

# 22<sup>ND</sup> WPC

## Technical Programme Sessions

### BLOCK 1

*EXPLORATION AND PRODUCTION OF OIL AND GAS*

<b>F 01</b>	Exploration challenges – how to reduce risk
<b>F 02</b>	Unconventional hydrocarbon resource development North American phenomena or global opportunity?
<b>F 03</b>	Managing upstream mega projects
<b>F 04</b>	New technologies in production and development
<b>F 05</b>	Geoscience technology and innovation
<b>F 06</b>	IOR / EOR – maximising the development of mature fields
<b>RT 01</b>	Exploration and production cost efficiency – building resilience
<b>RT 02</b>	Bridging other industry technologies – impact on upstream
<b>RT 03</b>	Innovative collaboration: what's next for IOCs, NOCs and service companies?
<b>RT 04</b>	Upstream portfolio development in cyclic business environments

### BLOCK 2

*REFINING, TRANSPORTATION AND PETROCHEMISTRY*

<b>F 07</b>	Competitive refining technologies
<b>F 08</b>	Integration of the refining and petrochemical industry
<b>F 09</b>	Oils and products storage and transportation
<b>F 10</b>	New marketing approaches for delivering products to consumers
<b>F 11</b>	Products of the future
<b>RT 05</b>	Delivering successful downstream projects
<b>RT 06</b>	Asset Management in refining and petrochemicals
<b>RT 07</b>	Outlook of the downstream industries

### BLOCK 3

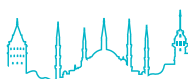
*NATURAL GAS PROCESSING, TRANSPORTATION AND MARKETS*

<b>F 12</b>	Opening up new uses and applications for gas
<b>F 13</b>	Sustainable value chains for unconventional gas
<b>F 14</b>	Delivery of large scale gas projects
<b>F 15</b>	Best practices in the management of safe operation of gas assets
<b>RT 08</b>	Role of LNG in security of global energy supply
<b>RT 09</b>	Role of gas in the energy mix in a volatile world
<b>RT 10</b>	Gas from producer to market

### BLOCK 4

*SUSTAINABLE MANAGEMENT OF THE INDUSTRY*

<b>F 16</b>	Knowledge management
<b>F 17</b>	Cyber security and new technology risks
<b>F 18</b>	Human resources - how to attract and retain talent in our industry
<b>F 19</b>	Energy poverty alleviation initiatives
<b>F 20</b>	HSE and operations integrity – keeping pace
<b>RT 11</b>	Geopolitics and global trends
<b>RT 12</b>	Ethics, compliance and business principles
<b>RT 13</b>	Perception of the petroleum industry by society



## BLOCK 1. EXPLORATION AND PRODUCTION OF OIL AND GAS

### F01-Exploration challenges- How to reduce risk?

**Monday 10 July 13:30 - 15:00 (Hall 1)**

**Poster Session Tuesday 11 July 11:00-13:00 (Interactive Poster Plaza)**

Our industry continues to make new oil and gas discoveries using advanced technologies and improved processes – enabling us to go deeper, more quickly, more accurately, and more safely than ever before. To do so, we must manage the uncertainty of geopolitical risks, economic risks, financial risks, geologic risks, project risks, policy risks, regulatory changes and the supply and-demand volatility inherent to commodity markets. This Forum will discuss reducing risks in exploration - from regional geology, geophysical techniques and advances in high-speed drilling and completions to commercial and geopolitical risks in order to develop these resources in a safe, secure, and environmentally responsible way.

Chair: **Mr. Erling Vågnes**, SVP International Exploration, Statoil, Norway

Vice Chairs: **Dr. Georg Bresser**, Head of Department Portfolio & Planning Exploration, Wintershall, Germany

**Ms. Stacey Weltmer**, Exploration Manager, Europe-Caspian, ExxonMobil Exploration Company, UK

### F01 Papers

#### The role of partnerships in reducing exploration risk

**Ms. Lorna Campbell**, Exploration Vice President, ExxonMobil, USA

#### Managing a portfolio of prospects

**Talal Al-Adwani**, Senior Geologist KOC, Kuwait

Co-authors: **Muhammad Al-Ajmi, Abdulaziz Sajer, Haifa Al-Bader, Yousef Al-Salali, Sunil Singh,**

**Waleed Morsy, Ahmad Al-Otaibi**, Kuwait Oil Company, Kuwait,

**Khalid Al-Othainah**, KUFPEC, Kuwait

#### A multidisciplinary approach to reduce hydrocarbon exploration risks in deep water turbidites, Ordu Fans, Eastern Black Sea Basin

**Özbil Yapar**, Geophysicist, Turkish Petroleum, Turkey

Co-authors: **Özge Karaman, Kenan Yazan, Şükrü Gökhan Köse, Ergin Karaca, Rıza Özgür Temel,**

**Şükrü Selçuk İravul, Erhan Kansu, Tülin Kaplan Atasoy, Sezer Türk**, Turkish Petroleum, Turkey

#### Can new seismic imaging technologies reduce exploration risks?

**Kenan Erdoğan**, Geophysicist, Turkish Petroleum, Turkey

Co-author: **Suat Aktepe**, Turkish Petroleum, Turkey

### F01 Posters

#### Reconstruction of the petroleum system based on the integrated geochemical, petrophysical and geological investigation of outcrops and seepages in the outer carpathians in Poland

**Prof. Irena Matyaik**, Head of Geochemistry Laboratory, Oil and Gas Institute, Poland

Co-author: **Grzegorz Lesniak**, Oil and Gas Institute, Poland

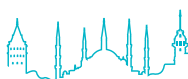
#### Pore structure and petrophysical characterization of hamelin pool stromatolites and pavements, Shark Bay, Western Australia

**Ergin Karaca**, Reservoir Geophysicist, Turkish Petroleum, Turkey

Co-authors: **Gregor Eberli; Ralf Weger; R. Pamela Reid**, University of Miami, USA,

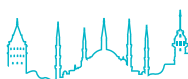
**Erica P. Suosaari**, Bush Heritage, Australia



**Integrated uncertainty quantification by probabilistic forecasting approach in undeveloped field****Saeed Sajjadian**, Engineer, NIOC, IranCo-authors: **Vali Ahmad Sajjadian; Ahmad Asheghi Hossein; Abolfazl Hashemi**, NIOC, Iran**Analysis of hydrocarbon generation and migration and prospectivity of the Lunpola Basin, South-Central Tibetan Plateau****Dr. Liu Yiming**, Student, China University of Geoscience, ChinaCo-author: **Ye Jiaren; Cao Qiang**, China University of Geoscience, China**Sulfur-heterocycles: Potential geotracer for crude oil migration assessment****Dr. Saroj Panda**, Scientist, Saudi Aramco, Saudi ArabiaCo-author: **Khaled Arouri**, Saudi Aramco, Saudi Arabia**Drivers characterization on tilting oil-water contact in a giant oil state, Southwest of Iran****Amir Abbas Askari**, Reservoir Modeler, RIPI, IranCo-authors: **Seyedmahdia Motahari, Turaj Behrouz**, RIPI, Iran**Application of off-line seismic in tight oil 'Sweet Spot' characterization****Yijun Zhou**, Senior Geophysicist, BGP, CNPC, ChinaCo-authors: **Yongming Wang, Zhengzhong Ruan, Wei Li**, BGP, CNPC, China**F02- Unconventional hydrocarbon resource development - North American phenomena or global opportunity****Monday 10 July 16:15-17:45 (Hall 1)****Poster Session Tuesday 11 July 13:30-15:30 (Interactive Poster Plaza)**

Oil and gas production from unconventional resources such as tight oil and gas, shale oil and gas and oil sands has made an enormous contribution to hydrocarbon production in North America. Development of similar resources has been very slow outside North America. This forum will address the contributions from unconventional oil and gas to world supply today and future potential, the technologies, government policies and public engagement that have made this possible, and the lessons learned for other parts of the world planning to turn their unconventional resource opportunity into reality.

Chair: **Anthony Marino**, President and CEO, Vermilion Energy, CanadaVice Chairs: **Hafiz Al-Shammery**, Manager, Northern Arabia Unconventional Gas Asset Dept, Saudi Aramco, Saudi Arabia**Mrs. Melissa Stark**, Managing Director and Global Unconventional Resource Development Lead, Accenture, UK**F02 Papers****Development of unconventional oil resources in a low price environment : What strategy ?****Phillippe Carlez**, VP, Unconventional Development, TOTAL, FranceCo-author: **Pierre Delfiner**, PetroDecisions, France**Vincent Bordmann**, TOTAL, France**Saudi Arabia's Unconventional Program in the Jafurah Basin: Transforming an Idea to Reality with the Jurassic Tuwaiq Mountain Formation****Ahmed Almubarak**, Team Leader, Saudi Aramco, Saudi ArabiaCo-authors: **Ahmed Hakami**, Exploration; Saudi Arabia**Ivan Leyva**, Exploration; Colombia**Clay Kurison**, Exploration; USA



### **Status and tendency of engineering technology in shale gas development within SINOPEC**

**Baoping Lu**, President, SINOPEC Research Institute of Petroleum Engineering, China

Co-authors: **Shidong Ding, Guangjun Ma**, SINOPEC, China

### **Unconventional shale and tight reservoirs of Argentina. Opportunities and challenges**

**Prof. Luis Stinco**, Professor, University of Buenos Aires, Argentina

Co-author: **Silvia Barredo**, University of Buenos Aires, Argentina

### **Latin American unconventional resources: How to turn opportunities into reality**

**Juan Miguel Moyano**, Upstream Director, ARPEL, Uruguay

Co-authors: **Ana Cristina Sanchez Thorin**, Equion; **Francisco Grosse**, Tecpetrol; **Pietro Milazzo**, Weatherford; **Stephen Wharton**, Tecpetrol; **Emmanuel D'Huteau**; **Gonzalo Lopez Nardone**, YPF

## **F02 Posters**

### **Southern Sichuan - A large shale gas region with a annual productive capacity of 30 billion cubic meters is emerging**

**Guo Wei**, Director, RIPED, China

Co-author: **Liu Honglin**, RIPED, China

### **Surface factors for break-even economics -hiding in plain sight!**

**Manas Satapathy**, Managing Director, Accenture Strategy, USA

Co-author: **Muqsit Ashraf**, Accenture Strategy, USA

### **The impact of shale, fundamentals and geopolitics on the crude oil imports mix: Analysis of three key countries**

**Bosco Marten**, Student, Comillas University, Spain

Co-author: **Jose Arroyo**, University Autónoma de Madrid, Spain

### **Exploration of unconventional oil shale resources in Iran: New advantages towards future potential**

**Mehrab Rashidi**, Head of Geochemistry Studies and Researches Department, NIOC, Shahid Chamran University, Iran

Co-authors: **Ali Shekari Frad**, Tehran University, Iran

**Manouchehr Daryabandeh**, NIOC, Iran;

**Mustafa Versay Kok**, METU, Turkey;

**Bahram Alizadeh**, Shahid Chamran University, Iran;

**Alireza Tahmasebi Sarvestani**, NIOC, Iran

### **Results of unconventional reservoirs completion in Poland**

**Dr. Kasza Piotr**, Department Manager, Oil and Gas Institute, Poland

Co-authors: **Mariusz Dziadkiewicz**, Polish Oil and Gas, Poland;

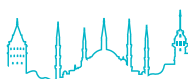
**Piotr Kenar**, Orlen Upstream, Poland

### **Emerging shale plays of Turkey**

**Hasan Armağan Derman**, Unconventional Resource Manager, Turkish Petroleum, Turkey

Co-authors: **Cem Karataş**; **Ayşe Güzel**; **Sezer Sevinç**, Turkish Petroleum, Turkey



**F03 – Managing upstream mega projects****Tuesday 11 July 14:15-15:45 (Hall 1)****Poster Session Wednesday 12 July 11:00-13:00 (Interactive Poster Plaza)**

Driven by the need to have access to new reserves, oil companies are increasingly investing in fields that are very challenging technologically and commercially, such as Arctic or deep water projects. The investment and continuing expenditure needed to develop and produce from these fields puts them in the realm of ‘megaprojects’, costing US\$5 billion or more. This forum will address execution risks and challenges related to delivering profitable megaprojects.

