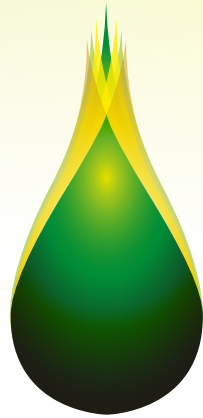




HELD UNDER THE PATRONAGE OF:

**H.R.H. Prince Saud bin Nayef bin Abdulaziz Al Saud**  
Governor of the Eastern Province

HOSTED BY:



# PETRO ENVIRONMENT 2022

MAY 17-18 2022 | DAMMAM, SAUDI ARABIA

10TH SYMPOSIUM & EXHIBITION ON ENVIRONMENTAL  
OPPORTUNITIES FOR GLOBAL SUSTAINABILITY

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## SYMPOSIUM GUIDE

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She  
laid 127  
eggs

We know. We counted.

At Saudi Aramco, one of our social responsibility concerns is to document, research and support marine studies. We develop and deploy innovative technologies that assess our ecological footprint. To protect and renew our natural environment, we invest considerable effort and resources in activities that improve the energy efficiency of our operations and communities.

Because, in the end, we believe that making an impact is all about reducing our own.

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Welcome Letter .....	3
Our Sponsors .....	4
The Organizers .....	9
Symposium Programme .....	12
Technical & Organizing Committee .....	15
Speaker Bios .....	16
Exhibitors .....	36
Exhibition Floorplan .....	37

## IMPORTANT INFORMATION

Welcome to PetroEnvironment 2022 Symposium, Exhibition & Reverse Trade Show. Please read the following information to familiarise yourself with the venue and to ensure you get the most out of your attendance. PetroEnvironment 2022 is a paperless event therefore only electronic versions of this symposium guide will be available.

### WIFI ACCESS

**NETWORK:**  
PETROENVIRONMENT  
**PASSWORD:**  
PE2022



**BADGES** Badges must be worn at all times throughout the event for identification and security purposes. This will also make it easier to network with other delegates and exhibitors.

**MOBILE PHONES** We ask you to be courteous and switch your phones and devices to silent mode, or if you can switch them off during the symposium sessions so as to not distract the speakers or interfere with the sound equipment. If you do need to take calls please leave the room to do so.

**EVENT APP** For the most up to date information and full details on the event, delegates are encouraged to download the event app using the QR codes located at the registration and info desk. Delegates would also have received a link to download the app in their registration confirmation email.

### SPEAKER TECHNICAL PRESENTATIONS

Presentations from the technical sessions will be available to download after the event. You will receive an email with details of how to download them from the event website.

### ATTENDANCE CERTIFICATE

Delegates may request an attendance certificate on 18 May from the staff at the registration desk.

### ADMISSION

All visitors must be over 16 years of age. Those under 16 years old will not be permitted access, even if supervised by an adult.

### VACCINATION

All participants are required to show their vaccination status using the Tawakkalna app.

**DISCLAIMER:** Although every effort has been taken in compiling this event guide, organisers will not be held responsible for any changes to the programme or any statements made on behalf of the participants. The floorplan, exhibitor list and symposium programme were all correct at the time of publishing.

PetroEnvironment 2022 is organised by:  
Dhahran International Exhibitions Company, Exhibitions street, Dammam, KSA.  
Exclusive Marketing Agent :  
AYM Events Limited, Old Station House, 1A Trinity Crescent, London, SW17 7AG, United Kingdom.

# A Warm Welcome to PetroEnvironment 2022

2022

Dear Industry & Academic Professionals,

It gives us great pleasure to welcome you to PetroEnvironment 2022, the “10th Symposium It gives us great pleasure to extend greetings and a warm welcome to everyone attending PetroEnvironment 2022, the 10th Symposium & Exhibition, hosted by the Environmental Technology & Management Association (ETMA).

The theme for this year’s event is “Environmental Opportunities for Global Sustainability”, which aligns with Saudi Vision 2030 and the Green Initiative, for an inclusive sustainable future.

Global sustainability presents extraordinary opportunities and challenges that, in the environmental sector, call for the application of best technologies and management practices. PetroEnvironment will be an opportunity to showcase technologies, present new research findings, meet world-class innovators, and explore new ideas and concepts.

Leading professionals from within and outside the Kingdom will be sharing their knowledge and expertise, and we are confident that it will enable interactive dialogue, as well as first class networking opportunities for you.

Thank you for attending PetroEnvironment 2022. We hope your time with us is productive and meaningful.

Sincerely,

**PetroEnvironment 2022 Committee**

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We're a leading producer of the energy and chemicals that drive global commerce and enhance the daily lives of people around the globe by continuing delivering an uninterrupted supply of energy to the world.

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### DIAMOND SPONSOR:

## SSE BY VEOLIA



SSES by Veolia was established with the objective to deliver thorough environmental services with emphasis on hazardous waste management, its transportation, treatment and disposal.

SSES by Veolia operates its Treatment, Storage and Disposal Facility (TSD) for hazardous wastes empowered by its strict compliance with Royal Commission Environment Regulation as well as international industrial standards, SSES by Veolia has been delivering world class performance on the industrial hazardous waste management and its related services, this quality has been the hallmark of the company contribution toward its clients waste management needs.

As part of its development, service diversification and technological advancement as well as customer service experience has become a constant hallmark of SSES by Veolia progress.

Part of Veolia our Group that is fully committed to shaping a feasible environment model, SSES by Veolia harnesses all its desire for innovation to achieve a smart and sustainable management of resources throughout the world.

[www.veolia.com/middleeast](http://www.veolia.com/middleeast)





#### DIAMOND SPONSOR:

### GEMS

GEMS is a leading provider of integrated waste management solutions in the Kingdom of Saudi Arabia. The company also offer industrial and maintenance services, byproduct recycling, logistics and transportation services.

GEMS was founded in 2008 and was fully acquired by the Saudi Investment Recycling Company in 2019, which is a subsidiary of the Public Investment Fund, to establish recycling capacities in KSA.

[www.gems-ksa.com](http://www.gems-ksa.com)

#### DIAMOND SPONSOR:



### SIRC

The Saudi Investment Recycling Company (SIRC) is a wholly owned subsidiary of the Public Investment Fund (PIF) of Saudi Arabia.

Headquartered in Riyadh, the company was founded in 2017 to develop, own, operate, and finance various activities across all waste types to establish recycling capacities in the Kingdom and build a circular economy for a sustainable future.

Through its achievements, SIRC will help meet and exceed the objectives of the Vision 2030 and support the success of various initiatives identified by the revised Waste Management National Regulatory Framework.

[www.sirc.com.sa](http://www.sirc.com.sa)



### DIAMOND SPONSOR:

## AL QARYAN GROUP

Al Qaryan Group is an end-to-end solution provider with expertise in solid waste recycling and trading including Metal, WEEE, and Plastic in addition to waste management services.

We provide recycling solutions, and services through +24 facilities distributed across KSA, managed by a local talented team, and equipped with state-of-the-art environmentally friendly technologies

[www.alqaryan.com](http://www.alqaryan.com)

### PLATINUM SPONSOR:

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Saudi Electricity Company is a leading position among its peers of energy service companies in the region, as well as being the largest producer of electricity in the Middle East and North Africa region.

The company provides electricity efficiently and reliably to its customers throughout the Kingdom, starting from power plants that use modern technologies, and through a sprawling transmission network that feeds many and growing distribution networks.

Saudi Electricity is on the path of diversifying the energy sources it uses to provide electricity service, moving towards expanding the use of clean energy, while reducing dependence on fossil fuels.

Saudi Electricity is one of the main pillars in order to achieve both the Kingdom's program to preserve the environment and the Kingdom's Vision 2030.

[www.se.com.sa](http://www.se.com.sa)







#### GOLD SPONSOR:

### BEEA'H

The National Environmental Preservation Company (BeeA'h) was incorporated in 1988 with the mission of promoting sound environmental management practices in KSA and developing systems & processes to manage the by-products of industrial activities safely and effectively.

BeeA'h Waste Management Division (WMD) was founded around 30 years ago to support the industrial waste management inside the kingdom of Saudi Arabia. We provide capabilities and services to deliver innovative value-added solutions to all customers.

[www.beeah.com](http://www.beeah.com)



#### BRONZE SPONSOR:

### MANIFA PETROLIUM SERVICES COMPANY

Manifa PSC is a Saudi Arabian total contracting conglomerate opening a new outlook in the field of Oil & Gas, Downstream, Marine, Water Management, EPC, Environmental, Industrial Services, Facility and Waste Management.

Manifa Provides Exceptional Services and Solutions through experts in engineering with experience to handle projects of any magnitude.

Manifa's goal is to be a recognized for providing state-of-the-art technology and services with our international partners, offering solutions at a competitive rate with zero tolerance to service delivery, quality and safety.

[www.manifa.com](http://www.manifa.com)

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### BRONZE SPONSOR:

## ALJERI INVESTMENT COMPANY

More than three decades ago, Al-Jeri Group started as a leading national company in the field of transportation, and within few years it was able to be one of the leaders in the field of transportation, and a new arsenal inside and outside the Kingdom, this is due to an integrated work system that works to attract the most skilled human competencies, and to purchase giant trucks with modern technologies that meet the latest security and safety standards. (Al-Jeri) owns a huge fleet of trucks, more than 1200 trucks represented in the sectors of transporting shifters, asphalt, cement, tippers, transporting containers, dry and refrigerated general merchandise, transporting raw materials, transporting cars and mobile workshop vehicles. In addition to other support services and central workshops spread throughout the Kingdom.

The business of (Al-Jeri) was not limited to the transportation activity, but it has expanded greatly during the past years in many fields and activities, and it has established subsidiary companies, starting with (Al-Jeri Transport) and (Al-Jeri Car Services) company, which specializes in car maintenance, which contracted with The German company BOSCH to have its franchise in the Kingdom, and the company (Al-Mufaddalah), which includes a total of distinct cafes (Cafe 45 degrees), and the (J-Mart) brand for supermarkets, and (Mawten) contracting company specialized in contracting work and implementing government projects

And JOIL, which specializes in operating gas stations which so far owns 135 gas stations and is seeking in its expansion plan to reach 370 stations, and (Shaheen) company for car rental.

[www.aljeri.com](http://www.aljeri.com)

### SECURITY PARTNER:

## NESMA

Security is an overriding concern in Saudi Arabia. Whether it is petroleum and gas extraction sites, pipelines and refineries or super-sized shopping malls, stakeholders want the best security services available. That's why so many leading companies look to Nesma Security to meet their needs. Whether it is simply monitoring and controlling access to corporate headquarters and company branches or a wholly customized security operation designed to protect sensitive sites, Nesma Security has the experience, the tools and the trained manpower to guarantee your daily business activities proceed in a wholly safe and secure environment.

Founded in 2007 in the Eastern Province city of Al Khobar, Nesma Security is recognized today as one of the Kingdom's leading security firms. Our client list ranges across all sectors including petroleum, education, major construction, government and more.

Before sending personnel to man security stations and perform patrols, Nesma Security meets with clients to gain a complete understanding of security needs, both immediate and long-term. Together with our clients, we develop strategies and then implement them as a team, continually reassessing our procedures and approach to ensure that no security lapses take place. Over time, any and all security-related incidents will be evaluated as part of our unwavering dedication to identifying opportunities to improve our service & ensure your security.

[www.nesmasecurity.com](http://www.nesmasecurity.com)



## THE ORGANISER



## DHAHRAN EXPO

Dhahran International Exhibitions Company "Dhahran Expo" is considered as one of the largest exhibition companies in the Kingdom of Saudi Arabia. Throughout the 35 years since its foundation, Dhahran Expo has consolidated its position as a leader in the exhibition industry in the area.

Dhahran Expo has a full range of services that can put together a customized solution for every event. The company supports the MICE industry by opening-up markets for its customers, hosting attentively with excellent care to clients, visitors and guests, before, during and after any event.

Dhahran Expo excel in creating highly targeted events where people from around the world come together to do business and meet.

[www.dhahranexpo.com.sa](http://www.dhahranexpo.com.sa)

## EXCLUSIVE MARKETING AGENT



## AYM EVENTS

AYM Events are the "Exclusive Marketing Agents" for PetroEnvironment 2022.

Headquartered in London, AYM Events is headed up by a team of event experts, combining over 25 years experience developing and marketing some of the most renowned conferences, exhibitions and technical seminars in their field.

[www.aym-events.com](http://www.aym-events.com)

## GOVERNMENTAL SUPPORTERS

**موان MWAN**  
المركز الوطني لإدارة النفايات  
National Center for Waste Management



المركز الوطني  
لتنمية الغطاء النباتي ومكافحة التصحر  
National Center for Vegetation Cover  
Development & Combating Desertification  
المملكة العربية السعودية



المركز الوطني للأرصاد  
National Center for Meteorology  
المملكة العربية السعودية



المركز الوطني  
للمراقبة على الالتزام البيئي  
National Center for Environmental Compliance  
المملكة العربية السعودية



المركز الوطني  
لتنمية الحياة الفطرية  
National Center for Wildlife  
المملكة العربية السعودية



# SSES

by  **VEOLIA**

SSES by VEOLIA was established to provide Environment management service with the focus on Hazardous Waste Management, and Service to industries within the Kingdom of Saudi Arabia. The Company own and operators a complete set of Receiving, Storing, treatment, and Disposal Facilities (RSTDF) in its compound located at Jubail Industrial City.

