

“All success stories start with a vision, and successful visions are based on strong pillars.”

— HRH Crown Prince Mohammad bin Salman bin Abdulaziz Al-Saud

SandRose

September 2019



September 2019



SandRose
Magazine

89th KSA

NATIONAL DAY!

Kingdom Inspired

spe-ksa.org

a SPE-KSA Publication



Kingdom of Saudi Arabia Section

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MESSAGE FROM THE EDITOR-IN-CHIEF

I am delighted to present to you the first edition of SandRose for the 2019-2020 term of SPE-KSA. I am humbled and grateful for the opportunity to serve as SandRose's Editor-in-Chief for this term, and I aim for this publication to continue fulfilling its purpose of both highlighting the Section's ongoing efforts and providing our readers with interesting, relevant and useful content. As with every endeavor, we embark with a true sense of purpose. As a professional in Finance, an active member in SPE, an enthusiast in Sociology and a passionate writer, I grew aware of the importance of well-roundedness very early on in my academic and professional careers. And our purpose stems from a similar mindset. We believe that this magazine can serve as both a channel for highlighting the section's hard work and groundbreaking achievements and a tool for exposure, growth and knowledge. We will strengthen our presence, broaden our horizons and benefit our community.

This edition of SandRose is a special one because it falls under the theme of KSA as September 23rd marks the Kingdom's 89th National Day. As a young Saudi female, I am overwhelmed by the progress and achievements of this great nation. We are living in a historical period, one that will be discussed by our children and grandchildren. And for that, I feel blessed. You will find, in this edition, special pages of inspiration, achievement and beauty – all revolving around the Kingdom of Saudi Arabia and its people.

I would like to commend Salma Al-Hashimi, SandRose Editor-in-Chief for the term 2018-2019, and the co-Editor for this edition, for the tremendous work she has done with the publication, especially in her introduction of "SandRose Education" and "SandRose Junior". These two initiatives are testaments to the impact that this publication can have, and the benefits it can serve to the community.

I would also like to thank all contributors to this edition. The SandRose team has shown true dedication in their meticulous work on content-creation, design and editing. A special thank you goes to the members of the SPE-KSA Board of Directors and esteemed leaders of the SPE community, who took the time to share with us heartfelt messages in celebration of the National Day. In addition, Moath Alofi and Hessah Alajaji have generously contributed their photographs to show us a side of Saudi Arabia that we have never seen. Last but definitely not least, Dr. Layla AlHassan and Dr. Fahad Alwahhabi both agreed to interviews on their respective fields, chemistry and mental health.

This edition is a product of local talent, expertise and dedication, and we couldn't be prouder and more humbled to present it to you in this special time.

HALA A. ALHASHMI
Editor-in-Chief



MEET THE SANDROSE TEAM



Salma Al-Hashimi
Chief Editor Advisor



Anas Ruhman
Creative Advisor



Sarah Alruwaily
Assistant Editor



Ammar Siddiqui
Senior Editor



Fatemah Abudeeb
Senior Editor



Ali Al Towilib
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Yazeed Al Dughaither
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Khalid Butairi
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Hala Alwagdani
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Syed Haider
Associate Editor



Malikah Sharif
Contributor



Maha AlHashmi
Contributor



Ahmad Ismail
Contributor



Nouf Alotaibi
Contributor



Noora Al-Hashimi
Contributor

MESSAGE FROM THE CHAIRMAN

We would like to extend a warm and sincere welcome to our valuable members, who are our partners in the progress that we have achieved during the past years. As we move towards an exciting era in our industry, our team is committed to uphold the values that made our section a long-standing success. The diversity of this term's executive board, who are coming from different disciplines and companies, shall augment a wider range of skills and amplify cultural insights.

This year, SPE-KSA will continue to be the leading platform for technical and professional exchange through the various section's programs and activities. We aim to improve the outputs of our legacy programs and activities at all stages through a focus on contemporary industrial topics such as Sustainability, Climate Stewardship and IR 4.0. In addition, we will shift the section into a new phase that will not only influence our members' professional lives but will reach out to their homes and families. This will be realized by transforming our interactions technically, professionally and socially through groundbreaking initiatives that will transform the experience of our members.

Our mission and vision are aligned with our strategic objectives and the Kingdom's Vision 2030 to promote the Kingdom's regional leadership and international competitiveness. In addition, this year we will be focused on the visibility of our contributions. We understand the importance of our initiatives and activities, but in parallel, we will make our activities more visible to our members in order to extend the knowledge to broader horizons. The tools that will support our vision and mission are ready to be released and will be shared with you along our journey.

ABDULAZIZ K. AL SUFAYAN
Chairman, SPE-KSA



SPE-KSA 2019-2020 EXECUTIVE BOARD



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ATS&E Chairperson



Nassir Abalkhail
Technical Programs Chairperson



Mohammed Al-Nahas
Young Professionals Chairperson



Seba Al-Maghlouth
Student Outreach Chairperson



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SandRose Editor-in-Chief



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Abdulrahman Al-Musare
Planning & Coordination Chairperson



Abdulaziz Al-Suwailem
Public Relations Chairperson

JOIN SPE-KSA FAMILY NOW!

SPE-KSA section is considered one of the largest and most decorated SPE sections in the world with more than 10,500 members.

For more information about how to join SPE-KSA family, visit spe-ksa.org/membership/

EXECUTIVE BOARD BIOS

Abdulaziz K. Al Sufayan

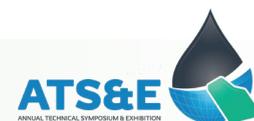
Chairman, SPE-KSA



Abdulaziz K. Al Sufayan is a Petroleum Engineer with Production and Facilities Development at Saudi Aramco, where he is heading the Upstream Technical Support Division. He holds a BS in Petroleum Engineering from King Fahd University of Petroleum and Minerals (KFUPM). His experience and contributions cover a wide range of petroleum engineering areas, including production engineering, field operations, reservoir management, upstream projects management and asset teams' coordination, having made valuable contributions in both onshore and offshore fields. He held several leadership positions in Saudi Aramco and has served in SPE-KSA's Executive Board twice as Publicity Chairperson in the 2011-2012 term and Technical Programs Chairperson in the 2016-2017 term.

Dr. Mohammed Al-Hamdan

Chairperson, Annual Technical Symposium & Exhibition (ATS&E), SPE-KSA



Dr. Mohammed R. Al-Hamdan is a Petroleum Engineering Consultant working in Northern Area Reservoir Management at Saudi Aramco. Mohammed has more than 20 years of experience in various aspects of petroleum engineering. He earned his BS degree with second honor from King Fahad University in 1998, a MS degree from University of Southern California in 2003 and a PhD from the University of New South Wales in Australia in 2013. His PhD research won first place at the 2012 SPE Asia Pacific student paper contest and third place at the SPE 2013 International Annual Technical Conference & Exhibition paper contest. He was recently selected to receive the SPE 2018 regional Health, Safety, Security, Environment and Social responsibility award as an acknowledgment of his outstanding contribution in this area at the Middle East regional level.

Nassir A. Abalkhail

Chairperson, Technical Programs, SPE-KSA



Nassir A. Abalkhail is a Petroleum Engineer with Southern Area Reservoir Management and is currently working with Upstream Development Strategy & Reserves Department at Saudi Aramco. Nassir holds a BS degree from The Pennsylvania State University in Petroleum and Natural Gas Engineering with a minor in Energy Business and Finance, and a MS degree in Petroleum Engineering from The University of Texas at Austin. Nassir was an active member of SPE-Penn State and has been active with SPE-KSA since joining Saudi Aramco in 2013. The Technical Programs team aims to create the perfect environment for fostering knowledge dissemination and creating networking experiences for the society's members through its monthly dinner meetings, in which they host influential and top industry figures, and technical luncheons, where subject matter experts are invited to discuss trending topics in the industry.



Mohammed Alnahas

Chairperson, Young Professionals, SPE-KSA

Mohammed Alnahas is a Reservoir Simulation Engineer working for the Event Solution Center in Reservoir Description & Simulation Department at Saudi Aramco, with his previous experience being in Reservoir and Production Engineering. Mohammed graduated from the Pennsylvania State University with a BS degree in Petroleum & Natural Gas Engineering in 2016. He served as the SPE-KSA Public Relations Chairperson in the 2018 -2019 term after volunteering in numerous roles within the section.

This term, the Young Professionals committee will undergo a full restructure to ensure a more interactive and inclusive environment for YPs. The team will continue developing technical knowledge through hackathons, technical field trips and workshops focusing on IR4.0 and best in-class practices in the energy sector. The YP team will also host a public event for inspirational leaders and entrepreneurs to share their experiences with aspiring YPs.

Seba Almaghlouth

Chairperson, Student Outreach, SPE-KSA



Seba Almaghlouth works at the Expec Computer Center with the Upstream Industrial Revolution 4.0 team to apply digital transformation to the E&P business. Seba has been with Saudi Aramco for seven years and worked as a Systems Analyst in several areas, such as intelligent fields, Reservoir Analytics and Reservoir Management.

Seba graduated from Prince Mohammed bin Fahd University with a BS degree in Information Technology. She obtained her MS degree in Software Engineering from the Pennsylvania State University and is pursuing a dual master’s degree in Data Transformation also at Penn State. She holds several technical certifications such as Blockchain Developer from IBM, Digital Transformation certification from Boston Consultant Group, ITIL v3 certification and both Data Science and IT Entrepreneurship certifications from Stanford University.

Seba has been an active member of SPE-KSA since 2012. This year, she is leading the Student Outreach team that focuses on several local activities for SPE-KSA university chapters, school outreach activities and mentorship programs. The primary purpose of this team is to link energy with the Kingdom’s youth and explore the opportunities of SPE in the Kingdom’s energy development and Vision of 2030.

Mohammed Al-Mishkhass

Chairperson, Trips & Social Activities, SPE-KSA



Mohammed Al Mishkhass is a Business Development Manager at Schlumberger. He graduated from King Fahad University of Petroleum and Minerals in 2005 with a 2nd honor BS degree in Geophysics. He has been an active member in the Society of Petroleum Engineers since he was in university and is currently the Trips and Social Activities Chairperson of SPE-KSA.

In the current term of 2019-2020, he aims to drive SPE to become a reference that highlights a wide variety of volunteering activities and all types of opportunities to serve the local community by organizing events that support SPE in continuing to be an ideal platform for both networking and socializing.



MEMBERSHIP

Othman Al-Qasim

Chairperson, Membership, SPE-KSA

Othman is a Petroleum Engineer working for Saudi Aramco. He has 9 years of rich experience in the Oil and Gas industry, working mainly for the Southern Area Production Engineering Department. During his career, Othman was assigned to work for Well Completions, Reservoir Management and Drilling & Workover departments. He holds a BS degree in Petroleum Engineering with honors from the University of Adelaide, Australia and a MS of Engineering Science with excellence from the University of New South Wales, Australia. Othman is currently pursuing an MBA degree at KFUPM, Saudi Arabia. He has been an active SPE professional member for the KSA Section since 2010. He is currently serving as the Membership Chairperson in the SPE-KSA Executive Board. His team's mission is to retain and attract new members to be part of the SPE-KSA Section by conducting various marketing initiatives and membership awareness campaigns. His team reaches out to companies and individuals across the Oil and Gas industry by capitalizing on the Section's activities and platforms.



**Information
Technology**

Abdulrahman Al-Naim

Chairperson, Information Technology, SPE-KSA

Abdulrahman Alnaim is leading the Security Operations Center in Saudi Aramco's EXPEC Computer Center. Prior to his current post, Alnaim lead a number of groups and activities including the Security Systems Group and Governance, Risk and Compliance Group. His experience in Cybersecurity includes Cybersecurity architecture, Access Management, Penetration Testing, Vulnerability Management, Security Operations and Incident Response. Alnaim holds a BS degree in Computer Science from the American University, Washington, DC. He also obtained a number of professional certifications, including ISC² Certified Information Systems Security Professional, ISACA Certified Information Security Manager and ISACA Certified in Risk and Information System Controls, Certified Ethical Hacker, GIAC Certified Incident Manager and GIAC Web Application Penetration tester. Alnaim is currently the IT Chairperson of SPE-KSA and is a contracted content contributor on Cybrary.

Abdullah Al-Mulhim

Chairperson, Event Management, SPE-KSA



Abdullah is the Completion Sales Manager in Halliburton, Saudi Arabia and is currently the 2019-2020 SPE-KSA Event Management Chairperson. Upon graduating from KFUPM in 2002, he started his career as a Production Engineer in Aramco. Five years later he moved to Weatherford as a Sand Control Seiner Sales Engineer. After completing 7 years with Weatherford, Abdullah moved from his position as a Marketing Manager to Dynamic Oil Tools Company where he was assigned as Production and Completion Manager. Two years later, he joined EROG as a General Manager prior to joining Halliburton. Abdullah has been an active SPE-KSA member since 2008, and has held several executive board positions. Abdullah was the 2016-2017 SPE-KSA Event Management Chairperson and the 2017-2018 SPE-KSA Trips & Social Activities Chairperson. The Event Management team aims to support and supply all sections and committees during its events and activities.