Chair: **Mag E. O’Neill**, Vice President, ExxonMobil Development Company, USA

Vice Chairs: **Dr. Chen Bi**, Vice President, CNOOC, China

**Zhakyp Marabayev**, Deputy Managing Director, North Caspian Operating Company, Kazakhstan

**F03 Papers****Advances in project leadership to meet the challenges of Mega-Projects**

**Toru Sogimoto**, Corporate HSE Manager, JGC, Japan

Co-authors: **Akira Kondo**, JGC, Japan

**Mike Goddu**, JMJ Associates, Singapore

**Managing fast track contract for handling high water cut in Kuwait Oil Company (KOC) - Challenges and approach**

**Parvez Hanif**, Senior Contracts Engineer, KOC, Kuwait

Co-author: **Mamoon Al-Ghawas**, KOC, Kuwait

**Arkutun-Dagi field development**

**Greg Russell**, Senior Project Manager, ExxonMobil, USA

**Project-to-asset: Smooth transition to operation. Operational readiness assurance**

**Gabriele Picheo**, Senior Consultant, Jacobs Consultancy, Netherlands

Co-author: **Wayne Grant Reed**, Jacobs Consultancy, UK

**F03 - Posters****Mastering technological and organizational challenges with effective project management: An exemplary view on the Mittelplate Beta South development project**

**Heiner Krueger**, Senior Project Scheduler, DEA AG, Germany

Co-author: **Thomas Flemming**, DEA AG, Germany

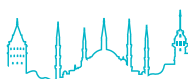
**Developing a geographical information system for managing CO2 sources and geological sinks for CO2 storage in Iran**

**Hossein Zangeneh**, Researcher, RIPI, Iran

Co-author: **Mohammad Parvazdavani**, RIPI, Iran

**The comprehensive adjustment innovation and practice of offshore complex fluvial heavy oil field**

**Su Yanchun**, Chief Reservoir Engineer, CNOOC, China



## F04 – New Technologies in production and development

**Tuesday 11 July 16:00-17:30 (Hall 1)**

**Poster Session Wednesday 12 July 13:30-15:30 (Interactive Poster Plaza)**

As hydrocarbons get tougher to find and extract, innovation and new technologies play an important role in becoming more efficient and cost-effective. Business necessities and advanced technologies that could drive changes to lower energy intensity for oil and gas production, operational integrity and intelligent field technologies, unconventional field development and reservoir recovery enhancement will be of importance. This forum will address the role of new technologies in production and development to overcome future challenges in finding, exploiting and commercializing oil and gas.

Chair: **Prof. Elmira Ramazanova**, Director, Scientific-Research Institute Geotechnological Problems of Oil, Gas and Chemistry, Azerbaijan

Vice Chairs: **Narendra Kumar Verma**, Managing Director and CEO, ONGC Videsh, India  
**Prof Abdulhameed Al-Hashem**, Director General, Petroleum Research Center (PRC), KISR, Kuwait

### F04 Papers

#### **Simulations & challenges of ESP application in high-GOR wells at South East of Turkey**

**Mrs. Muhlise Basak Buluttekın**, Production Engineer, TransAtlantic Petroleum, Turkey

Co-authors: **Burcu Ulusoy, Darcy Dorscher**, TransAtlantic Petroleum, Turkey

#### **Enhancing recovery of oil using nano particles- An overview**

**Ms. Shuna Sharma**, Engineer, AEE, ONGC, India

#### **Unconventional dry heat recovery enhancement of Wafra-Eocene using conventional temperatures**

**Dr. Waleed Al-Bazzaz**, Associated Research Scientist, KISR, Kuwait

Co-authors: **Abdulrahim Kamel; Abbas Talal; Khalifa Buresli**, KISR, Kuwait

#### **Simulation of Gel injection, Oil barrier and DWS methods in Water Coning Prevention in a conventional and tight reservoir**

**Masoud Riazi**, Associate Professor, Shiraz University, Iran

Co-authors: **Soroush Salmanpour**, Department of Petroleum Engineering, School of Chemical and Petroleum Engineering, Shiraz University, Shiraz, Iran

**Roozbeh Banaki, Mohammad Reza Malayeri**, Enhanced Oil Recovery (EOR) Research Center, School of Chemical and Petroleum Engineering, Shiraz University, Shiraz, Iran

### F04 Posters

#### **Research study of microbial processes converting residual oil into methane in depleted oil field for enhanced hydrocarbon recovery**

**Haruo Maeda**, Technical Advisor, INPEX Corporation, Japan

Co-authors: **Tatsuki Wakayama, Masayuki Ikarashi, Hideharu Yonebayashi**, INPEX, Japan

**Daisuke Mayumi, Satoshi Tamazawa, Hideyuki Tamaki, Susumu Sakata, Yoichi Kamagata**, Advanced Industrial Science and Technology

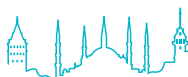
**Noriko Osaka; Takeshi Iida**, Tokyo Gas, Japan

#### **Some aspects of the development oil fields**

**Prof. Tulparkhan Salavatov**, Chief of Reservoir Engineering, Azerbaijan State Oil and Industry University, Azerbaijan

Co-authors: **Elmira Ramazanova**, SRI of Geo-technological problems of Oil and Gas and Chemistry, Azerbaijan  
**Rafael Mammadzade, Aziz Mammadov**, Azerbaijan State Oil and Industry University, Azerbaijan



**Petroleum Economic Evaluation – Usage of technology to make smart E&P decisions**

**Thomas Kesi**, SAP, UK  
Co-authors: **Arif Abdullah**, SAP, Germany  
**Surendra Jajal**, SAP, UAE  
**Stephan Klein**, SAP, Germany  
**Krishanu Bhattacharya**, Senior Vice President, SAP, UK

**Real time prediction of the rheological parameters of NaCl water-based drilling fluid using artificial neural networks**

**Dr. Salaheldin Elkatatny**, Assistant Professor, King Fahd University of Petroleum and Minerals, Saudi Arabia

**The SINOPEC's new development in Ultra-Deep Drilling technologies**

**Jinshuang Zhang**, Director, SINOPEC, China  
Co-authors: **Xinming Niu**; **Lianzhong Sun**, SINOPEC, China

**From domestic tar sand and heavy oils to middle distillates: SCH20 as an alternative upgrading technology**

**Ramazan Oğuz Canıaz**, R&D Superintendent, TUPRAS, Turkey  
Co-authors: **Serhat Arca**, TUPRAS, Turkey  
**Can Erkey**, Koç University, Turkey

**Deriving efficient operations and production uplift through advances in technology**

**Dr. Dayo Oyerinde**, Research Manager, ExxonMobil, USA

**Deterministic fracture network modeling by super resolution microseismic imaging and its impacts on fracturing design, a case study of Eagle Ford shale**

**Dr. Yusuke Kumano**, Research Manager, JAPEx, Japan  
Co-authors: **Mamoru Nakata**; **Tetsuya Tamagawa**, JAPEx, Japan

**Evaluation of Reservoir Dynamic Connectivity Based on Drainage Area Estimation**

**Dr. Abdulaziz Al-Qasim**, Petroleum Engineer, Saudi Aramco, Saudi Arabia

**The Feasibility Appraisal for CO<sub>2</sub> Enhanced Gas Recovery of Tight Gas Reservoir: Case Analysis and Economic Evaluation**

**Ying Jia**, Senior Engineer, E&P Research Institute, SINOPEC, China  
Co-authors: **Yunqing Shi**, **Lihong Yang**, **Yeqian Huang**, **Xiuzi Wang**, E&P Research Institute, SINOPEC, China

**F05 – Geoscience technology and innovation**

**Wednesday 12 July 14:15-15:45 (Hall 1)**

**Poster Session Thursday 13 July 11:00-13:00 (Interactive Poster Plaza)**

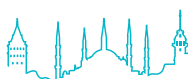
This forum will address innovations and technology development within the geoscience area from outcrops to assets, ranging from exploring hydrocarbons to effective production. The challenge is to develop cost-effective and environmentally friendly technologies that tackle issues such as seismic imaging advances, hydrocarbon phase prediction, complex reservoirs, rock mechanics, reservoir management and production forecasting to improve the industry's ability to predict.

**Chair:** **Saleh M. Saleh**, Manager, Area Exploration, Saudi Aramco, Saudi Arabia  
**Vice Chair:** **Dr. Michael Peter Suess**, Head of Subsurface Technology and Innovation, Wintershall, Germany

**F05 Papers****Seismic acquisition and imaging in Saudi Aramco: Challenges and opportunities**

**Saleh Almaghlouth**, Manager, Saudi Aramco, Saudi Arabia





### **Modelling and optimization technologies - A competitive edge in hydrocarbon recovery**

**Robert Kleibergen**, Programme Director PetroSigns, Shell, Netherlands

### **Assessment of facies distribution in carbonate fields using stratigraphic forward, diagenetic and seismic modelling**

**Dr. Didier Granjeon**, Project Leader, IFPEN, France

Co-authors: **Cedric Pellan**, Repsol CTR, Spain

**Mickael Barbier**, IFPEN, France

### **Predicting the impact of natural fractures on reservoir performance**

**Ms. Sarah R. Pietraszsek-Mattner**, Exploration Manager, ExxonMobil Exploration Company, USA

Co-authors: **James W. Barron**, PhD, **Rodrick D. Myers**, PhD, **Jean-Christophe Sempere**, ExxonMobil Upstream Research, USA

**David J. Moreton**, PhD, ExxonMobil Exploration Company, USA

## **F05 Posters**

### **Application of prestack inversion in hydrocarbon detection of fracture-vuggy carbonate driven by Rock Physics modeling**

**Qiang Xian**, Engineer, BGP,CNPC, China

Co-authors: **Xukui Feng**, **Yonglei Liu**, **Dong Lv**, **Zujun Wang**, **Lei Wang**, **Chenguang Zhou**, BGP,CNPC, China

### **Know what is down there! – LWD formation testing and sampling improves reservoir understanding while drilling**

**Dr. Svenja Erdmann**, Geoscientist, Baker Hughes, Germany

Co-authors: **Nicklas Ritzmann**, **Ansgar Cartellieri**, **Jos Pragt**, **Tobias Kischkat**, Baker Hughes, Germany