SSES by VEOLIA Operating Facilities is in accordance with Treatment Technologies approved by the Royal Commission of Jubail and Yanbu and US Environment Protection Agency (USEPA).

Our Mission to implement the best Available Technique in managing the hazardous waste more efficiently and our Vision in becoming one of the Best Integrated Waste Management Facility both in Kingdom of Saudi Arabia.



## SERVICES

- a)** Hazardous waste Solidification, Ma
- b)** Hazardous waste
- c)** Hazardous waste
- d)** Treatability studie
- e)** Hazardous waste
- f)** Environmental lab
- g)** Medical waste co

SSES by VEOLIA is a service provider, having the need as well as the technical skills providing the economical solution for the facing industries to

## information

**+966 (13) 3400 586 / 587**

P.O.Box 10183, Jubail Industrial City 31961  
Jubail - 2, Road 274 / T - 311 Kingdom of Saudi Arabia

**SSES**  
by  **VEOLIA**

al commission of Jubail and

y and effectively is to support  
Arabian and the Gulf Region.

## S PROVIDED INCLUDE :

treatment: Thermal treatment, Stabilization,  
Micro and Micro encapsulation and Chemical treatment.

storage.

disposal: landfilling and surface impoundments.

es and waste assessment

transportation.

poratory.






llection and treatment.

as a multi-disciplinary environmental  
s the means t resolve waste treatment  
necessary expertise and profession-  
ne most advanced, compliant, and  
ns to the various waste issues  
day.





# SYMPOSIUM PROGRAMME

OPENING CEREMONY & SYMPOSIUM - DAY 1.		17.05.22
7.30a.m.	- 9.00a.m.	Registration & Welcome Coffee
9.00a.m.	- 9.30a.m.	Exhibition Inauguration
9.30a.m.	- 9.35a.m.	Opening Ceremony
9.35a.m.	- 9.40a.m.	<b>WELCOME SPEECH :</b> Chairman of Organizing Committee
9.40a.m.	- 9.50a.m.	<b>OPENING REMARKS :</b> Mr. Motaz Mashouk, Vice President of Engineering Services at Saudi Aramco
9.50a.m.	- 10.00a.m.	<b>KEYNOTE SPEECH :</b> Dr. Osama bin Ibrahim Faqeeka, Deputy Minister of Environment, Ministry of Environment, Water and Agriculture (MEWA)
10.00a.m.	- 10.30a.m.	Sponsor Recognition
10.30a.m.	- 11.00a.m.	Coffee Break & Networking
11.00a.m.	- 12.30p.m.	 <b>STRATEGIC PANEL :</b> <b>Environmental Sustainability, Waste Management &amp; Value Preservation</b> <i>Transitioning from a Linear to a Circular Economy and How Businesses and Others in Saudi Arabia Can Contribute</i> <b>Chair:</b> Dr. Ömer Aga, Professor, Environmental Engineering Department, College of Engineering, Imam Abdulrahman Bin Faisal University <b>Keynotes:</b> Dr Abdullah Faisal Al Sebaie, CEO, National Center for Waste Management / Eng. Ziyad Mohammed Al Shiha, Chairman of the Board, Global Environmental Management Services <b>Panelists:</b> Pascal Grante, CEO, Veolia Middle East and Africa / Meshari Alquwayzani, General Director, National Center for Waste Management
12.30p.m.	- 12.45p.m.	Prayer Break
12.45p.m.	- 1.45p.m.	 <b>STRATEGIC PANEL :</b> <b>Climate Change</b> <i>Saudi Vision 2030 Pioneering Green Leadership : Regional initiatives, Global Impact</i> <b>Chair:</b> Walid Naeem, Manager of Process and Control Systems Department, Saudi Aramco <b>Keynotes:</b> Dr Abdulaziz Al Jodai, Corporate Programs Director, SABIC / Eng. Ali Al Ghamdi, CEO, National Center for Environmental Compliance / Ayman Ghoulam, CEO, National Center for Meteorology / Dr Bashir Dabbousi, Director, Technology Strategy and Planning, Saudi Aramco <b>Panelist:</b> Najla Al Sudairy, Policy and Awareness Lead, Oil Sustainability Programme
1.45p.m.	- 2.45p.m.	Lunch (Sponsored by Al Qaryan Group) & Networking in the Exhibition Area
2.45p.m.	- 3.45p.m.	<b>REVERSE TRADE SHOW BRIEFING</b>
2.45p.m.	- 3.45p.m.	 <b>STRATEGIC PANEL :</b> <b>Biodiversity &amp; Afforestation</b> <b>Chair:</b> Abdullah Al Suhaibany, Environmental Security Coordinating Council, Ministry of Interior <b>Keynotes:</b> Dr Muhammad Ali Qurban, CEO, National Center for Wildlife / Ahmed Ali Alghamdi, Consultant, National Center for Vegetation Cover Development and Combating Desertification <b>Panelists:</b> Dr. Khaled Asfahani, CEO, General Organization for the Conservation of Coral Reefs & Turtles in the Red Sea / Dr Ronald Loughland, Environmental Consultant, Saudi Aramco
3.45p.m.	- 4.45p.m.	 <b>TECHNICAL SESSION :</b> <b>Environmental Challenges and Circular Solutions in the Oil &amp; Gas Sector</b> <b>Chair:</b> Salman Al-Dossary, Environmental Coordinator, Saudi Aramco 1. Mr George Mendakis, CEO, CLS Industrial Purification LLC - <b>Abstract Title:</b> New Green Absorbents from Spent ZnO 2. Robbie Pond, Head of Oil & Gas Sector, Aggreko - <b>Abstract Title:</b> Converting Flare Gas to Power. Cash Positive Circular Economy Strategies 3. Mohammed Rayes, Civil Engineer, Consulting Services Dept, Saudi Aramco - <b>Abstract Title:</b> Asphalt: High Circularity Product
4.45p.m.	- 5.45p.m.	 <b>TECHNICAL SESSION :</b> <b>Air, Emissions Management</b> <b>Chair:</b> Harish Badrinarayanan, EPD, Saudi Aramco 1. Ismail Anil, Associate Professor, Imam Abdulrahman Bin Faisal University - <b>Abstract Title:</b> Modified Claus Process followed by a Tail Gas Treatment (TGT) based on the RAR (Reduction, Absorption, Recycle) process to optimize SO <sub>2</sub> emission in Sulfur Recovery Unit (SRU) 2. Pratyush Datta, Regional Vice President, The Sniffers - <b>Abstract Title:</b> Best Practices in Methane Emission Measurements and Quantification to Drive Reductions 3. Manel Gastón Elías, Technical Marketing Expert, Solvair - <b>Abstract Title:</b> SOLVAir Solutions®: Improving Energy Recovery and Environmental Performance
6.00p.m.		Exhibition Closes
7.30p.m.		Gala Dinner Hosted by Aramco (by invitation only)

## SYMPOSIUM - DAY 2.

18.05.22

8.00a.m	-	9.00a.m	<i>Exhibition Opens &amp; Morning Coffee</i>
9.00a.m	-	12.00p.m	<b>REVERSE TRADE SHOW BRIEFING</b>
9.00a.m	-	10.00a.m	 <b>STRATEGIC PANEL :</b> <b>National Center for Environmental Compliance</b> <i>The Journey Towards Environmental Excellence</i> <i>Chair: Reem Seraj Al-Halawani, Environmental Scientist, National Center for Environmental Compliance</i> <i>Keynotes: Dr. Qasem Alsharari, PHD, Energy Expert, National Center for Environmental Compliance</i> <i>Panelists: Damien Trinder, Director of Sustainable Development, NEOM /</i> <i>Dr. Philippe Ker Rault, Global Environmental Expert, Bureau Veritas /</i> <i>Dr Abdulrahman Al Shehri, Executive Director, NCEC</i>
10.00a.m	-	11.00a.m	 <b>TECHNICAL SESSION :</b> <b>Marine &amp; Coastal Environments: Challenges &amp; Opportunities</b> <i>Chair: Alaa Elyas, Division Head, Saudi Aramco</i> <b>1. Prof. Ibrahim Hoteit, Director, Saudi Aramco Marine Environment Research Center, KAUST -</b> <b>Abstract Title: TBC</b> <b>2. Surya Prakash Tiwari, Assistant Professor, KFUPM -</b> <b>Abstract Title: Global Ocean Surface Chlorophyll-a from Ocean Color Remote Sensing Reflectance</b> <b>3. Dr. Rommel Hilot Maneja, Research Scientist, KFUPM -</b> <b>Abstract Title: Sea Turtle Satellite Tracking Program of KFUPM and Saudi Aramco: Ensuring Long-term Monitoring of Sea Turtle Migration and Habitat Use in the Arabian Gulf</b> <b>4. Dr. Mazen K. Nazal, Research Scientist, KFUPM -</b> <b>Abstract Title: Seagrass-derived Activated Carbon for Phenolic Compounds Removal from Aqueous Media</b>
11.00a.m	-	11.30a.m	<i>Coffee Break, Networking in the Exhibition Area</i>
11.30a.m	-	1.00p.m	 <b>TECHNICAL PANEL :</b> <b>Waste, Innovations &amp; Future Developments</b> <i>Chair: Abdul Wahab Al-Ahmari, Chairman, SSES by Veolia</i> <i>Panelists: Khaled Al Rashed, CEO, Global Environmental Management Services /</i> <i>Manuel Hidalgo, Waste Management Team Leader, Parsons/Royal Commission for Yanbu /</i> <i>Tarek Hamade, Director, Environment &amp; Infrastructure Solutions, Wood /</i> <i>Sylvain Vaccher, Industrial Business Development Director, Veolia /</i> <i>Mohammed Al Elyani, General Manager, Bee'A'h /</i> <i>Imran Aslam, CIO, Al Qaryan Group</i>
1.00p.m	-	2.30p.m	<i>Prayer Break &amp; Lunch (Sponsored by Bee'A'h)</i>
2.30p.m	-	4.00p.m	 <i>Contract Signature Ceremony</i> <b>TECHNICAL PANEL: Plastics &amp; Plastic Recycling</b> <i>Chair: Dr. Forbes McDougall, Senior Environmental Consultant, Waste Management and Plastic Recycling, Saudi Aramco</i> <i>Panelists: Pascal Grante, CEO, Veolia Middle East and Africa /</i> <i>Meshari Alquwayzani, General Director, National Center for Waste Management /</i> <i>Dr. Maria Soliman, Research Fellow, SABIC /</i> <i>Justin Wood, VP Strategic Partnerships, Alliance to End Plastic Waste /</i> <i>Marwan Frem, President, NAPCO National /</i> <i>Hani Tohme, Senior Partner, Head Sustainability MENA, Roland Berger /</i> <i>Ronald Richa, General Manager - Plastic Recycling, Repeet, Veolia Middle East /</i>
4.00p.m	-	5.00p.m	 <b>YOUTH SESSION :</b> <b>Circular Economy Projects and Opportunities in Saudi Arabia</b> <i>Chair: Dr. Saidur Chowdhury, Assistant Professor in Civil Engineering Department, Prince Mohammad Bin Fahd University</i> <i>Co-Chair: Nabil Hijazi, Director, ETMA</i>  <b>Imam Abdulrahman Bin Faisal University</b> <b>Group 1: Tag Nasreldin, Moath Allubli, Mohammed Alaliwi &amp; Mohammed Al-Nabulsi</b> <b>Abstract Title: Design of Dewatered Sewage Sludge with Co-Digestion for Biogas Production</b> <b>Group 2: Tariq Ali Alqarni, Abdulaziz Abdullah Addawayan, Mohammed Ahmed Alrubaie &amp; Ibrahim Saud Alanazi</b> <b>Abstract Title: Design of Low-Cost Indoor Air Quality Monitoring System</b>  <b>Prince Mohammad Bin Fahd University</b> <b>Group 1: Badria Bubshait, Fai Dajani, Ahmed Al Rumaih, Hayat Alhindas, Fatima Alshakwan, Ghada Albugami &amp; Fhadah Alsa</b> <b>Abstract Title: Energy Extraction For Sustainable Development - A Study on Bio-Fuel Production</b> <b>Group 2: Zainab Alnaser, Hamidah Alhanabi, Noof Alsubaiei, Noor Alfaraj, Fatima Al Duris &amp; Bayan Alabdulrahim</b> <b>Abstract Title: Oilfield or Oil Refinery Wastewater Treatment By Constructed Wetlands in KSA</b>
5.00p.m	-	5.30p.m	 <b>CLOSING PANEL &amp; COMMUNIQUÉ :</b> <b>Summary of Key Insights</b>
6.00p.m			<i>Exhibition Closes</i>





*Leading Integrated Metal Reuse  
& Recycling Company*



34  
Years Experience



**Inspiring The  
Industry Through  
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- Dismantling And Demolition • Waste Management Services

## ORGANISING COMMITTEE

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Seraj Al-Ghamdi (*Vice Chairman*)  
Ali Qassem  
Nabil Hijazi  
Alain Marhic  
Mousa Alharthi  
Hamed Al-Ghamdi

Faisal Aljar  
Abdulaziz Al-Ansari  
Dr. Nawaf Isam Al Blaisi  
Mohammad Barghouthi  
Mohammed Al Raya'an  
Khalaf Anazi  
Dr. Adel Al Khalifah



HRH Prince Saud bin Nayef bin Abdulaziz, governor of the Eastern Province of Saudi Arabia opened PetroEnvironment 2019.

