



# MEPEC

MIDDLE EAST PROCESS ENGINEERING  
CONFERENCE & EXHIBITION



## WPC DOWNSTREAM CONFERENCE

Integration, strategy and leadership

# TRANSFORMING PROCESS ENGINEERING THROUGH INNOVATION

**14 -16 October 2019**

Bahrain International Exhibition  
& Convention Centre

## POST EVENT REPORT

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# Our Sincere Thanks to the Leaders of MEPEC and WPC Downstream Conference 2019

## Advisory Committee

### CONFERENCE CHAIRMAN



Nasser A. Abanmi  
President  
**SABIC - KEMYA**

### ADVISORY COMMITTEE CHAIRMAN



Ahmad A. Al Sa'adi  
Senior Vice President,  
Technical Services  
**Saudi Aramco**

### ADVISORY COMMITTEE CO-CHAIRS



June Wispelwey  
CEO & Executive Director  
**American Institute  
of Chemical Engineers  
(AIChE)**



Tor Fjaeran  
President  
**World Petroleum Council  
(WPC)**



Dr. Dafer Al-Jalahma  
Chief Operating Officer  
**nogaholding**

## Technical Committee

### CHAIRMAN



Noaman M. Fudhail  
General Supervisor  
Downstream Process Engineering Division  
**Saudi Aramco**

### ADVISORS



Mohammed A. Al-Ghamdi  
Director, Technical  
**SABIC**



Dr. Halim Redhwi  
Board Member  
**SAS - AIChE**

## WPC Downstream Conference Committee

### WPC DOWNSTREAM CONFERENCE CHAIRMAN



Tor Fjaeran  
President  
**World Petroleum Council  
(WPC)**

### STRATEGIC PROGRAMME COMMITTEE



Gerardo Uriá  
Senior Director, Membership &  
Global Industry Services  
**American Petroleum Institute**



Pedro Miras Salamanca  
Chairman  
**CORES**

## A Note of Gratitude



I would like to thank each one of you for your invaluable contribution to MEPEC 2019. This edition of MEPEC was about sharing expertise and solutions that can be adopted worldwide.

I am happy to report that we received great overall feedback about the successful launch of the event and the collective efforts of all participating companies that helped make the conference a phenomenal success. I trust that your expectations were met, and I hope that you have taken the opportunity to exchange experiences and ideas that can help refine existing concepts. I hope that MEPEC 2019 provided you with a platform to network with likeminded people and industry peers. Looking forward to an equally exciting edition in 2021.

**Nasser A. Abanmi**

Conference Chairman  
President, SABIC – KEMYA



# Advisory Committee

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Tor Fjaeran  
President  
**World Petroleum Council  
(WPC)**

## Members



Aman A. Ahmad  
Vice President,  
Business Development - EMEA  
**KBR Technology**



Andre Lanning  
Managing Director  
**ART Hydroprocessing**



Craig Smith  
CEO  
**Dhahran Valley  
Technology Development  
Company (DVTDC)**



Fuad Mosa  
Vice President - Local Content  
& Business Development Unit  
**SABIC**



Gurminder Singh  
Director,  
Technology Licensing - MENA  
**Shell Catalysts & Technologies**



Jean Sentenac  
Chairman & CEO  
**Axens**



Mohammed Benchekchou  
Director, Strategic Accounts  
Middle East & North Africa  
**Shell Catalysts & Technologies**



Nathan Ergonul  
Vice President, Marketing,  
Refining Technologies  
**W.R. Grace & Co**



Nawaf Al-Humaidi Al-Anazi  
Company President  
**SABIC - IBN ZAHR**



Noaman M. Fudhail  
General Supervisor,  
Downstream Process  
Engineering Division  
**Saudi Aramco**



Pierre De Vuyst  
President & CEO  
**Yokogawa MEA**



Dr. Pratap Nair  
President & CEO  
**Ingeniero Inc**



Rami Qasem  
President & CEO  
**Baker Hughes, a GE company**



Reem Al Ghanim  
Division Head, Chemicals  
HR and Support Services  
**Saudi Aramco**



Rob Howard  
Vice President Sales MENA  
**Aspen Technology**



Shakeel Kadri  
Executive Director  
**CCPS**



Suleyman M Ozmen  
Sr. Consultant  
**Independent**



Tamim Al Jasir  
Business Development  
Manager  
**Guardian Glass**

# Technical Committee

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Noaman M. Fudhail  
General Supervisor  
Downstream Process Engineering Division  
**Saudi Aramco**

## ADVISORS



Mohammed A. Al-Ghamdi  
Director, Technical  
**SABIC**



Dr. Halim Redhwi  
Board Member  
**SAS - AIChE**

## Members



Abdulrahman Al-Ghamdi  
Process Engineering  
Manager  
**Sipchem**



Dr. Abdullah Alqahtani  
Sr. Manager, Global Cracker  
Technology, Technology  
and Innovation  
**SABIC**



Dr. Anissa Sedjerari  
Industry and Research Liaison  
Officer, Innovation & Economic  
Development Department  
**KAUST Catalysis Center**



Dr. Ayuba Adesina  
Lead Engineer  
**SABIC**



David Renolayan  
Technology & Process Engineering  
Lead Domestic Refining  
& NGL Fractionation  
**Saudi Aramco**



Enad Al-Anazi  
Process Engineering  
Manager  
**S-Chem**



Fadi Mhaini  
Director,  
Technology Licensing  
**CLG**



Dr. Hayat Abdulla Yusuf  
Assistant Professor, Department  
of Chemical Engineering  
**University of Bahrain**



Dr. Hicham El Hajj  
Plant Lab & QA/QC  
Manager, Multi-Chem  
**Halliburton**



Hiroki Usami  
General Manager, R&D Center,  
Process Solution Business  
**Yokogawa Saudi Arabia Company**



Jad Abou Charbine  
Technical Services Manager  
**Axens**



Dr. Jesper Nerlov  
Group Vice President  
and Chief Technology Officer  
**Haldor Topsoe**



Jim Brigman  
Managing Director  
**Ingenero Inc**



Kristine Chin  
Senior Director,  
Conferences & Education  
**American Institute of  
Chemical Engineers (AIChE)**



Mohammed A. Al Zahrani  
Technical Support Division Head  
**Saudi Aramco**



Mohammad N. Al-Haji  
Engineering Consultant  
**Saudi Aramco**



Dr. Mohammad Shamsuzzoh  
Senior Engineer,  
Process (Simulation)  
**ADNOC Refining**



Morgan Allen  
Senior Technical Services  
Manager  
**W.R. Grace & Co**



Dr. Nasiru Tukur  
Engineering Consultant  
**Saudi Aramco**



Nayef Enazi  
Sr. Scientist, HDPE Unipol,  
Polyolefins Process  
**SABIC**



Dr. Oki Muraza  
Associate Professor, Center of Research  
Excellence in Nano-Technology  
**King Fahd University of Petroleum  
& Minerals (KFUPM)**



Saeed S. AlAlloush  
Engineering Specialist,  
Process & Control Systems  
Department  
**Saudi Aramco**



Saifuddin Sheikh  
Director,  
Business Consulting  
**AspenTech**



Sandeep Goel  
Director, Business  
Development ME  
**MCDERMOTT**



Shahid Azam  
Chief Scientist,  
Functional Chemicals  
**SABIC**



Waddah Al-Zaabi  
Account Manager  
**ART Hydroprocessing**

## 2019 Key Numbers



## Testimonials

“MEPEC is an extraordinary event for receiving the latest information and technologies related to process engineering and the industry.”

- Faisal Alashour, Saudi Chevron Phillips

“MEPEC 2019 was a resoundingly successful conference that presented the latest in technology and advances being made in process engineering.”

- James Brigman, Ingenero Inc.