Saad Almudara

Treasurer, SPE-KSA



Saad Almudara is an upstream professional with a BS degree focused in Petroleum and Natural Gas Engineering from The Pennsylvania State University. He began his career in 2016 with Production and Facilities Development Department at Saudi Aramco, and has been heavily active with SPE-KSA ever since. His main role as the Treasurer is to manage and oversee the financial matters of the society. Saad enjoys learning about philosophy, psychology and sociology. He is also an avid writer and a tennis enthusiast.

Abdulrahman Al-Musare

Chairperson, Planning & Coordination, SPE-KSA



Abdulrahman M. Al-Musare is a Drilling Engineer in Drilling and Workover Services Department at Saudi Aramco. He has been assigned to work in Gas Drilling Engineering, Gas Drilling Operation and Off-Shore Drilling.

Prior to that, Abdulrahman worked as a Mechanical Engineer at Bechtel International from 2010 to 2014. He earned his BS in Technical Engineering and MSc in Project Engineering Management from Manchester University in 2010.

Abdulrahman has been active with SPE-KSA since 2014 as he organized and led multiple tasks and events, and is now the Planning and Coordination chairperson.

Abdulaziz Al-Suwailem

Chairperson, Public Relations, SPE-KSA



Abdulaziz is a Petroleum Engineer at Saudi Aramco. He holds a BS degree in Petroleum Engineering from the University of Manchester, UK. He joined Saudi Aramco in 2011 as a reservoir simulation engineer, and worked in well testing, production engineering, unconventional resources and reservoir management. Abdulaziz has been an active member in multiple teams of SPE-KSA since 2011.

SPE-KSA Public Relations envisions creating a focused and synergized platform of the energy industry, and thus elevating its overall contribution to the industry. It aims to maximize the impact and reach of SPE-KSA's events, and attract the brightest talents to both the Section and the Oil and Gas industry.

Hala A. AlHashmi

Editor-in-Chief, SandRose Magazine, SPE-KSA



Hala AlHashmi is a planning and performance management analyst at the Operations and Business Services service line at Saudi Aramco, and is currently working with the Financial Consulting Division in Finance as an Accounting Analyst. She received her Bachelor's degree in Finance, with a double minor in Sociology and Economics, from the Pennsylvania State University, and received her Master's of Science in Finance from Johns Hopkins University. Hala is currently the Editor-in-Chief of SandRose magazine, the official publication of SPE-KSA.



WHO ARE WE?

History & Background

Ever wondered what SPE is? SPE is the Society for Petroleum Engineers, the largest individual-member organization serving professionals worldwide in more than 147 countries. The organization was officially founded in 1957 while its predecessor organizations date back to the birth of the oil industry in the late 1880s. Ever since its foundation, professionals in the exploration, development and production of oil and gas were able to collect, disseminate and exchange technical knowledge.

Did you know that Saudi Aramco’s President & CEO, Mr. Amin H. Nasser, received the Distinguished Lifetime Achievement Award in 2017? This is SPE’s highest award, and has only been previously presented to a minister and two senior officials in the petroleum industry.

SPE-KSA Membership Growth

The SPE-KSA section is one of 203 sections worldwide. Figure 1 demonstrates the growth in SPE-KSA’s membership between 2009 and 2019. The section has experienced continuous growth since 2009. In fact, members have grown more than 5 times from 2,034 to 10,503 during that period.

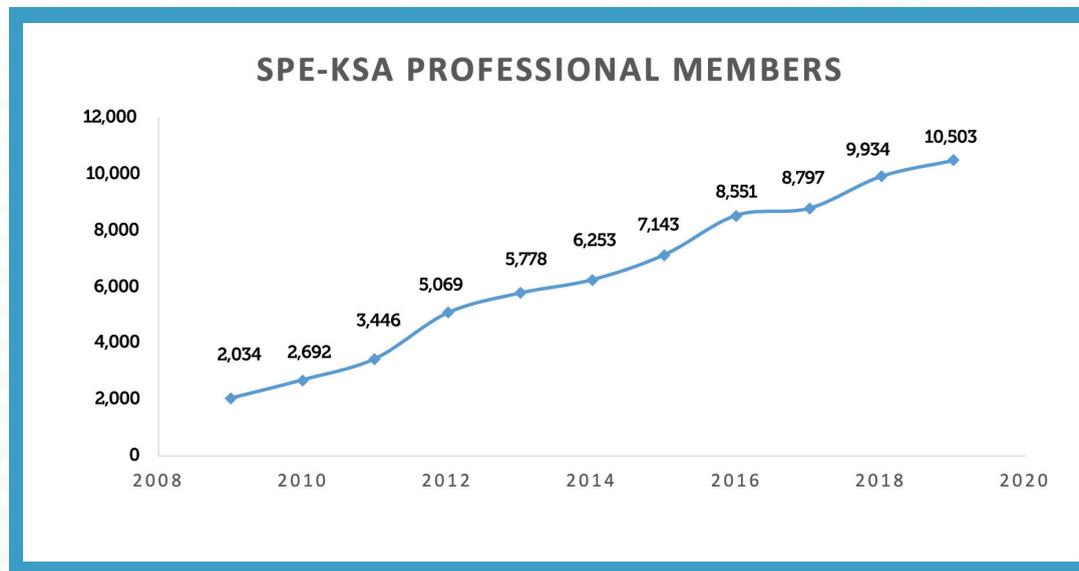


Figure 1. SPE-KSA Professional Members Number from 2009-2019

The SPE-KSA section is the largest section outside of the United States with a difference of approximately 2,700 members from the Gulf Coast section located in the United States. During the past year, KSA’s section experienced a **5.73%** increase in growth. A similar growth performance in the next two years will place the SPE-KSA section as the **largest** worldwide.

“The Saudi Section of SPE has not only thrived over the last 60 years, in the process, you have become the Number 1 SPE section outside of the United States!” Amin H. Nasser, Saudi Aramco’s President & CEO

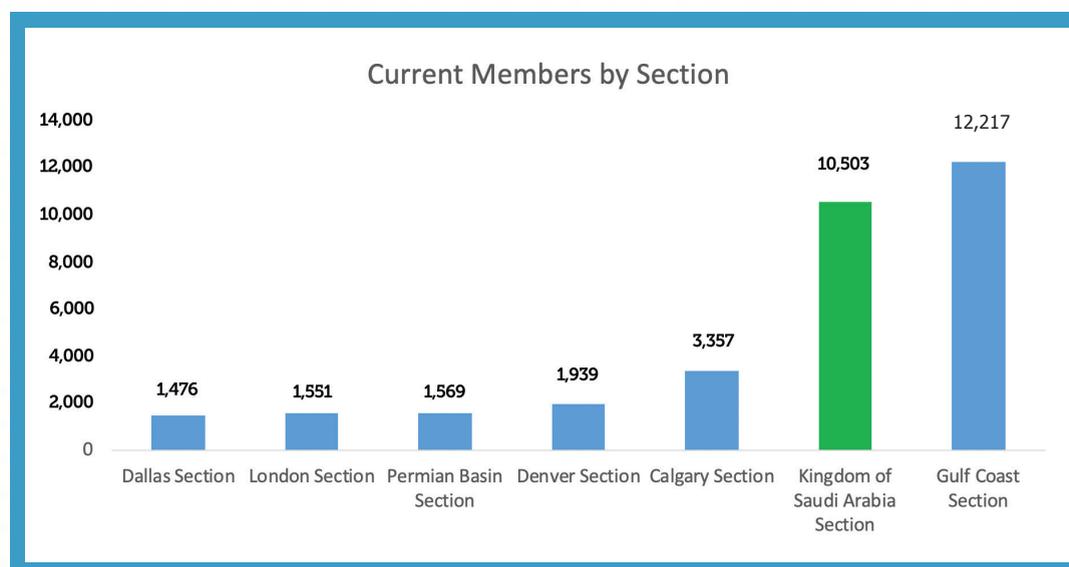


Figure 2. SPE Members by Section

Membership Criteria

The eligibility criteria for joining this esteemed organization are quite simple. One of the below should apply:

- A university degree equivalent to a 4-year Bachelor's degree in engineering or basic or applied sciences
- A 2-year science or engineering degree or a 4-year degree in a field other than science or engineering
- 6 years of active practice in support of petroleum engineering or in the application of science to the petroleum industry

Fun Fact: Approximately 10.5% of Saudi Aramco employees are SPE members, and they constitute 74% of the entire SPE-KSA section.

Benefits of Membership

Members enjoy enhancing their technical skills by engaging in SPE's sponsored conferences, exhibitions, forums and workshops. These, in addition to journals, reference books and tools are offered at discounted rates exclusive for members. In addition, members join more than 150,000 of the brightest minds in the oil and gas industry. Moreover, they get the chance to expand their network through participation in SPE-KSA local events, meetings and activities.

Proud moment: SPE-KSA was the recipient of the "SPE President's Award for Section Excellence" for 9 consecutive years (2008-2016)

For further information, please feel free to contact the SPE-KSA section membership chairperson, Mr. Othman M. Qasim at othman.qasim@spe-ksa.org.

To learn more about SPE-KSA, please visit our website:
<https://spe-ksa.org/>
 To join SPE-KSA, please scan the QR code:



KINGDOM OF SAUDI ARABIA'S 89TH NATIONAL DAY

DR. MOHAMMED Y. AL QAHTANI

Senior Vice President, Upstream, Saudi Aramco
Honorary Chairman of the Board of Directors, SPE-KSA

As we celebrate the Kingdom's 89th National Day, I am in awe of the transformation taking place all around us. Across our society and in every sector of our economy, opportunities are being realized that we simply could not have imagined just a few years ago.

From an industry perspective, we are seeing an investment in talent and technology that is already paying off. There are many milestones we can be proud of ranging from the development of TeraPOWERS, to utilizing 4IR technologies and achieving the lowest upstream carbon intensity in the world. Even as we recognize our achievements, it is absolutely crucial to look ahead.

We have within our reach technologies that can fundamentally reimagine the industry, turning science fiction into science fact while vastly improving our ability to extract the maximum value from the hydrocarbon molecule. But it will require nothing short of a relentless commitment to excellence if we are to develop and exploit these opportunities – the very kind of commitment SPE-KSA is recognized for all over the world.

National Day is a moment to take stock of all we have accomplished together and to look to the future optimistically. As we do, I am more confident than ever that SPE-KSA will be at the very center of the Kingdom's breathtaking progress.

NASIR K. AL-NAIMI

Vice President, Petroleum Engineering & Development, Saudi Aramco
Chairman of the Board of Directors, SPE-KSA

As Chairman of the Board of Directors, I am delighted to have this opportunity to reflect on the importance of Saudi Arabia's 89th National Day – a very special day which marks the unification of the Kingdom and its establishment by His Majesty King Abdulaziz bin Abdulrahman Al Saud. We celebrate this day each year, reflecting on the desire of all citizens to be integrated through a grand, collective national effort where everyone contributes. I ask that each of us takes advantage of this special time to combine joy and celebration while enforcing the values of development, hard work, respect for the law and the preservation of our Kingdom's extensive capabilities and achievements.

We can also reflect on the many accomplishments in the energy sector and the progress on many fronts including, for example, the great strides we have already taken to capitalize on 4IR technologies. I would like to acknowledge the incredible contributions made at all levels that have brought us so far, and which we will leverage for continued success in the future.





DR. SAMI A. ALNUAIM

President, SPE 2019

1938 represents the actual launch of the Saudi oil industry during which the well, Dammam 7, was deepened as a recommendation from a smart geologist called Steinke. This resulted in the flow of commercial oil production and the beginning of a new era for the Kingdom and its King Abdulaziz Al Saud. Since then, Saudi Arabia has evolved in a very short period to be one of the top developing countries and one of the top 20 global economies, primarily because of oil and gas. In a few decades, Saudi Arabia has achieved extraordinary advancements in economy, health, education, manufacturing and agriculture. At the same time, the Saudi Oil & Gas Industry advanced globally, not only in reserves, capacity and production but also in technology development and innovation. Today, one of every 9 barrels of produced oil globally is coming from this blessed land of Saudi Arabia. The produced oil and gas are used to support local and global economies to improve human lifestyle and prosperity around the world. Saudi's crude and petrochemicals are currently used in all 6 continents around the world. The Saudi Oil & Gas Industry is indeed a Pride of a Nation and a successful story to be told for many generations.



WALEED A. AL-MULHIM

**Chief Petroleum Engineer, Petroleum Engineering, Saudi Aramco
Vice Chairman of the Board of Directors, SPE-KSA**

This month, we celebrate a special occasion: the Kingdom's 89th National Day. Since 1930, the Kingdom, with Saudi Aramco as a main player, has made transformations that influenced all aspects of our lives. The company, with its precious resources and people and guided by the Vision 2030, will continue its vital role in transformation and development. Our talents are leading new investments and projects with ownership and robust determination in an effort to continue the legacy of our beloved kingdom. This month, we are not only celebrating our Kingdom's National Day, but we are also continuing our march towards a bright future, one where we will both grow in and lead.



DR. ABDULAZIZ O. AL-KAABI

**Founder, Dean of College of Petroleum Engineering & Geosciences, KFUPM
Director, Board of Directors, SPE-KSA**

Alyaum-Alwatani is an opportunity to remind ourselves of how valuable our nation is, and to reflect on the sacrifices that have been made by the men and women who continue to make it great. It is our duty to invest all our energy in preserving the legacy of our country, and to contribute to the current genuine efforts in making Saudi Arabia among the most developed countries in the world.



