker Equipment Design through AI: Addressing Thermal Stresses and Predicting Remaining Useful Life in Cold Boxes</i></p> <p>Speakers Saravana Bhavan Baskaran Engineering Specialist, Aramco Prashant Kumar Senior Business System Analyst, Aramco Joud Al Jalaoud Data Scientist, Aramco</p> <hr/> <p><i>AI Based Multi-Unit Real Time Optimizer (First Refinery in the Middle East)</i></p> <p>Speakers Othman Shamrani Automation & Control Sys. Unit Yanbu Refinery Department, Aramco Raad Bassam Mulla DT & Energy Teams Leader - Yanbu Refinery Department, Aramco</p> <hr/> <p><i>Phosphate Injection Prediction Tool</i></p> <p>Speaker Abdulsalam Ali Process Engineer, Aramco</p>

17:30 - 18:15 **Inauguration Ceremony and VIP Exhibition Tour**

Master of Ceremony

Weam Al Dakheel Journalist and TV Presenter, Saudi Arabia

Speakers

Wail A. Al Jaafari Executive Vice President Technical Services, Aramco

Dr. Darlene Schuster Executive Director & CEO, American Institute of Chemical Engineers (AIChE)

18:15 - 18:30 **Break**

18:30 - 19:00 **Gala Dinner Reception**

19:00 - 20:30 **Gala Dinner (by invite only)**

 Emerald Hall

Day 2 - Tuesday, 07 May 2024

Kingdom of Saudi Arabia

07:30 - **Registration**

08:00 - 09:00 **VIPs & Guests Arrival**

09:00 - 09:20 **Keynote Session: Innovating for Sustainability in the Emerging Low Carbon Energy Landscape**

📍 Hall 1

Master of Ceremony

Osama Al-Ansari Master of Ceremonies, Saudi Arabia

Keynote Speaker

Dr. Khalid Al-Qahtani Senior Vice President, Engineering Services, Aramco

09:20 - 09:40 **Keynote Session: A Balancing Act: Current and Future Realities in the Energy Transition Through Process Technologies and Innovation**

📍 Hall 1

Master of Ceremony

Osama Al-Ansari Master of Ceremonies, Saudi Arabia

Keynote Speaker

Leon de Bruyn President and CEO, Lummus Technology

09:40 - 10:30 **Special Featured Panel: Bridging the Learning Gap between Academia and Industries**

📍 Hall 1

Strategies for closer collaboration, curriculum alignment, and skills development between academia and process engineering industries. Industry leaders and academic experts share insights to prepare students for real-world challenges and enhance industry relevance in academic curricula.

Moderator

Eithne Treanor FOUNDER & CEO, E Treanor Media

Speakers

Saad H. Binmatlig President & CEO, Yanbu Aramco Sinopec Refinery Co. (YASREF)

Bassam Al Bokhari CEO, EnergyTech

Dr. David Dixon Professor, South Dakota School of Mines & Technology

Prof. Abdulrahman Al Lily Vice President for Graduate Studies and Scientific Research, KFU - King Faisal University

10:30 - 11:00 **Break & Exhibition Networking**

11:00 - 12:00 **Strategic Panel: Accelerating the Energy Transition with Digitalization & Artificial Intelligence**

📍 Hall 1

Where are the best use cases in the field, how to connect with the right capabilities/talent, what does success look like, etc?

Moderator

Eithne Treanor FOUNDER & CEO, E Treanor Media

Speakers

Bart Boesmans Chief Technology Officer, ACWA Power

Norm Gilsdorf CEO, Plant.Digital

Dr. Kian Mossanen CIO and SVP, Siemens Energy

Ahmad Al-Abdrabbuh Senior Executive Vice President & Board Director, Yokogawa MEA