### **Treatment of near surface heterogeneities**

**Dr. Abdulaziz Almuheidib**, Research Geophysicist, Saudi Aramco, Saudi Arabia

### **Application of artificial intelligence to develop a new empirical correlation for unconfined compressive strength of carbonate reservoirs**

**Dr. Salaheldin Elkatatny**, Assistant Professor, King Fahd University of Petroleum and Minerals, Saudi Arabia

### **Determination of gas reservoirs by passive seismic methods in the Thrace Basin (northwestern Turkey)**

**Mrs. Burcu Selek**, Geophysical Engineer, Turkish Petroleum, Turkey

Co-authors: **Bülent Kaypak**, Ankara University, Turkey

**Sait Baytok**, **Can Önen**, Turkish Petroleum, Turkey

### **Evaluation of laminated shaly sand sequences in Iranians oil field using (via) High Resolution Square Logs**

**Saeed Parvizi Ghaleh**, Student, Sahand University of Technology, Iran

Co-authors: **Ali Kordavani**, **Yahya Qanbari**, NISOC, Iran

### **From 3D outcrop models to reservoir models**

**Julien Schmitz**, Technician Geologist, IFPEN, France

Co-authors: **Philippe Joseph**, **Olivier Lerat**, **Brigitte Doligez**, **Youri Hamon**, **Jean Marie Mengus**, IFPEN, France  
**Bertrand Coureaud**, ENGIE, France

Deschamps Remy, Philippe Joseph, Olivier Lerat, Brigitte Doligez, Youri Hamon, Jean Marie Mengus, IFPEN, France

### **Seismic interpretation of the deeply buried, intensely cemented reservoir sandstones**

**Ms. Aurelia Zajac**, Research assistant, AGH University of Science and Technology, Poland

Co-authors: **Tomasz Maćkowski**, **Wojciech Górecki**, AGH University of Science and Technology, Poland

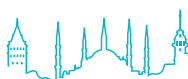
### **Technical challenges and geological hazards while drilling in salt doms**

**Dr. Pedram Rafiee**, Chief Geologist, Dana Energy, Iran

Co-Author: **Vahid Daneshkhah**, Dana Energy, Iran

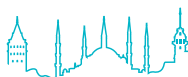




**Nano-capillary measurement through “Big Data” pore scale imaging****Dr. Waleed Al-Bazzaz**, Associated Research Scientist, KISR, KuwaitCo-Author: **Abdulaziz Al-Mukaimi**, KISR, Kuwait**F06 – IOR / EOR – maximising the development of mature fields****Wednesday 12 July 16:00-17:30 (Hall 1)****Poster Session Thursday 13 July 13:00-15:00 (Interactive Poster Plaza)**

More than 70% of the world’s remaining conventional reserves are contained in fields that are already in production. The industry is faced with developing and implementing profitable technologies and solutions to extract more oil from these mature oil fields. This forum will provide practical examples of how successful IOR and EOR in combination with new reservoir-management techniques and technologies, production optimization, drilling and side-tracking, and facilities can enhance recovery and increase efficient management of mature fields in a cost effective way.

Chair: **Dr. Tomomi Yamada**, General Manager, Iraq Project Dept, Middle East, Africa and Europe Div., JAPEX, JapanVice Chair: **Robert Kleibergen**, Programme Director PetroSigns, Shell, Netherlands  
**Dr. Torsten Clemens**, Senior Reservoir Engineer Adviser, OMV E&P, Austria**F06 Papers****Optimization of recovery in waterfloods with bang-bang control in reservoirs with subsidence and uplift****Mrs. Gülcan Türkarlan**, Reservoir Engineer, Schlumberger, TurkeyCo-author: **Cenk Temizel**, AERA (Shell-ExxonMobil JV), USA**Önder Saraçoğlu**, Energeyes Consultancy, USA**Taskin Sen**, RTC Kimya, Turkey**History of a commercially successful gas-based IOR in Japan: 12 years’ challenge on maximizing the profit of offshore oil and gas field by optimizing allocation of gas volume between sale and injection****Shinichi Koshi**, Reservoir Manager, JAPEX, JapanCo-authors: **Takafumi Yamakawa, Yoko Takahashi, Fumiya Sugita, Ryo Ueda, Koji Hosokoshi**, JAPEX, Japan**The study and pilot on heterogeneous combination flooding system for high recovery percent of reservoirs after polymer flooding****Prof. Xulong Cao**, President, RIPED, SINOPEC, ChinaCo-authors: **Lanlei Guo, Hongyan Wang, Cuihua Wei, Yu Liu**, SINOPEC, China**Nanosilica based fluid system for water shut-off****Ayman Almohsin**, Petroleum Engineer, Saudi Aramco, Saudi ArabiaCo-authors: **Jin Huang; Prasad Karadkar****Mohammed Bataweel**, Saudi Aramco, Saudi Arabia**F06 Posters****Research progress and applications of EOR techniques in SINOPEC****Prof. Bingyu Ji**, Chief Engineer, Petroleum Exploration & Production Research Institute, ChinaCo-authors: **Youqi Wang, Hongmin Yu, Li Zhang, Jun Nie, Qiang Wang**, Petroleum Exploration & Production Research Institute, China**Successful experiences in Brownfields Rejuvenation in Mexico. Maximizing the value of mature producing assets****Alberto Ochoa**, E&P Technical Manager, DIAVAZ, MexicoCo-Authors: **Silvano Dalessio, Luis Zagaglia**, DIAVAZ, Mexico



### **Open multi-scale carbonate geological model for enhancing IOR/EOR workflows**

**Dr. Alexander Darishchev**, Postdoctoral Research Associate, Texas A&M University, Qatar

Co-authors: **Dominique Guerillot**, Texas A&M University, Qatar  
**Jérémie Bruyelle**, Terra3E, Qatar

### **A novel characterization and optimization workflow for waterflooded reservoirs: Interwell connectivity mapping & production optimization**

**Mustafa Erkin Gozel**, Reservoir Engineer, Turkish Petroleum, Turkey

Co-author: **Serhat Akin**, METU, Turkey

### **A successful ASP pilot implementation in Caracara Sur oil field: an integrated and multidisciplinary project**

**Jesús Montes**, EOR Technical Coordinator, CEPSA E&P, Spain

Co-authors: **Enrique Yuste**, **Hernando Mayorga**, **Sergio Andrés Bonilla**, **Guillermo Quintanilla**, CEPSA, Spain

### **Assessment of EOR chemicals back-production possible impact on upstream facilities**

**Dr. Abdulkareem AlSofi**, Petroleum Engineer, Saudi Aramco, Saudi Arabia

Co-authors: **Gusai AlAithan**, **Ali AlKhatib**, **Hassan AlAjwad**, **Qiwei Wang**, **Badr AlZahrani**, **Alhasan Fuseni**, Saudi Aramco, Saudi Arabia

### **Nanoparticles for EOR purposes: State of art, opportunities and challenges**

**Masoud Riazi**, Associate Professor, Shiraz University, Iran

Co-authors: **Y. Kazemzadeh**, **M. Sharifi**, Amirkabir University, **M. Reza Malayeri**, Shiraz University, Iran

### **In-Situ combustion site test in Xinjiang Oil Field**

**Kanni Zhati**, Field Engineer, CNPC, China

Co-authors: **Long Chen**, **Jingjun Pan**, **Ruyan Wang**, **Gang Cai**, **Jianjun Liang**, **Xiao Song**, **Lin Ji**, CNPC, China

### **Techno-economic-environmental-safety analysis on solar thermal EOR vis a vis conventional EOR: A case study on value engineering**

**Ajay Kumar**, Superintending Engineer, ONGC, India

Co-authors: **Gaurav Dubey**, **Anoop Yadav**, **YC Shukla**, ONGC, India

## **Round Tables**

### **RT1 – Exploration and production cost efficiency-building resilience**

#### **Monday 10 July 15:15-16:15 (Hall 1)**

During the past 30 years there have been three major cycles of a sharp run-up in world crude oil (and gas) prices followed by a steep decline. In such a volatile environment, a strategy focused on being a low cost producer can be critical in building the resiliency and sustainability of the business. This roundtable will discuss learnings from companies and projects that have taken extraordinary steps to capture efficiencies in capital expenditures and operating expenses to reduce supply costs and to improve operating margins

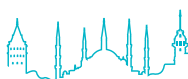
Moderatör: **Tor Fjaeran**, Vice President of Programme

Panelist: **Dr. Ali Misaghi**, Managing Director and Chairman, Tavana Energy, Iran

**Dirk Warzecha**, COO, DEA Deutsche Erdoel AG, Germany

**Juan Miguel Moyano**, Upstream Director, Arpel



**RT2 – Bridging other industry techn****Tuesday 11 July 12:00-13:00 (Hall 1)**

This roundtable will be about learning from other industries by sharing experiences, new technologies and best practices, and by approaching the issues in a new and alternative way. Innovative industries as for example pharmaceutical, automotive, aerospace, banking and IT are all facing and addressing challenges somewhat similar to the petroleum upstream industry. Close cooperation across industries has and will continue to generate new ways of solving problems and stimulate innovative solutions beneficial to more than just one industry.

Moderator: **Eric Koenig**, VP, O&G Strategy & Marketing, Schneider Electric, France

Panelist: **Nabeel AlAfaleg**, Chief Petroleum Engineer, Saudi Aramco, Saudi Arabia

**David Brower**, President and CEO, Astro Technology, USA

**Philippe Audrain**, Business Development and Sales Director, Energy Process & Utilities, Dassault Systems, France

**Olivier Benyessaad**, Offshore Business Development Manager, Bureau Veritas, France

**RT4 – Upstream portfolio development in cyclic business environments****Thursday 13 July 12:00-13:00 (Hall 1)**

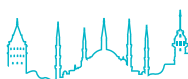
Oil price volatility is very challenging for the industry. A low oil price environment demands a focused approach based on high quality decision making in order for companies to maximize returns and achieve their performance targets. Success requires recognition of uncertainty and practical strategies for the minimization or mitigation of risk to ensure delivery of projects within budget and to generate predictable cash flows. This roundtable will be a discussion around issues such as creating portfolio robustness and development, balancing short and long term value and shareholders perspectives.

Moderator: **Graham Talbot**, Executive Vice President & CFO, Maersk Energy Division, Denmark

Panelists: **Emma Cochrane**, Vice President, Upstream Strategic Planning – Upstream Companies, Exxon Mobil, USA

**Rob Hull**, Director of Technology - Global Technical Solutions, Halliburton, USA

**Adi Karev**, Partner, Global Sector Leader, Oil & Gas, Ernst& Young, Hong Kong



## BLOCK 2. REFINING, TRANSPORTATION AND PETROCHEMISTRY

### F07 – Competitive refining technologies

**Monday 10 July 13:30 - 15:00 (Hall 2)**

**Poster Session Tuesday 11 July 11:00-13:00 (Interactive Poster Plaza)**

This Forum focusses on improving the economics of refinery processes in order to make them more competitive. This can be done in particular through energy savings and efficient feedstock utilization. Both are strongly related to improved catalysts and optimized separation steps (distillation, molecular sieve separation or membrane separation, process intensification). The Forum will also showcase optimization of processes with respect to matching the product yields and specifications with the market demands, based on the feedstock available. Typical examples are gasoline vs. diesel yield, octane number, sulphur and hydrogen management etc.