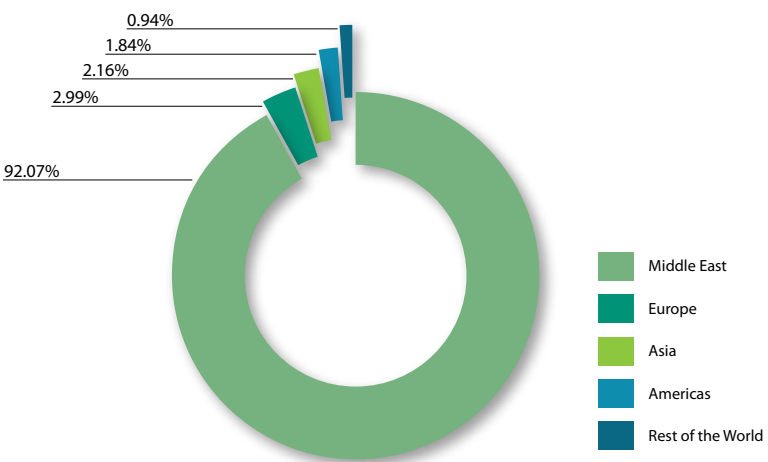
“The exchange of knowledge and ideas with other experts. Also gain broader insights about the business future and forecasts. Excellent arrangement was something that I am grateful about. Thank you”

- Safi Albuhairi, SAMREF

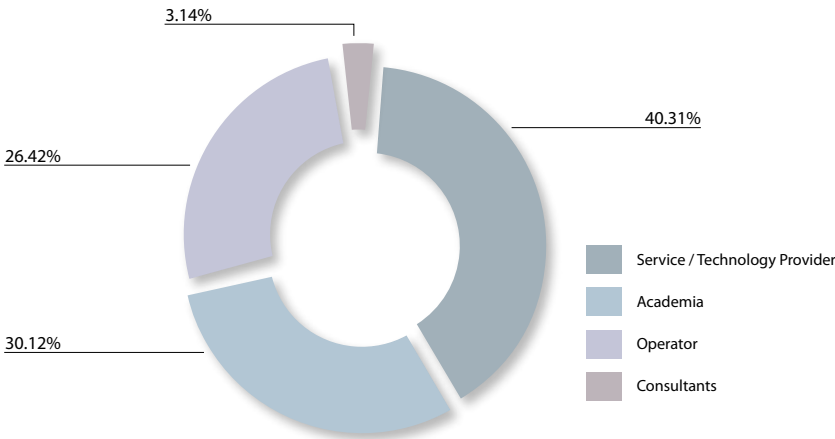
# Participating Countries



# Participants by Continent



# Participants by Industry



# Global Experts Gathered to Discuss the Impact of Innovation on Process Engineering

The 5<sup>th</sup> edition of MEPEC and the 1<sup>st</sup> edition of WPC Downstream Conference were held under the patronage of His Royal Highness Prince Khalifa bin Salman Al Khalifa, Prime Minister, Kingdom of Bahrain and was organized at the Bahrain International Exhibition and Convention Centre from the 14<sup>th</sup> - 16<sup>th</sup> October 2019.

MEPEC proved to be the definitive event for process engineering, this year's theme was "Transforming Process Engineering through Innovation". The event provided a platform to discuss best practices and allowed networking opportunities between technology providers, industry specialists and professionals from the engineering, construction, maintenance, supply chain and logistics segments of the sector.

WPC Downstream Conference focused on "Integration, Strategy and Leadership" with the objective of changing national visions, business models, customer requirements, environmental, sustainability and security drivers, this was a must attend event for key players across the downstream market.

The three-day conference saw keynote addresses and panel discussions by internationally acclaimed business leaders and distinguished technology experts.



# Opening Ceremony

The conference was officially opened by His Excellency Shaikh Mohamed bin Khalifa Al Khalifa, Minister of Oil, Kingdom of Bahrain to an audience comprising of Ministers, Industry CEOs, decision-makers that gathered at the Bahrain International Exhibition & Convention Centre.



The Minister of Oil conveyed his gratitude and appreciation to the organizers and committee members, that helped deliver an unmissable, world-class networking event for delegates, visitors and investors. This exciting conference was organized by Middle East Energy Events with the cooperation and support of AIChE, SAS – AIChE, WPC, GDA and IEF.



The opening day saw welcome addresses delivered by the Conference Chairman - Nasser A. Abanmi - President, SABIC – KEMYA, Ahmad A. Al Sa'adi, Senior Vice President, Technical Services, Saudi Aramco and Tor Fjaeran - President, World Petroleum Council (WPC). They emphasized how the conference would make an ideal platform for interaction, sharing best practices and solution sharing.



The Ministerial Session featured eminent speakers such as His Excellency Shaikh Mohamed bin Khalifa Al Khalifa Minister of Oil, Kingdom of Bahrain; His Excellency Elnur Soltanov Deputy Minister of Energy, Republic of Azerbaijan and Dr. Sun Xiansheng Secretary General, International Energy Forum (IEF).



# Thank You to Our Speakers

## Keynote Speakers



His Excellency Shaikh  
Mohamed bin Khalifa  
Al Khalifa,  
Minister of Oil,  
Kingdom of Bahrain



His Excellency  
Elnur Soltanov  
Deputy Minister of Energy  
Republic of Azerbaijan



Ahmad A. Al Sa'adi  
Senior Vice President  
Technical Services  
Saudi Aramco



Bassam Al Bokhari  
CEO  
Saudi Petroleum Services  
Polytechnic



Deborah L. Grubbe  
Owner and President  
Operations and Safety  
Solutions, LLC



Jonathan Forbes-Lane  
Vice President  
Shell Catalysts & Technologies



Keith A. Couch  
Senior Director,  
Global Technology Sales  
Honeywell UOP



Naji Skaf  
President -  
Middle East, Egypt, Turkey  
Air Products



Nasser A. Abanmi  
President  
SABIC - KEMYA



Saad Al-Ayedh  
EVP Petrochemicals  
TASNEE



Dr. Sun Xiansheng  
Secretary General  
International Energy Forum  
(IEF)



Tor Fjaeran  
President  
World Petroleum Council  
(WPC)



Walt Szopiak  
Vice President  
Chevron Energy Technology

## Plenary Speakers



Faisal Addas  
Sr. Manager - LC Conversion  
Business Development Local Content  
& Business Development Unit  
SABIC



Gerardo Uribe  
Vice President  
American Petroleum Institute



June Wispelwey  
CEO & Executive Director  
American Institute  
of Chemical Engineers  
(AIChE)



Dr. Madhukar Garg  
Head Refining  
& Petchem R&D  
Reliance Industries Limited



Mohammed Al-Habib  
Downstream Account Director  
Baker Hughes



Norm Gilsdorf  
President, Honeywell High Growth  
Regions Middle East, Russia  
and Customs Union  
Honeywell



Dr. Pinar Yilmaz  
Advisor,  
External Projects Upstream  
Exxonmobil



Rob Howard  
Vice President Sales MENA  
Aspen Technology



Suleyman M Ozmen  
Sr. Consultant  
Independent

# Keynote Sessions and Panel Discussion Highlights

The Conference saw three days of intense and important educational sessions enhanced by productive discussions. The program featured 72 informative technical presentations on Digital Transformation, Debottlenecking: Exploiting Opportunities to Boost Performance, Energy Efficiency and Sustainability and Revolutionary Technology by leading regional and international key players including AVEVA, Aspen Technology, Axens, Baker Hughes, Chevron Lummus Global (CLG), DNV GL, GAPTECH, Haldor Topsøe A/S, Ingenero Inc., KBR Technology, KFUPM, King Abdullah University of Science and Technology (KAUST), Kuwait National Petroleum Company (KNPC), OLI Systems Inc., Process Systems Enterprise Limited, Reliance Industries Limited, SABIC and its affiliates, SAMREF, Saudi Aramco, S-Chem, Shell Catalysts & Technologies, SINOPEC, SIPCHEM, TechnipFMC, W. R. Grace & Co., Wood Plc, and Yokogawa Middle East and Africa amongst many others.

## Keynote Sessions



**Ahmad A. Al Sa'adi, Senior Vice President, Technical Services, Saudi Aramco** delivered a keynote address on “Adapting to the Shifting Dynamics of the Global Energy Landscape”. This shift involves a much deeper transformation of the world’s energy systems that will have major social, economic and political implications that go well beyond the energy sector.

**Naji Skaf, President - Middle East, Egypt, Turkey, Air Products** focussed on “Shaping the Future for Industrial Gas Customers”. He highlighted the need for integrating digital products into customer value streams and embracing sustainable solutions. He discussed how innovation helps in the drive towards smart manufacturing.



“Developing Future Innovative Workforce to Sustain Reliable Operational Excellence and Value Creation”, **Bassam Al Bokhari - CEO, Saudi Petroleum Services Polytechnic**. He shared his views on why sustainability strategy is the backbone of leading businesses aiming for best in class performance. He stated that a good number of companies start major changes by implementing a sustainability model to create value for all stakeholders by focusing on shifting to global leadership and skills and being a key Saudi vision 2030 contributor and champion.



“Inventing the Future – Chevron’s Commitment to Innovation”- **Walt Szopiak, Vice President, Chevron Energy Technology**. He spoke about investing in energy transition and its benefits. He concluded by discussing why investing in innovations and innovators are equally important.

“Ethical Practice is Foundational to Great Safety”, **Deborah L. Grubbe, Owner and President, Operations and Safety Solutions, LLC**. She spoke about how engineering ethics frequently has nothing to do with technology and everything to do with communication, thought and decision making patterns.