12:00 - 13:00 **Exhibition Networking**

13:00 - 14:00 **Technical Session IV**

Process Excellence IV 📍 Session Room A, Hall 2	New Energies II 📍 Session Room B, Hall 2	Digitalization IV 📍 Session Room C, Hall 2	Decarbonization & Energy Transition VIII 📍 Session Room D, Hall 2
<p>Moderator Fadi Mhaini Vice President & Managing Director, MENA, Lummus Technology</p> <hr/> <p><i>Discover Your Plant Potentials</i></p> <p>Speaker Mohamed Abouzid Process Engineer, TASNEE</p> <hr/> <p><i>Integrating Safety, Operation, Maintenance and Environmental (S.O.M.E) Aspects during Detail Engineering Phase</i></p> <p>Speaker Rusheed Aldossari Engineer, Self Employed</p> <hr/> <p><i>Benefits of Switching from Conventional High Temperature to Low Temperature Catalyst in the Tail Gas Treating Unit</i></p> <p>Speaker Khalid Nadhem Senior Process Engineer, Bapco Refining</p>	<p>Moderator Mohammad Mozahar Hossain Professor, Dept. of Chemical Engineering, King Fahd University of Petroleum & Minerals (KFUPM)</p> <hr/> <p><i>Methanol to Jet: A Promising Pathway for Sustainable Aviation Fuel</i></p> <p>Speaker Mohammed Rustom Market Development Director - ME Region - Sustainable Technology Solutions, Honeywell UOP</p> <hr/> <p><i>Simulation of Bio-Oil Production from Fast Pyrolysis of Dates Waste Biomass in Saudi Arabia to Produce Fuels and Chemicals</i></p> <p>Speaker Ariel Gursida PhD Candidate, King Fahd University of Petroleum & Minerals (KFUPM)</p> <hr/> <p><i>Leveraging Digital Process Twins for Efficient and Flexible Hydrogen Production: From Design to Operation</i></p> <p>Speaker Taseer Seer Senior Applications Engineer, Siemens</p>	<p>Moderator Saifuddin Sheikh Sr. Director – Solution Consulting, AspenTech</p> <hr/> <p><i>Refinery Energy Demand Forecasting through Data Analytics and Machine Learning – a Case Study</i></p> <p>Speakers Omar Naeem Lead Digitalization & Optimization Engineer, Aramco Muhammad Abbas Engineering Specialist, Aramco</p> <hr/> <p><i>Saudi Aramco's Process Digital Twins: Advances & Implementation Strategy</i></p> <p>Speaker Abdullah Alghazal Process Optimization Engineer, Aramco</p> <hr/> <p><i>Refinery Wide Process Simulation Digital Twin (PSDT)</i></p> <p>Speaker Majed Aldalbahi Digital Transformation Lead, Aramco</p>	<p>Moderator Dr. S M Zakir Hossain Associate Professor, Department Of Chemical Engr., University of Bahrain</p> <hr/> <p><i>Techno-Economic-Environmental Analysis of Hydrogen Production and Transportation Network in Saudi Arabia</i></p> <p>Speaker Fatimah Alhassan Student, King Fahd University of Petroleum & Minerals (KFUPM)</p> <hr/> <p><i>Challenges and Opportunities for Integration of Mixed Plastic Waste and Plastic Derived Oil into Refineries, Crackers and Plastic Sinks</i></p> <p>Speakers Rasha Daadoush Co-Lead - Aramco Sabic Circular Solutions Technology Integration Team, Aramco Salahdine EL Idrissi Group Leader, Aramco</p> <hr/> <p><i>Methane Pyrolysis Integration for Low Carbon Ammonia and Urea Production</i></p> <p>Speaker Muhamad Reda Galih Pangestu Master's Degree Student, King Fahd University of Petroleum & Minerals (KFUPM)</p>