DAWOOD M. AL-DAWOOD

**Vice President, Northern Area Oil Operations, Saudi Aramco
Director, Board of Directors, SPE-KSA**

National Day is an opportunity to reflect, with pride, upon Saudi Arabia's dramatic rise from a desert kingdom to a global powerhouse. But as the new act in our nation's story begins with the dream of Vision 2030, we must remember that this amazing script is yet to be written. While, on the face of it, hydrocarbons have been key to our success, it is actually our great founders who set the pace for such wonder to flourish. Now, it is incumbent on us, as Saudis, to rise to meet and exceed the biggest future expectations.

As we work to develop our human resources with the same prowess we have used to maximize the nation's natural resources, I am convinced that no ambition is beyond our reach. On this 89th National Day, I am not only confident that the next act in the Kingdom's story will be our finest, I am certain that SPE-KSA will continue to earn its place at center stage.



JIM HOLLINGSWORTH

**Vice President, Saudi Arabia and Bahrain, Weatherford
Director, Board of Directors, SPE-KSA**

This month, the Kingdom of Saudi Arabia celebrates its 89th National Day. On this day, we recognize the unification of the Kingdom under His Majesty King Abdulaziz bin Abdulrahman Al Saud in 1932 as well as the strong foundation and society built since then. Such a strong foundation, coupled with the Kingdom's vision and the Crown Prince Mohammad bin Salman's leadership, will accelerate the country's economic and societal transformation. The Kingdom's very diverse and relatively young population has a tremendous opportunity to collectively contribute to the transformation. As a witness to the potential of this great nation, I have full confidence in its future success. I encourage each and every individual to seize the opportunity at hand. It is your opportunity to shape the future.



ZIAD JEHA

**Vice President and General Manager, Saudi Arabia and Bahrain, Schlumberger
Director, Board of Directors, SPE-KSA**

On this occasion, I express my best wishes and congratulations to all the Saudi nationals and the residents of the Kingdom. Saudi Arabia is experiencing an era of momentous changes and has achieved major leaps forward in all fields. Schlumberger KSA has been fortunate to witness and support this growth. We will continue our commitment and support of Saudi Arabia's ambitious goals and the delivery of Vision 2030.





KHALED A. AL-BURAIK

Vice President, Southern Area Oil Operations, Saudi Aramco
Director, Board of Directors, SPE-KSA

On September 23rd, we celebrate the Kingdom's National Day. It reminds us of the past, present and flourished future we are heading towards - scripted through the Kingdom's Vision 2030.

Many major milestones have been seen in our business environment, including the growth of females' technical and economical contributions, the In Kingdom Total Value Added (IKTVA), King Salman Energy Park (SPARK), and more to come...

Our nation has limitless ambitions and potential. Without a doubt, our young generations have the capacity to astonish the world as they always do using the latest technologies and tools.



SAMER SALOUS

Vice President, Saudi Arabia and Bahrain, Halliburton
Director, Board of Directors, SPE-KSA

On behalf of Halliburton Saudi Arabia, we congratulate and wish the Leaders of the Kingdom of Saudi Arabia and its people a happy and safe 89th National Day. Halliburton has had the great honor and privilege of conducting business in the Kingdom for over 80 years. We are pleased to support the Kingdom's vision 2030 and Saudi Aramco's IKTVA programs through increased local content investments, manufacturing and diversification as we work to provide more employment opportunities to Saudi females. Thank you to the KSA Government, Saudi Aramco and its business partners for their longstanding business relationship. We look forward to many more years of collaborating to maximize the Kingdom's oil and gas asset value.



ZAHER IBRAHIM

President & CEO, Saudi Arabia, North Gulf & East Mediterranean,
Baker Hughes, a GE company
Director, Board of Directors, SPE-KSA

This year we are celebrating Saudi Arabia's 89th National Day. A great opportunity to gather with colleagues, friends and family to reflect on the many outstanding achievements of this country and its bright future. From its early days of oil exploration, Saudi Arabia has embarked on a mission to develop not just a thriving economy, but a vibrant society and people as global leaders of influence. That holds very true today as we have seen tremendous transformations through Saudi Vision 2030. Under the leadership of HRH King Salman bin Abdulaziz and HRH Crown Prince Mohammed bin Salman bin Abdulaziz, we're witnessing transformative changes in the country at a remarkable pace. A true testament to the drive and determination of Saudi and its people to the heart of the Arab & Islamic worlds, an investment hub and a strategic partner across the globe. Happy 89th National Day Saudi Arabia!



ABDULHAMEED A. AL-RUSHAID

**Vice President, Drilling & Workover, Saudi Aramco
Director, Board of Directors, SPE-KSA**

This September, The Kingdom celebrates its 89th National Day, and since the laying of its foundation stone, The Kingdom has transformed considerably. It is a privilege to celebrate and reflect upon our achievements, while looking forward to a brighter future. Under the leadership of the Custodian of the Two Holy Mosques and the Crown Prince, we take pride in the shared values upon which this nation was founded and restate our collective aspirations and responsibilities to our country, our society and ourselves.

Our nation has set ambitious goals enshrined in its Vision 2030, and the realization of these goals will require positive contributions from each and every citizen in an unprecedented collective effort. We trust that our industry is well-placed to lead the way in supporting these efforts and delivering the bright future our nation deserves.



FAISAL N. AL-NUGHAIMISH

Regional Director, Middle East and North Africa, SPE

Today, we celebrate 89 years of unity and prosperity. While still a young nation, we are proud of the giant leaps we made in such short time. Vision 2030 will continue to carry us into an even better future. This is a very exciting time to be Saudi, and I am glad to be part of it.



BANDER N. AL GHAMDI

**Petroleum Engineering Specialist, Saudi Aramco
Director, Board of Directors, SPE-KSA**

The 89th National Day celebration symbolizes the unity and harmony between the people and great leaders of this beloved country in pursuit of prosperity and progression. On this occasion, we celebrate years of successes and achievements that started 89 years ago and continue until this glorious era, led by King Salman bin Abdulaziz. Our future is bright and promising, and we shall continue our unity and efforts in contribution to our national steady growth of achieving the aspirations of Vision 2030 and beyond.



ABDULAZIZ K. AL SUFAYAN

**Petroleum Engineer, Production and Facilities Development, Saudi Aramco
Chairman, SPE-KSA**

My primary goal is to be an exemplary and leading nation in all aspects, and I will work with you in achieving this endeavor." In this powerful message, King Salman Bin Abdulaziz Al-Saud, Custodian of the Two Holy Mosques, reminds us of the greatness of this nation, and our vital role in turning our dreams into reality. As we celebrate the Kingdom's 89th National Day, we renew our pledge and loyalty to this great nation in its pursuit of leadership and prosperity. Guided by our Vision and equipped with determination and limitless aspirations, we will work in harmony to go above and beyond all expectations and achieve what was once thought unachievable.



UPCOMING SPE-KSA EVENTS

What is Endogenous?

Endogenous is a 3-month collaboration program between the SPE-KSA Young Professionals and the Student Outreach teams that aims to develop the communication, leadership and technical skills of young professionals and students in the energy industry.

Picture an intensive, extended hackathon. During “Endogenous”, participants will come up with innovative solutions to solve strategic problems that fall under the following categories: Strategy and Development, Operation Enhancement, Sustainability and IR4.0, and work on solving them as teams of 2-5 members.

The proposed solutions will be reviewed and assessed by subject matters experts from the respective fields. Once the proposal gets accepted, the participants will work with subject matters experts on tackling those challenges and providing feasible solutions.

Finally, the selected projects will be presented in the outskirts of the International Petroleum Technical Conference (IPTC 2020) and the winners will be recognized in the same venue.

Why Participate?

- Work on real-life challenges and provide innovative solutions
- Expand your professional and personal networks
- Enhance your communication, leadership and technical skills
- Gain exposure to various industries and subject matter experts

Be on the lookout as we provide more information through upcoming announcements!

Mr. Abdallah Jum'ah

Chairman of the Board of Saudi Investment Bank,
Co-Chairman of the US-Saudi Arabian Business Council



SPE-KSA APRIL TECHNICAL DINNER

For its April Technical Dinner Meeting, SPE-KSA was honored to host Mr. Abdallah Jum'ah, Chairman of the Board of Saudi Investment Bank, Co-Chairman of the US-Saudi Arabian Business Council and Former CEO of Saudi Aramco.

This session, moderated by Mr. Khalid Al Zamil, manager in King Abdulaziz Center for World Culture (ITHRA), contained both deep and light-hearted insights that date back to the beginnings of Saudi Aramco, the key to successful leadership and the importance of personal impact. Jum'ah began by giving the audience a unique view of Saudi Aramco's history, which is not commonly discussed and that carries a sea of new information relevant to the company today. He took us back to 1988, when the company moved from being an American company to a Saudi one, and emphasized that the change was seamless as management remained the same. Jum'ah then jumped to August of 1990, when Iraq invaded Kuwait and expressed eloquently that, "Saudi Aramco and the Gulf War is a story that, unfortunately, has not been written yet." He then delved deeper into Saudi Aramco's unique journey through the Gulf War, a story unknown to most of the audience.



This period put huge responsibilities and burdens on Saudi Aramco as it needed to immediately replace all the oil that was taken from the market to ensure economic stability. They needed to quickly increase their productions, and did so successfully owing to their technical and operational excellence. The company achieved this despite the dire geopolitical circumstances at the time – about 3000 families evacuated, the Gulf oil spill, demands from the government and demands from external forces. The Gulf War, says Jum’ah, presented the company with a situation that it never imagined it would be in. Nevertheless, Saudi Aramco rose to the challenge and saved the day.

Jum’ah then proceeded to read a speech given by H.E. Mr. Ali Al-Naimi upon the end of the war. A part of the speech read: “Since August of last year, many of us have been living one day at a time. We have been keeping our heads down and our hands busy. We successfully played the hero in stabilizing the well-being of the oil market, prevented a possible worldwide recession, and produced the very precious commodity, oil, needed to power our air forces and navy and contribute to their victory. Now that the storm has passed, it’s time to raise our heads and look to the future. Dwelling on the past and what should have been will cause us to lose the opportunity to grasp what can be. And that’s why I’m here today.”

Al Naimi’s vision for the company included many pillars, some of which are listed below:

- To be an intense competitor in the oil industry
- To dominate the lucrative downstream markets
- To have a long-term presence in the world markets
- To be good neighbors and good citizens
- To be sensitive of the cultures and social norms of the countries in which we operate in

The core of Al Naimi’s vision was to become a truly international organization, and that is when Al Naimi created the International Operations Business Line, which would be headed by Jum’ah.

Jum'ah goes on to talk about Saudi Aramco's identity, and the shift it underwent in 2001. This shift placed a greater focus on employees as major stakeholders in the company and on Corporate Social Responsibility. Jum'ah wraps up the Saudi Aramco discussion by stating some of the major attributes that this company has always been known for: Energy, Reliability, Partnership and Performance.

The session then moved to the area of leadership, where Jum'ah emphasized the importance of having a great sense of humor, noting that one of H.E. Al Naimi's greatest attributes is his sense of humor. He says that the ability to laugh at oneself is the greatest sign of confidence.

Jum'ah then talked about our presence in the Far East, and gave us some snippets about his visits to China and Korea. With that, he emphasized the importance of learning languages and being able to communicate with our partners in their respective languages. He also emphasized the importance of cross-cultural integration, especially with the countries that Saudi Aramco has a presence in.

The session ended with a note on personal impact, and Jum'ah used art as an example of the importance of having soft skills. He says that paintings are so highly valued not for the technicality of them, but because they offer a window into the mind, heart and imagination of the artist. "You may be the world's biggest inventor, but if you can't sell your invention and don't have the skills to communicate with people and push your invention forward, you will not succeed." He then ended on a beautiful note on humility and said, "Humility is not weakness. Humility is knowing your limits. Knowing that you don't have all the answers, and that the answers may come from the lowest-ranked employees in the corporation. Arrogant leaders can only create teams of sheep. Humble leaders can create teams of tigers."

Mr. Amin Nassir, President & CEO of Saudi Aramco, Dr. Mohammed Al-Qahtani, Senior Vice President of Upstream in Saudi Aramco and Honorary Chairman of the Board of Directors of SPE-KSA, and Mr. Nasir AlNaimi, Vice President of PE&D in Saudi Aramco and



from left **Abdulaziz Al-Nuaim, Nasir Al Naimi, Mohammed Al Qahtani, Abdalla Jum'ah, Amin Nasser, Khalid Al Zamil, Bander Al Ghamdi**



Bander Al-Ghamdi, Chairman, SPE-KSA
2018-2019

Chairman of the Board of Directors of SPE-KSA, presented Mr. Jum'ah with a recognition trophy as a token of appreciation for his valuable participation in this event. Attendance was around 500 individuals ranging from various management positions, engineers and young professionals.

