Health, Safety & Security Review

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Middle East

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editor's note

The MENA HSE Forum, which took place in Dubai in September, brought together more than 150 HSE stakeholders from the Gulf region to share experiences and best practices as well as showcase the latest HSE innovations (p9). It included a strong focus on the impact of disruptive technologies to improve workplace safety (p11).

Honeywell has some advice on how to mitigate exposure to noise hazards, with noise-induced hearing loss being a common but preventable occupational injury (p21). Also covered in this issue are the latest developments and products in safety showers (p15), safety lighting (p17) and fire safety for oil and gas (p24).

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Umm Al Houl desalination plant reaches safety milestone

LTI

The desalination plant at Umm Al Houl in Doha, Qatar, has reached a remarkable health and safety milestone with the completion of one million hours without any accidents involving lost time injury (Zero LTI).

The plant is part of a large-scale integrated water and power project (IWPP) that produces approximately 2,500MW of electric power and can reach a daily total of 894,000 cu/m, including the production of MSF. ACCIONA has been the main partner in the project, designing, constructing and operating it from 2017 to the present day.

The zero LTI achievement has been attributed to the efforts of its workers and the safety measures applied in the plant and demonstrates ACCIONA's commitment to hazard prevention and the application of measures that ensure the safety and health of everyone involved.

Among the preventive measures applied, highlights include the regular operation



and maintenance meetings related to work permits, improvements in the organisation of the work, the creation of specialised HSE committees, the establishment of more frequent and detailed inspections on equipment and machinery, and efforts made in digitisation. The implementation of these has meant situations of risk can be identified at an early stage and workplace accidents can be avoided.

The milestone was also reached within strict compliance with established international and local protocols to offset the Covid-19 pandemic, as well as the vaccination of 100% of the workforce.

Workers at the desalination site, the first site to use osmosis technology at a large scale in Qatar, can continue their work of serving more than three million people in the confidence that their safety is of upmost priority.

Abdul Latif Jameel Health spurs medical care access

Healthcare

Abdul Latif Jameel Health has announced the creation of a new international commercial channel to accelerate access to modern medical care and drive health inclusivity.

The network of confirmed partners will cover key markets across a wide geographical area including India, Kuwait, Morocco, Oman, Saudi Arabia, Turkey and the UAE. It will see the distribution of Abdul Latif Jameel Health approved products into hospitals, clinics and medical institutions to fast-track health inclusion for those who need it most.

Since its launch in 2020, Abdul Latif Jameel Health has developed strong relationships with renowned health partners including Butterfly Network, EQRx, Cyberdyne, Evelo Biosciences, Melody International and Holoeyes Inc., among others.

Over the coming months, the company is aiming to grow the network across Africa, South and Southeast Asia and Latin America.

Genetec gains ground in access control software market

Security

A recent report from research organisation Omdia has recognised Genetec Inc., a leading technology provider of unified security, public safety, operations, and business intelligence solutions, as the fastest-growing access control software provider in the world for the second year in a row.

Genetec's unified security platform, Security Center, allows access control functions to go beyond locking and unlocking



Security Center is Genetec's flagship product.

doors and address non-traditional applications such as enclosure management.

With its open approach, Genetec provides a growing selection of third-party access control devices which allows organisations to choose the hardware that addresses their security needs and objectives, while avoiding the long-term setbacks of closed solutions. With unified solutions, physical security is evolving from a tool for mitigating risk to playing a big role in digital transformation.

Trolex launches silica detector

Construction safety

Trolex, the leading manufacturer of health and safety technology products for workers operating in hazardous environments, has launched a real time detector for silica particulates, the Air XS Silica Monitor.

Silica is the biggest risk to construction workers after asbestos, from the inhalation of silica dust particulates in the workplace.

The Air XS Silica Monitor delivers real-time detection of dangerous respirable crystalline silica (RCS) particulates in airborne dust mixtures - on the job. It displays the presence of RCS mass by volume, while also being able to distinguish the presence of RSC within dust mixtures. In addition, the Air XS Silica Monitor can track changing concentrations of RCS content over time, letting workers know if the amount of RCS in their workspace is increasing as they work and when it has risen to dangerous levels.

This real-time monitoring helps prevent silicosis-associated



The Air XS Silica Monitor delivers real-time detection of RCS particulates in airborne dust mixtures.

diseases caused by RCS inhalation, providing safety and security for workers and businesses. The Air XS Silica Monitor allows for programming of on-device exposure limit thresholds and warnings (short-term exposure limits and time-weighted averages), allowing for easy customisation of monitoring limits as needed.

Glyn Pierce-Jones, Trolex CEO said, "This is an exciting product in real-time silica dust

monitoring. The Air XS is a global-leading solution to an increasing health problem in many industries. Real time silica monitoring is the safest and most cost-effective way to promote workers' health in the industries associated with RCS. The Air XS will substantially reduce the number of surveys needed onsite, improve processes create smart ventilation and extraction systems and identify inefficiencies."

EHS showcases smart healthcare technologies

Healthcare

Emirates Health Services (EHS) showcased its innovative smart healthcare service technologies at GITEX in Dubai, including the ID NOW project, a portable device for visitors that provides Covid-19 diagnosis and results within 13 minutes.

EHS also demonstrated its interactive website design, smart application, and electronic and smart services for customers. The new website reviews the latest developments and initiatives in ways that ensure information reaches everyone in society.

H.E Mrs. Mubaraka Ibrahim, acting chief information officer for the IT sector in EHS, said that the EHS's participation in GITEX falls within the context of enhancing its influential presence in the health care and medical sectors, as well as providing the highest standards of global health service in line with modern best practices – through innovative technologies based on artificial intelligence – that keep pace with fast-moving global medical developments.

Gall Thomson introduces new Marine Breakaway Coupling

Offshore safety

Gall Thomson has announced the latest evolution of Marine Breakaway Couplings (MBC), PetalC, which reduces axial loads on the most exposed breakstuds by up to 30% and reduces MBC install length by 60%.