14:00 - 14:30 **Break & Exhibition Networking**

14:30 - 15:30 **Technical Session V**

Process Excellence V 📍 Session Room A, Hall 2	Decarbonization & Energy Transition III 📍 Session Room B, Hall 2	Digitalization V 📍 Session Room C, Hall 2	Process Excellence XII 📍 Session Room D, Hall 2
<p>Moderator Amer Saleem Advisor SCP JCP, Saudi Chevron Phillips (S-Chem)</p> <hr/> <p><i>Correlation for Condensed Hydrocarbon Fraction Provides Better Water Dew Point Estimation in Column Overhead Systems</i></p> <p>Speakers Fatima Janahi Associate - Senior Process Engineer, Bapco Refining Velmurugan Venkatesan Superintendent RHC and Projects, Bapco Refining</p> <hr/> <p><i>Impact of Dynamic Flare Analysis on Cost, Safety and Environment</i></p> <p>Speaker Taseer Seer Senior Applications Engineer, Siemens</p> <hr/> <p><i>Turnaround Cycle Optimization a Trade-Off between Production Loss and Catalyst Lifetime Abstract</i></p> <p>Speaker Mahmoud Elsayed Lead Process Engineer, SABIC</p>	<p>Moderator Dr. Gopal Juttu Engineering Consultant, P&CSD, Aramco</p> <hr/> <p><i>Techno-Economic Analysis of Ammonia for Power Generation Application in the Middle East Region</i></p> <p>Speaker Mohammed Dayili Project Engineer, Aramco</p> <hr/> <p><i>Experimental Study of Methane Pyrolysis for Hydrogen Production</i></p> <p>Speaker Omar Behar Post Doctoral, King Abdullah University of Science and Technology (KAUST)</p> <hr/> <p><i>Carbon Capture and Storage Pilot Project</i></p> <p>Speaker Massimo Capra Process Service Manager, Aggreko</p>	<p>Moderator Nihar Gulwadi Regional Head - MENA, Ingenero Inc</p> <hr/> <p><i>Artificial Intelligence Associated Drones Solutions for Waste Disposal Management in the Process Industries</i></p> <p>Speaker Burri Harsha Vardhan Reddy Senior Data Consultant, Artificial Intelligence Global Company (AIGC)</p> <hr/> <p><i>Refinery Advisory Hub- a Conceptual Promising Use Case of Large Language Models (LLM)</i></p> <p>Speakers Arun Kumar Thalondan Poyithaya Business System Analyst, Aramco Raad Bassam Mulla DT & Energy Teams Leader - Yanbu Refinery Department, Aramco Reema Alamoudi Associate IT System Analyst, Aramco</p> <hr/> <p><i>Surrogate Based Mixed Integer Linear Programming Model for Decarbonization of an Integrated Gas-Oil Separation Network</i></p> <p>Speaker Abdullah Bahamdan PhD Candidate, Imperial College London</p>	<p>Moderator Hashem Al-Hashem Leader, GAS & ARRAZI Project, SABIC</p> <hr/> <p><i>Improving Air Separation Plant Energy Intensity By Optimizing Its Operation</i></p> <p>Speaker Mohammed Almutawa Process Engineer, SABIC</p> <hr/> <p><i>Pinch Analysis, a Retrofit Approach for Process and Energy Optimization in Crude Oil Refinery and Downstream Processes. Opportunity for Reduction in Emissions and Opex.</i></p> <p>Speaker Syed Abbas Raza Lead Process Engineer, Muscat Engineering Consultancy Ltd.</p> <hr/> <p><i>Improve CDU Corrosion Mitigation Strategy through Cloud-Based Ionic Modelling</i></p> <p>Speaker Cristian Spica Senior Application Engineer, OLI Systems Inc.</p>

15:30 - 16:30 **Technical Session VI**

Process Excellence VI 📍 Session Room A, Hall 2	Decarbonization & Energy Transition IV	Digitalization VI 📍 Session Room C, Hall 2	Process Excellence XIII 📍 Session Room D, Hall 2
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📍 Session Room B, Hall 2			
<p>Moderator Claudia Janse van Rensburg Regional Marketing Manager, FCC, EMEA, W.R. Grace & Co</p> <hr/> <p><i>System Reliability and Sustainability Improvement in DSG at Ethylene Plant</i></p> <p>Speaker Mohammad Imran Khan Senior Production Engineer - Ethylene Cracker, Saudi Chevron Phillips (S-Chem)</p> <hr/> <p><i>Jazan Refinery Complex - Pathway to Environmental Sustainability</i></p> <p>Speaker Nidal A Samad Operations Engineer Specialist, Aramco</p> <hr/> <p><i>Fix Combustion Control Malfunction</i></p> <p>Speaker Emad Fallatah Staff Engineer, Advanced Process Control, SABIC ARRAZI</p>	<p>Moderator Dr. Gopal Juttu Engineering Consultant, P&CSD, Aramco</p> <hr/> <p><i>Evaluating the Risks and Framework for Hydrogen Fuel Road Transportation in Bahrain</i></p> <p>Speaker Bassam Alhamad Assistant Professor, University of Bahrain</p> <hr/> <p><i>Transition to Lower Carbon Fuels</i></p> <p>Speakers Romain Roux Decarbonization and Consulting Vice President, Axens Joseph Ibrahim Managing Director, Axens</p> <hr/> <p><i>Carbon Emissions Management and Decision Support Made Easy By Digital Solution</i></p> <p>Speaker Saifuddin Sheikh Sr. Director – Solution Consulting, AspenTech</p>	<p>Moderator Dr. Rohit Patwardhan Sr. Engineering Consultant, P&CSD, Aramco</p> <hr/> <p><i>Real Time Economic Performance System</i></p> <p>Speakers Shashikant Ramsangar Solution Architect, Aramco Parandhama Gudapati Lead Business System Analyst, Aramco</p> <hr/> <p><i>Forecasting Process Faults Using Machine Learning in a Reactive Absorption Case Study</i></p> <p>Speaker Yasser Al-Goufily Scientist, SABIC</p>	<p>Moderator Faisal Ahmad Raza Technical Expert - Process, SLB Saudi Arabia</p> <hr/> <p><i>Aramco Way of Managing Advanced Process Control Portfolio</i></p> <p>Speaker Ali Altayeb APC Engineer, Aramco</p> <hr/> <p><i>Troubleshooting Vertical Reboiler Performance in a Stabilizer Plant By Leveraging Digital Aspen HYSYS Simulation</i></p> <p>Speaker Majed A. Al-Jeshi Process Engineer, Aramco</p> <hr/> <p><i>Optimization of ULSD Vacuum Drying and Thus Reducing Equipment Counts/Sizes; Saving Steam Consumption and Energy Resulting Reducing Carbon Foot Print</i></p> <p>Speakers Rajib Talukder Lead Engineer, Aramco Prabhas Mandal Operations Engineer Specialist, Aramco</p>