**Saad Al-Ayedh, EVP Petrochemicals, TASNEE** delivered a keynote on “Creating Value Through Operational Excellence”. He shared how Tasnee embarked on a multidimensional transformation program and it is focussed on sustainability and continuous improvement. He emphasized that operational excellence goes beyond what most people think about as “lean”.

“Modern Refinery Config for R&P Integration”- **Keith A. Couch, Senior Director - Global Technology Sales, Honeywell UOP**. He stated that as the Middle East Investments span the globe there are further investments with a progressive trend toward petrochemicals. He shared his thoughts on how new technology innovation will focus on process intensification, bottoms upgrading, getting more from less and petro-chemicals integration is becoming the standard for new world-scale refinery investments. Thus, making the refinery of the future a reality now.





“Strategic Imperatives for the Middle East’s Refiners” - **Jonathan Forbes-Lane, Regional VP - Catalyst Sales, Shell Catalysts & Technologies**. With energy trade and investment becoming more regionally concentrated, the Middle East downstream industry will be open to the concept of globalization.

## Panel Discussions



From left to right: Suleyman M Ozmen - Sr. Consultant, Independent; Pedro Miras Salamanca - Chairman, CORES; Dr. Madhukar Garg - Head Refining & Petchem R&D, Reliance Industries Limited

## WPC Downstream, Global Leadership Panel - The Future of Refining and Petrochemicals

With the need for cleaner gasoline and diesel fuels, new challenges arise with respect to lower sulphur contents in products (particularly of marine fuels, IMO 2020), cleaner feedstocks and residual processing. Improvements, e.g. of catalysts for HDS, FCC and alkylation could help in this respect. Also, emission reduction and co-processing of renewables are big issues. This panel discussion debated the question, which innovative technologies will have an impact on the future of the refining sector.



## WPC Downstream, Panel Discussion - Digital Transformation Strategies in Downstream

This roundtable discussion focused on how digital technology is currently utilized for asset integrity. What are its advantages and disadvantages? What could the ideal model of digital technology for future asset integrity look like? And what will encourage or hinder the realization of the ideal model?

Moderated by **Milton Costa Filho** - Secretary General, IBP - Brazilian Petroleum, Gas and Biofuels Institute; Speakers: **Norm Gilsdorf** - President, Honeywell High Growth Regions Middle East, Russia and Customs, Union, Honeywell; **Rob Howard** - Vice President - MENA, Aspen Technology and **Mohammed Al-Habib** - Downstream Account Director, Baker Hughes all shared their thoughts.



## WPC Downstream, Expert Panel Session - Future Feedstocks, and Refinery Integration

Moderated by **Dr. Pierce Riemer** - Director General, World Petroleum Council (WPC); Speakers: **Rob Howard** - Vice President - MENA, Aspen Technology and **Keith A. Couch** - Senior Director - Global Technology Sales, Honeywell UOP discussed integrating refining and petrochemical sites to help reduce volatility in the petroleum value chain. When properly designed, planned and implemented, the integration will not only diversify companies' product portfolio but will reduce site-specific costs, increase capital efficiency and elevate returns. The practical case studies in this forum demonstrated how strategic planning and operation of refining and petrochemical conversion units with common utilities can capture long term business benefits.



Special Session – “The Permian Success Story and the Resurgence of the U.S. Refining Sector,” **Gerardo Uria - Vice President, American Petroleum Institute**

“Process intensification method usually rely on a novel driving force (e.g., rotation) or nonstandard configuration (e.g., microchannels) to enable increased control over mixing, reaction, and heat, mass & momentum transfer to bring about step changes in the reduction of energy consumption and capital costs.”- **Dr. Madhukar Garg, Head Refining & Petchem R&D, Reliance Industries Limited**



“Transforming the Process Industries Through Modular Chemical Process Intensification. Modular Processing is a shift from bigger is better paradigm to small, modular paradigm and rethinking systems to enable flexible, distributed manufacturing.”- **June Wispelwey, CEO & Executive Director, American Institute of Chemical Engineers (AIChE)**

“Our three commitments are: what we commit to deliver, to achieve our purpose. We push the limits of quality, efficiency, and performance to drive customer success. We bring preparation and judgement to help lasting reliability and we collaborate closely to create opportunities for sustainable growth.”- **Faisal Addas, Sr. Manager - LC Conversion Business Development Local Content & Business Development Unit, SABIC**



# MEPEC Conference Program

## DAY 1 Monday, 14 Oct 2019

📍 Bahrain International Exhibition & Convention Centre

09:30 - 09:40

### Opening Remarks

📍 Palm Hall

Speakers

**Nasser A. Abanmi** President, SABIC - KEMYA

**Tor Fjaeran** President, World Petroleum Council (WPC)

09:40 - 10:00

### Keynote Speech

📍 Palm Hall

*Adapting to the Shifting Dynamics of the Global Energy Landscape*

Speaker

**Ahmad A. Al Sa'adi** Senior Vice President, Technical Services, Saudi Aramco

10:00 - 10:50

### WPC Downstream, Global Leadership Panel - The Future of Refining and Petrochemicals

📍 Palm Hall

Moderator

**Pedro Miras Salamanca** Chairman, CORES

Speakers

**Suleyman M Ozmen** Sr. Consultant, Independent

**Dr. Madhukar Garg** Head Refining & Petchem R&D, Reliance Industries Limited

10:50 - 11:10

### Coffee Break

📍 Exhibition Hall

Sponsored by  **ساسرف SASREF**

11:10 - 12:30

### Technical Sessions - 3

Debottlenecking: Exploiting Opportunities to Boost Performance 📍 Al Seef	Energy Efficiency and Sustainability 📍 Al Fanar	Digital Transformation 📍 Palm Hall
Moderator <b>Dr. Ayuba Adesina</b> Lead Engineer, SABIC	Moderator <b>Dr. Anissa Sedjerari</b> Industry and Research Liaison Officer, Innovation & Economic Development Department, KAUST Catalysis Center	Moderator <b>Saifuddin Sheikh</b> Director, Business Consulting, Aspen Technology
<i>Optimizing Value Through Converting Residuum Into Clean Fuels or Petrochemicals</i>	<i>Conceptual Design and Energy Analysis of Integrated Gasification and Reforming Technologies for Syngas Production</i>	<i>The Role of Process in the Digital Transformation</i>
Speaker <b>Dr. Julie Chabot</b> Resid R&D Technical Team Leader- Applied Technology, Chevron Lummus Global	Speaker <b>Hussain Alibrahim</b> CHE Senior Student, King Fahd University of Petroleum & Minerals (KFUPM)	Speaker <b>Norbert Jung</b> VP Product Management - Process and Simulation, AVEVA
<i>Constant Feed Composition and Performance Analysis Increases Pygas Run Length</i>	<i>Toward Optimum Design of Industrial Steam and Power Systems</i>	<i>Process Manufacturing Digital Twin to Achieve Operations Excellence</i>
Speaker <b>Faisal Al Ashour</b> Process Engineer, S-Chem	Speaker <b>Mana Alowaidh</b> Engineering Consultant - Energy Systems, Saudi Aramco	Speaker <b>Jim Brigman</b> Managing Director, Ingenero Inc
<i>Modeling and Optimization of Pressure Distillation to Achieve Pharma Grade Tetrahydrofuran Product from Tetrahydrofuran Water Mixture</i>	<i>Improvements in Residue Gasification Increase Feed Flexibility for Virtually Bottomless Refineries</i>	<i>Sustaining Crude Quality Specifications by Leveraging IR 4.0 Solution in Midstream Processing</i>
Speaker <b>Vijay Shirpurkar</b> Process Engineer, Sipchem	Speaker <b>Simon Cackett</b> Licensing Technology Manager, Shell Catalysts & Technologies	Speakers <b>Syed A. Ahmed</b> Process Engineer, Saudi Aramco <b>Majed A. Al-Jeshi</b> Process Engineer, Saudi Aramco