Gall Thomson MBCs are fitted to marine hoses used in offshore operations to transfer petroleum products, and are designed to separate and close in an emergency such as vessel drift or extreme and damaging pressure surge events.

PetalC substantially reduces the need for transit bolts, keeping the MBC robust but simple to use and in line with offshore operations. The evolutionary design means the body size of the MBC is smaller than the diameter of adjacent hose flanges. This minimises the risk of external structural impact and abrasion damage.

PetalC uses internal failsafe mechanisms and valve components and is powered only by the energy of flowing product acting on the Petal

assembly, which instigates shut-off during an emergency. This means the unit does not rely on any external power source or multiple levels of MBC management complexity – both of which introduce additional risk.

Although PetalC has been specifically designed for use with FPSO export reeled hoses, its design has also indicated impressive performance in floating and submarine applications, particularly in harsh environments.

Milwaukee teams up with Tree-Nation to offset CO₂ emissions

HSE

Leading global power tool brand Milwaukee is collaborating with Tree-Nation on two initiatives to help re-forest the world and protect the planet.

Milwaukee will plant 100 trees in a certified forest in Madagascar every time an end-user purchases a product from its MX FUEL range in the UAE. With a 20,000 tree target by the end of the year, the equivalent offset represents more than 1,000 tonnes of $\rm CO_2$. Because the MX FUEL is already a zero-emission system, the move helps individuals to offset emissions elsewhere, going further towards achieving a carbon-neutral environment.

After purchasing MX FUEL tools, customers will be notified that the trees have been planted, along with the option to plant more trees themselves. By logging onto the Tree-Nation portal, they can view the environmental impact and watch as the Milwaukee forest grows. The initiative is supported by a



Milwaukee will plant 100 trees in a certified forest in Madagascar every time an end-user purchases a product from its MX FUEL range in the UAE.

paperless marketing campaign, plus distributors are provided with a range of materials to promote the cause and maximise the reduction of CO_2 .

As well as offsetting the emissions of end-users, Milwaukee Tool MEA is launching a 12-month net-zero team initiative to reduce its impact. The Dubai-based office has pledged to plant two trees each month for every employee throughout 2022, totalling approximately 1000 trees.

General manager of Techtronic

Industries (Milwaukee, AEG), Pierre Piniau, said, "Milwaukee is passionate about creating a greener job site through the use of cordless technology, and the partnership with Tree-Nation is the perfect way for us to demonstrate this commitment while supporting our distributors, end-users, and employees."

Tree-Nation is a non-profit organisation that allows citizens and companies to plant trees around the world to offset their CO₂ emissions.

Mobile healthcare services launched in Abu Dhabi

HEALTHCARE

Ambulatory Healthcare Services, a SEHA Healthcare Facility, has launched mobile preventive and treatment services in Abu Dhabi.

The new mobile solution provides specialty consultations, chronic disease management, 'ifhas' comprehensive screening programme, premarital, preuniveristy, and pre-employment screening, adult and child vaccinations, physiotherapy, body mass analysis, hearing testing, vision testing, and diagnostic services including ECGs and ultrasounds.

Dr Noura Al Ghaithi, acting chief executive officer, Ambulatory Healthcare Services, commented, "Through this clinic we can provide our patients with access to a wide range of preventive and curative specialised services for our patients at their homes and with the same high levels of quality and safety that we follow in our centres."

The new mobile clinic provides its services seven days a week from 8am to 10pm.

ColorTokens and FVC partnership to offer the Middle East world-class Zero Trust cybersecurity

CYBERSECURITY

ColorTokens, an innovator of autonomous Zero Trust cybersecurity solutions, has partnered with FVC, a solutions provider across essential areas of enterprise computing: unified communications, unified collaboration, audio-visual, infrastructure and information security in the Middle East.

The partnership offers comprehensive Zero Trust cybersecurity solutions, leveraging ColorTokens' Xtended ZeroTrust Platform, comprising Xshield for Workload Visibility and Microsegmentation, Xprotect for Endpoint and Host protection, and Xassure for Zero Trust as a Service. It helps security teams contain and respond to zero-day attacks while integrating with exisiting tools.

"We are thrilled to be joining forces with FVC; their extensive

technology capabilities and market expertise combined with our cutting-edge solutions can enable us to successfully empower organsiations in their Zero Trust journeys," said ColorTokens senior regional director, Nader Baghdadi.

"ColorTokens has a fantastic Zero Trust platform. We take pride in its addition to our product portfolio," said Prakash Krishnamurthy, chief sales officer of FVC.

AUS students present water contamination solutions

Pollution control

Students at the American University of Sharjah (AUS) have presented inspirational projects that promote safety and protection of the community in the AUS DuPont Prize competition held at AUS.

The competition is the result of a partnership between AUS and DuPont. Students aimed to develop innovative solutions for removing micropollutants and trace contaminants in water.

The winning projects covered removal of ciprofloxin from wastewater treatment plants; investigating acetaminophen



The winning teams of the AUS DuPont Prize competition.

(paracetamol) pollution in water bodies in the MENA region; and the removal of microplastic pollutants from wastewater treatment plants effluents through ultrafiltration and coagulation in the Arabian Gulf.

The winners were awarded tuition grants.

Maher Emil, DuPont UAE country leader, said, "We are delighted to have partnered with the AUS to provide a platform that recognises the capabilities of the young talents in the field of science, and are proud to play a role in encouraging and assisting in shaping a fruitful future for them.

"The young minds at the American University of Sharjah impressed us with their talented and creative thinking during the AUS DuPont Prize Competition."



events calendar 2022-23

October				
26-27	OFSEC	MUSCAT	www.ofsecevent.com	
31-1 Nov.	FIREX Egypt	CAIRO	www.ifsecandfirexegypt.com	
31-3 Nov.	ADIPEC	ABU DHABI	www.adipec.com	
December				
6-8	Middle East Safety & Sustainability Week	BAHRAIN	www.energyinst.org	
January 2023				
17-19	Intersec	DUBAI	https://intersec.ae.messefrankfurt.com/	
March				
7-9	Middle East Energy	DUBAI	www.middleeast-energy.com	
May				
16-18	Safety & Health Expo	LONDON	www.safety-health-expo.com	

Please verify dates and location with organisers as this information can be subject to change

OHEC welcomes over 150 exhibitors in Oman

Healthcare

The Oman Health Exhibition and Conference (OHEC) returned to Muscat this September, with more than 150 exhibitors joining for the much-awaited return of the event.