Chair: **Prof. Meena Marafi**, Executive Director - Petroleum Research Center, KISR, Kuwait  
Vice Chair: **Dr. Carl Mesters**, Chief Scientist Catalysis & Chemistry, Shell International Exploration & Production, USA

#### F07 Papers

##### **Impact of crude oil quality on downstream refining processes**

**Dr. Abdulazim Marafi**, Senior Researcher, KISR, Kuwait

##### **From solution to commercial hydrocracking unit: A successful catalyst development story**

**Dr. Omer Koseoglu**, Principal Professional, Saudi Aramco, Saudi Arabia

Co-authors **Mitsunori Watabe**, JGC C&C, **Suheil Abdo**, UOP, USA

##### **Homogeneous catalysis as a promising route to reduce bottom of the barrel**

**Madan Kumar Kumaravelan**, Senior Engineer, Hindustan Petroleum, India

Co-authors: **Praveen Kumar Singh; Pramod Kumar; Peddy V. C. Rao; Gandham Sriganesh**, Hindustan Petroleum, India

#### Posters

##### **Reduction of coke yield in Delayed Coking process through use of additive**

**Hari Venkata Devi Prasad Terapalli**, Deputy Manager, Indian Oil Corporation, India

Co-authors: **Pradeep Ponoly Ramachandran, Satyen Kumar Das, Debasis Bhattacharyya, Sri Venkata Ramakumar Sankara**, Indian Oil, India

##### **Maximizing diesel and hydrogen in refinery with minimum CAPEX**

**Tirupati Naidu Avu**, Chief Manager, Hindustan Petroleum, India

Co-authors: **G. Venkata Madhav; K. Vijaykiran; B. Balagangadharam**, Hindustan Petroleum, India

##### **Identifying opportunities in Petrochemical plants through data analysis – A Case Study**

**Dr. Prasanna Pathath**, Staff Scientist, SABIC, Saudi Arabia

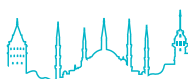
Co-authors: **Venugopal BV; Satish Angadi**, SABIC, India; **Hatem Belfadhel**, SABIC, Saudi Arabia

##### **New advances in ULSD producing**

**Dr. Rong Guo**, Professor, SINOPEC, China

Co-authors: **Xiangchen Fang, Yong Zhou, Chengmin Yang**, SINOPEC, China



**Low-grade Diesel Hydro-upgrading and LCO Hydro-conversion technology**

**Dr. Chong Peng**, Senior engineer, SINOPEC, China

Co-authors: **Ronghui Zeng; Xinlu Huang; Yanze Du; Rong Guo; Xiangchen Fang**, SINOPEC, China

**Heavy crude oils compositional characterization using comprehensive two-dimensional gas chromatograph; a tool for improving refining processes**

**Dr. Hassan Al-Rabiah**, Associate Research Scientist, KISR, Kuwait

Co-authors: **Latifa Al-Ostad, Abdullwahab Al-Hendi, Tahani Al-Shamary, Hisham Al-Henayyan, Roaya Khazemi**, KISR, Kuwait

**Commercial Operation Result for Chiyoda Thoroughbred Hybrid Titania (CT-HBT) Catalyst for Hydrodesulfurization**

**Satoshi Morikami**, Refinery, Petrochemical & New Energy Unit General Manager, Chiyoda Corporation, Japan

Co-authors: **Yasuhiro Ueda, Yukitaka Wada, Dai Takeda, Akihiro Muto**, Chiyoda Corporation, Japan  
**Kazutomo Yamura**; Yusuke Segawa, Seibu Oil, Japan

**Preparation and characterization of modified PVA/Chitosan/Glutaraldehyde membrane with TiO<sub>2</sub> nanoparticles for pervaporation of benzene/cyclohexane mixture**

**Ms. Nasrin Alijan** Beikzand, Expert, OIEC, Iran

**How to find more markets for your GTL diesel**

**Mostafa Shahin**, Lead Process Engineer, ORYX GTL, Qatar

**C9 side stream utilization**

**Ms. Mónika Péter**, Product Development Engineer, MOL Group, Hungary

**F08 – Integration of the refining and petrochemical industry**

**Monday 10 July 16:15-17:45 (Hall 2)**

**Poster Session Tuesday 11 July 13:30-15:30 (Interactive Poster Plaza)**

Integrating refining and petrochemical sites will help fight volatility in the petroleum value chain. If properly planned and implemented, integration not only diversifies the product portfolio, but reduces site specific costs, increases capital efficiency and increases returns. This Forum will demonstrate through practical case studies how the strategic planning of aromatics/fuels/olefin conversion units with a common utility management system capture long term business benefits.

Chair: **Miika Eerola**, Group Production SVP, MOL Group, Hungary

Vice Chairs: **Oscar Chamberlain**, R&D Downstream Manager, Petrobras, Brazil

**Gandham Sriganesh**, Executive Director, Visakh Refinery, Hindustan Petroleum Corporation, India

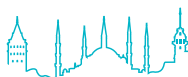
**F08 Papers****From crude oil to steam cracker: how petrochemical naphtha quality drives the simultaneous refinery and petrochemicals optimization**

**Balázs Balaskó**, Group Modelling Manager, MOL Group, Hungary

**Integration of refinery and petrochemicals with “over the fence” supply of gas utility molecules at Bharat Petroleum Corporation, India**

**Prasad Panicker**, Executive Director, Bharat Petroleum, India

Co-author: **Chacko Jose**, Bharat Petroleum; India



### **Strategic expansion for petrochemical generation via valorization of low value streams in refinery: Case Study**

**Vineet Bakshi**, Deputy Process Manager, Engineers India, India  
Co-authors: **Anil Kumar, Manoj Kumar**, Engineers India, India

### **FCA (Fluid Catalytic Aromaforming): A newcomer to processes for producing BTX**

**Yasuyuki Iwasa**, Assistant Manager, JXTG Nippon Oil & Energy, Japan  
Co-author: **Soichiro Takano**, Chiyoda Corporation, Japan

## **F08 Posters**

### **FCC as a gateway for Refining/petrochemical Integration**

**Srivardhan Grandhi**, Senior Engineer, Engineers India, India  
Co-authors: **Rajasekhar Mallaramu, Rajeev Nambiar, S. C. Gupta, Sheoraj Singh, Vartika Shukla**, Engineers India, India

### **Maximisation of P-Xylene yield in integrated refinery & petrochemical complex using nonlinear regression and statistical analysis**

**Srinivas Moturi**, Deputy Manager Mangalore Refinery & Petrochemicals Limited (MRPL), India  
Co-authors: **Satyavaraprasad Ganji**, Mangalore Refineries and Petrochemicals, India  
**Deepthi Chowdary Upputuri**, ONCS Mangalore Petrochemicals Limited (OMPL), India

### **Cold oil absorption technology for recovery of refinery dry gas**

**Jingsheng Zhang**, Senior Engineer SINOPEC, China  
Co-authors: **Dongfeng Li, Jianmin Cheng, Lihua Liao, Liang Guo, Zhixin Liu**, SINOPEC, China

### **Fuel and Light Olefins Production by Catalytic Cracking of Atmospheric Distillation Residue over Modified Zeolite**

**Dr. Mohammed Al-Kinany**, Expert, King Abdulaziz City for Science and Technology, Saudi Arabia  
Co-authors: **Hamid Almegren, Bandar Al-Hudaib, Abdulaziz Al-Gashem, Ali Algarni, Khalid Alshamrani, Sami Al-Zahrani**, King Abdulaziz City for Science and Technology, Saudi Arabia  
**Peter Edwards, Tiancun Xiao**, University of Oxford, UK

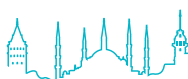
### **Restoring gases emission with approach of CO<sub>2</sub> capture ;( Case Study: Petrochemical & Refineries in PSEEZ)**

**Dr. Ali Rahneshin**, Senior Foreign Purchasing, Borzouyeh Petrochemical Complex (BPC), Iran  
Co-authors: **Peyman Razmjoo; Korosh Pakbin**, Borzouyeh Petrochemical Complex, Iran

### **Research and performance analyses of FAU-structured zeolites during alkylation of isobutane by olefins**

**Ms. Agyul Shadrina**, Student, Ufa State Petroleum Technological University, Russia  
Co-authors: **Artur Davletshin; Rishat Shiryazdanov**, Institute of Petroleum Refining and Petrochemistry, Russian Federation

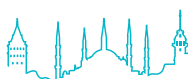


**F09 – Oils and products storage and transportations****Tuesday, 11 July 14:15-15:45 (Hall 2)****Poster Session Wednesday 12th July 11:00-13:00 (Interactive Poster Plaza)**

The Forum will discuss the best practices in cross-border pipeline management considering the safety and reliability factors. It will also include subsea pipelines, storage systems, maritime transportation, and tanker terminals. The Forum will look into the impact of storage capacities and locations on local processing capacities. The ultimate target of this Forum is to share ideas on facilitating transportation from the producers to the consumer markets.

**Chair:** **Liv Hovem**, Director of Division Europe and Africa, Oil & Gas, DNV - GL, Norway**Vice Chairs:** **Anand Kumar Tewari**, Executive Director, Indian Oil Corporation, India**Papers****Optimum transportation method for development of extra heavy crude oil****Tomoki Kayukawa**, Senior Research Engineer, JGC, JapanCo-authors: **Hisato Aoyama; Takayoshi Fujimoto**, JGC, Japan**Optimized products inventory for improved working capital management****Shailendra Mohite**, Senior Engineer, Kuwait Petroleum International, Kuwait**Strategic petroleum reserves: An energy security initiative of India****Dr. Ranjit Rath**, Assistant General Manager, Engineers India, IndiaCo-authors: **Amanpreet Chopra; Atul Nanda**, Engineers India; **HPS Ahuja**, Indian Strategic Petroleum Reserves, India**Experimental investigation of two phase flow in horizontal pipes: Oil-water and oil-polymer, flow regime assessment and pressure drop modification****Reza Shams**, Student, Sharif University of Technology, IranCo-author: **Saeed Shad**, Sharif University of Technology, Iran**F09 Posters****A case of operating a pipeline susceptible to fatigue failure of Double Submerged Arc (DSAW) long seam****S S Gupta**, Deputy General Manager, Indian Oil, IndiaCo-author: **Santosh Kumar A R**, Indian Oil, India**Research on distributed fiber pre-warning system based on coherent rayleigh for pipelines****Yunbin Ma**, Department Manager, Petrochina, ChinaCo-authors: **Yan Zhou; Dongjie Tan; Xiaozhong Tian**, PetroChina, China**HP gelators and hydrophobic soft materials - A potential solution for oil spillage remediation and recover****Dr. Ravishankar Raman**, Chief Manager, Hindustan Petroleum, IndiaCo-authors: **Siva Kesava Raju Chinthalapati, Peddy V. C. Rao, Gandham Sriganesh, Ramesh Kandanelli**, Hindustan Petroleum, India**Ram Kumar Mangala; Bhaskar Pramanik**, HP Green R&D Center, India**With the application of new technology and management methods to ensure the safety of oil and gas pipeline operation****Weibin Wang**, Senior engineer, Shenyang Longchang Pipeline Survey Center, China





## F10 – New marketing approaches for delivering products to consumers

**Tuesday, 11 July 16:00-17:30 (Hall 2)**

**Poster Session Wednesday 12 July 13:30-15:30 (Interactive Poster Plaza)**

The oil industry foresees major changes to approach customers. This Forum will look at the integration between trading and refining activities, with oil companies looking for asset-backed trading whilst traders are gaining importance as new refining and retail players. New independent companies are also appearing in the retail business with new business models. The importance of the non-oil business is growing in service station networks, whilst low-cost models are increasing their market share. Additionally, Big Data management enables new delivery and marketing strategies, developing personalized promotions. The retail business also faces the challenge to integrate the traditional service station networks with new model developments, making room for alternative fuels for vehicles.