## Day 1 Monday, 14 Oct 2019 (cont.)

12:30 - 13:30

**Lunch Break**  
📍 Exhibition Hall

Sponsored by **Honeywell**  
uop

13:30 - 14:50

### Technical Sessions - 3

Revolutionary Technology 📍 Al Seef	Debottlenecking: Exploiting Opportunities to Boost Performance 📍 Al Fanar	Energy Efficiency and Sustainability 📍 Palm Hall
Moderator <b>Dr. Nasiru Tukur</b> Engineering Consultant, Saudi Aramco	Moderator <b>David Renolayan</b> Technology & Process Engineering Lead Domestic Refining & NGL Fractionation, Saudi Aramco	Moderator <b>Jad Abou Charbine</b> Technical Services Manager, Axens
<i>Novel Catalytic Cracking Technologies for Producing More Low Carbon Olefins and Light Aromatics</i>  Speaker <b>Jinquan Zhu</b> R&D Senior Engineer, Research Institute of Petroleum Processing, SINOPEC	<i>Mitigation of Hydrate Formation in Module 5 De-Ethanizer Overhead System at Yanbu NGL Fractionation Department</i>  Speakers <b>Hae Yong Noh</b> Senior Chemical Engineer, Saudi Aramco <b>Ibrahim N Nashri</b> Chemical Engineer, Saudi Aramco	<i>Utility Steam System Energy Optimization Best Practices at Khurais Crude Processing Facilities</i>  Speaker <b>Abdullah Malki</b> Gas & Shipping Lead Engineer, Saudi Aramco
<i>Digital Transformation - Using Simulation and Engineering Data with Analytical Sciences to, not only turn Data into Information, but also to Drive the Process</i>  Speaker <b>Roy Calder</b> Senior Director, Technical Solutions, AVEVA	<i>Optimal Process Design Approaches for Diesel Hydrotreater Unit Revamps</i>  Speaker <b>Muhammad Ilyas</b> Technology Licensing Manager, Haldor Topsøe A/S Denmark	<i>Energy Performance Indices (EPIs) - Self-Benchmarking for Continual Improvement; a Statistical Approach</i>  Speakers <b>Ahmed Aseeri</b> Founder & CEO, Gulf Advanced Process Technologies Co. (GAPTECH) <b>Satish Mantri</b> Process Engineer, Sipchem
<i>Innovations in Catalysts and Processes for Refining Applications</i>  Speaker <b>Dr. Theo Maesen</b> Director CLG R&D, Chevron Lummus Global	<i>Unlocking Potential of a Resid Hydroprocessing Unit through Reactor Internals – A Case Study</i>  Speakers <b>Abdullah Mandani</b> Senior Process Engineer, Kuwait National Petroleum Company (KNPC) <b>Mohammed Benchekchou</b> Director, Strategic Accounts - Middle East & North Africa, Shell Catalysts & Technologies <b>Mohammed Fahad Ajmi</b> Senior Operations Engineer, Kuwait National Petroleum Company (KNPC) <b>Dilipkumar Thakur</b> Shell Catalysts & Technologies	<i>Energy efficiency improvement initiatives in KNPC MAA refinery</i>  Speaker <b>Vijayaraghavan Ganeshkumar</b> Process Engineer, Kuwait National Petroleum Company (KNPC)

15:00 - 16:20

### Technical Sessions - 3

Debottlenecking: Exploiting Opportunities to Boost Performance 📍 Al Seef	Energy Efficiency and Sustainability 📍 Al Fanar	Digital Transformation 📍 Palm Hall
Moderator <b>Shahid Azam</b> Chief Scientist, Functional Chemicals, SABIC	Moderator <b>Dr. Oki Muraza</b> Associate Professor, Center of Research Excellence in Nano-technology, King Fahd University of Petroleum & Minerals (KFUPM)	Moderator <b>Ayman Salamah</b> General Sales Manager, W.R. Grace & Co.
<i>De-Butanizer Tower Bypass Facility</i>  Speaker <b>Fahad Alsaad</b> SABIC - KEMYA	<i>Energy Optimization in Air Separation Units (ASU) Using Advanced Process Control (APC)</i>  Speaker <b>Carlos Gonzalez</b> Senior Process Control Engineer, SABIC - GAS	<i>SAMREF FCC DMC Controller Revamp</i>  Speaker <b>Safi M AlBuhairi</b> Senior Process Control Engineer, Saudi Aramco Mobil Refinery Company Ltd. (SAMREF)
<i>Ethylene Unit Reboiler Fouling Improvements</i>  Speaker <b>Rawaf Alrawaf</b> Process Engineer - Technical, S-Chem		

## Day 1 Monday, 14 Oct 2019 (cont.)

<b>Debottlenecking: Exploiting Opportunities to Boost Performance</b> 📍 Al Seef	<b>Energy Efficiency and Sustainability</b> 📍 Al Fanar	<b>Digital Transformation</b> 📍 Palm Hall
<i>An Innovative Approach in Re-energizing Internal Profit Improvement Programs (PIP)</i>  Speakers <b>Ahmed Altarkeet</b> Snr. Manufacturing Excellence Engineer, Kuwait National Petroleum Company (KNPC) <b>Azhari Dafaalla</b> Senior Staff Consultant, KBC, A Yokogawa Company	<i>Solid Slurry Stream Processing and Recovery Using Thin Film Evaporator Technology</i>  Speaker <b>Majed Mulla</b> Process Engineer, SChem  <i>Energy Real-Time Optimizer - Steam &amp; Condensate Balance</i>  Speaker <b>Youngghee Jang</b> Energy Engineer, Saudi Aramco	<i>Combining the Power of Digital Twins with Cloud-Based Collaboration</i>  Speaker <b>Saptarshi Bhowmick</b> PSS Department Manager, Yokogawa MEA  <i>Improving Distillate Products Quality Using IR 4.0 Digital Solutions</i>  Speakers <b>Abdelghani Daraiseh</b> Sr. Engineering Consultant, Saudi Aramco <b>Shahreyar Khan</b> Project Advisor, Saudi Aramco

16:20 - 16:40

### Coffee Break

📍 Exhibition Hall

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16:40 - 17:30

### Opening Ministerial Session

📍 Palm Hall

Introduction

**Tor Fjaeran** President, World Petroleum Council (WPC)

Speakers

**His Excellency Shaikh Mohamed bin Khalifa Al Khalifa** Minister of Oil, Kingdom of Bahrain

**His Excellency Elnur Soltanov** Deputy Minister of Energy, Republic of Azerbaijan

**Dr. Sun Xiansheng** Secretary General, International Energy Forum (IEF)

17:30 - 18:20

### WPC Downstream, Panel Discussion - Digital Transformation Strategies in Downstream

📍 Palm Hall

Moderator

**Milton Costa Filho** Secretary General, IBP - Brazilian Petroleum, Gas and Biofuels Institute

Speakers

**Norm Gilsdorf** President, Honeywell High Growth Regions Middle East, Russia and Customs Union, Honeywell

**Rob Howard** Vice President - MENA, Aspen Technology

**Mohammed Al-Habib** Downstream Account Director, Baker Hughes

18:20 - 18:30

### Coffee Break

📍 Exhibition Hall

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18:30 - 19:15

### Exhibition Inauguration

📍 Hall 1

20:00

### Gala Dinner

📍 Gulf Hotel

Speakers

**His Excellency Shaikh Mohamed bin Khalifa Al Khalifa** Minister of Oil, Kingdom of Bahrain

**June Wispelwey** CEO & Executive Director, American Institute of Chemical Engineers (AIChE)

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# DAY 2 Tuesday, 15 Oct 2019

📍 Bahrain International Exhibition & Convention Centre

09:00 - 10:30

## WPC Downstream - Keynote Session

📍 Palm Hall 1

*Shaping the Future for Industrial Gas Customers*

Speaker

**Naji Skaf** President, Middle East, Egypt, Turkey, Air Products

*Developing Future Innovative Workforce to Sustain Reliable Operational Excellence and Value Creation*