The conference unites operators and leaders from the health landscape to share and expand knowledge, helping the industry move ever closer to the targets laid out in the Oman Vision 2050. Focusing on ensuring the health and productivity of the Omani people, the vision strives to establish an organised, equitable and efficient health system grounded by equity and social justice.

On the event's role in pursuing the goals of Oman Vision 2050, Walid Khaled Al-Zadjali, chairman of the Oman Medical Association's board of directors, said, "This health conference and exhibition is a good step forward in translating Oman Vision 2040. At the Oman Medical Association (OMA), we firmly believe that such medical meetings have the most significant and sustained impact on reinforcing and consolidating the professional relationship among the



H.H Sayyid Fahr bin Fatik Bin Fahr Al Said inaugurated the event.

participants, enhancing the scientific research process as well as sharing experiences in various scientific and health arenas.

"The conference itself is of paramount importance, as of its significant role in enriching the participant's medical knowledge and introducing the scientific and technological developments in this field. We hope everyone finds this conference useful to achieve their objectives, and actively participates in the various activities held on

the sidelines of the Oman Health Exhibition & conference."

OHEC is just one step on the path to the Oman Vision 2050 – the Sultanate's government has allocated 11% of its general budget to health.

45 local and international speakers shared their expertise at the event, with dedicated pavilions showcasing the various treatments, technologies and trends that are set to define the health industry for years to come.

Beyond the treatment pavilions, the exhibition floor comprised of suppliers and operators from healthcare, medical tourism, hospitals, and medical infrastructure, which the conference positioned as critical elements with the potential to drive sustainable progress across the sector.

OHEC was organised by CONNECT, in partnership with Oman's Ministry of Health and a number of other stakeholders.

From networking to knowledge sharing, and exhibiting to enlightening, OHEC undoubtedly played a key role in accelerating the trajectory towards Vision 2050.

Coming together to advance HSE

The MENA HSE Forum, which took place on 6-7 September at the Grosvenor House, Dubai, was a resounding success.



ige Credit: Alain Charl

"Stakeholders from major industries identified the need for new technologies that will continue to cut LTI and optimise productivity."

ABOVE: More than 150 delegates from the regional HSE community attended the event.

he event delivered a well structured programme combining presentations and panel discussions to more than 150 delegates from the HSE community of the UAE, Saudi Arabia, Oatar, Oman and Bahrain. Senior HSE practitioners from the region's leading companies, including ADNOC, Petrofac, Dubai Municipality, EGA, Saudi Aramco, Drydocks World, Abu Dhabi Waste Management Centre - Tadweer, Be'ah and Dubai Holding came together to discuss current developments, share experiences and best practices as

well as access the latest innovations to advance HSE.

"It has been our constant endeavour to create platforms which ensure value addition for all stakeholders in the region. The MENA HSE Forum this year was the culmination of over 20 weeks of work. Stakeholders from major industries identified the need for new technologies that will continue to cut LTI and optimise productivity. Our research also identified a need to access the latest safety solutions for the workforce across the board, which led us to create this exclusive platform for HSE

companies to display and demonstrate their services and solutions to key players in the region. Our efforts to ensure that this edition is of its highest quality has paid-off," said Vinay T, head of business development at Alain Charles Events, the organisers of the Forum.

The programme commenced by exploring various aspects of safety management, including presentations by Saleh Albalushi, head of HSE, Drydocks World, on building shared commitment for safety within an organisation, and on achieving sustainable results through HSE culture

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transformation strategy by Sultan Karrani, senior engineer - HSE, ADNOC.

To help organisations strategise on occupational safety standards, Eng Mohamed Abdula Almarzoogi, head of Accident Investigation Team - Health & Safety Department, Dubai Municipality, outlined the most common causes of accidents in Dubai industrial sectors, revealing that falls from height accounted for nearly 38% of the accidents in Dubai. The audience also gained access to a case study on the crisis management planning and mitigation strategies adopted by DAMAC Properties that led to optimal recovery from the pandemic.

The panel discussion on Day 1 further examined crisis and business continuity management through a debate on the need for agility and flexibility while having a structured approach in place, supported by clear strategies for communication and escalation in times of crisis.

Digital transformation in focus

Digital transformation in the HSE sector was a key area of focus at the Forum, with discussions and presentations continuing into the second day. Lynn Hoballah, head of health & safety, Petrofac, demonstrated how her organisation is making use of social media and gamification for greater employee engagement. The impact of disruptive technologies in solving HSE requirements was further debated by a panel that examined how these can be used to improve HSE operational efficiency and help in mitigating risks.

Lessons on occupational health and behavioural safety during the pandemic were addressed by Dipl



The forum provided plenty of scope for networking.

Ing Peter Michael Hamel, department head OHSE, Be'ah, quoting from his experiences in Oman during the lockdown.

The HSE Forum's focus on sustainability and the environment included diverse perspectives such as the value that ESG is creating in the aluminium industry. An update by the Dubai Municipality, delivered by Dr Jasminka Jaksic, senior environmental specialist, gave the audience an insight into how the Dubai Municipality monitors conformance to air quality regulations. Dubai Municipality's interactive display on air quality at the HSE Forum's Technology Showcase Hall invited the attention of delegates.

MILWAUKEE, a gold sponsor of the event, showcased its range of power tools, combining innovation with cutting-edge battery technology, providing solutions for diverse trades and applications.

Another gold sponsor, Next World, is a provider of VR

training. Their VR Learning Management System (LMS) helps effectively induct, train and upskill employees through immersive VR training experiences.

The digital sponsors of the Forum included Benchmark ESG, which enables companies to implement Environmental, Social and Governance (ESG) solutions through its software suite for ESG reporting, sustainability and operational compliance; Intenseye, offering AI solutions for increased workplace safety as well as iOmniscient, providing AI -based multi-sensor analytics for health, safety and security applications.