**Chair:** **Lourdes Rodríguez**, Executive Director Trading and Gas & Power, Repsol, Spain

**Vice Chair:** **Jan (Williem) Van Der Bremen**, Senior Managing Director, Accenture, Netherlands

### Papers

#### **Beyond the product**

**Rich Kho**, Managing Director, Accenture, UK

Co-author: **Fergal Madigan**, Accenture, UK

#### **Joint optimization of retail station operation and secondary distribution with utilization new business models**

**Dr. Máté Zöldy**, Market Operation Regional Leader, MOL Group, Hungary

Co-authors: **Csaba Kürti, Gábor Egresits**, MOL Group, Hungary

#### **Agility approach to facilitate supply chain: Case studies from oil industry**

**Mehmet Akif Çalimli**, Specialist, Turkish Petroleum, Turkey

### F10 Posters

#### **Opportunities and challenges in the Sub-Sahara African petroleum value chain**

**Johnstone Chikwanda**, Chairperson of the Board of Directors, Indeni Petroleum, Zambia

#### **The optimal scheduling of products pipeline based on Big Data**

**Haoran Zhang**, Student, China University of Petroleum, Beijing, China

Co-authors: **Bohong Wang, Yun Shen, Meng Yuan, Yongtu Liang, Zhigang Duan**, China University of Petroleum, China

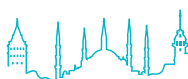
#### **Can successful loyalty programs sustain profitability in the oil industry?**

**Manar Al-Murad**, Marketing Analyst, Kuwait Petroleum International, Kuwait

#### **End to end supply chain solutions for delivering products to consumers in oil industry**

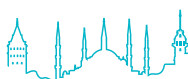
**Ms. Shalini Tiwari**, Deputy Manager, Engineers India, India



**F11 – Products of the future****Wednesday 12 July 16:00 – 17:30 ( HALL 2)****Poster Session Thursday 13 July 11:00-13:00 (Interactive Poster Plaza)**

When we look at a low carbon future most forget about the petrochemical industry or refinery of the future producing polymers, pharmaceutical and fuels. There are many possible biological building blocks including crops and algae. There are also a number of processes using CO<sub>2</sub> as a feedstock. The latter could be a potential solution but it all depends on thermodynamics and the energy mass balance. This Forum will look at all the feasible technologies for the future.

**Chair:** **Mrs. Nathalie Brunelle**, SVP Corporate Affairs - Refining & Chemicals, TOTAL, France**Vice Chairs:** **Fuad Mosa**, General Manager, Sabic Innovation and Technology, Saudi Arabia**Prof Dr. Slobodan Sokolovic**, Vice President, NPC of Serbia, Serbia**F11 Papers****Unlocking the potential of fuel to enable sustainable transport****Dr. Amer Ahmad Amer**, Chief Technologist, Saudi Aramco, Saudi Arabia**Solar fuels by photo and Photo- electro catalytic reduction of carbon dioxide****Dr. Ramesh Kanaparthi**, Manager, Hindustan Petroleum, India**Co-authors:** **Ravishankar Raman, V Jeyalakshmi, P S Ramesh, Peddy V. C. Rao, Sriganesh Gandham**, Hindustan Petroleum, India**B Viswanathan, K Krishanmurthy**, IIT, India**SABIC's certified renewable polyolefins****Peter De Witte**, Scientist, SABIC, Netherlands**Co-author:** **Christoph Roosen**, SABIC, Netherlands**An overview of the oil-to-chemicals pathway****Fuad Mosa**, General Manager, Sabic Innovation and Technology, Saudi Arabia**F11 Posters****Carbon dioxide utilization to value added chemicals****Dr. Ajay Arora**, Chief Research Manager, Indian Oil, India**Co-author:** **Krishnarao Lopinti, Meeta Sharma, Suresh Puri, Sanjeev Majumdar**, Indian Oil, India**Economic corridor thriving on hydrocarbon industrial waste stream ; Opportunity to lower GHG emissions & crude import****Vineet Bakshi**, Deputy Process Manager, Engineers India, India**Co-authors:** **Amanpreet Chopra; Grandhi Srivardhan; Vartika Shukla**, Engineers India, India**System and catalyst development for hydrogen production from organic hydrides****Dr. Hideshi Iki**, Principal Researcher, JX Nippon Oil & Energy, Japan**Co-author:** **Kazunori Miyazawa, Yasushi Mizuno, Satoshi Furuta, Shouichi Tsukagoshi, Tomomi Nagatsuka, Yuichiro Hirano**, JXTG Nippon Oil & Energy, Japan**Fuels with high hydrogen content in their molecular structures****Dr. Jenő Hancsók**, Professor, Pannon University, Hungary**Co-author:** **Zoltán Varga**, Pannon University, Hungary



## Petroleum refinery as plastic waste management hub

**Chayan Bhalla**, Deputy Manager, Mangalore Refinery and Petrochemicals, India )

Co-author: **Raj Mohan Bala**, National Institute of Technology, India

## Application of Lotka-Volterra equations in Biomass versus Petrol and their environmental impact

**Juan Alberto Vera** Herrera, Student, Universidad Rey Juan Carlos, Mexico

### Round Tables

#### RT5 – Delivering successful downstream projects

##### Monday 10 July 15:15 – 16:15 (Hall 2)

Delivering downstream capital projects within-budget / on-time in today's volatile business environment is of paramount importance. With case studies, this Roundtable discussion will give pragmatic guidance how to prioritize project objectives, phase design stages, evaluate costs, source and conclude EPC contractors and implement construction. Special emphasis will be given to exploring the technical and leadership competencies of project personnel and management to properly mitigate risks throughout large scale refinery and petrochemicals projects.

Moderator: **Lalit Kumar Gupta**, MD&CEO, Essar Oil&Gas, India

Panelists: **Abdulrahman Al-Warthan**, Manager, Saudi Aramco, Saudi Arabia

**Emil Eminov**, Chief Operations Officer, SOCAR Turkey, Turkey

**Dr. S.S.V. Ramakumar**, Director R&D, IOCL, India

**Arthur Thernez**, Member of Congress Programme Committee Member, WPC, Hungary

**Prof. Slobodan Sokolavic**, Vice President, NPC Serbia

#### RT6 – Asset management in refining and petrochemicals

##### Tuesday 11 July 12:00 – 13:00 (Hall 2)

It is essential that modern and aging refineries are operated in a safe, efficient and environmentally acceptable manner. In general, a PDCA cycle, including maintenance planning, implementation of repair and replacement, operation of improved facilities and evaluation of maintenance, is introduced for asset management in consideration of financing and human resources. The panel will share examples of operational excellence for asset management in refineries and their implementation in software and hardware, including capital management, human resources and preparation for disaster response.

Moderator: **Hatem Belfadhel**, Director, Chemical Plants Improvements, SABIC, Saudi Arabia

Panelists: **LK Vijh**, Executive Director, Technical, Engineers India Limited, India

**Miika Eerola**, Group Downstream Production Senior Vice President, MOL, Hungary

**Albdulazim Marafi**, Senior Researcher Kuwait Institute for Scientific Research(KISR), Kuwait

#### RT7 – Outlook of the downstream industries

##### Wednesday 12 July 14:15 – 15:45 (Hall 2)

This panel will focus on current trends and emerging technologies in the downstream industries, including business challenges arising from the increasing use of sustainable first and second generation biofuels and from the advent of new mobility concepts, such as electrical and hydrogen mobility. Changes in the demand and supply pattern resulting from these changes, novel feedstock options and diversification for the downstream industry is also covered in this discussion. It will also address the production capacities and demands in the local and global markets for the refinery and petrochemical industry.

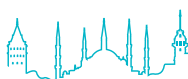
Moderator: **Csaba Zsótér**, Head of Group Feedstock Supply & Trade, MOL Group, Hungary

Panelist: **Vinod Shenoy**, Director-Refineries, Hindustan Petroleum Corporation Limited, India

**Nathalie Brunelle**, SVP Corporate Affairs Refining, Total, France

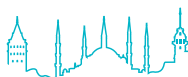
**Mehmet Akif Calimli**, Specialist, Turkish Petroleum, Turkey



**BLOCK 3. NATURAL GAS PROCESSING, TRANSPORTATION AND MARKETS****F12 – Opening up new uses and applications for gas****Monday 10 July 13:30 – 15:00 (Hall 3)****Poster Session Tuesday 11 July 11:00-13:00 (Interactive Poster Plaza)**

Consumption of gas is increasing faster than oil or coal. In order to feed the increased demand for gas, we need to search for technology innovations beyond the shale gas revolution, which can unlock new sources such as hydrates and hydrogen, develop new processes for unconventional gas, CBM and GTL, as well as focus on new applications such as CHP. What impact do these new technologies have on the usage of gas in transportation, mobility and power generation?

Chair: **Mrs Meriem Mokrani**, Senior Vice President Operations, Engie, FranceVice Chair: **Makoto Yasui**, General Manager, Technology Development Unit, Chiyoda Corporation, Japan**F12 Papers****Gas Grows Up - new markets and applications****Ms. Melissa Stark**, Managing Director, Accenture, UK**Green natural gas - well in reach****Olav Skalmernaas**, Vice President, Statoil, Norway**Expanding natural gas footprint in the Indian energy market****Rajeev Mathur**, Managing Director, Mahanagar Gas, India**How Selective Oxidation technologies can open up new options for exploiting Ethane and Propane from Shale gas****Dr. Srikant Gopal**, Lead Scientist, SABIC, Saudi ArabiaCo-authors: **Turki Al-Smari, Mohammed Al-Hazmi**, SABIC, Saudi Arabia**F12 Posters****Creating new demand for gas****Andrew Brogan**, Partner, EY, UKCo-authors: **Drew Krasnov**, EY, UK**The analysis and research on natural gas extension and utilization prospects****Mrs. Xinchun He**, Executive Assistant, CNPC, ChinaCo-authors: **Hualin Zhang; Zhen Wang**, CNPC, China**Yongjian He**, National Development and Reform Commission National Energy Board China, China**Small-scale LNG: playing a key role in gas markets transformation****Ms. Victoria Fedorova**, Assistant professor, Gubkin Russian State University of Oil and Gas, Russian Federation**Implementation of alternate energy sources as a solution towards sustainable development****Dr. Reji Mathai**, Deputy General Manager, Indian Oil, IndiaCo-authors: **Sumit Kumar Mishra, Sauhard Singh, A K Sehgal**, Indian Oil, India**Natural gas is considered by Iranian as the fuel of the future, best practice about conversion gasoline****Saeed Sajjadian**, Engineer, NIOC, IranCo-author: **Vali Ahmad Sajjadian**, NIOC, Iran



### **Chemical Looping Process (CLP): An Attractive route for Hydrogen Production & Simultaneous CO<sub>2</sub> Capture**

**Dr. Sudarshan Reddy Ragireddy**, Senior Research Officer, Hindustan Petroleum, India

Co-authors: **Raman Ravishankar, Peddy V. C. Rao, Gandham Sriganesh**, Hindustan Petroleum, India

### **New design of DME conversion to Olefins**

**Mrs. Mariya Magomedova**, Head of Chemical Engineering, TIPS RAS, Russian Federation

Co-authors: **Salambek Khadzhiev; Anton Maksimov**, TIPS RAS, Russian Federation

## **F13 – Sustainable value chains for unconventional gas**

**Tuesday 11 July 14:15 – 15:45 pm (Hall 3)**

**Poster Session Wednesday 12 July 11:00-13:00 (Interactive Poster Plaza)**

The value chain for the gas industry covers production, processing, transportation, storage and distribution, and each of these sectors has a social and business impact on the industry. For unconventional gas the value chain is largely similar to that of conventional gas but has unique features in terms of sustainability and cost effectiveness, as well as social and environmental impacts. We will consider the differences between the value chain of conventional and unconventional gas, review comparative studies and examples of building an effective value chain for unconventional gas which adds value to the company's revenue line whilst providing a stable supply of gas to the end users.