## TECHNICAL COMMITTEE

Dr. Khaled Asfahani (*Chairman*)  
Nabil Hijazi  
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Dr. Nawaf Isam Al Blaisi  
Dr. Ömer AĞA  
Dr. Saidur Chowdhury  
Dr. Tarek Hamade  
Dr. Adel Al Khalifah  
Reem Al Halawani



ETMA Chairman Humoud Al Utaibi from Aramco EPD during the PetroEnvironment 2019 closing panel.





## SPEAKER BIOS



### Prof. Dr. Ömer AĞA

Professor | Imam Abdulrahman Bin Faisal University

Ömer AĞA is a full Prof at the Department of Environmental Engineering, Imam Abdulrahman Bin Faisal University. Currently, his administrative job as the Vice Dean for Studies, Development, and Community Service.

Prof AĞA's research work is focused on Indoor and outdoor air quality, Air pollution control, Waste management, Advanced emerging pollutants treatment, and Nanomaterials for the circular economy. He has been involved in more than 30 environmental consultancies and conducted over 40 international and nationally-funded research projects.

Prof AĞA has four patents and published over 75 refereed articles in highly impacted SCI-indexed journals. Awarded the distinguished research award from the college of engineering 2020. Prof AĞA recently received HCH Prince Saud Bin Naif "Sanabil" award for his patent "EcoTree".



### Abdul Wahab Al Ahmari

Chairman | SSES, Veolia

Mr. Abdul Wahab Al Ahmari acquired B.Sc in Geophysics from King Saud University, Riyadh in 1995. Shortly after graduated, he immediately joined ARGAS Company of Saudi Arabia as Processing Geophysicist.

In 1998, possessing as vast experience in the field of geosciences together and environment, he founded Saudi Geophysical Consulting Company, a realization of his dream and effort to open his own Geosciences and Environment Consulting Company since his college years. Along with his peer of network and set of skills,

Mr. Abdulwahab founded five prestigious companies involved in Geosciences and Environment Development Solutions.



### Ali Saeed Al Ghamdi

CEO | National Center for Environmental Compliance

A Saudi Expert and a leader specializing in environment, sustainability, industrial safety and professional health, with over 25 years of experience in both the public and private sector.

His expertise covers environmental risk assessment, environmental compliance, environmental regulations, occupational health and safety, responsible care, policy and regulation, and environmental performance.

He worked as a consultant and General Manager for the Department of Legislation and Environmental Performance, and his most important contributions during that period were as a Member of the Saudi National Environmental Strategy Development Team -

Leading the technical team for the preparation and development of the Saudi environmental system project and the meteorological system project, which was drafted by the Ministry of Environment, Water and Agriculture, and participated in the discussions of studying those systems in the Council of Experts within the Saudi Council of Ministers.

For 18 years, he worked for the Saudi Basic Industries Corporation (SABIC) in several positions related to environment, safety and occupational health sector, and contributed to the development and auditing of compliance with the environmental, health and safety management systems in SABIC and its subsidiaries, in line with international best practices to achieve regulatory requirements Monitoring and measuring the relevant key environmental performance indicators.



### Reem Al Halawani

Environmental Scientist | NCEC

Reem Al Halawani holds a Masters degree in Environmental sciences from University of Colorado Denver and a Bachelors in Medical Technology. She has more than 7 years of experience working in the Environmental field professionally and voluntarily. From 2011 to 2013 Reem worked as a teaching assistant for several environmental subjects at the university of Colorado Denver and as a research assistant on topics with the EPA and the Colorado Department of Public Health and Environment. From 2013 to 2017 Reem worked voluntarily in Waste management projects with local companies in Denver, US Composting Council.

Since 2017 Reem returned to Saudi Arabia and joined the Saudi Consultant office as an Environmental Engineer working on ESIA studies and reports. During that she worked as scientific committee leader for the first Industrial Environmental Forum (Beiey) sponsored by GAMEP, MEWA.

Currently Reem is working at the National Center for Environmental Compliance as an assistant to the CEO and the Secretariat for the NCEC Board of Directors under the Chairman the minister of Environment Eng. Abdulrahman Al Fadhli. She is also working with MEWA as a consultant with the Strategy Management with Booz Allen and Hamilton Office on the National Environmental Strategy and the Establishment of the 5 national centers and the Environmental Fund.

Reem was part of the G20 Environment Group specifically the MPL topic. Reem has attended different circular economy workshops and waste management with UNEP, Japan and European Union.



## Abdulaziz Al-Ansari

Environmental Engineer | Aramco

Graduated from the University of Colorado Boulder in Env. Engineer and engineering management as part of the Saudi Aramco Sponsorship in 2017.

Has over 3 years of work experience in the field of process engineering, climate change, air quality control & environmental sustainability.



## Mohammad Al-Elyani

General Manager | BeeA'h

Mohammad A. Al-Elyani holds a bachelor's degree of Science in Chemical Engineering from KFUPM. He has over 25 years' experience in chemical and petrochemical industries in the fields of manufacturing, environmental engineering, project management and occupational health and safety.

A highly motivated achiever, who quickly and easily adapts to changing situations, with proven experience in EHSS Management System (SHEMS) Development and Implementation, Industrial Waste Management, Air Emission and Groundwater Monitoring and Remediation.

He is the General Manager of National Environmental Preservation Company (BeeA'h), responsible for planning, management, and control of all operational, technical, marketing, and financial functions of the Company, in addition to ensuring compliance to corporate governance and general management best practices. He also oversees compliance with regulatory requirements, permit conditions, operating procedures, site health and safety policies and procedures.

Before joining BeeA'h, he worked for several affiliates of Saudi Basic Industries Corporation (SABIC) for nearly 20 years in several posts in Operations, Projects and EHSS.



## Walid Al-Naeem

Process & Control Systems Manager | Aramco

Walid Al-Naeem has been with ARAMCO since September 1990 and joined Process & Control Systems Department (P&CSD) as Manager in 2020. P&CSD provides Saudi Aramco operating facilities and project teams with reliable, accurate and value-added services that meet the Company's objectives in a timely and cost effective manner.

Walid has played an integral part in the department's vision to be recognized as a center of excellence in providing services in the field of process engineering, automation, energy efficiency, and digitalization by 2030.

Walid holds a Bachelor Degree in Chemical Engineering from the University of Tulsa, USA and a Master degree from King Fahd University of Petroleum & Minerals.



## Ziyad Al-Shiha

Chairman of the Board | Global Environmental Management Services

Engineer Ziyad Al-Shiha was appointed as the CEO of the Saudi Investment Recycling Co. (SIRC), a wholly owned subsidiary of the Public Investment Fund (PIF) in February 2021.

Al-Shiha is also a board member and Head of the Investment, Corporate Governance and Merger Committees for the National Petrochemical Company (Petchem), a Saudi joint-stock company. He also acted as the Deputy Chair for the 2020 B20 Trade & Investment Taskforce during the KSA leadership for the event.

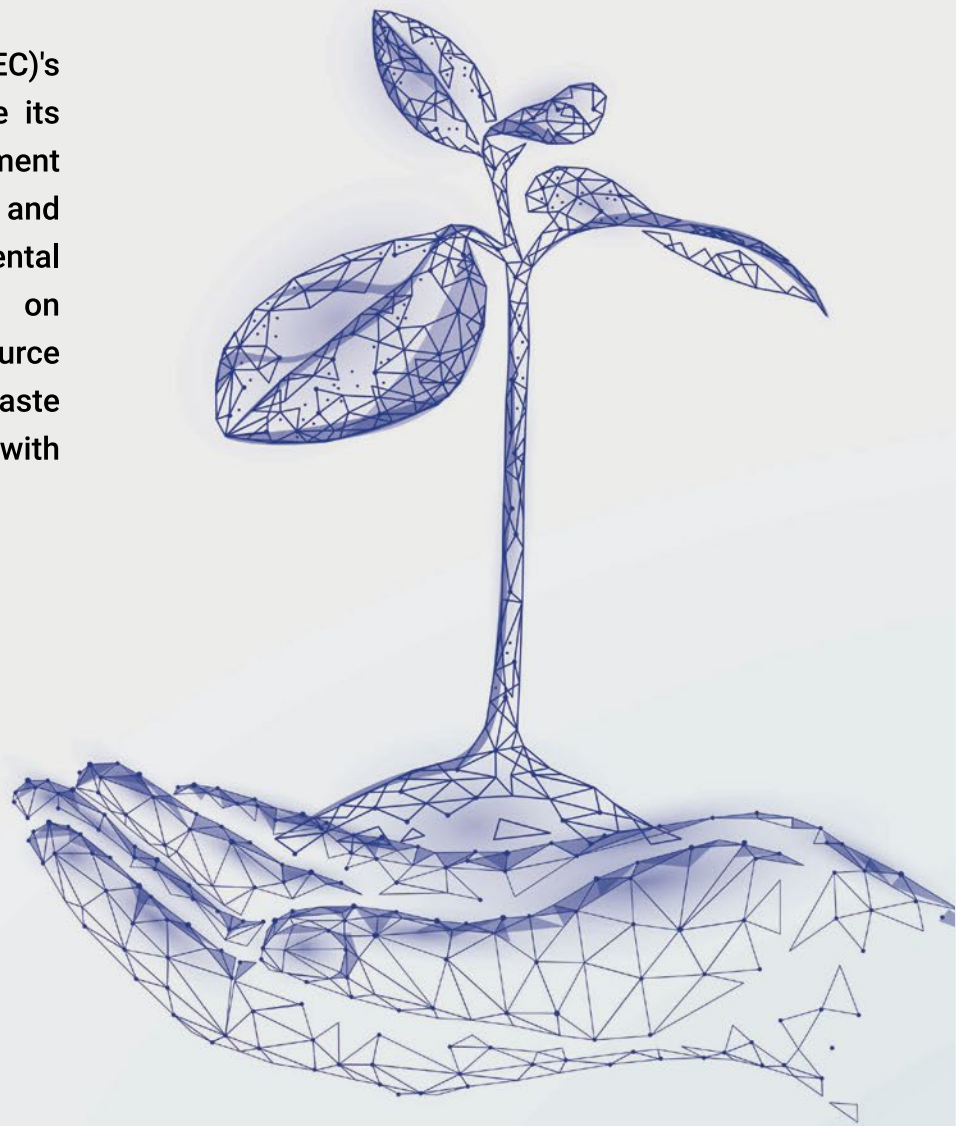
He was the president and CEO of the Saudi Electricity Co. (SEC) from 2014 to 2018 and prior to that he was an SEC board member from 2012 to 2013. He held several positions at Saudi Aramco both inside the Kingdom and overseas. He was the VP for Strategic Planning and a Board Member of Petron, one of Saudi Aramco's international joint ventures in the Philippines. He also headed the Public Relations Department and became the first spokesperson for Saudi Aramco and the director for facilities planning department before he was appointed as the Executive Director of Power Systems.

**Reducing the negative impact and increasing reliance on renewable energy sources while adhering to rules and regulations.**

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**"Saudi Electricity": our environmental strategy supports "quality of life" and is in line with Vision 2030.**

The Saudi Electricity Company (SEC)'s environmental policy aims to reduce its negative impact on the environment through proactive management and continuous monitoring of environmental performance. It promotes reliance on clean energy sources, efficient resource consumption, reuse, recycling, and waste reduction, as well as compliance with environmental laws and regulations.



As a result, "**Saudi Electricity**" designs all of its projects to meet current environmental standards in order to achieve compliance with environmental regulations and legislation in order to contribute to the improvement of the environment in the Kingdom of Saudi Arabia, in line with Vision 2030, and to support the Quality of Life program.

In light of this significant strategic direction, the company monitors the level of compliance with the new environmental law and its implementing regulations through periodic audits based on the company's environmental protocol, which determines the level of compliance of each of the company's sites under audit of these standards.

It also identifies cases of incompatibility with environmental requirements and corrective plans, as well as the implementation of awareness and training programs. Moreover, it conducts environmental studies and surveys, establishes waste management facilities, installs Volatile Organic Compounds (VOC) for petroleum recovery in fuel tanks, establishes evaporation ponds and reservoirs for hazardous substances, improves separation systems for oil and contaminated water at plants, and installs monitoring and control systems for air pollutants such as sulfur oxides, nitrogen oxides, and suspended minutes at power plants.

As a consequence, a number of "Saudi Electricity" departments and sectors have adopted the international standard ISO2015 :14001, the world's most renowned standard for environmental management system, which establishes the best approach to create an efficient environmental management system.

The company's environmental vision aims to make "**Saudi Electricity**" a pioneer and a leader in the field of environmental protection. In line with Vision 2030, the company's vision supports the country's efforts to diversify the national economy by reducing reliance on oil and conserving the environment. Furthermore, SEC aspires to be a leader in environmental protection by updating its environmental policy, adhering to all applicable environmental laws and regulations, and contributing to the reduction of greenhouse gas emissions.

These efforts resulted in the company receiving the Kingdom of Saudi Arabia's recent Prize for Environmental Management, which is the most prominent environmental recognition in the Islamic World.