"Thank you to everyone who helped make this event a huge success. The passion and good attitude contributed to this. Special thanks to the organising team for inviting me to chair this important event." Dr Rahaf Ajaj, research cluster lead for climate change and public health at Abu Dhabi University

"The HSE Forum provided immense opportunities for networking and sharing knowledge as well as ideas." Dr Eng Hani Hossni, EHS director, Abu Dhabi Waste Management Centre -Tadweer

"The MENA HSE Forum 2022 covered all aspects of the HSE spectrum, discussing critical issues and the latest trends." Naveen GV, global development officer & managing director, Benchmark Digital Partners LLC

"This was a great learning experience and a wonderful opportunity to meet and network with HSEQ experts from key players in the Middle East. The knowledge and experiences which were shared will certainly help attendees bring value addition to their organisations." Jawad Rasool, regional HSEQ co-ordinator at Stock, a Fluor company.

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Embracing the **21st century in HSE**

The MENA HSE Forum 2022 examined the future of digitalisation in the HSE sector and how digital transformation is driving the industry. Fyna Ashwath reports.

"Utilising technology can help leaders make informed decisions, revolutionise employee engagement and embrace modern training techniques that induce a positive safety culture and reduce incidents at worksites."

Lynn Hobballah, head of health & safety at Petrofac, addressing the MENA HSE Forum.



igital technology is increasingly impacting health, safety, and the environment, contributing to greater competitiveness.

At the MENA HSE Forum, the impact of disruptive technologies and high speed communication to improve workplace safety, monitor employee health and build a sustainable workforce, was a focus of discussion.

By elaborating on the digitalisation journey of Petrofac,

a leading provider of services to the global energy industry, Lynn Hobballah, the company's head of health & safety, highlighted how new technologies are playing an ever prominent role in the HSE activities of her organisation.

She explained that as the need for engaging and agile communication keeps growing, utilising technology can help leaders make informed decisions, revolutionise employee engagement and embrace modern training techniques that induce a positive safety culture and reduce incidents at worksites, creating a holistic culture of risk identification.

Mobile technology – a gamechanger

Hobballah outlined how mobile phone technology can offer a great means to reach out to the workforce and drive positive change. Emphasising the influence of this technology in

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our lives, she pointed out that recent studies indicate that the average time a person spends daily on the mobile phone is approximately three hours and fifteen minutes or more.

Petrofac realised that digital technology is the enabler to bring HSE to the forefront of people's minds and induce action by complementing it with conventional practices such as site management walk-throughs and safety meetings. Safety and health are of paramount importance at Petrofac, and its internal safety campaign, Horizon Zero, aims for zero safety incidents by promoting personal commitment and competence throughout the organisation.

"In order to do this, Petrofac focuses on some pillars, two of which, Leadership and Employee Engagement, are central to an influential approach coupled with digital technology to drive positive change in preserving the culture of safety," said Hobballah.

"To provide the leadership with real-time visibility of safety performance, we developed the Digital Safety Boardroom, which, through one click from the mobile phone, provides access to data for every site location. Acting as a single source of truth, it helps in providing insights into where to focus the attention of the management and invest their resources, for instance by concentrating on the root causes of accidents."

Overcoming challenges

Although it seems simple, Hobballah was quick to point out that the organisation had to overcome a number of challenges.

"The first one was the



The impact of disruptive technologies was a focus of discussion at the MENA HSE Forum.

availability of data. It was difficult to project the wealth of data available across the organisation into the dashboard, so we realised the need for data management systems.

"The second challenge was data consistency, and it pushed us to develop data governance procedures which are really important for organisations adopting this method.

"And the third was deciding what to reflect on the dashboard because every stakeholder has different interests, for example, the set of KPIs for the operations team will differ from those of the construction team. So, we finally conducted a global HSE roadmap workshop including all stakeholders and came up with one dashboard," Hobballah explained.

As part of its HSE strategy, the organisation used several apps to increase situational awareness of the employees and increase their level of communication as well as team work.

"For greater employee

"For greater employee engagement, any technique needs to be relevant to the worker."

engagement, any technique needs to be relevant to the worker, making it a personal responsibility and more accessible," added Hobballah.

"One of the methods that Petrofac uses to increase employee engagement is the Observation App for HSE, to report safe, positive observations via mobile devices. The second is the Driving Improvement App, embedding a culture of personal responsibility over policing in all drivers within the organisation to see where they rank against their colleagues, promoting friendly competition, thus building in behavioural change to improve performance," she explained.

Another example that Hobballah cited, which Petrofac

used for bringing health and safety to the forefront, is Yammer, made popular in the organisation by launching competitions, safety discussions and other methods. It was well embraced and has now become a tool for sharing lessons learned, showcasing best practices, asking questions or requesting support from other worksites, thus helping to break silos. Hobballah revealed that the app is now viewed by more than 3,800 employees globally, within the organisation.

Another digital tool, The Safety Hotspot, is a hands-on training facility based at the worksites and focusing on life saving rules. While effective, it has limitations such as space availability. So, Petrofac has complemented these with training methods using the digital experience through the increased emphasis on e-learning to provide a number of training courses. Hobballah revealed that Petrofac is exploring the possibilities of virtual reality for more effective training.

The presentation on Petrofac's digital journey offers great learning for organisations intending to introduce such innovative tools.

"Before embarking on this, we should define the strategy through a vision such as meeting sustainability targets or greater efficiency, then understand where we are by conducting an internal review, define where we want to be, and finally define the projects to work on," summed up Hobballah.

"Although nothing will replace physical presence and conventional practices, Health and Safety in the 21st century demands a 21st century approach," she concluded. ■

Safety in waste management

Dr. Eng. Hani Hossni, EHS director, Abu Dhabi Waste Management Center (Tadweer), discusses the organisation's OHS system and policies, and how it ensures safe behaviour in the workplace.

How does Tadweer's OHS management system tie in with national and international standards and regulations?