Chair: **Ning Ning**, Vice President, RIPED Langfang, China National Petroleum Corporation, China

Vice Chairs: **Christophe Amadei**, VP, Unconventional Development Division, TOTAL, France

### **Papers**

#### **Interconnections; Leading the development of the unconventional gas value chain**

**Ms. Paloma Izquierdo**, Regulatory Development, Enagas, Spain

Co-author: **Pedro Miras Martínez-Berganza**, ENTSO, Belgium

#### **China shale gas economic evaluation based on Monte Carlo simulation**

**Nan Wang**, Deputy Director, CNPC-Petrochina, China

Co-author: **Qun Zhao**, CNPC, China

#### **Mitigating shale gas developments carbon footprint: evaluating & implementing solutions in Argentina**

**Christophe Amadei**, VP, Unconventional Development Division, TOTAL, France

Co-authors: **Mrs. Christiane Eygun**, Unconventional Division, Social License to Operate, TOTAL, France

**Jed Belgaroui, Yang Wu**, TOTAL, France

**Fabián Pazos**, TOTAL AUSTRAL, Argentina

#### **Monetizing gas of a giant high helium and nitrogen gas reservoir – Amur gas processing plant**

**Marcus Lang**, Executive Vice President, Linde AG, Germany

Co-authors: **Igor Afanasyev**, Gazprom, Russian Federation

**Boris Slutskiy**, NIPIGas, Russian Federation

**Florian Schmid**, Linde Group, Germany

### **Posters**

#### **Socio-economic impact of gas condensate well spacing problems using genetic algorithms - Case study from Northern America**

**Riverson Oppong**, Reserach Assistant, Gubkin Russian State University of Oil and Gas, Russia

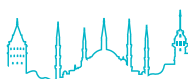
Co-author: **Abdul-Latif Benson Lamidi**, Saint Petersburg Mining University, Russia

#### **The prospect of trade and production of liquefied natural gas in the Petrostates in 2035**

**Mohsen Haerinejad**, Research and Development Expert, Oil Industries' Commissioning and Operation Company (OICO), Iran

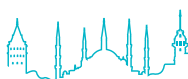
Co-author: **Mohadeseh Motie**, Tehran Polytechnic Univesity, Iran



**Sweet spots prediction and evaluation in shale gas reservoirs using geophysical data. A case study in the Longmaxi Formation of the Lower Silurian Jurassic of W201 area, Sichuan Basin****Dr. Sheng Chen**, Geophysicist, China University of Petroleum, RIPED, CNPC, ChinaCo-authors: **Wenzhi Zhao, Yonglin Ouyang, Qingcai Zeng; Qing Yang, Huaxing Hou, Shaohua Gai, Shihai Bao, Xinyu Li, Jiaqiang Huang, Xing Chang**, CNPC, China**Liberalization of indian gas market for development of unconventional gas****Debasis Nayak**, Senior Marketing Officer, ONGC, IndiaCo-author: **R. Guhan**, ONGC, Iran**Progress and performance of China's Coalbed Methane Industry****Yanpeng Chen**, Senior Engineer, RIPED, CNPC, ChinaCo-authors: **Fenjin Sun, Wuzhong Li, Meng Geng, Xinchun Jiang**, CNPC, China**The effect and function of materials used in waste management of drilling fluids****Farid Amraei**, Student, Cyron, IranCo-author: **Amin Amraei**, NIOC, Iran**Masoud Hashemian**, Ministerial Of Petroleum (MOP), Iran**Vahid Shabani**, Ministerial Of Petroleum (MOP), Iran**Natural gas replacement methode with LPG/AIR system at gas distribution network for peak shaving****Behrouz Moez**, Technical Inspector, National NIGC, Iran**Scenarios in energy industry future: CO2 emission approach****Amin Amraei**, Engineer, NIOC, IranCo-authors: **Ali Rahneshin**, Borzouyeh Petrochemical, Iran**Joanna Desjardins**, Conoco Phillips, Canada**Kseniya A. Bondarenko**, Institute of Forecasting and Macroeconomic Researches, Uzbekistan;**Sharhan Poursaeidi**, Arvandan Oil Refinery, Iran**Oil & gas industry scenarios for energy in 2030-2050: CO2 emissions scenarios point of view****Ali Rahneshin**, Senior Foreign Purchasing, Borzouyeh Petrochemical, IranCo-authors: **Joanna Desjardins**, Conoco Phillips, Canada**Kseniya A. Bondarenko**, Institute of Forecasting and Macroeconomic Researches**Sharhan Poursaeidi**, Arvandan Oil Refinery, Iran**F14 – Delivery of large scale integrated gas projects****Tuesday 11 July 16:00 – 17:30 (Hall 3)****Poster Session Wednesday 12 July 13:30-15:30 (Interactive Poster Plaza)**

Management of large scale gas projects requires a deep integration of various disciplines, including HSE, design, contracting and procurement, project management and construction. Adoption of novel ways of working, including 4D and 5D planning as well as effective deployment of new technology are essential to deliver the next wave of LNG, (lean) FLNG and unconventional gas projects.

Chair: **Neil Gilmour**, Vice President Integration Upstream International, Shell International, UKVice Chair: **Nello Uccelletti**, President, Onshore-Offshore, Technip FMC, France



## Papers

### The end of the LNG mega-project?

**Chris Pateman-Jones**, Director, EY, UK

### Building a Mega-Project in a Modern Society

**Ms. Susannah Pierce**, Director External Relations, LNG Canada, Canada

Co-authors: **Katharine Birtwistle, Patti-Schom Moffatt, Michael Eddy, Lucy Shaw Day**, LNG Canada, Canada

### Yamal LNG, Challenges of Kashagan, Absheron- Challenges of mega projects

**Bernard Clement**, Vice President Continental Europe and Caspian, Total

## Posters

### An optimisation study in designing a cryogenic circuit of floating liquefied natural gas units

**Sukanandan Jangumiah Nagarajan**, Deputy General Manager, ONGC, India

Co-authors: **Anil Kumar Santosh Rao Pawar; Chandra Prakash Singhal**, ONGC, India

### CNG projects as part of petroleum companies diversification strategy in the period of energy challenges

**Mrs. Diana Tyrtysheva**, Teaching Assistant, Gubkin Russian State University of Oil and Gas, Russia

Co-author: **Elena Telegina**, Gubkin Russian State University of Oil and Gas, Russia

## F15 – Best practices in management of safe operation of gas assets

**Wednesday 12 July 14:15 – 15:45 (Hall 3)**

**Poster Session Thursday 13 July 11:00-13:00 (Interactive Poster Plaza)**

The gas industry has accumulated very large and complex facilities, including gas fields, pipelines, processing plants, transportation, storage and distribution networks. These physical facilities together with their non-physical counter parts, such as management procedures, software platforms, form the assets of the gas industry. As the gas industry grows, we need to address the risk of these huge, complex assets, and if they might become obsolete in the foreseeable future. Integrated management and risk control are the two important issues facing our industry and we have to evaluate and regularly revise our business practices in terms of effective asset usage and cost reduction without compromising safety. This Forum will share best practices in the management of safe operation of gas assets.

Chair: **Mrs Adriana Petrovic**, Corporate Affairs Advisor, INA Oil Industry, Croatia

Vice Chair: **Dr Cengiz Soylu**, Senior Technical Advisor, Turkish Petroleum, Turkey

## Papers

### An enhanced understanding of emerging risks within the gas industry is paramount to sustain safe operation in the future

**Frode Leversund**, CEO, Gassco, Norway

### Corrosion management program in gas plant

**Hatam Mehraz**, Corrosion Control Engineer, Saudi Aramco, Saudi Arabia

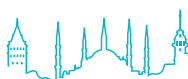
Co-author: **Abdulrahman Hummadi**, Saudi Aramco, Saudi Arabia

### Safety and environmental management systems – a journey of continuous learning and improvement and the basis of a safety culture

**Charlie Williams**, Executive Director, Center for Offshore Safety, USA







### **Management of safe operations of natural gas assets in the Digital Age: New models to improve your safety performance**

Co-authors: **Stephan Klein**, Senior Vice President, SAP, Germany  
**Thomas Kesi**, **Krishanu Bhattacharya** SAP, UK;  
**Arif Abdullah**, SAP, Germany

### **Posters**

#### **Risk and reliability management of regasification plant modified from LNG plant and combined with new equipment**

Co-authors: **Ms. Grace Intan Melania**, Sr. Analyst, Pertamina, Indonesia  
**Siswanto Siswanto**; **Id Arifandi**; **Arie Wisianto**, Pertamina, Indonesia

#### **Business model of underground gas storage in Japan –Technical challenge to evolve from raw gas to imported LNG**

Co-authors: **Tomoya Ohata**, Business Stuff, JAPEX, Japan  
**Ryo Ueda**; **Masanori Nakano**, JAPEX, Japan

#### **Dew point depression unit standby facility solution**

Co-authors: **Hamad Alshammari**, Gas Engineer, KOC, Kuwait  
**Eisa AlHaddad**, **Mahdi Ashkanani**; **Naser Abu Taleb**, KOC, Kuwait

#### **Application of strain stress state measurement in oil and gas equipment building inspection and technical diagnostics**

**Georgy Batov**, Vice Head of Science Education Centre, Gubkin Russian State University of Oil and Gas, Russia

#### **Demand estimation of natural gas in the European Union by the year 2035**

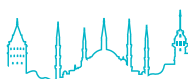
Co-author: **Morteza Andalib Sahnehsaraei**, Maintenance Head, NIGC, Iran  
**Mohammad Javad Mahmoodabadi**, Sirjan University of Technology, Iran

#### **Sulfur free gas supply for Kuwait refineries**

Co-author: **Mahdi Ashkanani**, Senior Mechanical Engineer, KOC, Kuwait  
**Eisa Al-Haddad**, KOC, Kuwait

#### **Production liner cementing practices in challenging horizontal wellbores**

Co-authors: **Atallah Al-Harbi**, Drilling Engineer, Saudi Aramco, Saudi Arabia  
**Islam Al-Baiyat**, Drilling Engineer, Saudi Aramco, Saudi Arabia  
**Mohamed Khalil**, Saudi Aramco, Saudi Arabia  
**Thomas Heinold**, Saudi Aramco, Saudi Arabia  
**Dean Porter**, Saudi Aramco, Saudi Arabia



## Round Tables

### RT8 – Role of LNG in security of global energy supply

**Monday 10 July 15:15 – 16:15 (Hall 3)**

Demand for gas continues to rise, with gas forming an effective bridge to lower the carbon footprint of power generation. This roundtable will review the role of LNG as an essential element in the gas supply chain, with LNG increasingly supplementing pipeline gas where the latter is either impractical or impossible as a transport option. The panel will consider if all aspects including supply chain reliability, LNG shipping, technical assurance of plant design as well as safety and integrity assurance are sufficiently covered to guarantee the required security of supply.