"Arrogant leaders can only create teams of sheep. Humble leaders can create teams of tigers."



from left **Amin Nasser**, **Abdullah Al Saif**



Nasir Al-Naimi, Vice President, Petroleum Engineering & Development, Saudi Aramco



Abdallah Jum'ah, former President and CEO, Saudi Aramco



Mohamed Al Gahtani, Senior Vice President, Upstream, Saudi Aramco



Amin Nasser, President & CEO, Saudi Aramco



Sheila Al Ruwaily, General Manager, Wisayah Holding



from left **Abdullah Jum'ah**, **Khalid Al Zamil**



Hisham AlHashmi



from left **Abdulaziz Al-Judaimi, AbdulHameed Al Rushaid, Ziad Al-Murshed**



from left **Arafat Al Shuraie, Abdulaziz Al-Nuaim, Abdulaziz Al Sufayan**



Saad Al Turaiki, former Vice President, Southern Area Oil Operations (SAOO), Saudi Aramco



Ammar Siddiqui



Nada Al Juraib

CELEBRATING THE 2018-2019 SPE-KSA TERM

The 2018-2019 term has engraved another block of excellence in the history of SPE-KSA. As a result of active volunteerism and the hard work of the teams, the section has recorded the highest in activity within the region.

SPE-KSA celebrated its **60th anniversary** and illustrated the section's historical development in becoming a world-class section!

In networking, the section has expanded its reach by 200% **in social media**, delivering a unique experience posting major events and engaging our followers in a variety of enriching activities.

Two international articles mentioned SPE-KSA in their reputable publications - both Bloomberg and the Journal of Petroleum Technology.

Four Arabian Sun articles featured SPE-KSA and two Aramco Twitter collaborations captured the section's many activities. Last term, the section organized the **MEOS 2019**, Al-Asha Investment Forum and NASA Explorer Special Event, which were prevailing achievements for the program, conferences and organizing committees.

Technical Programs

The Technical Programs team conducted **six successful dinners**, inviting influential speakers including H.E. Eng. Abdullah AlSwaha, the Minister of Communications and IT, Ms. Rania Nashar, CEO of Samba Financial Group, H.E. Abdulaziz Al-Zamil, Chairman of the Board of Sipchem, Sahara Petrochemicals and Al-Inma Bank, Former Minister of Industry and Electricity, Mr. Amin Al-Nasser, President and CEO of Saudi Aramco, Mr. Christophe de Mahieu, Partner at Bain & Company and Mr. Abdallah Juma'ah, former CEO of Saudi Aramco.

Young Professionals

Young professionals team held **more than 20** technical series and leadership workshops. Add to it, the flagship event 'Young Professional Technical Symposium', where they provided a platform to 'empower young professionals and connect future leaders'.

Student Outreach

Student Outreach team continued its crucial role in attracting young top talent to benefit industry, **adding ten more cities** to our established network of **40 cities** in the Kingdom through the 'Ambassador Lecturer Program'.

The team has been awarded the '**2018 Ambassador Lecturer Program Outstanding Achievement**' for hosting the highest number of ALPs amongst all sections.

The SPE student chapters have reached a milestone, achieved for the first time by KAUST, as the first Middle Eastern University to qualify to the Elite Eight round in the International **Petrobowl** contest. Also, two Universities **won the '2019 Student Chapter Excellence Awards', KAUST and King Saud University** in recognition of the student chapter's programs in industry engagement, operations and planning, community involvement and innovation.

Trips & Social Activities

Trips & Social Activities team conducted **23** events and established a permanent charitable program

at the King Abdullah Specialist Children hospital. Here, over **ONE THOUSAND** children can benefit from their Educational Built-in Tablet PC stations.

Membership

Membership team was **promoted to 72 organizations**, resulting in **participation from 54 new interested establishments**, placing the foundation for future collaboration & engagement.

Information Technology

IT team streamlined the society's financial processes through an automated system to expedite & record all invoice payments. Not only that, but they also managed to **develop their own application for Augmented Reality** reducing operational cost by 70%. Additionally, they moved the Society's website servers from the USA to Saudi Arabia, contributing to a cost saving of 20%.

SandRose Magazine

The SandRose team branched into two newly added educational editions, **SandRose Junior and SandRose Education** to reach out to our younger generations with intelligent graphical content to ignite interest towards our industry. These initiatives gave the section the opportunity to get in touch with schools and other respectful foundations to create educational programs related to Oil & Gas for the students.

SandRose Junior (**5000 copies**):

In collaboration with 11 schools and summer camps, SandRose distributed 1000 copies to students from pre-primary to grade four. We were also happy to distribute the Junior Edition into special needs classrooms for an autism-only setting at Ubai Bin Thabet School in Dhahran.

In collaboration with Student Outreach Team, 3000 Copies were distributed in SO events alone.

1000 copies were distributed with SandRose 60th Anniversary Edition.

SandRose Education (**3000 Copies**):

600 Copies have been distributed in (Mawhiba Program), the Foundation for Giftedness and Creativity, which is an inspirational hub for gifted students and a promoter of passion for science & knowledge in the development of future leaders. 1000 copies were distributed with SandRose March Edition

200 Copies for each Sponsor (Baker Hughes, Halliburton and NESR)

Treasury

Treasury team contributed to expanding our list of sponsors by 15 new companies. The cumulative contribution from all sponsors showed an **increase in treasury by 42%**.

Event Management

Our activities this year mounted to **400 successful events**, which were neatly executed by the collaboration and dedication of the Event Management team.

Planning & Coordination

Planning & Coordination team, the first people to show up and the last to leave the site, made sure that the events are always outstandingly executed.

Public Relations

Public relations team promoted our members' achievements regionally and internationally, which was marked by winning **10 regional awards** in different categories.

EID AL AD'HA CELEBRATION

KING FAHAD SPECIAL HOSPITAL (KFSH)

As part of SPE-KSA's continuous efforts to support the region's community, the Trips and Social Activities (T&SA) team had the pleasure of collaborating with the Saudi Cancer Foundation in celebration of Eid Al-Ad'ha with the patients admitted to King Fahad Specialist Hospital (KFSH) in Dammam. The celebration was generously sponsored by Midad Holdings Company.

Members of the TS&A team, the Saudi Cancer Foundation and Midad Holdings Company Administration visited the patients in the wards to extend Eid greetings and distribute gifts. The effort as a whole targeted all admitted patients, and SPE-KSA specifically focused on the pediatric ward in its distribution of a total of 80 gifts. The celebration was very well-received by both the patients and KFSH Management.

The celebration was attended by: 1) Members of administration of Midad Holdings, including Mr. Abdullatif AlDulaijan, Director of Administration and Mr. Abdulaziz alMulaifi, HR Manager, 2) Members of administration of the Saudi Cancer Foundation, including Mr. Abdulaziz AlTurki, President of SCF in the Eastern Region, and Mr. Abdulrahman AlShahrani, Vice President of SCF in Eastern Region and 3) Members of SPE-KSA, including Mr. Abdulaziz Al Sufayan, Chairman of the section and Mr. Mohammed Al-Mishkhas, Chairperson of the T&SA team and volunteers from the team.



Abdulaziz AlTurki, President of SCF in the Eastern Region, presenting the gifts



Volunteers



(from left) Mohammed Al-Mishkhas, Abdulaziz Al Sufayan, Abdulrahman AlShahrani

GIFTED PROGRAM VISIT

The Student Outreach team paid a visit to the students of the gifted program in both Dhahran and Jeddah during the month of July. A total of 300 high school students were in attendance – 100 girls from Dhahran and Jeddah, each, and 100 boys from Jeddah. The purpose of the visit was to introduce the students of the Gifted Students Program to SPE and the role that SPE-KSA plays in the Kingdom's energy and society. The team talked about the benefits of utilizing SPE's training platform, journals and social media platforms.

During the presentation, the team had an interactive discussion with the students about how the energy sector is leading the digital transformation and the 4th Industrial Revolution. During the discussion, the team shared several of their role models from the oil and gas industry and from the pioneers in the SPE-KSA society.

The primary purpose of the SPE-KSA Student Outreach team is to link energy with the Kingdom's youth and to explore and widen the opportunities of SPE-KSA, in alignment with the Kingdom's 2030 vision of the energy sector.



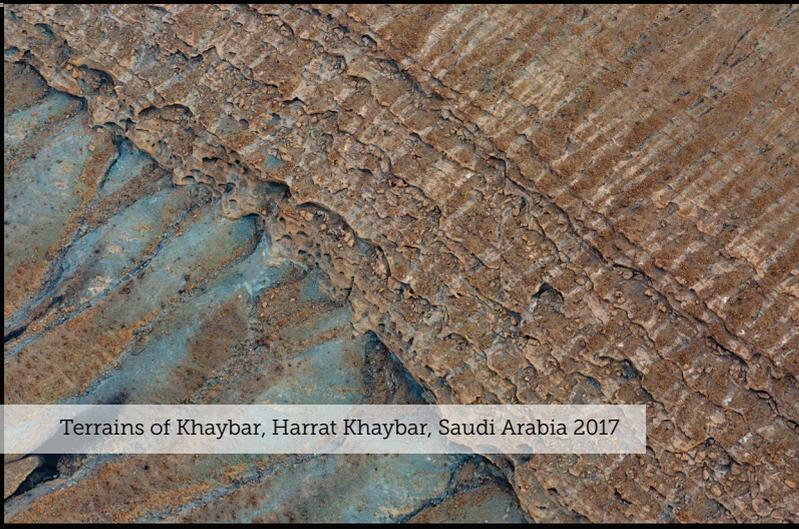


from left Seba Almaghlouth, Hind Al-Rayes



Seba Almaghlouth, Student Outreach Chairperson





Terrains of Khaybar, Harrat Khaybar, Saudi Arabia 2017



Al Yutamah, Al Madina, Saudi Arabia, 2018



Best of Khaybar, Harrat Khaybar, Saudi Arabia, 2017



Best of Khaybar, Harrat Khaybar, Saudi Arabia, 2017

SAUDI ARABIA THROUGH THE LENS OF

MOATH ALOFI

Born in Madina, Saudi Arabia in 1984, Moath Alofi is an artist, researcher, explorer and certified tour guide of the Madina Region. Currently, he is the Head of Cultural Programs at the Madina Development Authority. In addition to managing the Madina Arts Center, Moath is also the Founder of artistic studio Al-Mthba, and the Co-Founder of Erth Team, a production group trained and specialized in safari trips, aerial photography and travel documentation.

After obtaining his BA in Environmental Management and Sustainable Development from Bond University in Gold Coast, Australia, Moath returned to his hometown of Madina, only to experience a culture shock towards his own community. The difficulty of adaptability inspired a need for creation, and photography became his adjusting mechanism. Treating the holy city as both his studio and an open museum, Moath began a journey of photographic documentation since 2013. With a focus on cultural artifacts, heritage, and hidden treasures, Moath has since expanded to documenting and exploring the greater Madina Region, in both its barren and urbanized glories, and expresses interest in expanding his artistic explorations to the Kingdom of Saudi Arabia as a whole. Throughout his artistic career, Moath has exhibited works in Jeddah, Riyadh, Dammam, Bahrain, Oman, London, Paris, Bruxelles, Moscow, New Mexico, Utah and Seoul.

www.moathalofi.com
Instagram: @moathalofi



Al-Mthba Studio
info@moathalofi.com
www.almthba.com



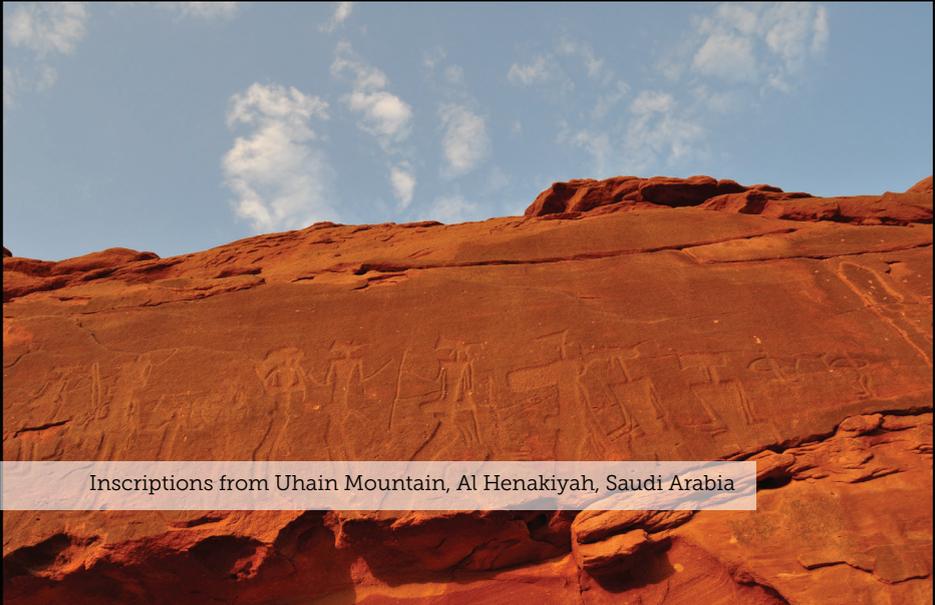
Al-Mundassa Mountains, Al-Mundassa Village, Al Madina, Saudi Arabia, 2016



Jirsan Cave, Harrat Khaybar, Saudi Arabia, 2017



Al Shabaan Beach, Umluj, Tabuk, Saudi Arabia



Inscriptions from Uhain Mountain, Al Henakiyah, Saudi Arabia



Best of Khaybar, Harrat Khaybar, Saudi Arabia, 2017

SAUDI ARABIA THROUGH THE LENS OF

HESSAH ALAJAJI

Hessah grew up in a household that appreciated travel and exploration. Early on, she was taught about the importance of paying attention to detail, especially in the destinations she travels to. Therefore, in her travels, she pays close attention to cultures, clothing, food and arts. Hessah's curiosity grew with her as she went to study abroad in the United States.