The Abu Dhabi Waste Management Center (Tadweer) is committed to providing the highest quality waste management services in the Emirate of Abu Dhabi, in line with the best international standards and global practices to achieve sustainability and integrated waste management. We also ensure adopting the most effective methods of public health pest control that align with the directives and vision of Abu Dhabi 2030 to improve e-services in various fields and promote the digital transformation of government agencies in the UAE.

Tadweer's Occupational Safety and Health (OSH) policy highlights the importance of putting preventive measures in place to avoid and mitigate occupational health and safety risks. It also outlines the company's commitment to reviewing, monitoring, evaluating and improving our OSH performance. The Center follows the ISO45001:2018 Occupational Health and Safety international standard for health and safety, and all other relevant laws, regulations, and requirements such as the UAE Federal OHS Policy Framework and NCEMA 6000:2016 Standard.

We ensure that EHS is embedded with our daily activities and safeguard the health, safety and welfare of our employees and the public, ensuring that our operational activities are effectively controlled with regard to the protection of the environment and ensuring health and safety for our employees and everyone working on our behalf. Our top

management is ultimately responsible and accountable for a sound EHS performance and for developing a positive EHS work culture.

What is your procedure for identifying and controlling risks?

Some challenges in EHS management include pollution and excessive noise, improper handling of material, health issues, and more. At Tadweer, we develop the required systems for managing waste including collection, transport, treatment, safe disposal and pest control services through the use of environmental service providers and technology, to preserve the environment.

We have also set a list of health and safety requirements for our contracts. For example, the contractor and subcontractors are required to supply all workers with the personal protective equipment (PPE) needed to protect them from any potential risks. In addition, all the workers on site must attend an EHS induction by the contractor. We make sure that all our contractors comply with our EHS requirements, through controlling noise, displaying safety signage, having storage for hazardous material, and preventing pollution.

We have the highest safety procedures in place which involve Hazard Identification; Analysis and Evaluate the Risk; Apply the Risk Controls; and Monitor and Review the outcome.

Recently, additional consideration has been given for the risks associated with manual handling (moving, loading, unloading, etc.) as well as ergonomic risks. We are ensuring these risks are evaluated and controlled.



What initiatives do you have for promoting safe behaviour in the workplace?

As part of our strategic plan, Tadweer is promoting a sound health and safety culture among its various stakeholders. We identify, study and evaluate the applicable industry best practices and are continuing to identify challenges, develop roadmaps and review both improvement and development strategies and best practices in the field of occupational safety and health.

In 2021, Tadweer achieved a compliance rate of 95% for its occupational safety and health management system; this was in line with the requirements of the Abu Dhabi Occupational Safety and Health System in 2021. This achievement came after the completion of the project for the development of Tadweer's occupational safety and health management system, as well as playing the role of Regulator for the waste sector in the Emirate of Abu Dhabi. The Center operates in line with the highest international standards and practises in the field through promoting joint cooperation, and launching initiatives and projects that invest in financial, human, and technical resources, in order to achieve a circular economy and sustainable development.

For field operatives, safe defensive driver training is provided. For middle management, we have addressed them as a part of the system safety training. For the top management, we organised an EHS week event in March 2022, where we conducted a leadership behaviour development session for the top management.

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Intersec Saudi Arabia:

Security's place in achieving Vision 2030

Intersec Saudi Arabia returned to its in-person format in Riyadh for its fourth edition from 13-17 September 2022.

"The incredible response from the industry truly demonstrates the importance both of live events and of the security industry in the Kingdom."

Alex Nicholl, Intersec Saudi Arabia's show director. he fourth edition of
Intersec Saudi Arabia took
place in Riyadh this
September, marking the return of
the in-person event attracting
extensive local, regional, and
international exhibitors and
speaker profiles.

If the return of the event's inperson iteration was a signal of one thing, it was the strength of the industry across the Kingdom.

H.E. Mohammad Abdullah AlMarshed, chairman of the Real Estate Committee of the Riyadh Chamber of Commerce and Industry, inaugurated the event, saying, "Intersec Saudi Arabia has always been a beacon of the safety and security industry in the Kingdom. The growth of the 2022 edition, and the response from exhibitors and visitors, reflects the growing market and the values of Saudi Vision 2030."

Indeed, the transformative blueprint for Saudi's growth throughout the decade was a key talking point: what role can the security industry play in such growth? How will capacity, comprehensiveness and cuttingedge solutions contribute to a groundwork that sees the Kingdom reach its goals over the next eight years?

Dr Sultan Al Tukhaim, general manager of cybersecurity and data governance, communications, and IT commission for Saudi Arabia, elaborated on the Kingdom's unique position as it approaches Vision 2030, saying it is "one of the world's most prominent targets of

cybercrime because it is an energyrich country with a digitally active population, located at the heart of the global energy market."

And how to rise to the challenge of ensuring security in the cyber space? Dr Faisal Abdulaziz Alfouzan, assistant professor in cybersecurity and networks, explained, "Moving from cybersecurity to cyber resilience will require cybersecurity experts, national regulations, and standards, while also accelerating digital transformation and establishing critical infrastructures across a host of sectors."

Saudi Vision 2030 poses a host of questions, but uniting world leaders in their fields at events such as Intersec may be the birthplace of the answers.

Ensuring safety showers provide tepid water first time, every time

Comply with crucial safety standards and protect worker safety with tepid water solutions from Hughes Safety Showers.

magine a situation in which a worker spills a caustic agent such as bleach and suffers immediate chemical burns. They follow procedure and rush to the nearest emergency shower to activate it, but the water has heated up to above 38°C (100°F) due to solar radiation and high ambient temperatures. The water scalds the casualty, adding temperature burns to their chemical injury.

Blood vessels close to the surface of the body dilate when exposed to heat to allow more blood flow to the area. This removes heat from the skin and prevents the core temperature from rising too high and directs blood away from vital internal organs causing cardiovascular strain. In a chemical spill or splash situation this process allows more chemicals to be absorbed through the skin, worsening the injury, and causing potential internal damage.