15:30 - 17:00 **AICHe Middle East Regional Chem-E-Car Competition®**

Day 3 - Wednesday, 08 May 2024

Kingdom of Saudi Arabia

07:30 - **Registration**

08:00 - 09:00 **VIPs & Guests Arrival**

09:00 - 09:20 **Keynote Session: Commitment to Innovation and Process Excellence**

📍 Hall 1

Master of Ceremony

Osama Al-Ansari Master of Ceremonies, Saudi Arabia

Keynote Speaker

Dr. Ali Abdullah Al-Meshari Senior Vice President, Technology Oversight and Coordination, Aramco

09:20 - 09:40 **Keynote Session: A Perspective on Technology Development at SABIC**

📍 Hall 1

Master of Ceremony

Osama Al-Ansari Master of Ceremonies, Saudi Arabia

Keynote Speaker

Ernesto Occhiello EVP, Technology and Innovation, SABIC

09:40 - 10:00 **Keynote Session: Creation of sustainable value: Industrial Automation to Industrial Autonomy**

📍 Hall 1

Master of Ceremony

Osama Al-Ansari Master of Ceremonies, Saudi Arabia

Keynote Speaker

Norinao Sato President and CEO - Saudi & President and CEO - Middle East and Africa, Yokogawa

10:00 - 10:30 **Break & Exhibition Networking**

10:30 - 11:30 **Strategic Panel: Hydrocarbon Plant of the Future**

📍 Hall 1

What does the next generation of refineries/chemical plants look like, what do they produce, where will they be, how will they decarbonize, etc?

Moderator

Shakeel Kadri Executive Director & CEO, CCPS

Speakers

Dr. Rajesh Gattupalli Vice President & General Manager, Honeywell UOP

Menahi Al Utaibi Vice President of Manufacturing, Saudi Aramco Jubail Refinery Company (SASREF)

Mariano Delpozo VP, Engineering & Technical Services, SATORP

Fabien Lundy EMEA Commercial VP, Axens

Lada Kurelec General Manager Polymers Technology & Innovation, SABIC

11:30 - 12:30 **Exhibition Networking**

12:30 - 13:30 **Technical Session VII**

Process Excellence VII 📍 Session Room A, Hall 2	Decarbonization & Energy Transition V 📍 Session Room B, Hall 2	Process Excellence VIII 📍 Session Room C, Hall 2	New Energies III 📍 Session Room D, Hall 2
<p>Moderator Dr. Hayat Abdulla Yusuf Assistant Professor and PCAP Program Coordinator, University of Bahrain</p> <hr/> <p><i>Design and Operation of Various Gas-Liquid Distributors for Trickle Bed Reactors</i></p> <p>Speaker Pradyut Kumar Dhar Senior Engineer - Research and Analytical Services Department, Aramco</p> <hr/> <p><i>Heat Integration of an Industrial Crude Plant Distillation Unit Using Pinch Analysis</i></p> <p>Speaker Saba Alomari Student, University of Bahrain</p>	<p>Moderator Dr. Ranjit Kulkarni Global Director – Business Development, Honeywell UOP</p> <hr/> <p><i>Using Low Carbon Hydrogen for Olefins Decarbonization: Operational and Economic Considerations</i></p> <p>Speaker Ibrahim Sedie Olefins Process Engineer, SABIC</p> <hr/> <p><i>Process Results and Operational Experience from the Dmx™ Demonstrator Installed at Arcelormittal's Steel Mill at Dunkirk, France</i></p> <p>Speaker Peggy Chan Technology Engineer, Axens</p> <hr/> <p><i>TC2C™ - More Carbon-Effective Conversion of Crude Oil into Chemicals</i></p> <p>Speakers Derek Jones Principal Technology Specialist, Lummus Technology Mazin Tamimi Lab Scientist, Aramco</p>	<p>Moderator Shakeel Kadri Executive Director & CEO, CCPS</p> <hr/> <p><i>Novel Approach for Increasing Gas Production and Enhancing Controllability for Upstream Degassing Tanks Toward Process Excellence</i></p> <p>Speakers Hussain Abualsaud Process Engineer, Aramco Mohammed Alwani Engineer, Aramco</p> <hr/> <p><i>Plant Optimization – Begins with Right Concept and Effective Detailed Design</i></p> <p>Speaker Saravanavel Muthiah Ponnusamy Process Engineering Manager, SLB</p>	<p>Moderator Dr. Anas F. Alkhani Engineering Specialist, New Energies Engineering Division, Aramco</p> <hr/> <p><i>Photocatalytic Hydrogen Generation from Seawater Using High Performance Polymeric Materials</i></p> <p>Speakers Ghalya Alabdulla Chemical Engineer, Texas A&M University at Qatar Noora Alsubaiei Graduate, Texas A&M University at Qatar</p> <hr/> <p><i>Potential of Lcaf As a Complementary Tool for Decarbonizing the Aviation Industry</i></p> <p>Speaker Dr. Nasiru M. Tukur Engineering Consultant, P&CSD, Aramco</p> <hr/> <p><i>Accelerating Scale up of the Hydrogen Economy with Systems-Level Strategic Evaluation</i></p> <p>Speaker Faisal Baksh Principal Consultant, AspenTech</p>