Speaker

**Bassam Al Bokhari** CEO, Saudi Petroleum Services Polytechnic

*Inventing the Future – Chevron's Commitment to Innovation*

Speaker

**Walt Szopiak** Vice President, Chevron Energy Technology

*Ethical Practice is Foundational to Great Safety*

Speaker

**Deborah L. Grubbe** Owner and President, Operations and Safety Solutions, LLC

10:30 - 10:40

## Coffee Break

📍 Exhibition Hall

Sponsored by  **ساسرف SASREF**

10:40 - 12:00

## Technical Sessions - 3

Revolutionary Technology 📍 Al Fanar	Debottlenecking: Exploiting Opportunities to Boost Performance 📍 Al Seef	Energy Efficiency and Sustainability 📍 Palm Hall 2
Moderator <b>Saeed S. AlAlloush</b> Engineering Specialist, Process & Control Systems Department, Saudi Aramco	Moderator <b>Shahid Azam</b> Chief Scientist, Functional Chemicals, SABIC	Moderator <b>Jad Abou Charbine</b> Technical Services Manager, Axens
<i>Simultaneous Production of Benzene and Gasoline from C-6 Heart Cut of FCC gasoline</i>  Speaker <b>Dr. Madhukar Garg</b> Head Refining & Petchem R&D, Reliance Industries Limited	<i>Modifying Aging Assets with Advanced Condition Monitoring Solution to Increase Availability, Reliability and Profitability by Optimizing Operation and Reducing Maintenance Costs</i>  Speaker <b>Fayyaz Karim Qureshi</b> RECIPs and D&IS (Retrofit) Technical Leader, Baker Hughes, a GE company	<i>Advanced Process Control in Aromatics Plant</i>  Speaker <b>Abdulrahman Ashour</b> Engineer I, Process Control, SABIC - IBNRUSHD
<i>Incremental Value from FCC Catalyst Innovation</i>  Speaker <b>Matt Kirchner</b> Marketing Director - FCC Catalysts, W.R. Grace & Co.	<i>Optimal Temperature Control of a Batch Tank Equipped With a Steam Heating Coil System</i>  Speaker <b>Anas H. Safar</b> Process Engineer, Saudi Aramco	<i>Technology of Refinery Off-Gas Recovery by Cold Oil absorption</i>  Speaker <b>Dr. Huawei Shao</b> Senior Engineer, Beijing Research Institute of Chemical Industry, SINOPEC Group
<i>Reactor and Catalyst for the Direct Conversion of Crude Oil to Chemicals</i>  Speaker <b>Mohammad Alabdullah</b> PhD Student, King Abdullah University of Science and Technology (KAUST)	<i>Capacity Stretch Evaluation Study and Implementation for Polyolefin Plant</i>  Speaker <b>Ibrahim Alsugai</b> Scientist - Technology and Innovation, SABIC	<i>Identifying Energy Saving Opportunities in Fluid Networks via Hydraulic Modeling Techniques</i>  Speaker <b>Shardul Shindadkar</b> Asst. Manager - Project Development, Ingeniero Inc.

## Day 2 Tuesday, 15 Oct 2019 (cont.)

12:00 - 13:00

### Lunch Break

📍 Exhibition Hall

Sponsored by **Honeywell**  
**UOP**

13:10 - 14:30

### Technical Sessions - 3

Digital Transformation 📍 Al Fanar	Debottlenecking: Exploiting Opportunities to Boost Performance 📍 Al Seef	Energy Efficiency and Sustainability 📍 Palm Hall 2
<p>Moderator <b>Hiroki Usami</b> General Manager, R&amp;D Center - Process Solution Business, Yokogawa Saudi Arabia Company</p>	<p>Moderator <b>Waddah Al-Zaabi</b> Account Manager, ART Hydroprocessing</p>	<p>Moderator <b>Dr. Hayat Abdulla Yusuf</b> Assistant Professor, Department of Chemical Engineering, University of Bahrain</p>
<p><i>The Digital Refinery: Using Artificial Intelligence to Optimise Utilities Planning</i></p> <p>Speaker <b>Gerardo Sanchis Andreu</b> Senior Consultant Engineer, Process Systems Enterprise (PSE)</p>	<p><i>Synergizing De-foamer and Demulsifier Chemicals for Improved Crude Desalting</i></p> <p>Speakers <b>Abdullaziz Alghanim</b> Operation Engineer, Saudi Aramco <b>Dr. Enow Achuo Kima</b> Chemical Treatment Specialist, Saudi Aramco</p>	<p><i>A Quantitative Approach for Assessing Automatic Tank Overfilling Protection Systems (AOPS) Requirements</i></p> <p>Speaker <b>Hesham Fandy</b> Principal Risk Management Advisory Consultant, DNV GL Middle East</p>
<p><i>Digital Technologies to Support Plant Operations for Profitability</i></p> <p>Speakers <b>Jatin Shah</b> Director, Automation &amp; Process Technologies, KBR Technology</p>	<p><i>Improving Refinery, Petrochemical and Upstream Margins by Closing the Gaps Between Planning, Scheduling and Advanced Process Control</i></p> <p>Speakers <b>Krishna Chada</b> Principal Solutions Consultant, Aspen Technology</p>	<p><i>Advanced Digital Twin Solution for CDU Column with Preheat Train Optimization</i></p> <p>Speakers <b>Nageswararao Kesanapalli</b> Principal Solution Consultant, Aspen Technology <b>Saifuddin Sheikh</b> Director, Business Consulting, Aspen Technology</p>
<p><i>Advanced Analytics for Smart Positioner Monitoring and Diagnostics</i></p> <p>Speakers <b>Ayman Abu-Shameh</b> Instrumentation Team Lead, Saudi Aramco <b>Ammar S. Bakhurji</b> Advanced Process Control Engineer, Saudi Aramco</p>	<p><i>Optimising Chemical Injection Performance &amp; Reducing Cost</i></p> <p>Speaker <b>Narayanan Suresh</b> Regional Subject Matter Expert – Flow Applications, Yokogawa MEA</p>	<p><i>Flare System - Design Optimization using Reboiler Pinch</i></p> <p>Speakers <b>Hasan Ali Amin</b> Engineer I, Saudi Aramco <b>Praveen Dhote</b> Chemical Engineer, Siemens <b>Sachin Kanade</b> Process Safety Lead, Siemens</p>

14:30 - 15:00

### Coffee Break

📍 Exhibition Hall

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15:00 - 15:40

### WPC Downstream, Special Session – The Permian Success Story and the Resurgence of the U.S. Refining Sector

📍 Palm Hall 1

Speaker

**Gerardo Uria** Vice President, American Petroleum Institute

## Day 2 Tuesday, 15 Oct 2019 (cont.)

15:40 - 17:00

### Technical Sessions - 3

Revolutionary Technology 📍 Al Fanar	Debottlenecking: Exploiting Opportunities to Boost Performance 📍 Al Seef	Energy Efficiency and Sustainability 📍 Palm Hall 2
Moderator <b>Gerrit Polhaar</b> Regional Director - MENA, Chevron Lummus Global	Moderators <b>Hamza Alawi</b> Technology Business Development Manager, Lummus Technology	Moderator <b>Jim Brigman</b> Managing Director, Ingenero Inc
<i>Carbon Utilization &amp; Petrochemical Integration: Capturing Value via Residue to Chemicals Projects</i>  Speaker <b>Jacinthe Frécon</b> Technology Group Manager, Axens	<i>Advanced Thermodynamic Model for Predicting Hydrochloride Salt Formation and Corrosivity in Crude Distillation Overheads</i>  Speaker <b>Dr. Anthony Gerbino</b> Customer Success Leader, OLI Systems Inc.	<i>The Circular Economy in Saudi Aramco: Unlocking New Potential for Supply Chains</i>  Speaker <b>Mohammed Alyanbaawi</b> Technical Support Engineer, Saudi Aramco
<i>Spray-Drying as an Efficient Method for the Preparation of Catalysts for the Direct Conversion of Crude Oil to Chemicals</i>  Speaker <b>Tuiana Shoinkhorova</b> PhD Student, King Abdullah University of Science and Technology (KAUST)	<i>SAMREF Sulfur Recovery Unit Retrofits Uplift Performance Sulfur Quality Enhancement</i>  Speaker <b>Khalid Ghazal</b> Technical Process Engineering Specialist (Sulfur & Amine Specialist), Saudi Aramco Mobil Refinery Company Ltd. (SAMREF)	<i>Energy Efficiency Enhancement Project for Methanol Plant - Exceeding the Expectations</i>  Speaker <b>Othman M Al-Ghamdi</b> Process Engineer, Sipchem
<i>K-SAAT - A Break-through Solid Acid Alkylation Technology</i>  Speaker <b>Edward Griffiths</b> Technology Manager, KBR Technology	<i>Flare Gas Recovery System Challenges</i>  Speaker <b>Mohammed AlMahmood</b> Process Engineer, Saudi Aramco	<i>Modeling and optimization of microalgae-based Lead Removal Process using Response Surface Methodology articulated with Crow Search Algorithm</i>  Speaker <b>Dr. S M Zakir Hossain</b> Assistant Professor, University of Bahrain

17:00 - 17:50

### WPC Downstream, Expert Panel Session - Future Feedstocks, and Refinery Integration

📍 Palm Hall 1

Moderator

**Dr. Pierce Riemer** Director General, World Petroleum Council (WPC)

Speakers

**Rob Howard** Vice President - MENA, Aspen Technology

**Keith A. Couch** Senior Director - Global Technology Sales, Honeywell UOP

17:30 - 18:45

### AIChE Middle East Regional Chem-E-Car Competition®

📍 Hall 1

AIChE Middle East Regional Chem-E-Car  
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# DAY 3 Wednesday, 16 Oct 2019