Additionally, on realising the water is too hot, the casualty may jump out of the shower too early, leaving chemicals on their skin and/or clothes. This residual chemical can still cause tissue damage.

Whether the water is scalding or freezing, the natural human reaction is to withdraw from the temperature extreme to protect the body. ANSI Z358.1-2014, the international standard for emergency safety showers, recommend a flow of water for at least 15 minutes to completely rinse away most hazardous chemicals. The only way to ensure this length of time is possible is to control

the water temperature in the tepid range of 16-38°C.

The provision of tepid water in hot climates, such as those experienced in the Middle East, can be challenging due to solar radiation heating the water within the pipes, or water tank, of a safety shower to dangerous levels. There are several options available to combat this risk and ensure safety showers provide tepid water upon activation.

Self-contained and resilient, tank fed safety showers fitted with a chiller are often the simplest and most comprehensive way to achieve compliance. A large overhead tank can store 1,500 litres of potable water and deliver an ANSI compliant 76 litres of water per minute. When fitted with a chiller or cooling system the water within the tank can be maintained within the tepid range. Chillers are available for use in both hazardous and non-hazardous areas, and where no power is available the innovative Hughes Zero Power Cooler® is ideal. The system cools during the night when the ambient temperatures are lower, using the reduced ambient temperature to draw heat from the water in the tank. During the day the system is designed to insulate against the higher daytime ambient temperatures preventing the water from getting too hot.

Alternatively, self-draining safety showers are designed to drain away water from the



The overhead tank holds 1,500 litres of potable water.

standpipe after use, removing the risk of water overheating and scalding the next user upon activation.

For further information on industrial safety showers and eye washes suitable for use in hot climates visit the Hughes Safety Showers booth #8430, at ADIPEC 2022 from 31st October to 3rd November, or visit www.hughes-safety.com

mage Credit: Hughes Safety Shower

Modern Eastern delivers custom solution to Tatweer Bahrain

Decontamination

Modern Eastern has recently been awarded a contract to deliver customised emergency safety showers with water chillers to Tatweer Petroleum's Bahrain facility.

The customised solutions were delivered and commissioned at the beginning of September 2022.

With five branches across the region, Modern Eastern offers a choice of installation and after-sales support solutions for its clients across the GCC.

The company's standard model Modern Emergency Safety Tank Shower with Chiller offers a chiller unit for tempering hot water in desert or extreme climates, as well as a gravity-fed safety shower and eyewash unit.

The stainless steel model is deemed useful in areas where continuous water supply is not available, especially in those where temperatures can exceed 50°C in summer.



The unit combines an eye wash station and emergency shower.

Overhead tanks store up to 1,400 litres of potable water, with an upgraded model offering up to 2,000 litres. The chiller unit continuously senses the water temperature and maintains it in safe levels to prevent any scalding / burn injuries to workers

It includes the following accessories as standard: water level indicator, side panels in stainless steel, auto water filling system, explosion proof junction boxes, sliding door, emergency alarm, flow switch and beacon light.

As specified by the ANSI Z 358.1-2014 accreditation, the shower offers a continuous operation time of 15 minutes at a steady flow rate. The model also conforms to the Saudi Aramco Engineering Standard SAES-B-060.

Modern Eastern's solutions can offer complete assembly prior to delivery, as well as on-site installation, testing, and commissioning support across the KSA.



Shining a light on handheld solutions

The handheld lighting market is one with a number of bright choices – operators are faced with a number of options ranging in suitability and application.

"... safety lighting solutions may carry many similarities... but the differences in requirement and suitability vary drastically."

andheld safety lighting solutions may carry many similarities, from bright bulbs to ergonomic design no matter the size, but the differences in requirement and suitability vary drastically.

Take Wolf Safety's recentlyreleased M-70 Zone 0/20 LED Mini Torch. Despite its 50g weight, the product has been tested and approved against Zone 20, Dust Group IIIC, and offers 107 lumens for up to seven hours of use. The new model's tested standard is ideal for dusty or potentially explosive atmospheres, and its small size but bright output make it more than applicable for hard-to-reach spots that require illumination, while retaining the industrygrade build that Wolf Safety guarantees with its products.

For a more rugged application, recent upgrades to two of Wolf Safety's more powerful models, the H-4DCA and the H-251ALED, may come in handy. The former benefits from a seven-fold boost in output, from 37 lumens to 269 lumens, along with a doubling of battery life from 20 hours to 45. The Wolflite H251-ALED rechargeable handlamp has almost doubled its power from 107 lumens to 210. Retrofit kits



environments requiring thick PPE.

Beyond new product launches, the industry will welcome the return of Light Middle East in 2023, running parallel to Intelligent Building Middle East and Intersec from 17-19 January 2023 at the Dubai World Trade Centre. Leading suppliers and potential purchasers will gather in their thousands for the event, which is expected to see more than 1,200 exhibitors from 60 countries.

are available to upgrade previous models.

Taking another step up both in size and illumination, Pelican recently launched its first lantern powered by multiple battery types. The versatile 9050 Flashlight can be powered by Lithium-Ion, AA alkaline or AA NiMH batteries. With an IP67 rating, the torch offers up to 3369 lumens of maximum light output, along with a glove-friendly switch activation to support implementation in

The industry will gather to spotlight the latest innovations at Light Middle East.

Setting the standard

Kate Field, Global Head of Health, Safety and Wellbeing - BSI discusses the organisation's role in setting HSE and social value standards and the role of standardisation in driving best practice.



"BSI's biggest impact is through its client work, setting environmental, health and safety, and social value standards of excellence for companies around the world."

ABOVE: Kate Field, Global Head of Health, Safety and Wellbeing, BSI.

Can you tell us a bit about BSI and how your solutions and services improve performance and support the UN SDGs?

The 2030 Agenda for Sustainable Development is a foundational underpinning of BSI's sustainability strategy. As an organisation, we are dedicated to achieving global, collaborative progress towards protecting our planet from degradation, and ensuring all humans can enjoy prosperous, fulfilling lives within peaceful societies.