## SPEAKER BIOS



### Ahmed Ali Alghamdi

Consultant | National Center for Vegetation Cover Development and Combating Desertification

Professor of Botany at the Department of Biology, College of Science, University of Hail. Currently is working as a consultant at the National Center for Vegetation Cover Development and Combating Desertification. Worked as a consultant at the Deputy of Environment - Ministry of Environment, Water and Agriculture. Worked as a supervisor of the Chair of Sheikh Ali Al-Jumai'ah for sustainable development in agricultural societies, University of Hail.

Holds a Ph.D., Department of Biology - University of East Anglia - United Kingdom. Holds a Master's degree, Department of Biology - King Abdulaziz University - Jeddah. Holds a Bachelor's degree, Department of Biology - King Abdulaziz University - Jeddah. Has many research articles that have been published in highly cited scientific journals and supervised several funded research projects. Has written many books and articles which have been published in Saudi newspapers and magazines.



### Dr. Abdulaziz Aljodai

Corporate Programs Director | SABIC

Dr. Abdulaziz ALJODAI is the Corporate Programs Director, Technology and Innovation, at SABIC. He held various technical and leadership positions in project management and R&D fields, including the role of Research Fellow, the second-highest technical position in the company. He is a key expert member of the EU-GCC Clean Energy Technology Network, funded by the European Commission.

He is a named inventor of numerous patents at SABIC, mainly in plant-wide chemical process development, renewable energy and environmental fields. Dr. Aljodai is the technical leader of the carbon capturing and utilization project at SABIC affiliates. He also served as SABIC's counterpart leader for the blue ammonia supply chain demonstration that resulted in the shipping of 40 tons of high-grade blue ammonia from KSA to Japan in 2020. Besides these responsibilities, SABIC selected Dr. Aljodai to lead the Technology Early-career Development (TED) program that aims to accelerate talent development for early-career scientists and engineers.

Dr. Aljodai has received many prestigious awards recognizing his contributions in the fields of energy, carbon management and circular economy. Among these are the Golden Excellence and Innovation Recognition, IEEEJ Recognition in Japan, OPEC Energy Recognition in Austria, and Green Technology Prize in Switzerland.

Dr. Aljodai has represented the Kingdom of Saudi Arabia in COP21 Paris, G20 Japan, Climate Week NYC and other high-level events where he presented and chaired several technical sessions. He is a US UOP engineering fellow, with a PhD in chemical engineering and a master's degree in industrial management from WV USA and London Business School, Leading Change, UK.



### Meshari Alquwayzani

General Director | National Center for Waste Management

Meshari Alquwayzani is the General Director of sector development at the National Center for Waste Management, he's responsible for strategic planning and performance measurement, business development, financial sustainability, and stakeholders management. Also, he's oversee the development of the masterplan for waste management and national waste strategy.

Before joining the center, Meshari has held many positions and responsibilities in different sectors, including Director General of Export Eco-system at the Saudi Export Development Authority, where he managed the trade facilitation activities and export intelligence, also working on improving trade-cross borders to increase non-oil exports.

Also, he was a regulatory advisor at the Saudi Food and Drug Authority, where he was oversee the technical regulations and standards on national and international level such as; WTO, WHO, FAO.





## Khaled Alrashed

CEO | Global Environmental Management Services

Eng. Khaled Alrashed has a bachelor's degree in electrical engineering from King Fahad University for Petroleum and Minerals. He has more than 20 years of experience in Engineering Projects. He started his career as a system Engineer at ABB Contracting.

Then, he worked as a Business Unit Manager at ABB Automation Company. He moved to Saudi Electricity Company in 2005 and became the President and Chief Executive Officer of Saudi Electricity Company for Project Development. He was recently appointed as Chief Operating Officer at Saudi Investment Recycling Company (PIF Subsidiary) wholly owned by Public Investment Fund.



## Dr. Abdullah bin Faisal AlSebaei

CEO | National Center for Waste Management

PhD in Civil Engineering, Major Environmental Engineering, (Solid Waste Management) from the University of Leeds - United Kingdom.

Dr. Abdullah served in several positions, most notably a full-time Consultant at the Ministry of Environment, Water and Agriculture, and a member of the Board of Directors of the National Center for Waste Management. Dr. Abdullah also started the CEO position of the National Center for Waste Management since Rabi' II, 1441 H till now. Dr. Abdullah has accomplished plenty of achievements and raised competencies in the center.



## Qasem AlSharari

Energy Expert | National Center for Environmental Compliance

Dr. AlSharari is a multidisciplinary professional who finished his Ph.D. in Chemical and Biochemical Engineering from Western University in Canada. His Ph.D. research was focused on the development of Nanomaterials for Solar energy and Hydrogen production. Qasem has a Master of Environmental Sciences and BSc in Industrial Chemistry from KFUPM.

Dr. AlSharari has more than 20 years of experience, with a track record of achievements. His work experience included working for Saudi Aramco, during which he developed his Oil and Gas skills, quality management, and participated in refining upgrades projects.

In addition, He worked as a Supervisor at the Experimental Climate Change Research Center in Canada where he oversaw research projects on ultra-trace heavy metals in Arctic and sub-Arctic environments projects. Before his current position as Energy Expert with the National Center for Environmental Compliance, he was a Chief Technology Officer (CTO) at Sp3 Research Inc, where he provided strategic guidance on all technology and engineering-related decisions, including technology roadmap, to maximize the company's future growth and profitability by developing materials for alternative energy in hydrogen fuel, and lithium batteries using chemically modified graphene, and supercritical fluids.



## Dr. Abdulrahman Alshehri

Director | National Center for Environmental Compliance

Dr. Abdulrahman Alshehri is the Executive Director of Environmental Performance in National Center for Environmental Compliance. He oversees the development, assessment, and reporting of environmental performance for the Kingdom's heavy development sectors such as Energy, petrochemical, mining, utilities amongst others. He also oversees the adherence within the Kingdom to International Environmental Conventions under the United Nation Environmental Program.

Dr. Abdulrahman Alshehri earned his higher degrees, PhD, MS, BS in Environmental Engineering from several US universities.

He has operational and executive experience in water utilities, water quality researcher, and environmental consulting. He is a published author.



## COMPANY BACKGROUND

The National Environmental Preservation Company (BeeA'h) was incorporated in 1988 with the mission of promoting sound environmental management practices in KSA and developing systems & processes to manage the by-products of industrial activities safely and effectively. BeeA'h Waste Management Division (WMD) was founded around 30 years ago to support the industrial waste management inside the kingdom of Saudi Arabia. We provide capabilities and services to deliver innovative value-added solutions to all customers.

## BeeA'h Services



**Waste Management**



**Environmental Engineering**



**Analytical Testing**



**Waste Transportation**



**Tank Cleaning**

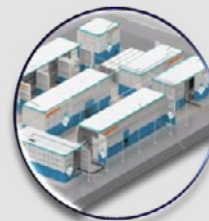
## Treatment and Disposal Methods



**Thermal Treatment**



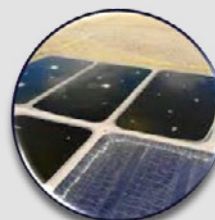
**Landfill Disposal**



**Physical Treatment**



**Chemical Treatment**



**Solar Impoundment**

### Thermal Treatment Unit

- **Half million MT** hazardous industrial waste has been successfully processed through TTU. The total annual capacity of three units is **61,000 MT**

### Landfill Disposal

- **1.8 million MT** of industrial and hazardous wastes have been disposed in Class 1 and Class 2 landfills.

### Physical Treatment

- BeeA'h stabilization plant is stationed at the landfill facility with rated annual capacity of **10,000 MT**.

### Chemical Treatment

- BeeA'h chemical treatment plant was commissioned in 1995. BeeA'h has invested to construct a new chemical treatment facility with higher standards that enhanced the annual capacity to **20,000 MT**.

### Surface Impoundment

- BeeA'h has twelve (12) evaporation ponds with varying dimensions and capacities with total holding capacity of approximately **60,000 m3**.



### Environmental Laboratory

- Environmental monitoring and analysis services.
- Groundwater & surface water sampling and analysis.
- Environmental baseline survey.
- Water quality assessment.
- Hazardous waste characterization.



### Environmental Engineering

- Environmental monitoring for water and air quality for noise level survey, counter mapping, ambient air monitoring, fugitive monitoring, stack emission monitoring.
- Environmental Consultancy.



### Waste Transportation

- BeeA'h offers nationwide services for the transportation and/or disposal of hazardous waste for the commercial or industrial companies since more than 30 years.



### Tank Cleaning

- BeeA'h offers tank cleaning and waste removal services for different type and sizes of all propose tanks to remove any built-up contaminants, this cleaning is efficient and environmentally safe.



## SPEAKER BIOS



### Najla AlSudairy

Policy & Awareness Lead | Oil Sustainability Programme

Najla AlSudairy is the Policy and Awareness lead at the Oil Sustainability Program, where she works on raising awareness on the different uses of Hydrocarbon materials from both an economic and an environmental point of view, while ensuring that the shift in energy mix occurs in a manner that is efficient and sustainable for the Kingdom of Saudi Arabia.

Najla was also part of the Circular Carbon Economy (CCE) Program at the Saudi Ministry of Energy, working on their Engagement strategy and efforts by addressing the foundations and principles for the establishment and localization of advanced technologies in the field of carbon dioxide emission management through the application of the CCE framework.

Prior to that, Najla was a member of the G20 Saudi Secretariat that delivered the 2020 G20 Saudi Presidency in Riyadh. Throughout the presidency year, Najla was Senior Event Manager supporting Engagement Group efforts.

Before joining the G20 Secretariat, Najla was working as a Program Officer at the Middle East Institute (MEI), one of the oldest think tanks exclusively focused on Middle East and North Africa policies and culture, in Washington, DC. At MEI, Najla was responsible for all government communication between MEI, U.S. government entities, and embassies in DC.

Najla is a graduate of Smith College, in Northampton, Massachusetts with a dual degree in Economics and Middle East Politics.

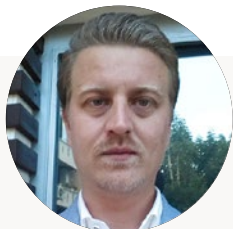


### Abdullah H. Alsuhaibany

Secretary General | Environmental Security Coordinating Council, Ministry of Interior

He holds a master's degree in science (protection of marine environments) from the University of North Wales (Bangor) in 1996. He has worked for more than 30 years in many governmental, international and in the private sector in the field of wildlife conservation and biodiversity (including, Saudi Wildlife Authorities, PERSCA, Saudi Aramco, MEWA, and National Center for Wildlife).

He has more than 30 published research and about 45 unpublished research in the field of environmental studies, especially in ornithology, natural reserves, biodiversity in the Kingdom and the marine environment. He is a member of the boards of directors of many associations and associations specialized in wildlife and the founder of the "Volunteer Wildlife Rescue Center".



### Dr. Ismail Anil

Associate Professor | Imam Abdulrahman Bin Faisal University

Associate Professor, Environmental Engineering Department, College of engineering, Imam Abdulrahman Bin Faisal University

Dr Anil is holding a PhD degree on Environmental Engineering Department from Gebze Technical University in Turkey and has currently been a faculty member at the Department of Environmental Engineering, Imam Abdulrahman Bin Faisal University since 2015.

Dr Anil's research work focuses on indoor and outdoor air quality, monitoring and measurement of atmospheric heavy metals and persistent organic pollutants, air pollution control, noise pollution control, and environmental modeling, and he conducted over 30 international and nationally funded research projects.

Dr Anil has three patents namely "Apparatus for wind energy production and air purification", "Crosslinked polyvinyl matrix for water treatment", and "Pozzolan polymer composite for soil amendment", and published over 30 refereed articles in highly impacted SCI-indexed journals.

Dr Ismail Anil recently received HCH Prince Saud Bin Naif "Sanabil" award for his patent "EcoTree".



### Dr. Khaled Asfahani

CEO | General Organization for the Conservation of Coral Reefs & Turtles in the Red Sea

Dr. Asfahani is CEO, General Organization for the Conservation of Coral reefs & Turtles in the Red Sea. Previously he was Head of Marine Environment Protection within the Environmental Protection Department of Saudi Aramco. Previous joining Saudi Aramco, he worked as an executive intern with Miami-Dade County under Office of Sustainability (OOS) for one year. He has been exposed to marine environment for over 17 years.

Khaled earned a Bachelor of Science degree in marine physics from King AbdulAziz University (KAU) and a master degree in coastal zone management from Florida Institute of Technology (FIT). Recently, he obtained a PhD degree in biophysical Oceanography from King Abdullah University of Science and Technology (KAUST).



## Imran Aslam

CIO | Al Qaryan Group

Imran Aslam is Chief Information Officer at Al Qaryan Group, the leading waste and recycling management company having footprint across the kingdom of Saudi Arabia and globally. Imran joined Al Qaryan Group in February 2021 and is responsible for developing digital solutions to fulfill the waste and recycling demands of customers and industry. Imran is focused to innovate on how different stakeholders in waste and recycling value chain can be onboarded through digital ways for better collaboration, visibility, competitiveness, and regularizations.

Previously, Imran has delivered innovative solutions for different industry verticals i.e. FMCG, EC&O, Oil and Gas, Telecom, Healthcare in Government and multinational companies. Imran is well known in the community for his business innovations.