She used her time abroad to explore new places. During her studies in California, she explored undiscovered places, whether it be museums, gardens, galleries and interesting restaurants and hotels. When Hessah moved back to Saudi Arabia, she felt a longing for discovery. Through the encouragement of her friend, they took a train to Hail, and that was the beginning of her journey around Saudi Arabia.

Saudi Arabia has a lot of beautiful places to discover and, rather than only getting excited about planning trips abroad, she realized that it can be equally as exciting planning trips around the Kingdom, and that's precisely what she started to do. Through social media, she found an immense amount of interaction from people. And in order to encourage her followers to experience the mountains, waterfalls, valleys and beautiful waters of Saudi Arabia, she made sure to share relevant information and contact details of the places she visited.

Hessah created a network of people from

the places she visited and from those curious about visiting. Her experiences have been beyond pleasant as she emphasizes that every place she visited has a completely different feel and offers a unique experience. One thing they all have in common is how welcoming the people are, and she highly recommends that everyone embarks on the journey of discovering Saudi Arabia.

Instagram: @hessahalajaji



Catalina, Ras Al-Sheikh Hameed, Tabuk, Saudi Arabia



Al Ula, Saudi Arabia



Hessah Alajaji



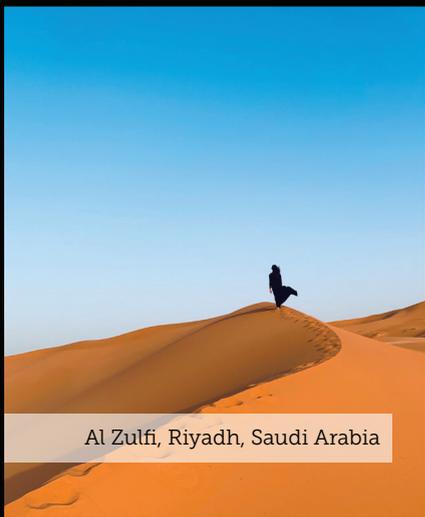
Tayeb Al-Ism Valley, Magna, Tabuk, Saudi Arabia



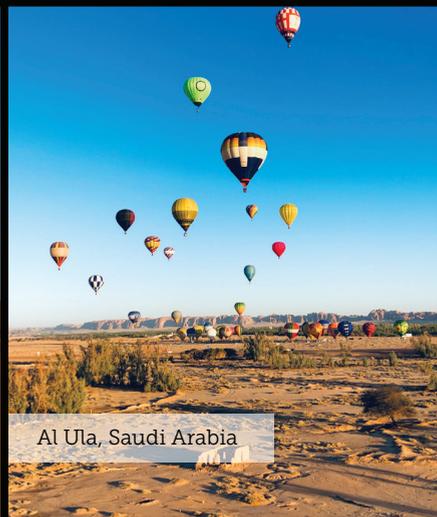
Yanbu, Saudi Arabia



Jabal Sawda (Sawda Mountain), Abha, Saudi Arabia



Al Zulfi, Riyadh, Saudi Arabia



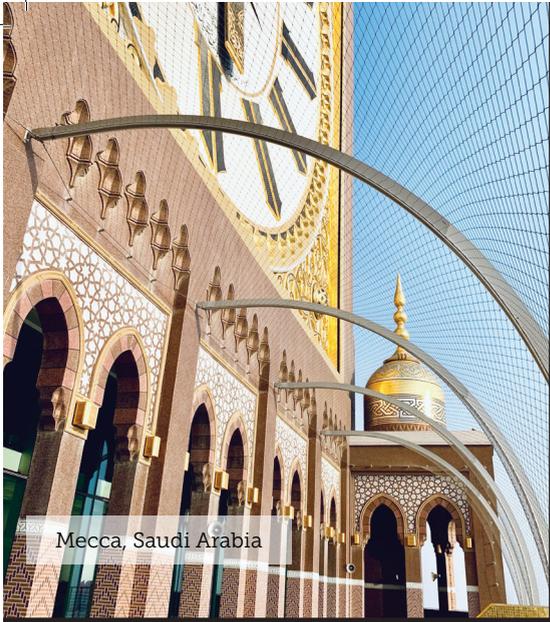
Al Ula, Saudi Arabia



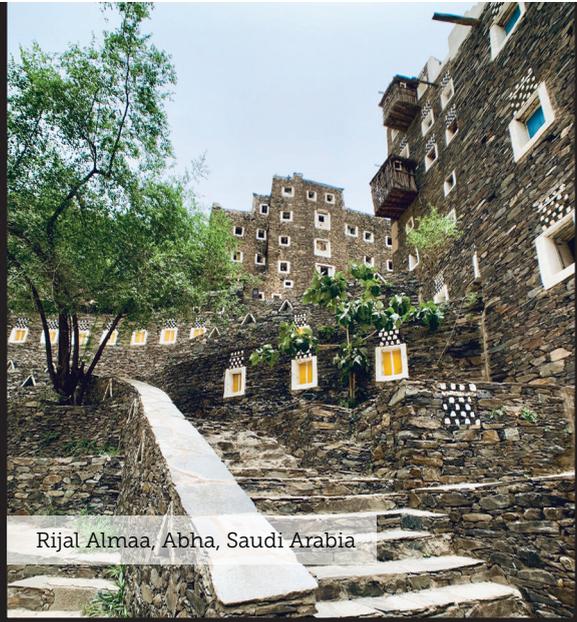
Hail, Saudi Arabia



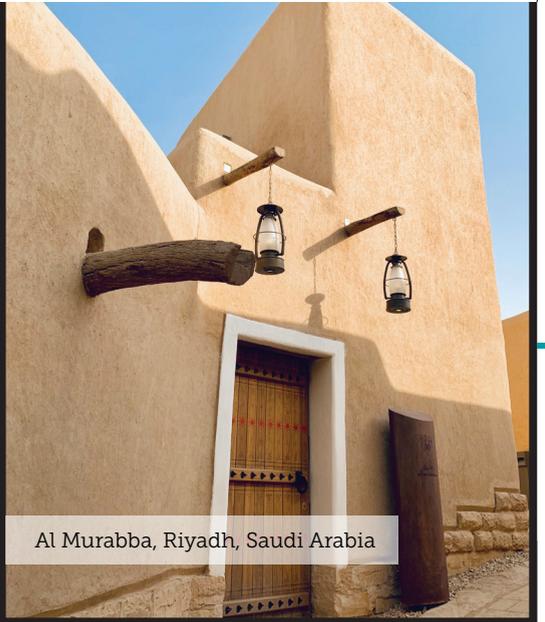
Neom, Tabuk, Saudi Arabia



Mecca, Saudi Arabia



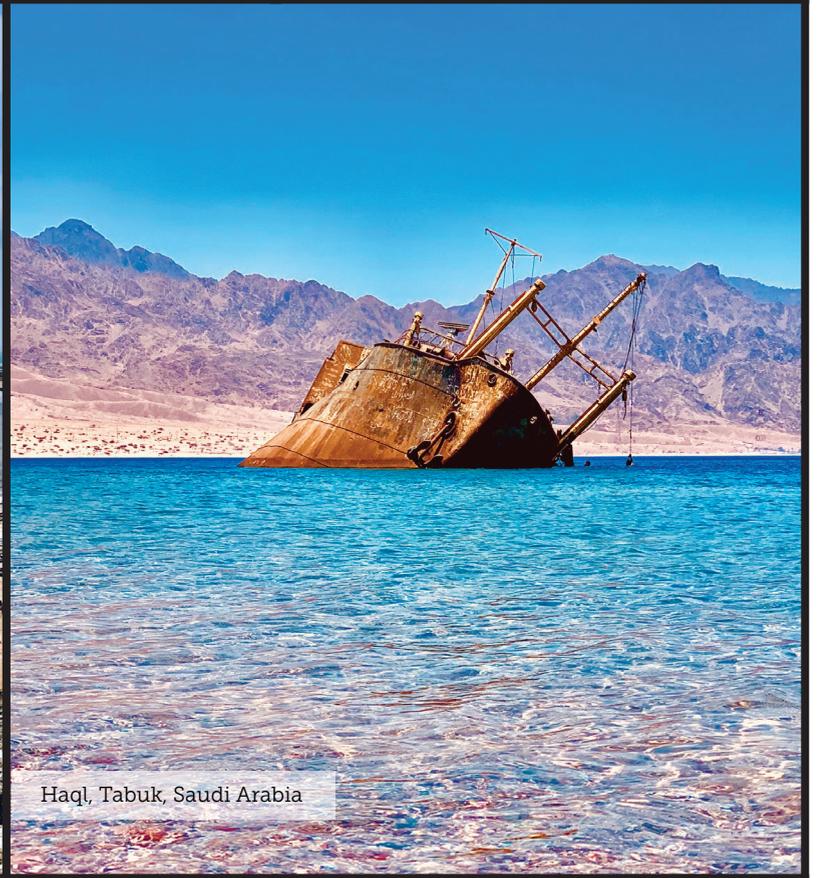
Rijal Almaa, Abha, Saudi Arabia



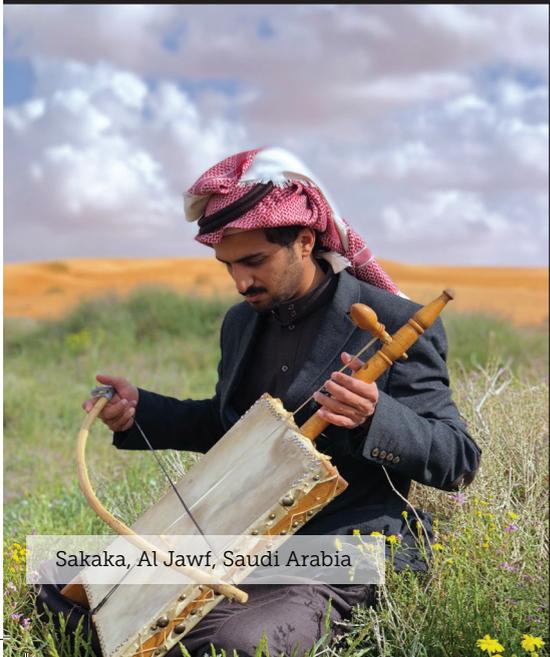
Al Murabba, Riyadh, Saudi Arabia



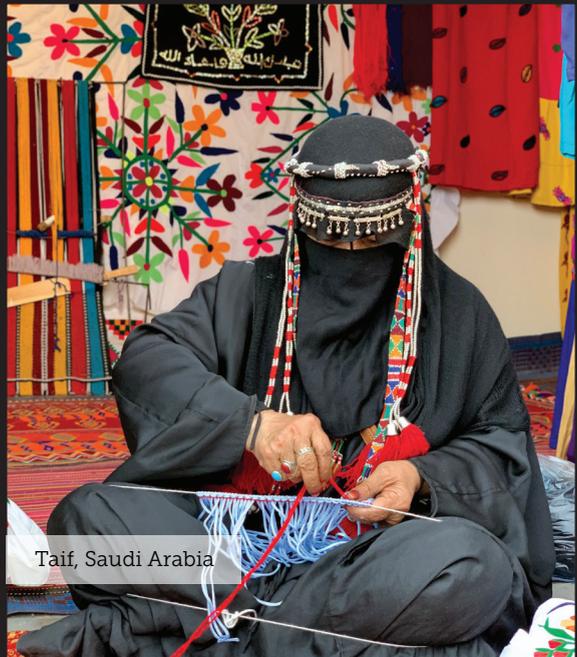
Farasan Island, Jizan, Saudi Arabia



Haql, Tabuk, Saudi Arabia



Sakaka, Al Jawf, Saudi Arabia



Taif, Saudi Arabia



Taif, Saudi Arabia

Books We Love

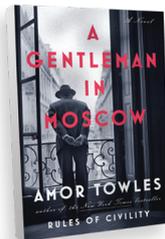
By: Nouf Alotaibi



A Gentleman in Moscow

by Amor Towles

Genre: Historical Fiction



"Some say a bee'll cross the ocean for a flower" answered the old man with a smile.'

Amor Towles's "A Gentleman in Moscow" will carry you through the journey of a count's struggle in newly Soviet Russia in 1922. This is the story of a man who believes in creativity and independence, but who must spend his life under house arrest in Moscow's Metropol Hotel. This is a story enriched with Russian history, politics, literature and political insight.

This novel is whimsical and clever, and tells an upbeat story about a gentleman who infects those around him in the hotel with wisdom, love and integrity, while they lead him through a life filled with purpose.

When should you read this?

When life is filled with chaos, and a trip to Moscow in 1922 is due. Amor Towles can take you to the majesty of Metropol's Hotel, and to Count Alexander's quirky adventures.

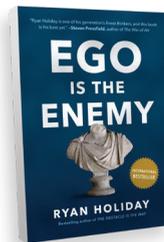
"No matter how much time passes, those we have loved never slip away from us entirely" The count said.'...

and this book certainly won't slip away from you entirely.

The Ego Is the Enemy

by Ryan Holiday

Genre: Non-Fiction, Philosophy



"Wherever you are, ego is too"

We hear how ego is bad, and how it can affect our lives on the daily, but have you ever wondered how this monstrous trait truly embodies you without your realization?

Ryan Holiday's "Ego is the Enemy" shows you the various ways in which we fool ourselves because of our ego. The opportunities we can seize every day are stolen from us, or simply slip away, all due to our ego.