As a responsible employer, we are making progress towards Goal 8: 'Good Jobs and Economic Growth', with formidable DEI ambitions (enabling progress towards Goal 5: Gender Equality). We also have a bold sustainability plan, enabling aggressive progress towards Goal 13: Climate Action.

But arguably, BSI's biggest impact is through its client work, setting environmental, health and safety, and social value standards of excellence for companies around the world, making Goal 17: Partnerships for the Goals our 'north star' SDG.

For each of the past three years, the company has also chosen one SDG to focus our global, philanthropic giving towards, and this year (2022), we are focusing on Goal 1: 'No Poverty', with each country dedicating their philanthropy budgets to regional NGOs that have strong history of progressive change in supporting people out of poverty.

How important are standardisation and certification in maintaining and raising health, safety and environment standards?

BSI achieved its Royal Charter because the organisation is committed to building a stronger society. Globally recognised standards are essential in establishing public trust, reducing risk for businesses across all industries, and protecting arguably the most valuable resources in every business, ie its People.

However, standards must evolve as the world does. BSI is at the helm of ensuring that all our standards are regularly reviewed and updated to reflect the rapidly changing times we live in. As we begin to feel the progressively more volatile effects of climate change, and as we become accustomed to operating in an increasingly digital world, rigorous standards are more important than ever to ensure businesses can continue to operate with a commitment to protecting people and the future of humanity.

How are you sharing knowledge, best practice, and innovation in the Middle East to improve performance and reduce risk?

BSI's core business from writing public availability standards to delivering training and audit, allows BSI to share best practice and knowledge. BSI Middle East and Africa is always keen to organise free webinars about different subjects, including Innovation in different sectors, Digital Trust and Sustainability portfolio. We are always keen to add value to the service we deliver, and because of that, our experts in the field are always sharing their knowledge and experience with our clients, partners and interested parties in the region.

Effective resilience always protects organisations from unforeseen and disruptive events, and we feel in BSI that it is our responsibility towards the community to share best practices and different experiences from all over the globe.

Are there any areas of your activities that are experiencing particular growth at the moment?

The need for robust and evidencebased non-financial targets either to meet legislation, investor questions, customer/client/contractual requirements or end-users' demands – is driving significant growth in the use of international standards.

ISO 45001 for occupational health and safety management is showing particular growth, as it not only supports effective health and safety practices within organisations, but it also helps deliver improvements within the supply chain.

"The need for robust and evidence-based non-financial targets is driving significant growth in the use of international standards."

How did you benefit from participating in the MENA **HSE Forum?**

The HSE Forum brings industry experts and thought leaders to the same platform, where all parties

can share best practices and knowledge to educate the companies and individuals working in the Health and Safety domain.

BSI is the business improvement and standards company that enables organisations to turn standards of best practice into habits of excellence, 'inspiring trust for a more resilient world'. For over a century BSI has driven best practice in organisations around the world. Working with over 84,000 clients across 193 countries, it is a truly global business with skills and experience across all sectors supporting the United Nations Sustainable Development Goals.

www.bsigroup.com

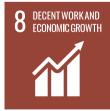
SUSTAINABLE DEVELOPMENT GEALS





































BSI is committed to the UN Sustainable Development Goals (SDGs).

Visual ergonomics in the control room

Barco's TruePix direct-view LED technology takes video wall ergonomics to another level.

ontrol room operators have a visually demanding job and are often working long shifts monitoring video wall content. Fortunately, visual ergonomics is playing an increasingly vital role in control room design.

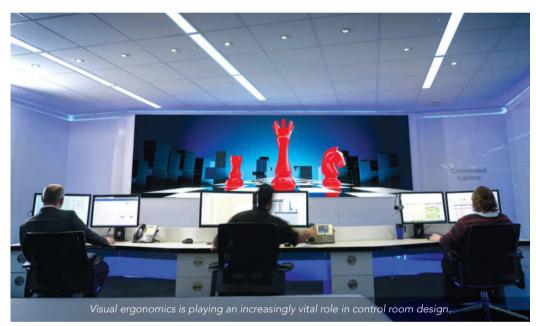
Truly seamless viewing

The seams or mechanical gaps between multiple screens or panels of a video wall can be a major hindrance. Unlike with LCD and rear-projection, directview LED video walls have no screen gaps. However, it can still be difficult to perfectly align the different LED panels: the ground surface is never 100% flat and walls are never completely even.

With the smart engineering system of TruePix, adjacent modules are automatically aligned without interrupting the diode pattern. TruePix also relies on the force of gravity and the principle of communicating vessels to absorb imperfect floor conditions or uneven walls. As a result, the LED wall is perfectly level and completely frictionless.

High brightness and dimming

Direct-view LED provides plenty of brightness, with great contrast and increased viewing angles. But LED video walls can also be dimmed, which is critical for night-time



operation or windowless control rooms. However, dimming should not result in reduced sharpness, legibility or color changes.

Barco's TruePix video walls and Infinipix Gen2 image processing platform incorporate patented driver algorithms which will preserve all true details of the image, even when the display system is dimmed to extreme values. SteadyView technology eliminates patterns on the video wall that may cause eye fatigue. This is especially important with dimmed video walls and when staff needs to monitor content for multiple hours on end.

Reliable colours

Control room video walls need to show their colours with utmost accuracy, so they look the way they are meant to be. The challenge is to maintain a constant brightness and calibrated colors over the entire video wall over time. A colour mismatch between different display modules may result in a checkerboard pattern of different colors and brightness levels.

Barco's image processing solution Infinipix Gen2 makes sure the LED display shows the same colour tone, colour bit depth, grayscale and level of detail while operating in dimmed mode and at full brightness. Barco's unique Smart Calibration unlocks the support of wide color gamuts (DCIP3 and REC2020), while batch compatibility ensures uniform colours at all time.

Free ebook on operator ergonomics

With the introduction of Barco's TruePix video wall platform, the bar has been raised even higher in terms of viewer ergonomics. To find out more, download our free ebook on www.barco.com/ebook-ergonomics.