**Moderator:** **Dr Elena Fedorova**, Associate Professor, Gubkin State University of Oil and Gas, Russia

**Panelists:** **Laurent Vivier**, President Gas, TOTAL, France

**Steve Hill**, Executive Vice President, Shell Energy, Singapore

**Yossi Abu**, CEO, Delek Drilling, Israel

### RT9 – Role of gas in the energy mix in a volatile world

**Monday, 10 July 13:30-15:00 (Hall 7)**

Global energy demand is forecasted to increase over the next decades due to economic growth in emerging countries and population increase, with fossil fuels remaining the main source of energy by 2035. At the same time it becomes crucial to reduce greenhouse gas emissions to decrease climate change impact, while waiting for new energies to be technically ready and economical to replace fossil energies. Could natural gas be the key actor for the energy mix evolution? Its price evolution, its accessibility, its smaller CO<sub>2</sub> impact and its better acceptability could make it the energy mix leader for the transition period. But what will be the necessary conditions?

**Moderator:** **Marjan van Loon**, President Director, Shell Nederland B.V., Netherlands

**Panelists:** **Geoffroy Hureau**, Secretary General, Cedigaz, France

**Prabhat Singh**, MD/CEO, Petronet LNG, India

**Yongqiang Fu**, General Manager, PetroChina Southwest Weiyuandong Shale Gas Operation Company, China

**Tristan Aspray**, Vice President Europe, Middle East Asia Pacific, ExxonMobil Exploration

**Yossi Abu**, CEO, Delek Drilling, Israel

### RT10 – Gas from producer to market

**Tuesday 11 July 12:00 – 13:00 (Hall 3)**

Connecting producers to markets is key for the gas business. Various gases, including conventional and unconventional gas, are produced with high or low BTU content. Gas markets include power generation, commercial gas, city gas, residential gas etc. To connect production with the consumers an extensive infrastructure, including gas networks, storage, transportation and various facilities, is required. This Round Table will discuss what innovative technology is evolving? How can infrastructure optimization be achieved? How can we minimize the environmental footprint of bringing gas from the producers to the markets?

**Moderator:** **Mehmet Ögütçü**, Chairman, Global Resources Partnership The Bosphorus Energy Club, Turkey

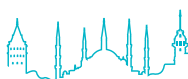
**Panelists:** **Tor Martin Anfinnsen**, SVP Gas, Statoil, Norway

**HE Mohammed Al Thani**, former Minister of Economy and Trade, Qatar

**Weiguo Shan**, Director, Economics and Technology Research Institute, CNPC, China

**Gulmira Rzayeva**, Senior Research Fellow, Center for Strategic Studies (CSS), Azerbaijan

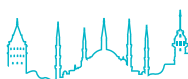


**BLOCK 4. SUSTAINABLE MANAGEMENT OF THE INDUSTRY****F16 – Knowledge management****Monday 10 July 13:30-15:00 (Hall 4)****Poster Session Tuesday 11 July 11:00-13:00 (Interactive Poster Plaza)**

The Forum will discuss the way Knowledge Management (KM) has evolved from an ‘information revolution’ into a ‘knowledge revolution’. In fact, by fostering innovation and the development of technologies in learning organizations, KM has turned into a new source for competitive advantage. The Forum will share best practices and discuss how this new Knowledge Management approach, along with Innovation and R&D, can allow for great changes in this collaborative era and evaluate how intellectual capital can shape a new future for energy organisations, when dealt with as “collective know-how”.

Chair: **Mrs. Nazan Topgüder**, Deputy Group Manager, Research Center, Turkish Petroleum Corp, Turkey  
Vice Chair: **Martin Maeso**, Knowledge and Technical Director, Energy Institute, UK

**Papers****Knowledge management strategies to maximize organizational benefits****Sandeep Chaturvedi**, Contract Specialist, KOC, KuwaitCo-author: **Manal Abu Shaibah**, KOC, Kuwait**Reduce the costs of ignorance through knowledge management****Rob van der Spek**, Director, DNV GL, Netherlands**Improving efficiency and productivity through knowledge management – A case of HPCL, India****Vikas Gupta**, Senior Manager, HPCL, India**Lessons learnt knowledge base****Ms. Rima Al-Awadhi**, Team Leader, Quality Assurance & Business Improvement, KOC, Kuwait**Posters****Knowledge management: Are we doing the best we can?****Mel George**, Deputy Manager, Bharat Petroleum, India**Developing a framework on documentation of experiences and extracting the knowledge of managers and experts of oil and gas industry****Mohammad Rahro Ahmadi**, Knowledge Management Expert, POGC, IranCo-author: **Maryam Khorram**, POGC, Iran**A process and application for tracking failure investigation – A tool for knowledge sharing****Mustafa Amer**, Drilling Engineer, Saudi Aramco, Saudi ArabiaCo-authors: **Ali Hajji; Lenin Pineda; Bobby Walker**, Saudi Aramco, Saudi Arabia**Knowledge management for sustainable management of the industry****Mrs. Shalini Tiwari**, Deputy Manager, Engineers India, India**Knowledge management applied to refineries maintenance: A new approach****Manuel Hurtado Hernandez**, Consultant, Indra Sistemas, Spain**A far-reaching study on Knowledge Management 2.0: A game changer for transforming and shaping the future of E&P 2.0****Ajay Kumar**, Superintending Engineer, ONGC, IndiaCo-authors: **Anoop Yadav, Gaurav Dubey, Y.C. Shukla**, ONGC Videsh, India



## F17 – Cyber security and new technology risks

**Monday 10 July 16:15-17:45 (Hall 4)**

**Poster Session Tuesday 11 July 13:30-15:30 (Interactive Poster Plaza)**

Cyber-attacks have evolved from random, self-propagating destructive viruses and website hacking attempts with no specific target and limited-in-scope to becoming ever more targeted, financially, or politically driven persistent attacks. The advancement of information technology security controls has also led attackers to adopt increasingly more sophisticated new attack methods. This session will discuss the following areas: how to prepare against targeted cyber-attacks against oil and gas companies, the challenges of securing often outdated critical industrial control systems, role of national agencies and regulators in establishing and enforcing common cyber security standards and controls and overcoming the challenges associated with intelligence sharing among different institutions.

Chair: **Ali Al-Masari**, Manager, Information Protection Dept., Saudi Aramco, Saudi Arabia  
Vice Chairs: **Sthanusubramonian Sathivageeswaran**, Executive Director - Information Systems, Hindustan Petroleum Corporation, India  
**Joaquín Reyes**, Chief Information Officer, Cepsa, Spain

### Papers

#### **Critical controls for effective cyber defense**

**Mostafa ElBaradie**, Engineering Consultant, Saudi Aramco, Saudi Arabia

#### **Digital transformation in oil & gas – Cyber security and approach to safeguard your business**

**Farooq Shaik**, Delivery Execution Manager, SAP, UAE

Co-authors: **Stephan Klein, Arif Abdullah**, SAP, Germany

#### **Evolution of cyber threats and the development of new security architecture**

**Piotr Ciepiela**, Executive Director EMEA OT/IoT Security&Critical Infrastructure Leader, EY, Poland

Co-author: **Bala V Venkateshwaran**, EY, India

#### **Cyber security in oil & gas: Outsourced or In-house?**

**Martin te Lintel**, Business Development Manager, Yokogawa, Netherlands

Co-authors: **Marcel Kelder, Patrick Kools**, Yokogawa, Netherlands

### Posters

#### **Secure reference architecture for turbomachinery applications in the oil and gas industry**

**Pierluigi Meloni**, Lead Cybersecurity Engineer, GE Oil & Gas, Italy

Co-authors: **Dario Tamborrelli, Lorenzo Giovanardi**, GE Oil & Gas, Italy

#### **Cyber security in the Indian oil and gas sector: More questions than answers**

**Chetan Rana**, Assistant Manager, Bharat Petroleum, India

Co-author: **Mel George**, Bharat Petroleum, India

#### **Comparing cyber security strategies across countries and their implications for the energy sector**

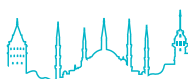
**Benjamin Dean**, President, Iconoclast Tech, USA

Co-author: **Thomas Lind**, Iconoclast Tech, USA

#### **Dilemma of IoT (Internet of Things): Emerging cyber challenges for energy sector**

**Mrs. Ayhan Gucuyener**, Regional Director, IACIPP, Turkey



**Affordable cyber-security: Boardroom's top most agenda**

**Vikas Gupta**, Senior Manager, HPCL, India

**Automatic detection of cyber threats by leveraging IoT and Deep Neural Networks for critical infrastructures**

**Jafar Shayan**, Consulting Manager, Persys Technologies Berhad, Malaysia

Co-author: **Jalal Shayan, Mostafa Sadegh Pour**, NIOC, Iran

**F18 – Human resources-how to retain talent**

**Tuesday 11 July 14:15-15:45 (Hall 4)**

**Poster Session Wednesday 12 July 11:00-13:00 (Interactive Poster Plaza)**

Managing the increasing talent gap, involving young people in the industry and fostering diversity and inclusion in the workforce are some of the hot HR topics. How will the workplace change over time and how do companies manage the transition? How can companies manage talent through boom and bust cycles and retain the knowledge and experience for critical operations?