📍 Bahrain International Exhibition & Convention Centre

09:00 - 10:30

## Keynote Session

📍 Palm Hall 1

*Creating Value Through Operational Excellence*

Speaker

**Saad Al-Ayedh** EVP Petrochemicals, TASNEE

*Modern Refinery Config for R&P Integration*

Speaker

**Keith A. Couch** Senior Director - Global Technology Sales, Honeywell UOP

*Strategic Imperatives for the Middle East's Refiners*

Speaker

**Jonathan Forbes-Lane** Regional VP - Catalysts Sales, Shell Catalysts & Technologies

10:40 - 12:00

## Technical Sessions - 3

Digital Transformation 📍 Al Fanar	Debottlenecking: Exploiting Opportunities to Boost Performance 📍 Al Seef	Energy Efficiency and Sustainability 📍 Palm Hall 2
Moderator <b>Jim Brigman</b> Managing Director, Ingenero Inc.	Moderator <b>Nikola Georgiev</b> Senior Account Manager Refinery, Haldor Topsøe International A/S	Moderator <b>Mohammad N. Al-Haji</b> Engineering Consultant, Saudi Aramco
<i>Depropanizer Column Troubleshooting using AspenTech ProMV</i> Speaker <b>Bernt Hiddema</b> Solution Consultant, Aspen Technology	<i>Upgrading the Hydrogen Plant for New Requirements</i> Speaker <b>Koos Overwater</b> Vice President - Hydrogen Product Line, TechnipFMC	<i>Gasification in the Era of Crude to Chemicals (CTC)</i> Speaker <b>Dr. Chun Han</b> Gasification & IGCC Specialist, Saudi Aramco
<i>Process Analyzers Management System "AMS"</i> Speaker <b>Hamad Al-Othman</b> Lead Engineer, Analyzer, SABIC - KEMYA	<i>Gasoline Hydrogenation Unit 2nd Stage Reactor Performance Improvement</i> Speaker <b>Suhaib Kaki</b> Process Engineer, SABIC - YANSAB	<i>Optimization of Multi-Effect Evaporators to Minimize Steam Consumption</i> Speaker <b>Jai Prakash Jain</b> Sr. Scientist, SABIC Research and Technology Pvt. Ltd.
<i>Predictive Maintenance and Asset Management by Combining High-Fidelity and Data-Driven Models</i> Speaker <b>Dr. Steve Hall</b> Director, Operational Excellence Solutions, Process Systems Enterprise (PSE)	<i>CDU Revamp: Optimising Cost and Implementation</i> Speaker <b>Vishnu Narayanan</b> Chartered Engineer, Wood Plc	<i>Opportunities for the use of First Flush Systems for Water Recovery</i> Speaker <b>Joy Clarke</b> Principal Process Engineer, Wood Plc

12:00 - 13:00

## Lunch Break

📍 Exhibition Hall

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## Day 3 Wednesday, 16 Oct (cont.)

13:00 - 14:20

### Technical Sessions - 3

Digital Transformation 📍 Al Fanar	Debottlenecking: Exploiting Opportunities to Boost Performance 📍 Al Seef	Energy Efficiency and Sustainability 📍 Palm Hall 2
Moderators <b>David Renolayan</b> Technology & Process Engineering Lead Domestic Refining & NGL Fractionation, Saudi Aramco	Moderator <b>Saeed S. AlAlloush</b> Engineering Specialist, Process & Control Systems Department, Saudi Aramco	Moderator <b>Waddah Al-Zaabi</b> Account Manager, ART Hydroprocessing
<i>Digital Transformation Journey "Production Planning, Sustainability &amp; Energy and Process KPIs Dashboards in the Distributed Control System"</i>	<i>Quench System Successful Revamp and Operation Cycle</i>	<i>NGL Fractionation Process Optimization Through Heat Exchanger Load Shifting</i>
Speaker <b>Carlos Gonzalez</b> Senior Process Control Engineer, SABIC - GAS	Speaker <b>Abdullah Al Ismail</b> Production Engineer, SABIC - KEMVA	Speakers <b>Dong Kyu Lee</b> Senior Process Engineer, Saudi Aramco <b>Yazeed Homaid</b> Energy Engineer, Saudi Aramco
<i>High Fidelity Digital Twin of Hydrocracker Units</i>	<i>Enhancing Ethylene Recovery in Binary Refrigeration Systems by Purging H2 and Further Increase Through Expander Re-Compressor System Modifications</i>	<i>Chemical Modeling of Carbon Capture and Storage Capabilities from Combustion Gases</i>
Speaker <b>Dhanasekar Periyasamy</b> Principal Solution Consultant, Aspen Technology	Speaker <b>Nihar Gulwadi</b> Senior Manager - Project Development, Ingenero Inc.	Speaker <b>Dr. Anthony Gerbino</b> Customer Success Leader, OLI Systems Inc.
<i>Real-Time Predictive Analytics in Enhancing Base Layer Control Loops</i>	<i>Deployment of Digital Modeling for Cracking Furnace Online Yield Optimization</i>	<i>Furnace Convection Section Rating for Increased Thermal Efficiency: A Techno-Economic Analysis</i>
Speaker <b>Saeed Al-Shahrani</b> Control System Engineer, Saudi Aramco	Speaker <b>Abdullah Nooh</b> Scientist - Global Cracker Technology, SABIC	Speaker <b>Radhi Ali Aqeeli Al</b> Process Engineer, SABIC - KEMVA

14:20 - 14:30

### Coffee Break

📍 Exhibition Hall

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14:30 - 16:00

### Panel Discussion - Process Intensification

📍 Palm Hall 1

Moderator

**Gina M. Gatto** Membership Manager, AIChE

Speakers

**Dr. Madhukar Garg** Head Refining & Petchem R&D, Reliance Industries Limited

**June Wispelwey** CEO & Executive Director, American Institute of Chemical Engineers (AIChE)

**Faisal Addas** Sr. Manager - LC Conversion Business Development, Local Content & Business Development Unit, SABIC

16:00 - 16:30

### Closing Ceremony and Raffle Draw

📍 Palm Hall 1

# iPoster Presentations

MEPEC utilized one of the world's most advanced system for scientific and technical communication, iPosters. This technology offered the authors a range of interactive and multimedia functions which allowed the audience to engage with them.



## iPoster Presenters

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Shell Catalysts & Technologies

Presentation Title	Speaker	Job Title	Company
Utilization of Waste Coke from Olefin Plants as Carbon Additive in Steel Industry	Yousif AIDhafeery	Research Engineer	SABIC - KEMYA
Management of Hydrocarbon to the Marine Environment at Saudi Aramco	Seunghan Park	Environmental Engineer	Saudi Aramco
Design Consideration for Improved Axial Compressor Stability - Stall, Surge and their Control	Sivakumar Sankaran	Mechanical Engineer	Saudi Aramco
	Naif AlGhuthayf	Mechanical Engineer	
Research and Application of Oil and Gas Stabilization and Absorption Technology in Delayed Coking	Zhang Long	Senior Engineer, Research Institute of Petroleum Processing	SINOPEC
C4 Purification System Optimization, Production Improvement and APC Configuration	Suhaib Kaki	Process Engineer	SABIC - YANSAB
Spray-Drying as an Efficient Method for the Preparation of Catalysts for the Direct Conversion of Crude Oil to Chemicals	Tuiana Shoinkhorova	PhD Student	King Abdullah University of Science and Technology (KAUST)
Development and Application of Enhanced Hydrogen Transfer Liquid Phase Hydrogenation	Dr. Shikun Niu	Senior Engineer	Sinopec
Using Digital Transformation to Drive Operational Insight and Financial Benefits in the Refining and Petrochemical Industries	Roy Calder	Senior Director - Technical Solutions	AVEVA
Technology of Refinery Off-Gas Recovery by Cold Oil Absorption	Dr. Huawei Shao	Senior Engineer, Beijing Research Institute of Chemical Industry	SINOPEC Group
Chemical Modeling of Carbon Capture and Storage Capabilities from Combustion Gases	Dr. Anthony Gerbino	Customer Success Leader	OLI Systems Inc.