## Harish Badrinarayanan

EPD | Aramco

Harish is a Senior Environment Scientist at Saudi Aramco where he focuses on implementing industry best practices to achieve emission reductions, energy efficiency technologies, sustainability practices for environmental protection and economic savings, air emissions inventory management including criteria pollutants and greenhouse gases (GHGs). Harish also assures compliance with government environmental regulations by implementing standards, improving monitoring and supporting projects and facility operations with regards to air emissions compliance.

Prior to joining Aramco, Harish worked in the United States for over twenty (20) years in consulting, corporate and plant environments across multiple industries including Electric Utility, Oil & Gas, Petrochemicals and Polymer Intermediates.



### MANIFA is more than a Petroleum Services Company:

MANIFA Petroleum Services is a proud sponsor and a passionate supporter of the Petro Environment event and looking forward in showcasing our capability to provide assistance to the leading energy companies within the Kingdom of Saudi Arabia and GCC countries by offering a proven state of the art technologies and advance service deliveries with our international partners.

MANIFA duly recognized that the Oil & Gas industry can severely affect the environment at different stages, and there is an increased demand in the global Oil & Gas industry to reduce its environmental footprint on the need for more environmentally friendly and sustainable operations. By this factor ensembles, derived our mission to improve environmental best practices in our programs, products and services. Leading the way in using technology that contributes in conserving resources, protecting the environment and preventing pollution hazards.

MANIFA's vision to provide fast and cost-effective solutions circular economy objectives benefiting communities, various industries and government sectors. Reducing ecological hazards and limiting environmental impacts using proven technology that can serve better to our natural environment.

MANIFA Petroleum Services is opening a new outlook in the field of Oil & Gas, Downstream, EPC, Industrial, Environmental, Facility and Waste Management solutions, and our goal is to become a recognized Saudi Company that provides best solutions at a competitive rate with zero tolerance to service delivery, quality and safety. Hence, We offer a good range of services with more emphasis and attention to the environmental impact. Our solutions and technology are certainly effective for the clients we serve, and we aim to take them to the place they need to be and assist them to achieve their environmental and sustainability initiatives.

## SPEAKER BIOS

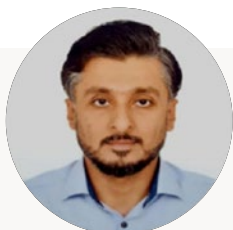


### Dr. Saidur Chowdhury

Assistant Professor | Civil Engineering Department  
at Prince Mohammad Bin Fahd University

Dr. Saidur R. Chowdhury is an Assistant Professor in Civil Engineering Department at Prince Mohammad Bin Fahd University (PMU), Al Khobar in Saudi Arabia. He completed his PhD in Environmental Engineering from the department of Civil and Environmental Engineering at Western University (UW) in Canada. His doctoral dissertation investigated the performance of different iron oxide nanoparticles and recycled waste products (e.g. Ni smelter slag) for contaminated water and site treatment. Dr Chowdhury is a Professional Engineer (P.Eng) in the province of Ontario in Canada. He has over two years of Postdoctoral experience at both Western and the Simpson Environmental Corporation in Burlington, Ontario as well as University of Saskatchewan and Syncrude Canada LTD. He also worked as an Environmental Research Manager at Toronto Inspection Ltd. in Canada.

Dr Chowdhury has involved in designing remediation methods for contaminated site in Greater Toronto Area (GTA), Ontario, Canada. He is registered with the Ministry of Environment and climate change to act as a Qualified Person (QP) for Environmental Site Assessment (ESA) and treatment under Ontario Regulation 153/04. His research interests are in the general areas of environmental and geo-environmental engineering; application of nanomaterials for environmental treatment; recycling waste product for water treatment; development of reactive media for water or wastewater treatment and resource recovery.



### Pratyush Datta

Regional Business Manager | The Sniffers

Pratyush holds the position of Regional Business Manager in the GCC region of The Sniffers. His primary focus is to assist companies in taking a holistic, practical and well-structured outlook towards climate change by ensuring that they achieve a lower carbon footprint from energy & emissions.

His efforts have resulted in helping companies define a viable energy/emission management program and achieve year-on-year reductions.

Some of his key accounts in the GCC region include ADNOC, Aramco, OQ, and Equate.



### Dr. Bashir Dabbousi

Director of Technology Strategy & Planning | Aramco

Bashir Dabbousi is the Director of Technology Strategy & Planning at Saudi Aramco reporting to the Chief Technology Officer. He was the Interim Vice President of Research at the King Abdullah Petroleum Studies and Research Center (KAPSARC), an independent energy economics and policy think tank in Riyadh, (on assignment from Saudi Aramco) from 2008-2012.

He has occupied several administrative and technical positions in Saudi Aramco including Assistant to the Chief Technology Officer; Senior Consultant, Strategic Transformation Office; and Coordinator of the R&D Division in the Research & Development Center where he spent most of his professional career. Bashir is co-recipient of 18 U.S. patents and 1 U.S. patent application (10 patents related to highly luminescent nanomaterials used in ultra-high definition LED TVs are licensed to two U.S. companies and a leading South Korean electronics company).

He has coauthored 25 publications in peer reviewed technical journals including Nature and the Journal of the American Chemical Society (he is first author of a publication in the Journal of Physical Chemistry that has been cited over 3,400 times) in the research areas of nanostructured highly luminescent materials, liquid-based petroleum fuels, crude and products desulfurization and hydrogen production.

Bashir was an academic visitor in the department of chemical engineering at Imperial College London. Bashir is a member of the Board of Trustees of the Custodian of the Two Holy Mosques Award Honoring Inventors and the Gifted (Takreem). He is also a member of the Board of Directors of the Research Products Development Company (RPDC Innovations). He serves on several committees and boards inside Saudi Aramco, including the Information Security Risk Management Steering Committee, Corporate Knowledge Management Board and Corporate Innovation Board (Ibtikar). Bashir received a B.S. degree in Chemistry summa cum laude from the University of California, Berkeley and a Ph.D. in Physical Chemistry from the Massachusetts Institute of Technology (MIT). He completed the Saudi Aramco Leadership Challenge and the Advanced Management and Leadership Program at the Oxford University Said Business School.



### Manel Gastón Elias

Technical Marketing Expert | Solvair

Manel Gastón Elias (Barcelona, Spain) holds a degree in Chemical Engineering by the Institut Químic de Sarrià (IQS-URL). His professional career started at SOLVAY Chemicals in 2011 in Germany as a trainee in Energy Optimization of an allyl chloride an epichlorhydrin plant.

A 6-year experience in the production of Soda Ash and Sodium Bicarbonate followed, dedicated to process optimization, long-term energy projects and the design and start-up of a brand new plant of SOLVAir® sodium bicarbonate based sorbent.

In 2018 he took the role of Technical Marketing Expert in Flue Gas Treatment for desulphuration at Bruxelles (Belgium) at the headquarters of SOLVAY Chemicals. Since then, he has been active in developing and promoting the flue gas treatment with SOLVAir® Solution on different markets such as biomass combustion, sludge incineration, non-ferrous metallurgy, coal power plants and oil and gas refining.



## Pascal Grante

CEO | Near & Middle East, Veolia

Following the merger of SUEZ with Veolia in March 2022, Pascal Grante has been appointed CEO of Veolia Near and Middle East, supervising all activities across the GCC, Levant and Turkey for the global champion of ecological transformation. He brings to the role 38 years of experience among leading organizations in the fields of water and waste management, utilities and O&M in the Middle East, South East Asia and France.

Prior to his current role, Pascal occupied the position of CEO of SUEZ Arabia, the Saudi entity of SUEZ. Additionally, he acted as Head of Business Development Middle East & Central Asia and an Executive Committee Member of SUEZ in the region.

Pascal is currently a Board Member of SUEZ SAUDI ENVIRONMENTAL SERVICES (ex-EDCO), the hazardous waste management company in Saudi Arabia, and SUEZ Middle East Recycling, the waste management company in the United Arab Emirates.

Pascal's portfolio of achievements in his career includes leading the construction of the first sanitary landfill project in Malaysia in 1996 (10,000,000 m3), as well as the construction of the first O&M joint venture to manage water services in Jubail and Yanbu in the Kingdom of Saudi Arabia.



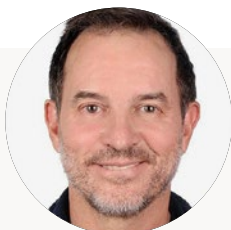
## Tarek Hamade

Director of Environment & Infrastructure Solutions | Wood

Dr Tarek Hamade is the Director of Environment and Infrastructure Solutions division at Wood in the Kingdom of Saudi Arabia and supports operations in the wider Middle East. His work experience covers North America and the Middle East, and spreads over projects in environment and infrastructure (including environmental and water resources), oil and gas, mining, and clean energy as well as their project management.

He is also the Project Director for a series of high-value projects in KSA; managing mega baseline studies covering off-shore and on-shore elements; delivering specialized studies covering: ESIA studies, atmospheric air quality modelling, municipal and industrial waste reuse strategies, TSE reuse studies and upgrading treatment plants, flood management studies including impact of climate change, GHG inventorying, and odor assessments. He has also worked extensively on construction and engineering management of multi billion dollars complex projects.

Moreover, his works covered developing and implementing complex remediation designs and cleanup operations on heavily contaminated sites. He implements an integrated management approach to project execution during all design and construction phases.



## Manuel Hidalgo

Team Leader | Parsons

Mr. Hidalgo is a chartered MSc in Chemistry and MSc in Environmental Management and Control with over 30 years of vast international experience in the environmental and energy sectors, particularly in water treatment, waste management and energy generation.

He has 15 years of experience in consultancy, due diligence, engineering, and O&M of industrial (hazardous and non-hazardous) and municipal wastes management including collection, transport, treatment, disposal, and recovery/reuse/recycling. This includes technical expertise and operations experience in waste management facilities.

Mr. Hidalgo has also experience in developing strategies for minimizing and recycling wastes, storing hazardous materials, evaluate waste recycling, treatment, and disposal projects and technologies as well as new permanent waste management facilities in compliance with international best practices, environmental standards and regulations.

His experience also encompasses the implementation of environmental regulations and standards related to waste management, ensuring its control, monitoring, and continuous enforcement, as well as develop and maintain policies, procedures and programs in compliance with company's environmental and sustainability policies.

Holding nine years of experience in KSA and twenty years in the MENA region, he has a thorough and holistic knowledge of the KSA waste management sector, having worked with government organizations, private companies, and regulatory authorities. He is currently involved in the environmental compliance of industrial facilities according to the regulations and standards related to waste management, ensuring its control, monitoring, and continuous enforcement.

Mr. Hidalgo is currently employed by Parsons, serving as Waste Management Team Leader in the Environmental Protection and Control Department of the Royal Commission of Yanbu, Saudi Arabia. Formerly, he served as Technical & Business Advisor at the National Environmental Preservation Company (Bee'A'h) in Jubail Industrial City.

Previously, he was the Engineering Department Manager at Veolia Middle East. Finally, he served as a Manager and Senior Specialist for Business Development at MARAFIQ.

He possesses ample experience in managing diversified international teams, as well as coaching, mentoring, and training people to instill and transfer know-how, leadership, management, commercial and technical attitudes and skills.



## Nabil Hijazi

Director | ETMA

Mr. Hijazi is a Principal Consultant with focus on Circular Economy. He has more than 30 years of experience, significantly with Saudi Aramco, in consulting, project management and business development in the environmental and energy sectors.

Nabil has worked with the Alturki environmental consulting firm, AES International Consultants in the capacity of Business Development Director. He has a Master of Engineering Degree in Civil Engineering from Texas A&M University and has attended Executive MBA Programs at McGill University.



## SPEAKER BIOS



### Prof. Ibrahim Hoteit

Director | Saudi Aramco Marine Environment Research Center, KAUST

Ibrahim Hoteit is a professor in the Earth Sciences and Engineering program and affiliated with the Applied Mathematics and Computational Sciences program at KAUST. He is currently leading the Virtual Red Sea Initiative, a joint initiative with Scripps Institution of Oceanography, MIT and Plymouth Marine Laboratory, and serving as the director of the Saudi Aramco Marine Environment Research Center at KAUST.

Dr. Hoteit's research interests focus on the modeling of oceanic and atmospheric systems on supercomputers and the analysis of their circulation and variability, with specific interest in data assimilation and uncertainty quantification for large-scale systems. Dr. Hoteit co-authored more than 300 papers and was awarded the prestigious Kuwait Prize in Basic sciences. He is currently serving as associate editor of Plos One, Computational Geosciences, Mathematics of Climate and Weather Forecasting, and Atmospheric Science Letters. He is a member of the American and European Geophysical Unions, the Society of Industrial and Applied Mathematics, and an elected member of the UNESCO Center of Pure and Applied Mathematics. Dr. Hoteit earned his M.S. (1998) and Ph.D. (2002) in applied mathematics from the University of Joseph Fourier, France.



### Georges Mendakis

CEO | CLS Industrial Purification LLC

Born in 1961 in Sao Paulo, Brazil. Georges graduated from the University of Birmingham, UK with a BSc in Chemical Engineering and an MSc. in Biochemical Engineering.

Returning to Brazil, Georges joined Shell Chemical's agrochemical business where he remained until his first exposure to alumina processing in 1986 when he took a project engineer position building an alumina plant for a Greek – Russian consortium.