Chair: **Dr Béla Kelemen**, Group Supply Chain Management SVP, MOL Group, Hungary

Vice Chair: **Ms Vlada Streletskaia**, Executive Assistant of Rector, Gubkin University and Student Programme Chair, SPE Moscow section, Russian Federation

**Papers****From reactive to proactive: Talent management in the “New Normal” for oil and gas**

**Aleek Datta**, Managing Director, Accenture, USA

Co-author: **Jean-Marie Rousset**, Accenture, USA

**Securing talent supply in the industry: A focus on the MOL group**

**Ms. Zdravka Demeter Bubalo**, Human Resources Vice President, MOL Group, Hungary

**Influence of socio-demographics diversity on work performance and talent management**

**Ahmed Almaghaslah**, IT Systems Analyst, Saudi Aramco, Saudi Arabia

**Mentor and mentee: Who teaches whom?**

**Dr. Anna Illarionova**, Russian Representative, WPC YP Committee, Russia

**Posters****Capacity building process: A prime requirement for oil & gas value chain**

**Dr. Amanpreet Singh Chopra**, Sr. Manager Corporate Strategy, Engineers India Ltd.  
New Delhi, India

Co-author: **Dr. Ranjit Rath**, Engineers India, India, **Rajesh Bagaria**, Gas Authority of India, India

**Retaining human assets by developing their leadership skills and competence**

**Toru Sugimoto**, Corporate HSE Manager, JGC, Japan

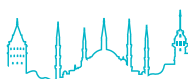
**Talent management in oil and gas industry through Industry 4.0**

**Musa Bilgehan Akgün**, Senior Engineer, Turkish Petroleum, Turkey

**Strategies to talent retention: career path and succession planning managed by talent management application**

**Mrs. Rima Widianir Rahayur**, HR Business Partner, Pertamina, Indonesia

Co-author: **Pingkan Zanita Islamiati**, Pertamina, Indonesia



### **Study of the impact of Intellectual capitals on organizational performance in gaz organization**

**Dr. Saeid Emamgholizadeh**, Lecturer, GAZ Group, Iran

Co-authors: **Mohamad Esmail Ebrahim Zadeh, Noroz Kolbadei Nejad**, Gaz Mazandaran, Iran

### **Women's participation in oil and gas industry**

**Ms. Merve Serire Topdaş**, Student International Relations, Boğaziçi University, Turkey

### **Nurturing young leaders at HPCL**

**Kapil Gakhar**, Deputy Manager, Hindustan Petroleum, India

Co-author: **Karun Bichauli**, Hindustan Petroleum, India

### **Future Work Now**

**Michelle C. Seale**, Principal Strategy Oil & Gas, Ernst & Young LLP, USA

## **F19 – Energy poverty alleviation initiatives**

**Tuesday 11 July 16:00-17:30 (Hall 4)**

**Poster Session Wednesday 12 July 13:30-15:30 (Interactive Poster Plaza)**

With nearly 1.3 billion people lacking access to electricity and 2.6 billion people relying on biomass for their domestic cooking and heating needs, the UN has called a Decade of Sustainable Energy and set up the Sustainable Energy for All (SE4ALL) programme. How can the oil and gas industry play a role and make a difference by using its strength as a technology and innovation leader in the energy sector?

Chair: **Biswajit Roy**, Director (Human Resources & Business Development), Oil India, India

Vice Chairs: **Phillippe Cabus**, Managing Director of TOTAL Access to Energy, TOTAL, France

**Mrs. Amanda Pereira**, Director Strategic Affairs, ARPEL, Uruguay

### **Papers**

#### **How business can help democratize access to less polluting sources of energy and improve people's lives**

**Alejandro Jimenez**, Institutional Relations and Sustainability Manager, Frontera Energy, Colombia

Co-author: **Pamela Gomez**, Frontera Energy, Colombia

#### **Energy is about quality of life of bottom of pyramid people**

**Dr. Debesh Patra**, Deputy General Manager, Bharat Petroleum, India

#### **Opportunities and challenges in the Sub-Sahara African petroleum value chain**

**Johnstone Chikwanda**, Chairperson of the Board of Directors, Indeni Petroleum Refinery, Zambia

#### **Global Energy Poverty alleviation initiatives - Fueling growth and prosperity**

**Dr. Namat Abu Al-Soof**, Consultant Strategic Planning & Economic Services, OPEC Fund for International Development (OFID), Austria

### **Posters**

#### **Beyond growing energy demand – Africa's socio-economic and technological challenges**

**Riverson Oppong**, Research Assistant, Gubkin Russian State University of Oil and Gas, Russian Federation

Co-authors: **William Oppong**, Ministry of Local Government and Rural Development, Ghana

**Benson Lamidi**, The Saint Petersburg Mining University, Russia

#### **Empowering women from poorer households-improving access to efficient sources of energy**

**Vikas Gupta**, Senior Manager, HPCL, India

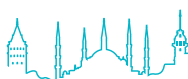
Co-author: **Pradeep Gupta**, Hindustan Petroleum, India

#### **Energy poverty alleviation: India's experience with clean cooking fuel access schemes**

**Mel George**, Deputy Manager, Bharat Petroleum, India

Co-author: **Chetan Rana**, Bharat Petroleum, India

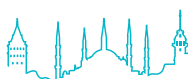


**Local content policies for development - study case: Brazil and Norway****Gabriel Freitas**, Analyst, Accenture, Brazil**Study of CSR & sustainability in energy saving, energy opt. & industrial environmental point of view (Case study: South of Iran refineries & petrochemicals)****Dr. Ali Rahneshtin**, Sr Foreign Purchasing, Borzouyh Petrochemical Complex, IranCo-author: **Joanna Desjardins**, Conoco Phillips, Canada**Kseniya A. Bondarenko**, Institute of Forecasting and Macroeconomic Researches, Uzbekistan**Fiscal break-even of oil states****Dr. Abhishek Deshpande**, Chief Energy Analyst, Natixis, UK**Artificial intelligence for the Smart Grid****Dr. Hesam Komari**, Engineer, SGPC, Iran**Strategy for India towards Energy Poverty Alleviation****Srivardhan Grandhi**, Senior Engineer, Engineers India, IndiaCo-authors: **Rajeev Nambiar; Sheo Raj Singh; Vartika Shukla**, Engineers India, India**F20 – HSE and operations integrity – keeping pace****Wednesday 12 July 14:15-15:45 (Hall 4)****Poster Session Thursday 13 July 11:00-13:00 (Interactive Poster Plaza)**

As the petroleum industry pursues new supplies from frontier areas in deep water, the Arctic and other remote and sensitive environments, unconventional resources using more intensive operational practices in populated onshore areas, and mature fields with aging wells, facilities and pipelines, the industry faces new challenges to preserve the integrity of these operations and to protect people and the environment. The Forum will present case studies of new and enhanced systems, processes, practices and technologies that have enabled companies to keep pace with this industry evolution and meet their ongoing operations integrity and health, safety and environmental responsibilities, which remain key to earning and retaining a license to operate.

Chair: **Dr. Monika Hausenblas**, Executive Vice President Safety & Environment, Shell Global Solutions International, NetherlandsVice Chairs: **Siavash Derafshi**, HSE Director, NIOC, Iran  
**Jim Andrews**, VP of HSE, Schlumberger, UK**Papers****CASHe – Change agents for safety, health and workplace environment: A new paradigm of HSE management****Dhaval Gupta**, Manager PSU Business, Reliance Industries, IndiaCo-authors: **Aditya Paliwal; Himanshu Jain; Atin Goyal, Sujeet Kumar, Sohan Bose**, Reliance Industries, India  
**Vinay Kumar Gupta**, Oil & Natural Gases, India**Creating safety as a value and a way of life****Toru Sugimoto**, Corporate HSE Manager, JGC, JapanCo-author: **Peter Nance**, Fluor, USA  
**Takashi Sameshima**, JGC, Japan





### **Driving HSE culture change – A case history**

**Lamberto Nonno**, North Sea SR HSE Manager, Baker Hughes, USA

Co-author: **Jack Hinton**, Baker Hughes, USA

### **Posters**

#### **Analysis of Greenhouse gas emission reduction potentials in China's oil and gas industry**

**Ms. Wenjia XU**, Engineer, CNPC, China

Co-author: **Xingchun Li**, CNPC, China

#### **Engineering management and inspection schedule of petroleum well integrity**

**Prof. Musaed N. J. AlAwad**, Professor and Faculty Member, King Saud University, Saudi Arabia

Co-author: **Hawwas A. Mohammad**, King Abdulaziz City for Science and Technology, Saudi Arabia

#### **Strategic objectives versus accident investigation**

**Mrs. Sara Masoum**, HSE Expert, POGC, Iran

Co-author: **Sahar Amini; Zahra Mirshafiei; Elina Bagheri**, POGC, Iran

#### **Environmental risk mitigation by microseismic traffic light system in the Onnagawa shale oil fracturing pilot in Akita, Japan**

**Dr. Kazuhiko Tezuka**, General manager, JAPEX, Japan

Co-author: **Tetsuya Tamagawa; Satoru Yokoi**, JAPEX, Japan

#### **Improvements to process safety management at Shell**

**Henk Vasmel**, Senior HSE Consultant Shell Global Solution, Netherlands Global Solution, Netherlands

Co-author: **Eamon Chandler**, Shell Global Solutions, Netherlands

#### **FPSO Decommissioning**

**Samir Leite Alves Junior**, Project Manager, SBM, Brazil

### **Round Tables**

#### **RT11 – Geopolitics and global trends**

#### **Monday 10 July 15:15-16:15 (Hall 4)**

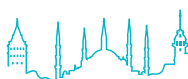
Geopolitics continue to challenge the global petroleum industry in many aspects. For oil and gas companies, access to reserves and safe routes for development and transportation are of vital importance, while securing energy supplies is paramount for national interests. Regions holding reserves are considered prime assets and are often the subject of political disputes. A thorough understanding of regional and geopolitical trends is therefore essential. How do they impact global operations, and how can we manage to balance the interests of the various stakeholders in the host countries and the industry in order to minimize disruptions and other risks to the operations. In addition, the emergence of unconventional resources has been reshaping geopolitics and marking a break with several established trends in energy supplies.

Moderator: **Bob Fryklund**, Chief Upstream Strategist, IHS, USA

Panelists: **Wim Thomas**, Chief Energy Advisor in Group Strategy – Global Business Environment, Shell Intl, UK  
**Juan Vera**, COO, Cepsa, Spain

**Prof. Dr. Volkan Ediger**, Coordinator, Strategy Development and Research Office; Director, Center for Energy & Sustainable Development, Kadir Has University, Turkey



**RT12 – Ethics, compliance and business principles****Tuesday, 11 July 12:00-13:00 (Hall 4)**

This Forum will discuss how compliance and ethics practices should be part of the overall business strategy and operations, permeating the entire organization. Taking this integrated approach leads to better overall performance, mitigates risks and allows the organization to meet its business objectives. The Forum will create an opportunity to enhance your leadership skills by learning and sharing innovative experiences and best practices on how a compliance and ethics programme can promote and preserve the organization's values and principles to support long-term prosperity while addressing increasing stakeholders' expectations.

Moderator: **Sven Mollekleiv**, Senior Vice President, Sustainability, DNVGL Group, and President, Norwegian Red Cross, Norway

Panelist: **Jim Ellis**, President and CEO, Alberta Energy Regulator, Canada  
**Philip Jordan**, Chairman of the Ethics Committee, TOTAL, France  
**Peter Gaw**, Managing Director, Global Head, Energy & Natural Resources, Standard Chartered Bank, UK

**RT13 – Perception of the petroleum industry by society****Wednesday 12 July 12:00-13:00 (Hall 4)**

In a communication driven world where anyone can raise their voice using social media, the oil and gas industry must reinforce its communication strategy in order to transmit the key role that hydrocarbons have in the present and the future and its capability to deliver strong safety, environmental, and community engagement performance. How can oil and gas companies improve their presence in social networks in order to get a better image and be closer to the customer, media and the influencers? How can we cooperate better with institutions, governments and consumers to build public confidence and obtain a social license?

Moderator: **Dr. Renato Bertani**, CEO, Barra Energia SA, Brazil

Panelists **Anna Illarionova**, PhD, Russian Representative, WPC YP Committee, Russia  
**Simon Shelley**, Head of Industry News, ITN Productions, UK  
**Susannah Pierce**, Director, External Relations, LNG Canada, Canada