Presentation Title	Speaker	Job Title	Company
Enhanced Methanol-to-Olefins (MTO) Catalysis and Application of Nano-SheetLike SAPO-34 Molecular Sieve with Hierarchical Structure	Hongli Guo	Director - Technical Marketing and Licensing Business	SINOPEC Shanghai Research Institute of Petrochemical Technology
Transform the Chemicals Supply Chain by Combining Machine Learning and Optimization	Piyush Jain	Principal Solution Consultant	Aspen Technology
	Oussama Ould Zmirli	Principal Solution Consultant	Aspen Technology
Ethylbenzene/Styrene Process Technology	Dr. Zhang Bin	Senior Expert	SINOPEC Shanghai Research Institute of Petrochemical Technology
Fuel Oil Blending System	Hashim AlHajji	Process Engineer	Saudi Aramco
Digital Transformation at the Front Line Leading to Operational Excellence	Andrew Bartlett	Solutions Consultant	Sphera Solutions
Innovative Software Improves Crude Oil Logistics Scheduling	Aurelio Ferrucci	Executive V.P.	PROMETHEUS SRL
Drones in Oil & Gas Operations: A review	Ahmed Al-Alouni	Research Engineer	Saudi Aramco
Analyzer Technology	Turki Hujaili	Analyzer Engineer	SABIC - KEMEA
Petrochemical Refinery: How to Plan for an Optimum Investment	Sachi N. Maiti	Manager, Downstream Technology Taskforce	SNC Lavalin
Enhancing the Circular Carbon Cycle through Multi-scale Catalytic Process Design	Dr. Fernanda Tavares	Post Doctoral Fellow, Chemical Engineer	KAUST Catalysis Center
Energy and Water Saving Challenges and Opportunities in Oil & Gas Facilities using Value Engineering	Mohamed Soliman	Senior Operation Engineer	Saudi Aramco
An Innovative Approach in Re-Energizing Internal Profit Improvement Programs (PIP)	Ahmed Altarkeet	Snr. Manufacturing Excellence Engineer	Kuwait National Petroleum Company (KNPC)
	Omar Al-Rashidi	Manufacturing Excellence Engineer	
Low Pressure Feed Pump Issue Resolution - Innovative Way	Pankaj Chaware	Lead Machinery Engineer	SABIC - KEMEA
Applying Immersive Technologies to Production Digitalization and Personnel Training	Ilya Simonov	CROC VR Director	NGN International
Unlocking Potential of a Resid Hydroprocessing Unit through Reactor Internals – A Case Study	Dilipkumar Thakur	Residue Upgrading TSE	Shell Catalysts & Technologies
	Mohammed Benchechou	Director Strategic Accounts - Middle East & North Africa	
	Mohammed Fahad Ajmi	Senior Operations Engineer	Kuwait National Petroleum Company (KNPC)
	Abdullah Mandani	Senior Process Engineer	
Digital Transformation – Using Simulation and Engineering Data with Analytical Sciences to not only turn Data into Information, but also to Drive the Process	Roy Calder	Senior Director - Technical Solutions	AVEVA
Steam Methane Reformer Process Optimization using ZoloSCAN In-Furnace Laser Measurements, Ember Burner Management and Smart Combustion	Eric Huelson	Product Manager	John Zink Hamworthy Combustion

# The Exhibition

Inaugurated by His Excellency Shaikh Mohamed bin Khalifa Al Khalifa, Minister of Oil, Kingdom of Bahrain, the exhibition welcomed over 2000 participants from over 500 companies from around the world. The event provided a platform for networking across the streams of operators and owners as well as product and service providers.



## Testimonials

“**AVEVA**, as Schneider Electric Software, has always found MEPEC an excellent event to meet with our clients and potential clients in the region. Over the years the balance between Technical Sessions, Discussion Panels and exhibition has allowed us to make excellent use of the opportunity to meet our valued clients. We look forward to being part of the 6th Edition in 2021!”

- Roy Calder, AVEVA

“We participated in the 5<sup>th</sup> MEPEC event for the first time as an Exhibitor. It was indeed a good opportunity to meet and interact with a large gathering of industry professionals who came here with eagerness to know about others as well as share their own Products and Services. The most valuable aspect of the event, in addition to promoting ourselves to create business leads, was our learning through listening to visitors about feedback on our delivered services, new requirements and their willingness to develop business relation with us. We really appreciate everyone who visited our booth and spend time with us.”

- Sanjib Deka, JGC Gulf International Ltd.

# Venue Plan 1 - Exhibition



LEGEND

 EMERGENCY EXIT

 MALE PRAYER ROOM

 FEMALE PRAYER ROOM

 MEDICAL

 TOILET (GENTS)

 TOILET (LADIES)

# Exhibitors List

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Advanced Refining Technology (ART)	97
American Institute of Chemical Engineers (AIChE)	71
AIM 3D	175
AIMS Group	99
AMETEK LAND	37
Ashcroft Al Rushaid Instrument Co. Ltd.	5
Aspen Technology, Inc.	55
Atlas Copco Rental Services Middle East	30
AVEVA	68
Axens	120
Bahrain Chemical Engineers (BChemE)	150
Beijing Dongfang Ruiji International Exhibition Co. Ltd.	1
Bently Nevada	47
bizbahrain	174
Cameron Schlumberger	170
CleanAir Arabia Co. Ltd.	66
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Dassault Systemes	72
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ExxonMobil Catalysts and Licensing LLC	73
Gulf Advanced Process Technologies Co. (GAPTECH)	65
Gulf Downstream Association (GDA)	27
HADAF International Energy Company (HADAF Energy)	172
Haldor Topsøe	50
HISAKA Middle East Co. Ltd.	22
Honeywell UOP	64
IFP Training	9
Ingenero Inc.	23
INMA Steel Fabricators Co. Ltd.	8
JGC Gulf International Co. Ltd.	41
John Zink Hamworthy Combustion	90
KBR	40
King Fahd University of Petroleum and Minerals (KFUPM)	152
King Abdullah University of Science and Technology (KAUST)	86

Company Name	Stand Number
Knowledge Store for Trading (FabLab Mostaqbli)	154
Lokring Middle East	35
Mathias Tourism	25
Metrohm Middle East FZC	3
National Industrial Training Institute (NITI)	75
nogaholding	62
OLI Systems, Inc.	21
PAS Global, LLC	7
Process Systems Enterprise (PSE)	76
Raazji	CAFÉ
Refining & Petrochemicals Middle East	26
Research Products Development Company	6
REXA, Inc.	10
SABIC	105
Safari Oil & Gas Co. Ltd.	107
Saudi Aramco	106
Saudi Aramco Mobil Refinery Company Ltd. (SAMREF)	96
Saudi Aramco Shell Refinery Company (SASREF)	91
Saudi Petroleum Services Polytechnic (SPSP)	60
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Shandong Junfei Environmental Protection Technology Company Limited	2
Shell Catalysts & Technologies	98
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Sirim Qas International Sdn. Bhd.	85
SIXT Rent a Car	88
Star Light	125
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The Gulf Hotel Bahrain Convention and Spa	126
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Yokogawa Middle East and Africa	46
YPC-SAS-AIChE	151



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## The Leading Awards & Symposium for Women in the Energy Industry in the Middle East

### CHAIRPERSON



Reem Al Ghanim  
Division Head, Chemicals,  
HR and Support Services  
**Saudi Aramco**

### CO-CHAIR



Ezz Almannai  
Director, Planning  
and Development  
**National Oil &  
Gas Authority (NOGA)**

LEWAS seeks to address the challenges and opportunities for women leaders in the energy industry. The objective of LEWAS remains to continuously strive to Engage, Empower & Elevate women in the energy industry. This exciting initiative for women provides a platform to honour outstanding and successful industry achievers. The awards encourage ambition and inspire new female leaders now and into the future.

### 2019 Award Winners



**Rising Star**  
Aram Alyahya  
Business Systems Analyst  
**Saudi Aramco**



**Academic of Distinction**  
Dr. Ilham Qattan  
Asst. Professor,  
Medical Molecular Virology  
**Taibah University**



**Leading with Excellence**  
Tasneem AlSharif  
Supervisor, Haradh Unit  
**Saudi Aramco**



**Woman of Achievement**  
Reem Al Anbari  
Chief Financial Officer  
**Abu Dhabi National Oil  
Company (ADNOC)**



**Corporate Champion**  
Tariq Al-Thuwaini  
Manager, Quality Assurance  
**Kuwait National Petroleum  
Company (KNPC)**



**Corporate Excellence**  
**Saudi Aramco**



### The Workshop

LEWAS conducted workshops and mentoring sessions to help participants understand why mentor-ship matters, how it can make a notable difference and help build a more knowledgeable workforce.



### The Symposium

The one-day symposium held on the 16<sup>th</sup> of October, provided participants with insight and advice from high level executives and past LEWAS award winners.

Under the Patronage of  
**HE Shaikh Mohamed bin Khalifa Al Khalifa**  
 Minister of Oil, Kingdom of Bahrain

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## AICHE Middle East Regional Chem-E-Car Competition®

Designed to test your ability to adapt and be innovative, the competition requires you to develop and construct a car powered by a chemical or biochemical energy source, safely transport a specified weight over a given distance. The competition took place at the Bahrain International Exhibition & Convention Centre on 15th October 2019. The third edition of the Chem-E-Car competition had 5 teams of undergraduate students competing and the **winner for 2019 is Jordan University of Science and Technology**.