This book shows you the difference between ambition and ego, and how ego is the heavy load we carry on our backs throughout our careers and lives. It gives you strategies to handle your biggest enemy by thoroughly giving historical examples from all walks of life. It's divided into three sections: Aspire, Success, and Failure - the full cycle we face daily.

When should you read this?

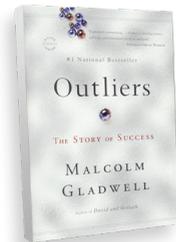
"Ego is the Enemy" is a book that should be read routinely as it is rough yet inspiring. It fills you with goosebumps and self-awareness. Confusing and tiring as it is not easy to face one's ego, this book is a must-read.

"For everything that comes next, ego is the enemy."

Outliers: The Story of Success

by Malcolm Gladwell

Genre: Non-fiction, Sociology, Business



"We cling to the idea that success is a simple function of individual merit and that the world in which we all grow up and the rules we choose to write as a society don't matter at all."

Gladwell's background is in journalism, and, as a journalist, he investigates what leads people to success and how they become the "Outliers" of the world. He explains how Bill Gates and Steve Jobs became who they are. And through multiple sociological and psychological case studies, we come to understand how the best become the best because of where they come from and their experiences, not just their individual merit.

An entertaining book filled with arguments and discussions. Gladwell's writing is easy to grasp, as he explains patterns of success and how major companies failed and succeeded.

When should you read this?

When you want to understand how some people achieve more than others, and how, maybe, even the date of your birth plays a role.

"It is not the brightest who succeed. Nor is success simply the sum of the decisions and efforts we make on our own behalf. It is, rather, a gift. Outliers are those who have been given opportunities-and who have had the strength and presence of mind to seize them."

FAISAL M. AL-THAWAD (PHD)

General Supervisor,
Northern Area Reservoir
Management Department



HOW LEADERS THINK

Building and strengthening relationships and improving communication are skills that leaders need to possess in order to create a healthy environment that allows individuals to flourish to their full potentials. Obtaining such skills requires the well-developed ability to recognize different styles of thinking and personalities, which eventually allows us to understand the human brain and its different forms. This article sheds light on one of the instruments that leaders utilize to achieve that.

Human Brain

Before we explore mankind's most important tool and discuss its merits, it is key to remind the reader that the human brain is perhaps the most complex "machine" in the universe, whether in its composition, functions or mode of operation. The brain, where approximately ten gallons of blood reach every hour, contains an amazing number of 10 billion cells, with each cell representing a chemical plant with a large number of reactions.

The human brain performs an astronomical number of functions, ranging from regulating involuntary actions (i.e. breathing, body temperature and digestion) to essential cognitive skills (i.e. perception, imagination and critical thinking). Thus, the significance of understanding thinking styles and the way people use information is important to leaders in all fields.

Thinking styles

People’s thinking styles strongly impact how relationships are created and developed. Genuinely understanding different patterns of thinking is crucial in identifying the natures of different individuals, so that they can be utilized in a way that nurtures their potentials, personality traits and ways of thinking.

Leaders capturing this skill should be able to address these questions:

To what thinking style does the individual belong? What are the appropriate tasks that match his/her style? Hence, what is the individual’s style in learning and teaching? How do I attain a state of harmony within teams?

Herrman Brain Dominance Instrument (HBDI®)

Ned Herman¹ developed a platform to explain different thinking styles through the brain dominance theory. As a result, he established the “Herrman Brain Dominance Instrument” (HBDI®)², where he divided the human mind into four structures, each of which is characterized by a different style in how it deals with emerging situations, data analysis and drawing conclusions. Through his work in Management Education at General Electric, Hermann began developing this instrument to reveal the preferences of the mind, and the dominant thinking style of different individuals. Over time and with experience, these preferences develop to form our dominant pattern in how we make our choices. This is crucial to effectively understand how individuals think on a daily basis. At the same time, this instrument differentiates one individual from another, and a lack of its understanding may result in restraining the use of the individual’s full capabilities.

THE FOUR THINKING STYLES

- Experimenteal (Holistic)
- Analytical (Fact-Based)
- Rational (Feeling-Based)
- Practical (Organized)

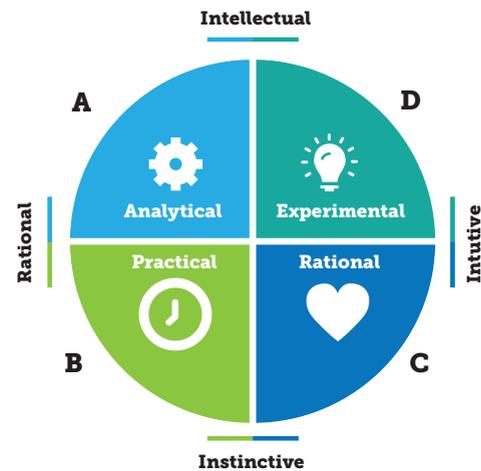


Figure 1: Ned Herrmans Four Thinking Styles

HBDI - Important Facts

Every person has a certain thinking preference out of the four thinking styles. Some are fascinated with numbers, statistics, curves, etc. As a result, they tend to base all decisions on an observable, analytical and conservative approach with a narrow risk tolerance. On the other hand, others are creative and like to think outside the box, and are more inclined to commit to riskier choices. Some appreciate discipline, highly respect time and avoid short-cuts, while others tend to empathize with others, and capitalize decisions on intuitive and spontaneous evidence.

In his 30 years of research, Herrman’s survey of 500,000 people shows that each person has at least one basic preference - a style that often dominates his/her thinking over the four structures (Figure 1).

The statistics behind the survey distributed individuals to the following:

- 3% think using all four-brain structures equally
- 7% think only using one structure
- 30% think through three structures mostly
- 60% think through two structures mostly

The following is worth noting when considering HBDI®:

- Major international entities such as IBM, Shell, Coca-Cola, AT&T, US Army and the University of Texas use HBDI®.
- The instrument indicates the predominant pattern only, but is not limited to it.
- The instrument is not used to determine how smart or qualified a person is. It is used to determine how a person likes to think and deal with people based on his/her thinking style.
- Of the four styles, no one is considered best and others bad. In fact, it reveals only that there are different styles that individuals use to process information and make judgments.

Diversity versus Similarity:

In teams, the overlap of diverse talents, with an appreciation for differences, will result in team members complementing each other and achieving fruitful results. This is true for all kinds of relationships, whether for parents, spouses, friends, team members or others. Having similar styles will lead to soft dealings at the start, but might turn into tedious, boring relationships later. In an affiliation, diversity, and not

similarity, will lead to strong bonds and enriched relations, especially in the long-run.

How Leaders Think?

There is no doubt that true leaders are using all four styles of thinking relatively evenly, and that is why true leaders make a small portion of the population, relatively $\leq 3\%$. While they are strategic and look at the big picture, they also possess the capability to know and understand enough details to make the right decision. Add to it, they care about other people's feelings and are capable of handling emotions, which attracts people to them naturally. Hence, they are natural leaders.

By activating the theory of thinking styles, it is possible to say that the equation of relationships and its engineering tools includes not only the thinking styles of people, but also two more key factors:

1. **Interpersonal Chemistry:** Acceptance and adaptation
2. **Interpersonal Harmony:** Synchronization of thoughts

1. Interpersonal Chemistry

In a nutshell, it refers to conformity, adjustment, accommodation and adaptation. It is the connection between different personalities that makes communication effortless, forms compassion and enhances tolerance, leading to mutual acceptance among different individuals. This results in individuals looking and confiding in each other.

“ *The meeting of two personalities is like the contact of two chemical substances; if there is any reaction, both are transformed.* ”

C.G. Jung

Chemistry has Three Dimensions:

- Individual Dimension: Relates to the internal psychological harmony of the individual, regardless of the choices and judgments of the community.
- Social Dimension: Amplifies the society's influence, so the individual would give up some of his/her own choices to accommodate that of his/her society.
- Integration Dimension: A practical consensus that leads to balancing the individual's choices with that of the community.

2. Interpersonal Harmony

At this stage, and after examining the differences in thinking styles and chemistry, we can conclude that synergizing thoughts and actions amongst people (i.e. harmony) is necessary to create strong bonds between members. Harmony leads to an effortless scheme of pleasant innovations, achievements and integrated visions while, at the same time, creates an environment of acceptance between individuals within societies, businesses or any form of gathering.

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(1) *Ned Herrmann, founder of Herrmann and originator of Whole Brain ® Thinking, first pioneered the study of the brain in the field of business while in charge of Management Education at General Electric Corporation's world-class corporate university.*

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Author Acknowledgment:

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THE JOURNEY OF DR. LAYLA ALHASSAN

MEET THE PIONEER OF WOMEN'S GRADUATE STUDIES IN THE KINGDOM

PhD in Chemistry, Radiation Catalysis

In this feature, you will gain insight into the world of academia, specifically higher education and its birth in the Kingdom, during the 1970s. Dr. Layla AlHassan was the Dean of the Women's College in Riyadh from 1989-1999, and played a leading role in the establishment of the program for women's graduate studies in the Kingdom. In a time when it wasn't common to see women in scientific fields, she acquired a Doctorate in Chemistry with a specialization in Radiation Catalysis in 1974. The SandRose team met with Dr. AlHassan to learn about some of the milestones and lessons of her life.

Dr. AlHassan, thank you very much for taking the time to talk to us. You have a fascinating story – one that we can all learn from. Please tell us more about your work with the US Geological Survey (USGS).

I was with the USGS from 1965 to 1969. I worked in their laboratory and used methods like spectral analysis and X-ray scans to analyze the composition of a variety of rocks from the Kingdom. One focus of the analysis was on the water composition of the rocks. The overall objective was to survey the presence of certain minerals like copper and gold, as well as radioactive materials, in the Kingdom.



What are some practical applications of your specialty, Radiation Catalysis?

Radiation catalysis has a broad scope of applications in areas such as monitoring and measuring pollution, and industrial processes, including the refining of petroleum products. For example, X-rays and mass spectrometry have been used to quantify the concentration of certain airborne pollutants. One of my students presented her doctoral research on the applications of photochemistry in converting solar energy to electricity using photovoltaic cells. Currently, we can see the application of this field of study in various sustainable energy projects in the region, including Saudi Arabia and the UAE.

Can you tell us more about your doctoral research?

My research in the University of Cardiff (now the University of Wales) was focused on radiation catalysis, specifically the application of gamma radiation on the decomposition of nitrous oxide. Since gamma radiation is dangerous as it is highly ionizing, we had to conduct our experiments in

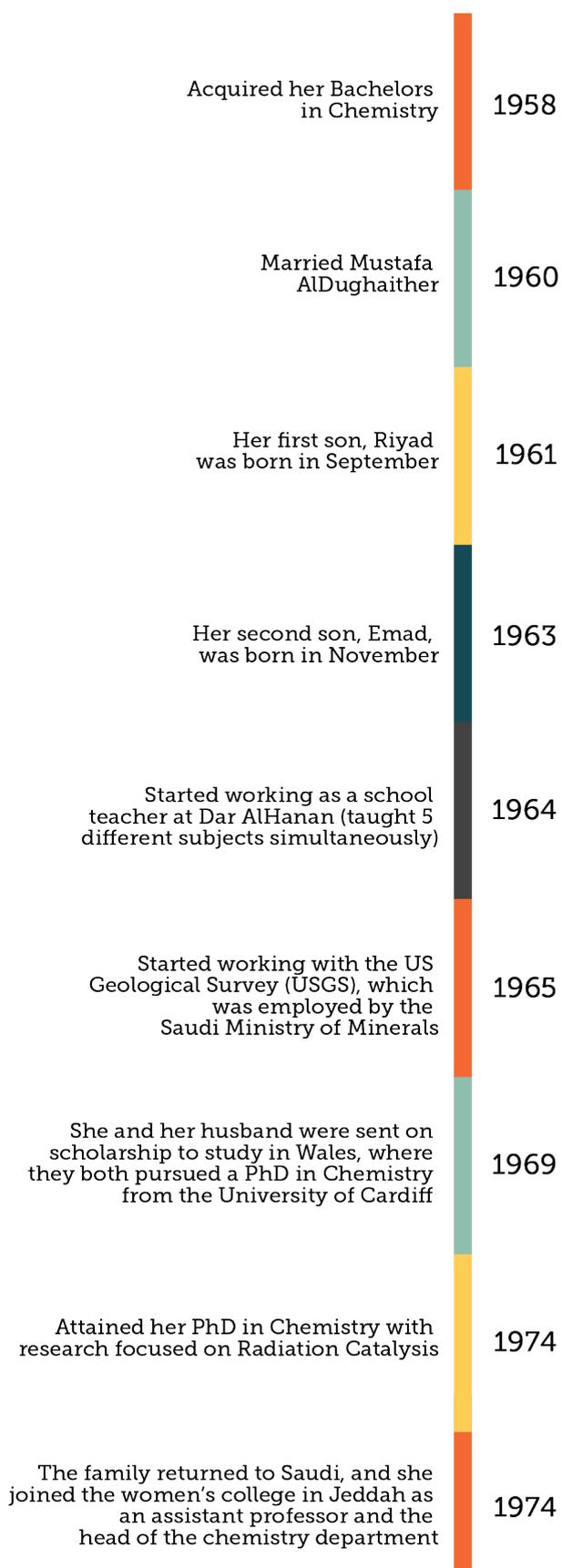
an underground lab, which we called the black box, which was surrounded by lush landscape, tall trees and greenery. My research focused on using gamma radiation to speed up (or catalyze) the chemical reaction, while measuring important parameters such as the activation energy required for the reaction. This type of reaction has many industrial applications. The research was a success, and the university's chemistry department was very pleased with these results, since my research was their first foray into radiation catalysis.