For the next 28 years Georges worked in the catalyst/absorbents field.

From 1988 to 1995 Technical Sales Manager ICI Katalco (Billingham, UK – now called Johnson Matthey) for Europe, Africa and Middle East focusing on collecting plant data and monitoring/optimizing performance of catalyst trains in ethylene, hydrogen and ammonia plants.

From 1995 to 2004 Business Development Manager Eurecat US Inc.. Focusing on hydrotreating, hydroprocessing and isomerization/reforming in oil refineries.

In early 2004 Georges left Eurecat and formed his own absorbents company – CLS Industrial Purification LLC.



### Dr. Forbes McDougall

Senior Environmental Consultant | Aramco

Dr. Forbes McDougall is a sustainability professional with 20+ years' experience in environmental engineering, circular economy, municipal waste management and life cycle thinking. He recently joined Saudi Aramco as their Global Leader for plastic recycling and waste management and has both strategic and technical responsibility for all Aramco waste generated globally.

He is a Visiting Professor of Practice in the School of Civil Engineering and Geosciences at Newcastle University in the UK.

He was the Head of Circular Economy at Veolia UK from 2014 until 2019. This central coordinating role was created in 2014 and brought together Veolia's capability in Strategy, Innovation, Technology, Materials, Water and Energy and worked closely with key business development functions to identify and develop new Circular Economy opportunities for all commercial, industrial and municipal customers.

Prior to joining Veolia, Forbes was the Global Waste Strategy owner for Procter & Gamble, responsible for the management of the waste from 150 sites in over 40 countries. Between 2007 and 2014 he was responsible for increasing diversion from landfill from 56% to 92% globally, delivering more than 70 zero waste to landfill sites and around \$20 million in savings and revenue per year from reuse and recycling programs. Before this, he developed a Life Cycle Inventory computer model for Integrated Waste Management systems and has compiled case studies on the potential environmental and economic advantages of using life cycle tools to optimise these integrated waste management systems.

He also wrote the 2nd Edition of the book "Integrated Waste Management: A Life Cycle Inventory" (Pub. 2001). This 2nd edition provided a user-friendly computer model (IWM-2) for waste managers. IWM-2 was designed to be an "entry level" LCI model for solid waste, appropriate to anyone starting to apply life cycle thinking to solid waste systems. The book was written for policy-makers in local, national and international government, and for waste managers and professionals in industries concerned with solid waste management. The book has been translated into Spanish, Chinese and Japanese.

### Dr. Mazen Khaled Nazal

Associate Professor | CEMS

Dr. Mazen Nazal is an Associate Professor (Research Scientist II) in the Center for Environment & Marine Studies (CEMS), Research Institute at King Fahd University of Petroleum & Minerals (KFUPM) Dhahran, Saudi Arabia. Dr. Nazal got his Ph.D. in Chemistry specializing in Analytical and Environmental Chemistry in 2016 from King Fahd University of Petroleum and Minerals (KFUPM). He received his MSc. and BSc. degrees in Chemistry from The University of Jordan, Jordan in 2003 and 2006, respectively. Dr. Nazal has more than 10 years' experience in analytical related research and teaching at research laboratories, industries and universities.

Dr. Nazal joined the Research Institute at KFUPM in 2016. As a Research Scientist II, and the chemistry group leader his research interests are focused on the development of efficient and selective materials and methods for removal of pollutants (e.g. organic sulfur compounds, polycyclic aromatic hydrocarbons, phenolic compounds, pesticides, polychlorinated biphenyls, heavy metals, etc.) from aqueous matrices for water treatment. In addition, employing these materials for extraction and enrichment of analytes of interest in environmental samples prior to their instrumental analysis. Additionally, he is interested in studying and monitoring the water, soil & sediment quality.

Dr. Nazal is member of a number of professional societies. He has published more than 40 research papers in refereed ISI journals and 9 patents registered in the US patent office. He attended and participated in many international conferences. He has participated in writing of many technical reports and research proposals.



## Robbie Pond

Head of Oil & Gas (Middle East) | Aggreko

Dr. Qurban is the CEO of National Center for Wildlife, Saudi Arabia. He was the director of the center of environment and water in King Fahd University of Petroleum and Minerals (KFUPM), Dhahran, Saudi Arabia and the Vice-Chairman of Environmental Technology and Management Association (ETMA).

Dr. Qurban is a member of many associations including the Saudi Arabian Biological Society, Air and Waste Management Association, and Society of Computer science. He held a position as a research assistant at National Oceanographic Center, Southampton, UK from 2009-to date.

From 2003 to 2008, Dr. Qurban was a research assistant at Harbor Branch Oceanographic Institution in Fort Pierce, Florida, USA.



## Dr. Mohammed Ali Qurban

CEO | National Center for Wildlife

Dr. Qurban is the CEO of National Center for Wildlife, Saudi Arabia. He was the director of the center of environment and water in King Fahd University of Petroleum and Minerals (KFUPM), Dhahran, Saudi Arabia and the Vice-Chairman of Environmental Technology and Management Association (ETMA).

Dr. Qurban is a member of many associations including the Saudi Arabian Biological Society, Air and Waste Management Association, and Society of Computer science. He held a position as a research assistant at National Oceanographic Center, Southampton, UK from 2009-to date.

From 2003 to 2008, Dr. Qurban was a research assistant at Harbor Branch Oceanographic Institution in Fort Pierce, Florida, USA.



## Dr. Philippe Ker Rault

Environmental Performance, Climate Change Environmental Resources Management, | Bureau Veritas

Dr Philippe Ker Rault has a true trans-disciplinary experience (25 years) between research and the water industry in EU, MENA region and throughout Africa. Educated as environmental engineer from Imperial College, UK, he started as process engineer for the water sector (AWG). He obtained his PhD in water policy from Cranfield University, exploring societal complexity to water management, developing water governance model and linking technical and managerial aspects of environmental resource management.

Dr Ker Rault have a sound experience in Waste Water Reuse in Arid region, participative approach for Ecosystem services (The Economics of Environment and Biodiversity), implementation of the Green Economic Growth and Water-Energy Food Nexus, implementation of transition theory into IWRM, agricultural policy and in evidence-base policy making and evaluation. He has run over 100 stakeholders' participative workshop on adaptation to Climate Change, environmental resources management, Environmental Impact Assessment.

Dr Ker Rault focuses now on Environmental Performance Evaluation, adaptation to climate change, and disaster risk reduction.



## Mohammed Rayes

Civil Engineer | Aramco

Mohammed had graduated in 2016 with a bachelor degree in Civil Engineering from Merrimack College, USA. He joined Saudi Aramco in 2017 as a civil and environmental engineer.

Mohammed is a technical lead in implementing sustainable and circular solutions in the building and construction industry by applying the circular economy pillars into Saudi Aramco's projects to promote value engineering and sustainability.

## SPEAKER BIOS



### Ronald Richa

GM, Plastic Recycling | Repeet

Ronald Richa is an environmental and circular economy specialist. Under Veolia Middle East, Ronald is currently heading the plastic recycling activity with the ambition to build, in Abu Dhabi, the UAE first food grade PET recycling facility. He is also managing several initiatives to enhance the circular economy culture and increase the plastic collection rate.

Ronald has an industrial business development background with a focus on environmental solutions and services for the Oil & Gas industry.

Ronald has 20 years' experience in the environmental business. He served several industrial companies providing tailor made and sustainable solutions. He also worked as an environmental consultant and had several assignments with big corporations.

Ronald holds a Bachelor of Water and Environmental Engineering and a Master's in Industrial Marketing. He also participated in several executive-level trainings and programmes.



### Dr. Ronald Roughland

Environmental Consultant | Aramco

An Australian professional environmental manager with over 30 years of international experience in the Middle East, North Africa, West & Central Asia, Canada and Australia. Ronald has a PhD in coastal zone management, focused on management of marine and coastal (blue carbon) ecosystems in Arabia.

Ronald works at Saudi Aramco as a senior marine environmental advisor developing and implementing environmental stewardship and biodiversity protection across vast coastal and marine concession areas, both in Saudi Arabia and throughout the Company's global operations. Ronald is active in promoting the Company's protection and restoration of nature-based solutions (blue carbon ecosystems) to mitigate global greenhouse gas emissions, adapt to climate change and to foster environmental stewardship.

Ronald is skilled at developing local capacity, actively engaging stakeholders and applying global best practice to resolve regional and local environmental issues. Ronald is experienced in the planning, implementation and management of high impact environmental programs for Governments, NGO's and Corporations, with a track record of delivering sustainable outcomes by eliminating perceived conflicts between development goals and environmental conservation.

Ronald has published 29 books and book chapters, as well as 28 scientific articles related to environmental management. This includes the development and publication of a series of Atlas manuscripts (English and Arabic) specific to the Arabian Gulf (Abu Dhabi, Bahrain and Saudi Arabia).



### Maria Soliman

Research Fellow | SABIC

Maria studied physics and finished her PhD in polymer physics in 1993. After a Post-Doc on polymer rheology at UMASS in Amherst (Massachusetts), she started her professional career at DSM Research in Geleen, NL in 1995.

A few years later, she moved to polypropylene product development working on water pipes and polyolefin based automotive compounds. After 2002, she worked for SABIC and moved 2006 to the business unit polypropylene as technical product manager for STAMAX (long glass PP). Maria spent several years in automotive marketing and decided to return to a research environment in 2010 starting new project portfolios amongst others related to advanced polymeric packaging solutions.

In 2015, Maria became Research Fellow at SABIC covering the areas of material science and application development and since 2020 she coordinates global technology efforts on circular economy.



### Dr. Surya Tiwari

Assistant Professor | KFUPM

Dr. Surya Prakash Tiwari received the B.Sc. degree in Mathematics, Physics in 2005, M.Sc. in Physics from India in 2007 from Gorakhpur University, India. Subsequently, he received M.Tech. degree in Remote Sensing & GIS from SRM University, India in 2009. He completed his Ph.D. in the Department of Ocean Engineering at Indian Institute of Technology Madras (IIT Madras) in 2013. Subsequently he worked at the City College City University of New York, USA as a postdoctoral fellow during 2013-2014. From 2013-2017, Dr. Tiwari worked as a postdoctoral fellow at the King Abdullah University of Science & Technology (KAUST), Saudi Arabia and developed several algorithms for ocean color remote sensing applications, mainly for the water quality and visibility detection in the Red Sea open and coastal waters.

Dr. Tiwari has more than four years of international postdoctoral research experience with several awards such as Postdoctoral fellowship supported by US 2013, International Ocean Color Coordinating Group (IOCCG) scholarship in the year 2014, HTRA fellowship IIT Madras for Ph.D., NASA travel grant, and a best mini group project award PORSEC-2012.

His present research interests include the assessment, management, and monitoring of environmental impacts in the land, coastal, and marine environments using numerical modeling, optics, earth observations, AI, and satellite remote sensing. His research interests also include studying the dust impacts on the marine productivity, phytoplankton blooms, oil spills, biotope mapping, shoreline change detection, land use and land cover, marine pollution, and water quality parameters in the Arabian Gulf and the Red Sea waters.

Based on his research work, he has published 20 peer-reviewed research papers (8 papers as the first author) in the top-ranked international journals, eight conference proceedings papers and presented more than 30 papers at different national and international conferences. Dr. Tiwari is currently working as an Associate Professor in the Center for Environment & Marine Studies, Research Institute, KFUPM and taking care of the remote sensing, data, & modeling studies.



## Hani Tohme

Senior Partner | Roland Berger

Hani joined Roland Berger in 2011 and has since established a new practice in the Middle East focusing on sustainability and addressing the major problems concerning the environment and climate change.

Mr. Tohme is leading topics related to the circular economy, effective waste & water management, and green technologies. He has successfully led transformative projects for governments and the private sector. Some of his key projects include setting national waste and recycling champions as well as supporting governments to develop national master plans in line with the concepts of the circular economy.

Hani holds a bachelor's in engineering and an EMBA from Columbia Business School, London Business School and Hong Kong University. Prior to consulting he gained hands-on experience as an engineer with the world's leading oilfield services provider.



## Damien Trinder

Director, Sustainable Development | Neom

Damien Trinder is the Director of Sustainable Development at NEOM, supporting the company's commitment to the protection and enhancement of the environment in and around the NEOM region.

He focuses on using efficient and effective methods of planning, design and construction whilst simultaneously developing a comprehensive environmental regulatory system that meets international protocols and standards.

Throughout his career of more than 25 years, Trinder has developed expertise in marine science, sustainable development and community and stakeholder engagement. Prior to joining NEOM, he served as Offshore Marine Environment Lead at Tengizchevroil in Tengiz, Kazakhstan. In this role, he oversaw the development and implementation of the offshore marine components of the company's Environment, Labour and Community Management System, while also facilitating implementation of the projects ISO 14001 Environmental Management Systems and International Finance Requirements.

Trinder has also held roles at Chevron Australia, specializing in environmental management planning, environmental risk assessment and nearshore and offshore infrastructure construction. Prior to that, he was Principal Marine Ecologist at the international consulting firm Environmental Resource Management, where he advised clients including Japan Energy, Shell and the Australian government's Department of Defense on the design, review and implementation of environmental programs.

Trinder holds a Master of Environmental Science in Marine and Coastal Management from the University of Western Australia and a Bachelor of Science in Marine Biology from the University of Tasmania.