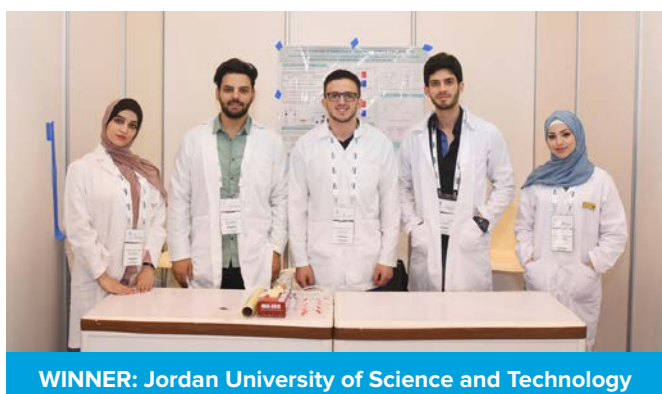
### Participating Teams

University	Country
Jordan University of Science & Technology	Jordan
King Fahd University of Petroleum and Minerals	Saudi Arabia
University of Bahrain	Bahrain
King Faisal University	Saudi Arabia
BITS Pilani, Dubai	United Arab Emirates

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Minister of Oil, Kingdom of Bahrain

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**Tamim Al Jasir**  
Business Development Manager  
**Guardian Glass**

ChemME CO-CHAIR



**Fatema Husain**  
Process Engineer - Technical  
Services Department  
**BAPCO**

The initiative featured a comprehensive program of activities that attracted numerous students and early career professionals from the MENA region. Students and young professionals had the opportunity to meet with industry leaders and share ideas amongst their peers. This program aims to build their skills and knowledge, and pathways to employment, training and education.

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# ChemME Program

## DAY 1 Monday, 14 Oct 2019

Exhibition Hall | Bahrain International Exhibition & Convention Centre

- 11:00 - 12:30 **AIChE Jeopardy Competition**  
A highly Interactive game between three teams of four players each. It will test your Chemical Engineering knowledge.
- 13:30 - 15:00 **Leaders to Inspire**  
Meet Chief Executive Officers of Major Companies and learn about their journey. Get tips on how to achieve your professional goals.
- 15:30 - 16:30 **ChemME Chain Puzzler**  
A scavenger hunt to solve a series of puzzles. Each puzzle includes a clue to the next puzzle. Winners will be awarded.
- 17:30 - 18:30 **Personal Branding**  
In this workshop, you will learn how personal branding can help you build your career and live a meaningful life.

## DAY 2 Tuesday, 15 Oct 2019

Exhibition Hall | Bahrain International Exhibition & Convention Centre

- 07:00 - 16:00 **BAPCO Plant Tour**  
Get an exclusive look inside the National Oil Refinery.
- 08:00 - 09:00 **3D Printing Crash Course (FabLab)**  
Get an insight into 3D Plant Modeling and learn how 3D Printing technology can be used in Process Modeling technology and Process Efficiency improvement.
- 10:30 - 11:25 **Tête-à-tête with the Minister**  
His Excellency Shaikh Mohamed Bin Khalifa Al Khalifa, Minister Of Oil, Kingdom Of Bahrain sharing insights about the industry.
- 13:00 - 15:30 **Technical Debate**  
Be a member of one of the opposing teams and speak about the topic given to you. Make sure to support your ideas by justifications and rebut other team's points.
- 15:30 - 16:00 **Leaders to Inspire**
- 16:30 - 17:30 **Professional Profile Optimization**

## DAY 3 Wednesday, 16 Oct 2019

Exhibition Hall | Bahrain International Exhibition & Convention Centre

- 08:00 - 16:00 **GPIC Plant Tour**  
Get an exclusive look inside a petrochemical plant in Bahrain.
- 10:00 - 16:00 **Mondolez Plant Tour**  
Get an exclusive look inside a food factory in Bahrain.
- 08:00 - 09:00 **Chemical Engineer Future Careers**  
Meet successful young chemical engineers working in different fields and learn how to secure your dream job.
- 10:15 - 12:15 **Process Automation Competition (Fablab)**  
Don't miss the opportunity to collaborate in automating the process of multiple modules using computer logic and simple programming.
- 13:00 - 14:00 **ChemME Closing Ceremony & Raffle Draw**

## Thank You to the Speakers



**HE SHAIKH MOHAMMED BIN KHALIFA AL KHALIFA**  
Minister of Oil, Kingdom of Bahrain



**WALT SZOPIAK**  
Vice President  
Downstream Technology & Services  
Chevron Energy Technology Company



**SÜLEYMAN ÖZMEN**  
Vice President  
Downstream Licensing (Retired),  
Shell Global Solutions

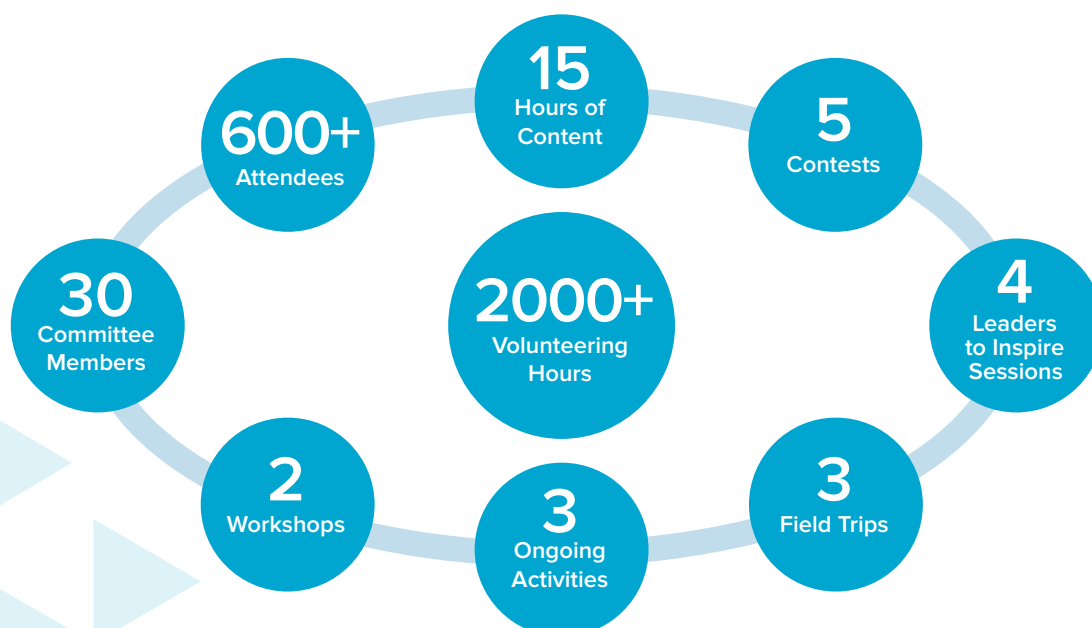


**SAM THIARA**  
Lecturer  
Simon Fraser University



**LAWRENCE SCHWARTZ**  
CMO, SVP Marketing  
Aspen Technology

## ChemME in Numbers



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 Minister of Oil, Kingdom of Bahrain

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Chairman



Craig Smith  
CEO

**Dhahran Valley Technology  
Development Company (DVTDC)**

Partners



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**Innovation Zone** featured start-ups and scale-ups conducting live demonstrations of technologies that can change the future.

<b>AbuCash</b> Money transfer solutions at near zero cost on highly secure chips	<b>F.O.F Technologies - Kampus BuyBack</b>	<b>Prayogik Technologies Pvt Ltd</b> Thermoelectric generator	<b>Technology in Pipe Couplers &amp; Flange Adaptors</b>
<b>Aim 3D</b> 3D printing and scanning solutions	<b>Greenturn Idea Factory (Greeniee)</b> Energy strategy planning platform	<b>RABT Technologies</b> Hajj Gear (tracks safety of pilgrims)	<b>TerraDrone CCS Co.</b>
<b>BRAQ Industries</b> Drone solutions for high-risk labour intensive industries	<b>KHOUT ALTEBAAH</b> Filaments for 3D printers	<b>Saaya Health</b> Telemedicine (Mental Health Access)	<b>The Hive</b> Remote sensing facility management system for industrial Internet of Things
<b>efactory, intellisense, Saudi Aramco</b> Human sensory data from brain signals to produce physical commands	<b>LazyWait</b> Fully integrated consumer facing services	<b>Singapore Management University - SMU</b>	<b>VendaZone</b>
<b>Emerson</b>	<b>LOTO Safety Products DMCC</b> Safety Lockout Padlock for Energy Isolation programs	<b>Smart Transformation (STChain)</b> Smart Certification System	<b>Vortex IoT</b> Manage real events in real time by generating sensor data
<b>Eye Wheels</b> Powered Wheelchair controlled by eye gaze on a monitor	<b>Namthaja</b>	<b>Smartix</b> Controlled water temperature using remote control or keypad	<b>Whosfit.co</b> Personality tester matching famous business or innovators
<b>FabLab Bahrain</b>			<b>Yokogawa Middle East and Africa</b>



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## See you in 2021!

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