Considering the dangers of exposure to gamma radiation, what kind of safety precautions did you take?

Radiation exposure is of course a big risk - it is what killed Marie Curie. We used to wear badges that measured radiation exposure. These badges were sent to a lab that measured the amount of absorbed radiation to ensure it did not exceed the safety threshold. We also limited our exposure to radiation as much as possible and only intervened with the chemical reactions when necessary.

What kind of opportunities were available to women throughout your career?

Throughout the 70s, people were very accepting of women in the workplace, even though it wasn't very common. Besides the roles that I personally filled throughout my career, I have seen my students go on to work in a variety of fields. Some have worked as professors and deans in universities across the Kingdom, while others have held prestigious roles in government ministries. I am happy to see that women are increasingly holding leadership positions. An example is Princess Reema bint Bandar, our ambassador in the United States.



What has been your proudest achievement?

My proudest achievement would have to be the establishment of the women's graduate studies program as it was a paradigm shift in the Kingdom's academic capabilities. This program was established even before any of the men's universities in the Kingdom had commenced the work on it. It was the most rewarding phase of my career, because it combined my passions for academic management, research and teaching all at once. My relationships with my students were always gratifying; I loved seeing their achievements and I'm still in touch with many of them today.

What motivated you to pursue a career in science at a time when most women pursued careers in the humanities, if any at all?

Initially, I was going to study medicine and was accepted into medical school, but I had to quit the medical program when my mother fell ill. This is when I redirected towards chemistry, and graduated with a degree in Chemistry in 1958. I still recall the words of my middle school chemistry teacher when she wrote to me saying: "You will be a pioneer in the scientific awakening of women." Her words played a part in what motivated me to pursue a career in science. She, herself, ended up getting a PhD and I remember hosting her at our home with my late husband to thank and congratulate her. I also read about Marie Curie as a child and her achievements inspired me. In fact, I'm reading another book about her now. She's incredible.

What has been the most difficult obstacle to overcome in your career?

The hardest phase was the very beginning of my teaching career in Saudi at Dar AlHannan. I was teaching 40 classes a week in five different subjects: Chemistry, Physics, Biology, Geology and Algebra and I was completely overloaded.



How do you view the changes that Saudi has been undergoing recently?

I fully support the positive changes that we've been seeing. Naturally, there is always some difficulty at the outset of any change, just as I have witnessed in my time. It's natural for people to resist what they are not accustomed to. Ultimately, I believe that the people who are most adaptable to change are the most likely to succeed. Being able to compromise is important for development.

Can you tell us more about how your relationship with your late husband supported your success?

He was very kind and very intelligent. He supported me like my parents did, and I supported him, too, throughout all the challenges in our lives. He was selfless to the point of putting my progress ahead of his. He accompanied me to Oregon, where I was able to get results on a biological research which used X-rays in order to analyze

the inheritance of genetic traits across generations. I also accompanied him on his business trips where he represented the Kingdom in atomic energy conferences in Mexico and Vienna. I'm glad that my sons have inherited many of their father's positive traits.

What personal traits do you think helped you the most in overcoming the obstacles you faced throughout your life and career?

I've always strived to avoid spitefulness and hatred, and focused on positivity and optimism in the face of adversity. Although competition can have its benefits in academics and life in general, I have found that it's best to foster a spirit of cooperation between people in order to uplift the society as a whole.

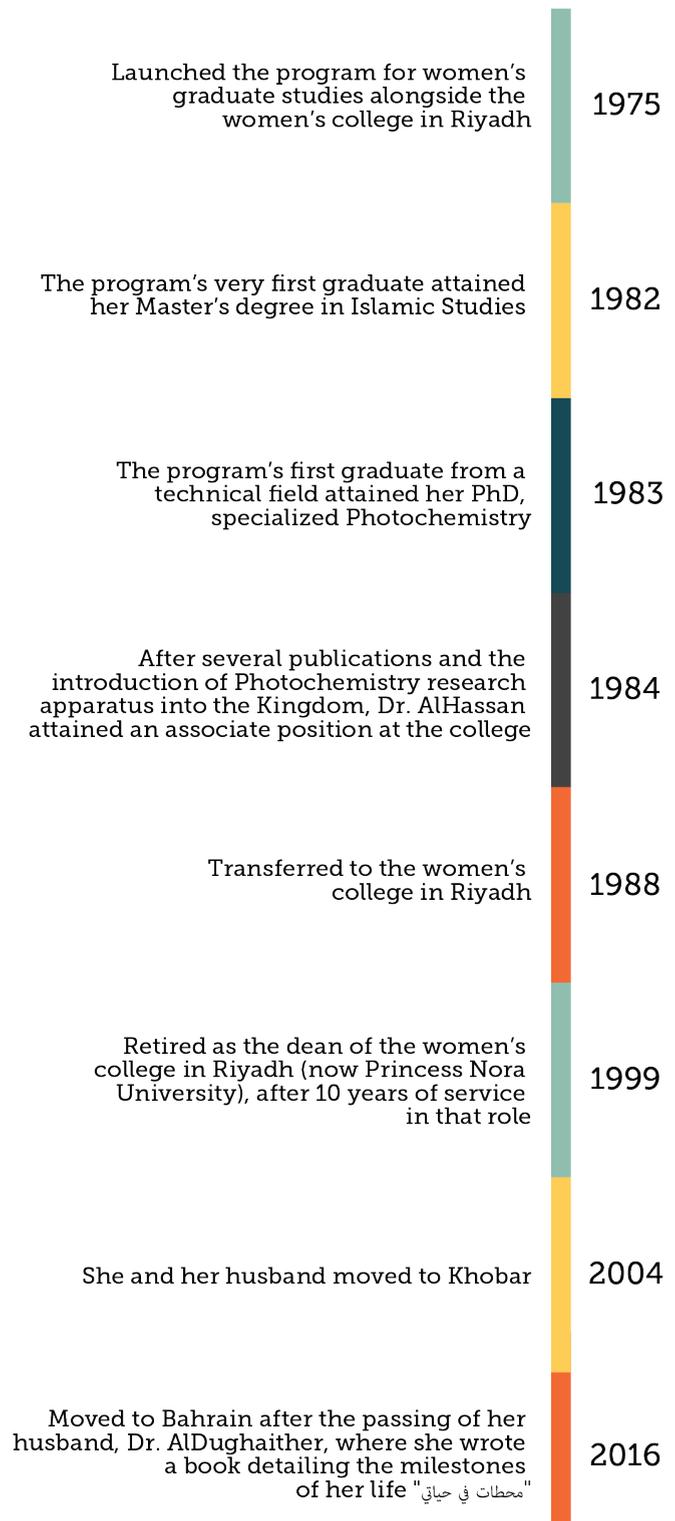
What are the issues you think that our youth needs to focus on in order to achieve a prosperous future?

First and foremost, we must value and care for the environment. We also need to adopt a spirit of openness to change, and to discuss the issues that will help shape the success of our future. We need to focus on cooperation within our society and between nations, and to advance human knowledge in both science and the humanities. I'm happy to see the efforts being done to achieve these goals, and I hope to see them grow.

Do you have any comments regarding the milestones that our Kingdom has recently achieved, especially in light of the upcoming 89th national day?

I'm happy to see the changes that will aid in the development of our country and its people. I would like to urge women to pursue all the opportunities that are available to them, so that they can develop both themselves and their country. They make up half of our population, and the impact they can have is immense.

I advise the youth to be forward-looking and to focus on human development. They must remain optimistic in the face of adversity, and to remain resilient. It also helps to form strong relationships, similar to the ones I had with my late husband and sons.



YAZEED ALDUGHAITHER
Drilling Engineer

THE IMPACT OF ELECTRIC VEHICLES on Oil Demand under the Current Energy Transition



Electric Vehicles (EVs) are one of the fastest-growing segments of the automotive industry. Their eco-friendly premise appeals to an increasingly eco-conscious market, while in some cases offering supercar-level performance in a practical, luxurious, and daily-drivable package. They have also acted as catalysts for promising new technologies such as autonomous driving and high-performance batteries. Although conventional internal combustion engine (ICE) vehicles still comprise 98% of the car market¹, the advent of EVs has forced industry stalwarts from Toyota to Audi and Ferrari to seriously reconsider their business plans. All things considered, what does this mean for the industry that provides the very fuel for ICE vehicles?

To answer this question, we must first understand the trends shaping both global oil demand as well as the transportation sector. Currently, about 20% of global oil demand is allotted to transportation². Of that fraction, about 60% comes from pas-

senger vehicles (light-duty cars and trucks, buses, motorcycles, as well as passenger trains and airplanes)³. This is the category to which virtually all EVs belong. This brings us to the following question: what portion of this category do EVs constitute? As of December 2018, EVs comprise only 2% of global car sales⁵. Although this figure is only growing, it is evident that EVs are still an emerging segment of the transportation sector that is yet to have a considerable impact on global oil demand. These figures help paint a picture of the scope of impact of EVs.

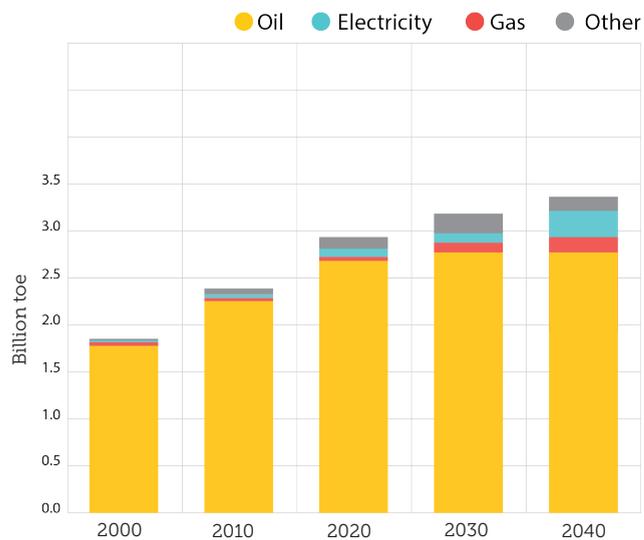


Figure 1: Comparison of final energy consumption in transport forecasted to 2040 (source: bp Energy outlook)

“Unless you live in a country in which the electricity mix is predominantly from clean resources, driving an EV simply moves carbon emissions from your car’s exhaust to the smokestack of a plant.”

We have established that EVs, so far at least, only constitute a minor portion of the transportation sector, and by extension, global oil demand. Now that we have quantified the extent of their impact, we can delve into the motivation behind the rise of EVs. More than anything, the driving force behind EVs seems to be their eco-friendly appeal. This motivation is both commendable and necessary, but it is crucial to understand that the eco-friendliness of EVs hinges upon their source of electricity. As of 2016, 65% of global electricity generation is from hydrocarbons or coal⁴. This means that unless you live in a country in which the electricity mix is predominantly from clean resources, driving an EV simply moves carbon emissions from your car’s exhaust to the smokestack of a plant. The energy losses caused by transformation of energy to electricity, as well as the transmission and storage of that electricity, further reduces the energy efficiency of EVs compared to ICE vehicles. This will only change in the context of a clean energy mix.

Countries such as Norway, where 95% of electricity is generated from hydroelectric resources, are prime candidates for EV use⁵. Under those conditions, an EV has a mere quarter of the lifetime carbon footprint of a typical gasoline-powered car⁶. For this reason, the Norwegian government has supported and subsidized the use of

EVs. In contrast, the developing nations of the world will continue to be overwhelmingly reliant on non-renewable energy resources for the foreseeable future, which severely weakens the argument for EVs in those countries.

Another environmental concern that is often overlooked by the average consumer is the total carbon footprint of a car from manufacture to end-of-life recovery. These two phases can constitute up to 50% of a vehicle’s lifetime carbon footprint⁶. Although the total carbon footprint of an EV tends to be smaller than that of a conventional ICE vehicle (provided a clean electricity mix), the manufacture and end-of-life recovery of EVs involves environmentally-costly materials and processes that do not apply to conventional ICE vehicles. This is namely due to the batteries which are integral to the function of any EV. The manufacturing processes for these batteries are very energy and resource-intensive, which is an issue that will only grow along with demand for EVs. These batteries require the mining of rare metals (e.g. lithium and cobalt)⁷ which have toxic by-products⁸ and require safe disposal or recycling. While there is room for improvement, current recycling and disposal efforts have been lacking.

This brings us to the impact of EVs on oil demand. Although EV market share is bound to increase, we must not lose sight of the realities of the big picture. For starters, the world’s population is poised to increase by two billion people by 2050⁹, along with a tripling of the world economy¹⁰. The global middle class, who are the main drivers of oil demand, will grow to five billion people by 2050¹¹. These factors will only increase the future demand for oil. Beyond that, the O&G industry must meet the ever-rising demand from the other 80% of non-transport-related oil demand.

“EVs do not pose a threat to continued oil demand. In fact, they are a welcome technology.”