## Sylvain Vaccher

Industrial Business Development Director | Veolia

Sylvain has been leading Veolia's industrial business activities in the Middle East since 2014. Focusing on Hazardous waste, Industrial and Process Water, Industrial Services and energy cycle optimization.

Sylvain has 25 years of experience in the field of Oil & Gas development for process optimization and industrial application. He was previously Middle East Technical and Sales Director at Pall Middle East, which he joined in January 2008.

He started his career in France with Repsol, before joining Nalco Energy for 10 years, where he held various functions ending as France Manager and European Fuel Marketing Manager.

Sylvain was born in France where he graduated as Chemical Engineer at Lyon School of Industrial Chemistry (ESCIL).



## Justin Wood

Vice President for Strategic Partnerships | Alliance to End Plastic Waste

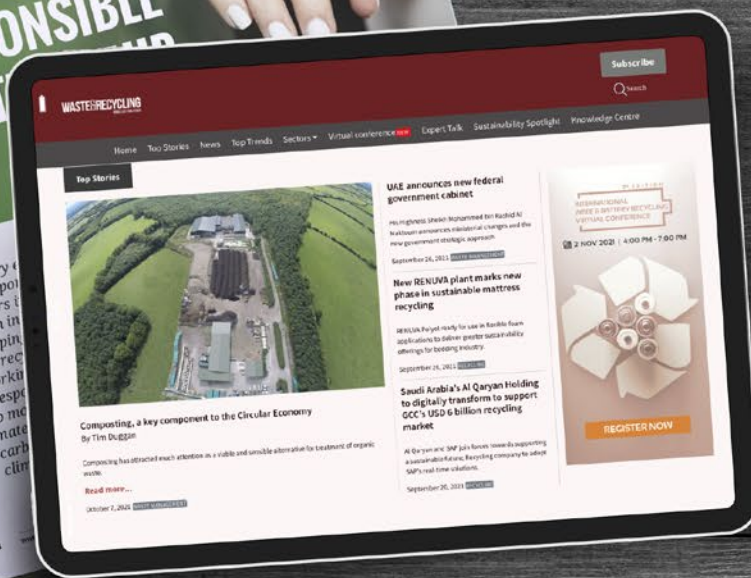
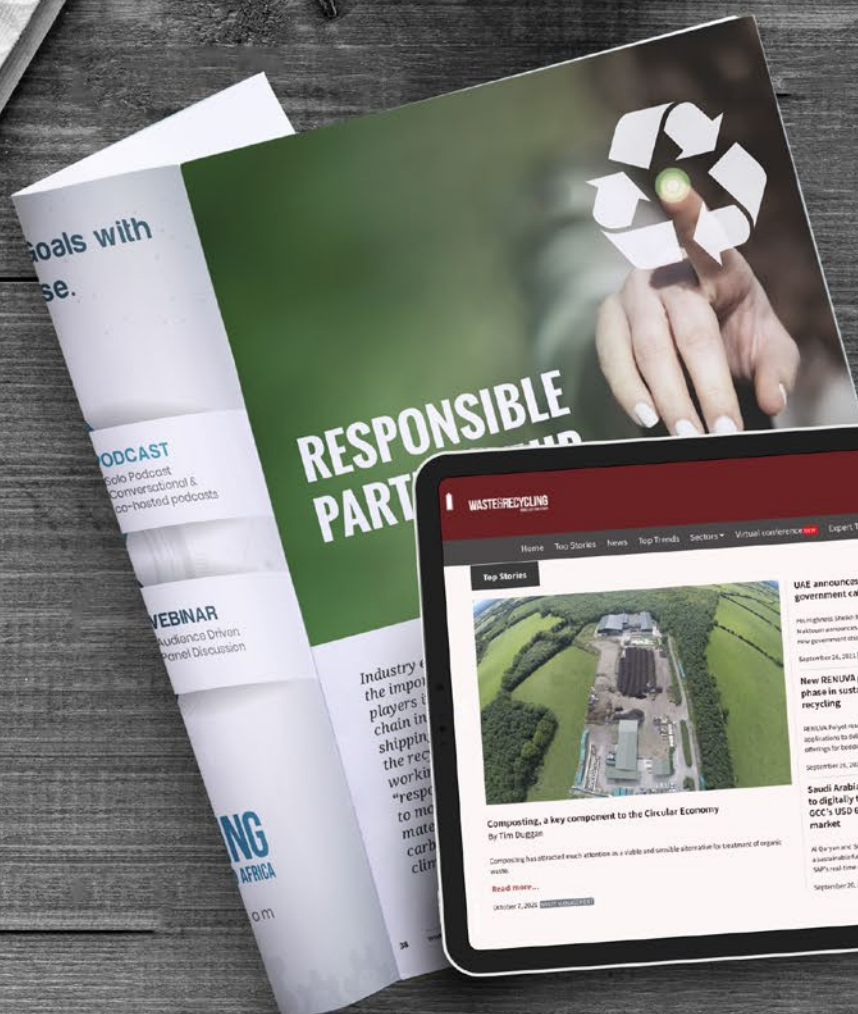
Justin Wood is Vice President for Strategic Partnerships at the Alliance to End Plastic Waste. He joined the Alliance in April 2020 and is responsible for raising funds for the Alliance, as well as managing relationships with external stakeholders, including businesses across the plastic value chain, governments, NGOs, civil society, inter-governmental organisations, development banks, and academia. Justin also oversees the regional strategies of the Alliance, ensuring that the work of the Alliance is tightly linked to the local priorities of different geographies.

Before joining the Alliance, Justin was Head of Asia Pacific and Member of the Executive Committee at the World Economic Forum from 2015 to 2020 where he managed the Forum's portfolio of activities and relationships in Asia, working on trade and economic integration, human capital development, technology policy, environmental sustainability and infrastructure financing.

Before 2015, he worked for The Economist Group for 18 years, the last 14 of them in South-east Asia. For eight of those years Justin ran an economic advisory and research service covering the Asia region, and before that he worked as a journalist, covering economics and business across Asia.

Justin is a graduate of the London School of Economics (1992) and has completed post-graduate studies in corporate finance at London Business School (2001) and in public policy at the Harvard Kennedy School (2019). Justin is the author of several books and is a frequent commentator on TV and in the press. He is married with three children.





PRINT



DIGITAL



EVENTS

Waste & Recycling Middle East and Africa is the definitive regional magazine for environmental and resource management, with a focus on waste management and recycling

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## Imam Abdulrahman Bin Faisal University

## GROUP 1 - DESIGN OF DEWATERED SEWAGE SLUDGE WITH CO-DIGESTION FOR BIOGAS PRODUCTION

**Moath Allubli**

Moath Allubli is a senior Environmental Engineering student at Imam Abdulrahman Bin Faisal University. He is interested in finding methods to utilize solid waste in making sustainable products. Recently, he co-published a paper about utilizing office paper waste on synthesizing CNC. He will be presenting methods to produce biogas from sewage sludge.

**Tag Nasreldin**

Tag Nasreldin is a senior Environmental Engineering student at Imam Abdulrahman Bin Faisal University. He is interested in finding sustainable methods to preserve the value of waste to maintain circular economy. He co-published a paper where he utilized office paper waste to synthesize CNC, a sustainable material that has many applications. Today, he will present methods to stabilize and produce biogas from sewage sludge.

**Mohammed Al-Nabulsi**

Mohammed Al-Nabulsi is a senior at the University of Imam Abdulrahman Bin Faisal majoring in Environmental Engineering. He is interested in the study of turning everyday materials into products that can help the community to flourish and grow, wherein today's presentation we'll be presenting methods of Utilizing sludge waste and treating it to make energy by producing methane gas.

**Mohammed Alaliwi**

I am a senior environmental engineering student at Imam Abdulrahman Bin Faisal University. I am an ambitious person and responsible to approach any task. My talk will address how to generate energy from sludge.

## GROUP 2 - DESIGN OF LOW-COST INDOOR AIR QUALITY MONITORING STATION

**Abdulaziz Addawayan**

Abdulaziz Addawayan is a senior at the University of Imam Abdulrahman Bin Faisal majoring in Environment Engineering. He is interested in the study of air pollution and air pollution control. Trying to help our community and support them. We will present the methods of how to measure the pollutants in indoor air quality.

**Ibrahim Alanazi**

Ibrahim Alanazi is a senior Environmental Engineering student at Imam Abdulrahman Bin Faisal University. He was born and lived in Jubail Industrial City and this is what prompted him to study Environmental engineering. He is interested in finding a reliable, fast, and cost-effective for monitoring indoor air pollutants. wherein today's presentation we'll be presenting a design of a Low-cost indoor Air Quality Monitoring Station.

**Tariq Alqarni**

Tariq Alqarni is a senior Environmental Engineering Student at Imam Abdulrahman Bin Faisal University. He is interested in Air Quality monitoring, and he is ambitious to find a solutions for Environmental problems especially Air pollution and finding technologies to measure the pollutants the surrounding our environment and affect our health.

**Mohammed Alrubaie**

Mohammed Alrubaie is a senior Environmental Engineering student at Imam Abdulrahman Bin Faisal University. He is interested in Air pollution and air pollution control, finding a reliable, fast, and cost-effective for monitoring indoor air pollutants that surround our environment and affect our health. wherein today's presentation we'll be presenting a design of a Low-cost indoor Air Quality Monitoring Station.

# STUDENT SPEAKERS

## Prince Mohammad Bin Fahd University

### GROUP 1 - ENERGY EXTRACTION FOR SUSTAINABLE DEVELOPMENT-A STUDY ON BIO-FUEL PRODUCTION

#### Ahmed Rumaih

Ahmed Jamal A Al Rumaih, a senior Civil Engineering student studying at Prince Mohammad Bin Fahad University in Khobar. A member of the American Society of Civil Engineers and the current president for the Civil Engineering club at Prince Mohammad Bin Fahad University. He will graduate in January 2023 with Bachelor of Civil Engineering. His passion about how buildings were constructed and stood up led him to choose subjects that included elements of engineering. This interest in engineering has led him to obtain a degree, which then he utilizes as a steppingstone to become a civil engineer. Ahmed has gained the knowledge of using some of the important software during his studies that are very helpful in the field. AutoCAD and SAP2000 that he learnt and worked with.

#### Badria Bubshait

Bria Tariq Bubshait, a Senior Civil Engineering student at Prince Mohammad Bin Fahd in Khobar and a member of the American Society of Civil Engineers. Choosing Civil Engineering as a major because she is interested in structural building, Environment cases, working in the field, and how she connects everything around her with Civil Engineering. Learned how to use useful software during her studies like SAP2000, AutoCAD, and ETABS, and applied this knowledge in solving mathematics problems or on projects. Last, she took her internship last summer in Saudi Armco, where she was working in the Transportation and Equipment's Services Department with the Roads Engineering Unit and Fleet Engineering Unit, she had the opportunity to work with both of them and gained more knowledge from the projects she worked on with the engineers. And, she had a Certification of Completion for her great work and a recommendation from her mentor for her high qualities.

#### Hayat Alhindas

Hayat Abdulaziz Alhindas, a Senior Civil Engineering student at Prince Mohammad Bin Fahd in Al Khobar. She will graduate in 2023 with Bachelor of Civil Engineering. Choosing Civil Engineering as a major because, Civil engineers have become specialists in making sustainable and environmentally friendly buildings and systems. Multiplied over many communities, the energy and emissions savings can make a real difference in the environment. Other life-improving functions can also make communities better places to live. Practicing in her internship ship, career life, and site visit at Eastern Province Amana helped her to understand how to connect and use what she learned and studied in collage in the real life. Through the years of using software on her study she gained the knowledge and ability of using some of the major software such as SAP2000, AutoCAD, and ETABS.

#### Fhadah Alsaud

Fhadah Abdulaziz A Alsaud is a Senior civil engineering student studying at Prince Mohammed Bin Fahad University in Al Khobar and a member of the American Society of Civil Engineers (ASCE). My passion for solving the math problems and the challenges I faces make my passionate about my engineering. She curiosity and, as a result, curiosity to learn more about how structures were constructed in these surprisingly convenient locations led them to choose civil engineering as their major. During her research, she learned how to use some important software that is very useful in this area. Etabs, SAP2000, and AutoCAD are the software she learned and used, constantly trying to learn more to improve her skills in combination with the latest tools.

#### Fai Al-Otaibi

Fai AlOtaibi, a senior Civil Engineering student studying at Prince Mohammad Bin Fahad University in Khobar. A member of the American Society of Civil Engineers and the current vice president for the Civil Engineering club at Prince Mohammad Bin Fahad University, her study of this major gives her a passion to provide all the knowledge she received at the university in order to serve her country, develop its construction and foundation as a Civil Engineer.

#### Ghada AlBagami

Ghada Hamid Albagami, an undergrad Civil Engineering student at Prince Mohammad Bin Fahad University in Alkhobar, as well as a member of the American Society of Civil Engineers. Her desire to learn more about how structures are formed and how they result in these magnificent functional locations led her to choose Civil Engineering as a major. During her studies, she learned how to use some of the most significant softwares that are extremely useful in the area. Etabs, SAP2000, & AutoCAD are the softwares she has studied and worked with.