13:30 - 14:00 **Break & Exhibition Networking**

14:00 - 15:00 **Technical Session VIII**

Process Excellence IX 📍 Session Room A, Hall 2	Decarbonization & Energy Transition VI 📍 Session Room B, Hall 2	Process Excellence X 📍 Session Room C, Hall 2	Digitalization VIII 📍 Session Room D, Hall 2
<p>Moderator Faisal Ahmad Raza Technical Expert - Process, SLB Saudi Arabia</p>	<p>Moderator Dr. Ranjit Kulkarni Global Director – Business Development, Honeywell UOP</p>	<p>Moderator Dr. Mohamed Bin Shams Chair and Associate Professor, Department of Chemical Engineering,</p>	<p>Moderator Nihar Gulwadi Regional Head - MENA, Ingenero Inc</p>

Best Practices in Design, Operation and Data Interpretation of Fixed Bed Pilot Scale Units to Overcome Scale-up Challenges for Hydroprocessing Catalysts

Speaker

Pradyut Kumar Dhar
Senior Engineer -
Research and Analytical
Services Department,
Aramco

Tackling the Dual Challenge with Embedded AI

Speaker

Nooh Isa Mualem
Principal Solution
Consultant, AspenTech

Trays in Amine Sweetening Contactor- Process Excellence in Debottlenecking with the Right Approach

Speaker

Michael Lam Concept
Solutions Engineer, SLB

Low Carbon Ammonia Technology optimization – moving projects forward to achieve Net Zero targets

Speaker

Tim Ballai Senior Offering
Manager, Honeywell H2 &
CO2 Solutions , Honeywell
UOP

Use of Spiral Tube Heat Exchangers in Hydroprocessing Units

Speaker

Jan Reneteau Managing
Director, NECTIS

Forced Periodic Feed-Composition Switching to Address Methane Dehydroaromatization Catalyst Deactivation Challenge

Speaker

Mamoun Al-Rawashdeh
Assistant Professor, Texas
A&M University at Qatar

University of Bahrain

Techno-Economic Assessment of Crude Oil/Water Emulsion Separation Efficiency

Speaker

Mashhor Aljabrine Senior
Engineer, Aramco

The Deployment of New Technologies and Initiatives in Samref's SRU

Speaker

Khalid Ghazal Technical
Process Engineering
(Sulfur & Amine Specialist),
Saudi Aramco Mobil
Refinery Company Ltd.
(SAMREF)

Enrich Your Sulfur Plant Two Case Studies with High Level Oxygen Enrichment Implemented in Sulfur Recovery Unit Revamps

Speaker

Abdulaziz Alkhalid
Process Specialty
Engineer, Fluor
Corporation

SRU Incinerator Fuel Gas Intelligence Optimizer

Speaker

Mohammed Aldossary
Process Engineer, Aramco

Harnessing Machine Learning for Precise Prediction of Fuel Gas Consumption

Speaker

Abdulmohsen Alnafea
Associate Engineer,
Aramco

A Data-Driven Framework for Monitoring the Operation of Chemical Plants: Application to Monitor a Bench-Scale Fischer Tropsch Process

Speaker

Nour Basha PhD Student,
Texas A & M University

15:00 - 16:00

Closing Ceremony

📍 Hall 1

Master of Ceremony

Weam Al Dakheel Journalist and TV Presenter, Saudi Arabia

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