Despite the promise and inevitable growth of EVs, it is important for the conscious consumer to be aware of the setbacks of this technology. Equally important is the understanding that from an industry perspective, EVs do not pose a threat to continued oil demand. In fact, they are a welcome technology which will enable the allocation of a larger share of the world’s hydrocarbon resources towards petrochemical applications, which are not only more environmentally-responsible than burning hydrocarbons, but also more economically viable.

While the export and sale of crude hydrocarbons is lucrative, the more a barrel of oil is refined, the more value is added to it. For instance, a barrel of a certain grade of crude oil may sell for \$70 at a given time, depending on market conditions. That same barrel's value may grow to \$100 if it is refined into a variety of fuels or combustible products such as gasoline or kerosene. That same barrel could bring in upwards of \$200 if, instead of being sold as a combustible product, it is processed into a variety of petrochemicals such as amines, glycol, or polyethylene. This is part of the reasoning behind Saudi Aramco's efforts towards expanding its presence in the downstream sector, as detailed in the Accelerated Transformation Plan (ATP).

When it comes to the transportation sector, electric vehicles will not replace the ICE in one fell swoop. In fact, there are a number of competing technologies that complicate the future of transport. One example is advanced ICEs, which make use of technologies such as gasoline compression ignition (GCI) that dramatically increase the efficiency of ICE-powered vehicles. Another promising technology is hydrogen-cell vehicles, which emit nothing but water and air. Saudi Aramco is at the forefront of these research efforts. The Saudi Public Investment Fund (PIF) has also invested \$1 billion in EV manufacturer Lucid motors. Hybrid vehicles have also made big strides in recent years and are an example of electric technology working in unison with ICE technology towards the critical goal of reduced carbon emissions. It is clear then that EVs have an increasingly-prominent role to play in the upcoming energy transition – one that they will assume within the context of a dynamic and evolving O&G industry.



Figure 2 - Saudi's Public Investment Fund (PIF) has agreed to invest \$ 1 billion in EV manufacturer Lucid Motors

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EDUCATION FOR PROSPERITY

Our Family Development Group was founded in 2013 by Shifaa Dardas and Rayah Algeithy with the mission to alleviate poverty and empower underprivileged children to achieve their full potential by investing in human capital.

Our Family's Mentorship Program focuses on providing Education to sustainably improve living standards. Over the last six years, Our Family has grown into an officially registered non-profit organization under the Association of Volunteer Work. It serves a total of 130 low-income families in the Eastern Province with the assistance of more than 180 volunteers in all programs. Other Supporting Programs run by Our Family are as follows:

- **Food Distribution Drive**
- **School Supplies Drive**
- **Educational Trip**
- **Warmer Winter Drive**

Join Our Family: Individuals can volunteer as one-on-one mentors with children in underprivileged families or in distributing supplies during the Supporting Programs drives. Our Family had successful partnerships with SPE Trips and Social Activities in the Supporting Programs and continue to welcome SPE volunteers to be a part of the organization.

Get Involved sign up as a volunteer at www.ourfamilygroup.org

Email Us at ourfamily.3a2letna@gmail.com

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DR. FAHAD ALWAHHABI

**Consultant Geriatric Psychiatry at King Fahad Medical City
Executive Director for Professional Practice Saudi Commission
for Health Specialties (SCFHS)**

Dr. Fahad Alwahhabi is a Geriatric Psychiatry Consultant at the King Fahad Medical City and Executive Director of Professional Practices for the Saudi Commission for Health Specialties (SCFHS) based in Riyadh, Saudi Arabia. The SandRose team reached out to Dr. Alwahhabi to shed some light on mental health issues such as depression, anxiety, dementia and Alzheimer's. Dr. Alwahhabi discussed the importance of using mental health awareness as both a preventative measure and as an opportunity to eliminate the stigma surrounding it.

Dr. Al Wahhabi, thank you for your time. Please tell us about your professional background and area of specialty.

When physicians graduate from medical school, they usually choose a specialty like neurosurgery or emergency medicine. I selected psychiatry and was lucky enough to be chosen for a scholarship to Canada. In 2001, and upon completing my 4 years of residency and becoming a certified psychiatrist, I spent two years studying and practicing geriatric psychiatry, which became my area of specialty. Some of the readers might be familiar with this specialty through their own experiences, but others might have never heard



of it. Geriatric psychiatry, otherwise known as old age psychiatry, focuses on individuals above the age of 60 as they experience numerous age-related transitions that affect their cognitive and emotional behaviors and patterns.

On a more personal note, what sparked your interest in this field?

As a child, I was interested in understanding how things evolve and change over time. As a teenager, reading history and anthropology books also helped satisfy a part of my interest. As I became more aware of how humans, institutions and even countries change over time, books were not enough anymore. I got busy with medical school and found my calling during my fifth year, when I took a course in psychiatry. Since then, psychiatry became a tool that allowed me to continue addressing this interest. Given my personal interests and directions, it was only natural that old age psychiatry, presumably the culmination of our personal evolution, became of interest to me to study and practice.

"People are way more complicated than we think."

How is mental health different from physical wellbeing? What factors may affect our mental health? And what's the impact of mental health on physical wellbeing?

Well, dichotomizing human experiences to mental vs. physical or psychological vs. physical was traditionally how physicians were taught. That differentiation helped them see things clearly and learn accordingly. However, we now know that this dichotomy is not quite accurate for two reasons. First, physicians came to conceptualize these abstract concepts too literally and continued to divide the human body further, despite the complex interconnectedness that exists among all its systems. Second, and more importantly, this dichotomy was a wrong assumption to start with. The body, led by the central nervous system, produces parallel and diverse physical, emotional and cognitive activities as a result of its unbelievable ability to work harmoniously. It is a very sophisticated machine, with each part having a different value and a specific role to play.

There is plenty of evidence proving that the "mind", or our thoughts, can affect the body and vice versa, in both healthy and diseased states. Just think about how you drool when you visualize your favorite meal, or how your heartbeat rises and how sweaty you become prior to a job interview. Therefore, the mind and body are inseparable, except maybe after death, but that's another interesting subject.

The terms "depression" and "anxiety" are commonly used and heard. Dr. Al Wahhabi, how are they diagnosed? And how can one tell if he/she might be suffering either one and needs medical attention?

As with any setback, challenge or downfall, there are things we are doomed to experience from time to time. Everyone probably has had headaches, stomach pains after a heavy meal or even muscle soreness after unusual physical activity. Similarly, we will have bad days or moments mostly in response to our own experiences and might consider ourselves depressed or anxious during those times. This is a natural part of our human experience. Medical attention is needed when these experiences last longer than expected, are severe enough to interfere with daily activities or are causing difficulties for both the individual and/or those surrounding him/her.

There is a vast variation in how different people express anxiety or depression. Psychiatrists are trained to diagnose disorders using what we call "diagnostic criteria", which serves as more of a guide than a concrete diagnostic tool. Rather than going through the details of the criteria, I will say this: The initial indicator of depression is an obvious change in your mood, one that bothers you more than usual. You may notice that your sleep pattern, appetite level, ability to focus or energy level has changed. Your natural tendency at that time would be to do something about it, and to cope with it in the way you see as best, whether it's by being healthier and increasing physical activity or by serving others. But, these coping mechanism are as unhealthy as indulging into street drugs. People usually resort to mental health professionals when their own coping mechanisms fail in containing their symptoms, or if the coping mechanism itself developed into a problem.

There is a tendency by the public and the medical community to over medicalize human suffering (i.e. assume that any complaint requires treatment). I

have seen hundreds of men and women who have consumed antidepressants unnecessarily, based on a friend's advice or a prescription by an untrained physician. Mental health professionals are usually systematic in their assessment of such complaints, and conduct more comprehensive assessments before suggesting a method of treatment. You must consult a qualified professional (psychiatrist or psychologist) if you think you need a professional assessment.

What are the best practices in dealing with others who are struggling with anxiety or depression?

It is worth noting that most patients with anxiety or depressive disorders could be treated reasonably easily. A minority of the patients have a more complicated disorder that is harder to treat. They are the ones who will likely suffer from a chronic problem that requires further understanding by those around them. We obviously must consider our cultural make-up and societal roles when we think of the best practices in an individual situation. Nevertheless, the general role and as a best practice, in my opinion, is to respect the patient's independence and uniqueness. Don't compare the patient with anyone else, avoid offering unnecessary advice and, most importantly, do not assume that you understand his/her condition just because you have a little bit of background in mental health or know parts of his/her personal experiences. People are way more complicated than we think.

Let's dig deeper into dementia and Alzheimer's. What's the main difference between the two? How is each one treated?

Alzheimer's disease is a type of dementia. The term Dementia means that there is an obvious deterioration in a person's ability to learn new information, use language appropriately, think in a visuospatial manner and appreciate abstraction and social cues, to the point that he/she is unable to function independently. This can be caused by a variety of medical conditions, each to be addressed and treated differently. However,

Alzheimer's Disease (AD) is implicated in 60-70% of the cases, and so it is considered the most common type of dementia. Now, by the time AD signs appear, the disease would have already spread in the brain. By then, it is too late to stop it. The available treatments are medications that help alleviate the symptoms, but they neither change its course nor do they stop it.

What measures can one take, if any, to prevent issues such as dementia and Alzheimer's?

This question takes us back to the dichotomy of mental and physical health. As I stated previously, it is interesting to know that most of the habits that would lower the risk of AD and support the sharpness of your thinking as you age are the same habits that would decrease your risk for heart disease. Examples of those including eating healthy foods, controlling blood pressure, keeping cholesterol and glucose levels within normal range, avoiding central obesity (karsh in Arabic), avoiding smoking and doing regular moderate physical activity.

In addition, using the brain actively by learning new skills (e.g. learning a new language or musical instrument and solving puzzles) all have been shown to decrease the risk of AD because they support the so-called "brain reserve theory", which dictates that building new neuronal networks in the brain helps it combat the decay imposed by normal aging or diseases. Consider your brain tissue an investment and do what you can to make it grow and serve you after retirement.

Dr. Al Wahhabi, we truly appreciate you taking the time to answer our questions. We believe in the importance of mental health awareness, especially with the progress in our society's openness in talking about these issues – a step in the right direction, in our humble opinion. What message(s) would you like to deliver to our readers?

Well, awareness has been spreading over the last few years and seems to have taken a direction whereby the

public is becoming more informed about recognizing the early signs of diseases and disorders. This benefit of awareness is realized only when such recognition is required i.e. when the problem actually happens. I tend to view awareness as an opportunity to focus on how such diseases or disorders may be prevented. The question is: "Are we willing to commit to the preventative measures?"

Each one of us has his/her own "balance point" where we feel comfortable and satisfied with our life setting and our ability to face its demands. It is a sort of comfort zone where we feel that we can safely "stretch out" from time to time by facing new challenges and learning new skills that makes us feel more capable and confident. My point is, to get the best result, you must consider your own needs, wishes, capabilities and responsibilities before you decide to apply a mental health plan, a diet plan or even a workout plan. Remember that I don't advocate segregating health, or the activities required to optimize it.

The only message I can deliver is that you must learn how to take care of yourself for you to reach that balance point. No one will do this for you. Segregating health to mental, physical, emotional...etc. might look good on paper, but not so good when an average person, with a wide range of responsibilities, tries to meet the needs of each one of those "types of health". Alternatively, consider starting a commitment to basic habits that have been associated with good health universally. For example, the Mediterranean diet or similar diets and regular daily physical activity. That would be a good start would be of great service to all aspects of your health.

"What I'm suggesting is a form of reverse engineering where you decide how your balance point/comfort zone looks like then design the habits that get you there."

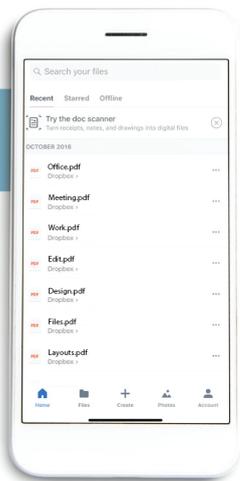
If you have the energy to invest more time and energy to get a "health bonus", consider additional

measures, especially if you enjoy them and they fit with your lifestyle. For example, regular medical check-ups if you have a family history of medical problems, doing resistance training to become stronger and more energetic, learning new skills that promote personal growth, learning how to manage stress and burnouts and anything else that suits you. What I'm suggesting is a form of reverse engineering where you, first, decide how your balance point/comfort zone looks like and then design the habits that will get you there.



USEFUL APPS

BY AHMAD ISMAIL



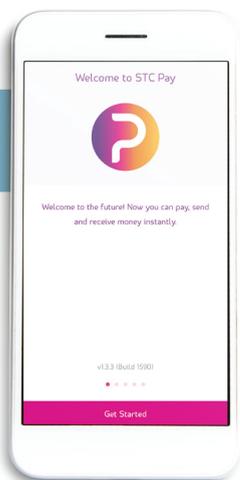
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Dropbox is the home for all your work. You can store and share files, collaborate on projects, and bring your best ideas to life.

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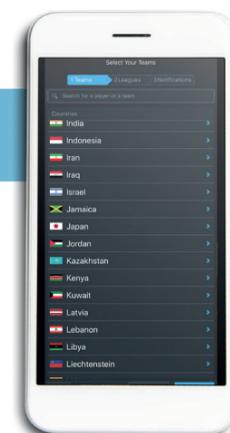


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