#### Fatima Alshakwan

Fatima Alshakwan, a senior Civil Engineering student at Prince Mohammed Bin Fahad University in Al Khobar, and a member of the American Society of Civil Engineers. She has a passion for learning more about geotechnical and transportation fields. Through the past years, she gained a great knowledge of how to use major software like AutoCad and SAP2000. Excited to achieve her goal which to use her knowledge to help and develop as much as she can.



## GROUP 2 - OILFIELD OR OIL REFINERY WASTEWATER TREATMENT BY CONSTRUCTED WETLANDS IN KSA



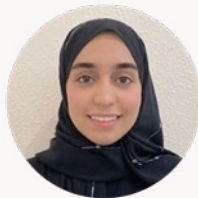
**Zainab Alnaser**

Zainab H. A. Alnaser is a senior student at Prince Mohammad Bin Fahd University, majoring in civil engineering. Part of the American Society of Civil Engineering ASCE and American Concrete Institute ACI. The representative of ASCE club (PMU Chapter). Her interest in civil engineering began during high school when she got inspired by one of her family members who worked as a civil engineer. Her studies have provided her with broad proficiency in the use of civil engineering methods, tools, and software such as AutoCAD, to solve problems. Currently working on a senior design project, which is the Geotechnical and Structural Design of a Multi-story Car Parking Using Steel and Concrete Structure at PMU. Expected to graduate Spring 2021/2022. Conducted her internship assignment at Fleet and Roads Engineering Division in Saudi Aramco for almost 3 months as a roads engineer in the Roads Engineering Unit. Her vision is to solve and study engineering problems as a sustainable engineer. Interested in reading and doing researches. Her primary research is to contribute to sustainability through constructed wetlands techniques. In short, Zainab is always eager to gain new challenging rules in civil engineering fields.



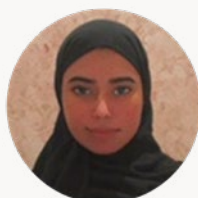
**Noor Alfaraj**

Noor Abdullah Alfaraj is an outstanding senior civil engineering student at Prince Mohammad Bin Fahad University, located in the Eastern Province of Saudi Arabia. Noor enrolled at the engineering college in the Fall of 2018, and expects to graduate by Spring 2022 in July. As an engineering student, who is pursuing opportunities where her skills can be utilized in parallel to gaining knowledge and experience, which will help her to establish a successful career path. That includes being a member of both the American Society of Civil Engineering (ASCE) and the Society of Petroleum Engineering (SPE) and staying updated by today's engineering. Not to mention during an internship in summer 2021, before her senior year in Saudi Aramco. Furthermore, one of the important aspects of her life is having a sustainable and healthy life that does not harm the environment. By doing this, we are saving the environment for future generations.



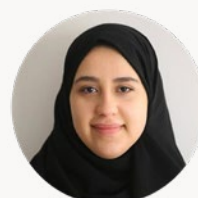
**Hamidah Alhanabi**

Hamidah Thabit Alhanabi, a Senior Civil Engineering student studying at Prince Mohammad Bin Fahad University in Alkhobar and a member of the American Society of Civil Engineers. Passioned toward solving the mathematical problems and the challenges faced is what get her excited about Engineering. Having the curious to discover more about how the structures built and result with these amazing useful places is what get her to choose Civil Engineering as a major. Learnt how to use some of the important softwares during her studies that are very helpful in the field. Etabs, SAP2000, and AutoCAD are the softwares that she learnt and worked with and always seek to learn more softwares that will improve her skills when combining with the modern tools. Last summer, she took her University Internship in Saudi Aramco where she was working in the RT NACMD in the Community Maintenance Division under the Work control unit with the cost estimation group where she learnt a lot and contributed in many projects' cost estimation together with the other engineers.



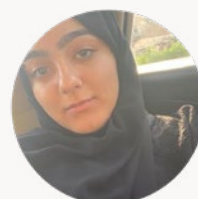
**Noof Alsubaiei**

Noof M. A. Alsubaiei is a senior civil engineering student at Prince Mohammad Bin Fahd University. Volunteer in Ithra. Took her internship assignment in Municipality of Khobar Government. That help grants land headway associations to apply for ensured manufacturing licenses for land improvement projects in the Eastern Region. The help is overseen by introducing the requesting to the center, absolute with the reports demonstrated in the once-over joined to the assistance interest, through the electronic association between the fulfillment structure and the Eastern Region Municipality system. There are major courses interested in Auto CAD, Engineering measurement, Environmental, sustainable Engineer, and more major subject. However, communication courses will help in future job such as oral and written communication. Inspired by her grandfather, most known contractor. Earn most information from him, such as in transportation or in marials to build bridge. All in all, as future engineer would to change environment to better than now.



**Fatima Duris**

Fatima F. M. Al Duris is a senior civil engineering student at prince Mohammed bin Fahd university (PMU). Did 2-months of summer internship at eastern region municipality (Eamana) in Dammam. Part of the American Society of Civil Engineering (ASCE). Expected to graduate in summer 2022. Have been interested in environmental and sustainable engineering for the last 2 years also, would like to continue master and PhD studies in environmental and sustainable engineering, love to be up to date about all the news of environmental and sustainable engineering, and like to contribute and be part of any sustainable activities in order to make the world a better place to live in and make the best use of the renewable energy, and would love to be a part of a community that cares about the environment and hopefully making sustainable engineering a part of the future.



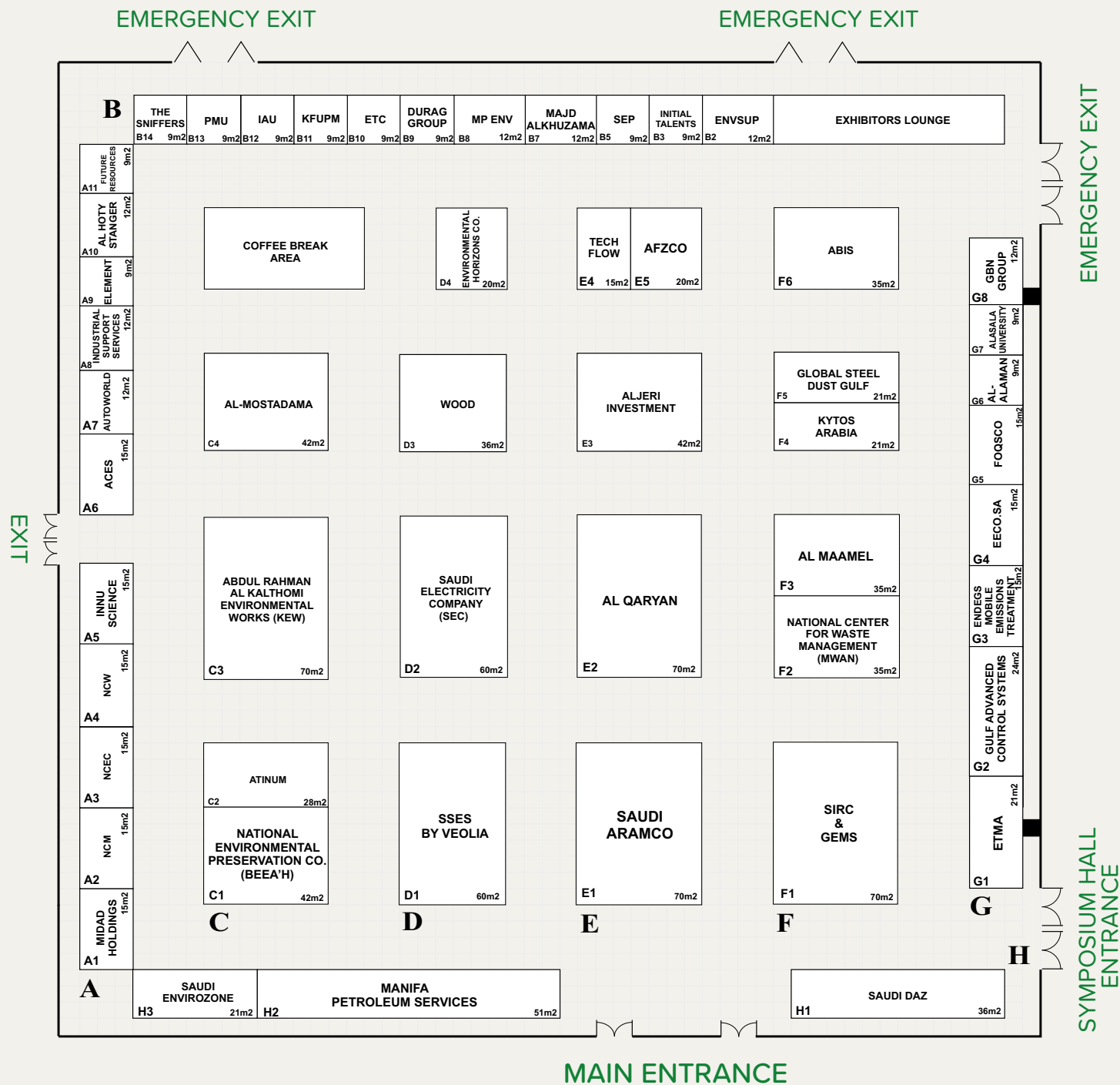
**Bayan Aladulrahim**

Bayan A.A. Aladulrahim is a senior Civil Engineering student at Prince Mohammed Bin Fahad University. Joined PMU in 2017 which took Prep Program to be a professional in the English Language before studying the major. Choosing this major because of her interest in design and it is one of the old engineering majors which is basic for most projects. Besides, took many courses which were required while studying the major such that Oral Communication, and Professional Development. Finished the internship last summer at (Reconstruction and Projects Agency) Eastern Province Municipality. Many courses require for the Civil Engineering bachelor's degree. However, some courses liked most such that Engineering Measurement, CAD, Reinforced Concrete, and structural courses. As a future civil engineer, thinking about the environment at the time of designing and working on a project it's an important thing which this covered in Engineering Environmental and Sustainable Engineering courses. In conclusion, always working with a love for the major, hoping to serve the country, and making a mark on change in the future.

## EXHIBITORS: A-Z

EXHIBITOR NAME	STAND
ABDUL KARIM H ALSINAN & PARTNER FOR TRADING COMPANY	F4
ABDULLAH ABDULWAHAB AL- BARRAK & SONS CO.	F6
AL BASSAM GROUP OF COMPANIES	A8
ALASALA UNIVERSITY	G7
AL HOTY STANGER LTD. CO.	A10
AL KALTHOMI ENVIRONMENTAL WORKS (KEW)	C3
AL QARYAN GROUP	E2
ALALAMAN FOR TRADING & CONTRACTING CO	G6
AL FAHHAD ZEGWAARD (AFZCO)	E5
ALJERI INVESTMENT COMPANY	E3
ARAB COMPANY FOR LABORATORIES & SOIL(ACES)	A6
ARAMCO	E1
ATINUM	C2
AUTOWORLD	A7
DURAG HOLDING AG	B9
ELEMENT MATERIALS TECHNOLOGY	A9
ENDEGS GMBH	G3
ENVIRONMENTAL EXPERT CO.	G4
ENVIRONMENTAL HORIZONS CO.	D4
ENVIRONMENTAL SUPPORT OFFICE FOR ENVIRONMENTAL CONSULTING	B2
ENVIRONMENTAL TECHNOLOGY COMPANY	B10
FREIH BIN OWAIIDHA AL QAHTANI SONS CO. LTD. (FOQSCO)	G5
FUTURE RESOURCES COMPANY	A11
GLOBAL ENVIRONMENTAL MANAGEMENT SERVICES (GEMS)	F1
GLOBAL STEEL DUST GULF (L.L.C)	F5
GULF ADVANCED CONTROL SYSTEMS	G2
GULF BUSINESS NETWORK (GBN)	G8

EXHIBITOR NAME	STAND
IMAM ABDULRAHMAN BIN FAISAL UNIVERSITY	B12
INITIAL TALENTS	B3
INNUSCENCE COMPANY	A5
KING FAHD UNIVERSITY OF PETROLEUM AND MINERALS	B11
MAJD ALKHUZAMA	B7
MANIFA PETROLEUM SERVICES COMPANY	H2
MIDAD COMPANY LTD.	A1
MONITORING POINT ENVIRONMENTAL SERVICES CO. (MPENV)	B8
NATIONAL CENTER FOR ENVIRONMENTAL COMPLIANCE	A3
NATIONAL CENTER FOR METEOROLOGY	A2
NATIONAL CENTER FOR WASTE MANAGEMENT	F2
NATIONAL CENTER FOR WILDLIFE	A4
PRINCE MOHAMMAD BIN FAHD UNIVERSITY	B13
SAUDI DAZ ELECTRONIC AND SOLID WASTE RECYCLING FACTORY	H1
SAUDI ELECTRICITY COMPANY	D2
SAUDI ENVIROZONE LLC	H3
SAUDI INVESTMENT RECYCLING COMPANY (SIRC)	F1
SPECIAL ENVIRONMENTAL PROJECTS	B5
SSES BY VEOLIA	D1
SUSTAINABLE ENVIRONMENT WORKS COMPANY	C4
TECH FLOW CO.	E4
THE ENVIRONMENTAL TECHNOLOGY & MANAGEMENT ASSOCIATION (ETMA)	G1
THE NATIONAL ENVIRONMENTAL PRESERVATION COMPANY (BEEA'H)	C1
THE NATIONAL LABORATORY CO. (MA'AMEL)	F3
THE SNIFFERS	B14
WOOD	D3







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