Image Credit: Barc



Roman Poludnev, general manager of safety and productivity solutions Middle East, Turkey and Africa at Honeywell, discusses how to mitigate exposure to noise hazards, and the selection of appropriate hearing protection.

ccording to the World Health Organization (WHO), more than 1.5bn people globally live with hearing loss, and according to recent estimates this number could rise to over 2.5bn by 2030. However, WHO estimates that 50% of hearing loss can be prevented through public health measures.

Potentially harmful levels of industrial noise can arise for many different reasons in various working environments – from indoors in a factory to outdoors working with machinery and tools.

Noise-induced hearing loss (NIHL) is the most common permanent but preventable occupational injury, especially in the Middle East region, with its high levels of construction activity and industrialisation. Indeed, industrial noise can disturb whole neighbourhoods and residents, with Riyadh Region Municipality recently banning construction or demolition activities from the Maghrib call to prayer (5-6 p.m.) until 7 a.m.

In industrial settings, workers operate heavy machinery and power tools, and are exposed to

other hazards that could inflict immediate physical harm at any moment, while hearing damage occurs over time. For many, hearing loss goes unnoticed until later in life, once the damage is already done.

Noise hazards are everywhere when working on-site, but taking the proper precautions can mitigate risk and prevent injuries.

There are many ways to protect worker hearing, including a variety of earmuffs and ear plugs that can be used from the simplest to most complicated tasks.

Here's what you should know

ABOVE: Noise hazards are present in many industrial environments.



Raising awareness of workers on noise hazards is critical.

when choosing the best hearing protection for your industrial job in the Middle East.

Understand and assess the risk

When looking to determine the best-fit hearing protection for a dangerous environment, safety managers must first identify the equipment that is causing noise exposure to fully understand the levels of risk associated with each tool and piece of equipment. Whenever possible, immediately eliminate or reduce extreme noise levels, or offer workers suitable hearing protection.

In Dubai, during the weekday

the noise limit for construction work is set at 55 decibels, which is slightly lower than the sound of a normal conversation in a restaurant and office or an air conditioner, according to the Centers for Disease Control and Prevention (CDC).

For reference, any noise above

"There is no onesize-fits-all solution when its comes to hearing protection." 85 decibels (dB) has the potential to cause long-term hearing loss. Some examples of common noise hazards on-site are when using a bulldozer (100 dB) and a chainsaw (110 dB). Impact noise exposures are enough to be harmful too. Repeated short spurts of noise, such as hammering in a nail (120 dB), can cause hearing damage.

Ensure proper fit and comfort

There is no one-size-fits-all solution when it comes to hearing protection. If a worker's hearing protection does not fit properly, it cannot provide the proper protection. An eighth of

an inch can be the difference between receiving the stated level of protection based on the noise reduction rating on a hearing protection device, and getting no protection at all. Fit-testing provides an accurate, real-world picture of your employees' hearing protection and helps safety managers identify comfortable, convenient and compatible solutions.

Another aspect to consider is a hearing protection device's compatibility with other personal protective equipment (PPE), such as safety eyewear and head and face protection.

For example, safety eyewear

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with thick frames (6mm) can cause a gap between the head and earmuffs, providing an easy way for sound to penetrate the earcup. In this situation, ear plugs would be the best fit hearing protection solution, based on the holistic PPE required for the job.

Educate teams

Workers will not prioritise hearing protection if they do not understand the dangers of noiseinduced hearing loss. So, make it a priority to educate teams on site-specific noise hazards. There are multiple ways to educate your team, including:

- educating workers on the lifechanging consequences of noise-induced hearing loss through anecdotes, audio files and videos
- inviting safety specialists to speak on hearing protection
- encouraging compliance through positive incentives
- using visible posters detailing

the importance of hearing protection.

Prioritise protecting your workers' hearing

Noise-induced hearing loss is painless and causes no visible signs of damage. And, while potentially damaging noises may not cause immediate issues, the slowly progressing damage can accumulate over time and can be

"Noise-induced hearing loss is the most common permanent but preventable occupational injury, especially in the Middle East region, with its high levels of construction activity and industrialisation."

100% permanent.

The solution to preventing occupational noise-induced hearing loss is having a continuous focus on hearing loss prevention, providing proper

training and fit-testing and offering the appropriate hearing protection device styles and sizes.

When hearing protection is used correctly, it does a great job of keeping workers safe.

Pulsar Instruments launches online noise awareness training course

Pulsar Instruments has launched an online noise awareness training course, aiming to educate health and safety professionals on the dangers of noise at work, and give them the confidence to take their own readings and understand the results. The course is split into six modules so that participants can complete the course at their own pace.

The training course will help participants address the following questions:

Do we have a noise at work

- problem, and if so, who is at risk?
- How do I comply with the Controlling Noise at Work Regulations 2005?
- What do I need to measure, and why should I calibrate my noise monitoring equipment?
- How do I apply my measurements to the current action levels and exposure limits?
- What should I do if we exceed any of these levels or limits?
- Why do we need Noise Risk Assessment Surveys?

Monitoring noise exposure

In a blog on its website, Casella, a global leader in the manufacture and supply of occupational hygiene and environmental monitoring equipment, provides some guidance on monitoring the noise exposure of your workforce.

To ensure employers adhere to regulations designed to protect worker's hearing, monitoring provides accurate insights into noise levels and identifying where the problem areas are. There are many devices on the market but it can be difficult to identify what type of product is most suitable for your working environment and where training is

required, Casella says.

A successful noise monitoring programme can be carried out by on-site, trained health and safety managers, using either a sound level meter or a dosimeter. Casella goes on to explain how and in what circumstances each should be used.

"Conducting a complete noise survey involves much more than simply taking measurements with either a sound level meter or noise dosimeter," adds Casella. "While looking at noise levels, how long the employee is actually exposed to the noise level must also be considered.

"Teaching those conducting noise

surveys to ask questions to employees and managers throughout the process is key in gaining a total understanding of what employees are doing and how long they are doing it for, leading to accurate concepts of exposure level and times. The importance of using their own instinct and eyes and ears to understand working patterns and responsibilities without just relying on the instruments is also vital."

To see the blog, go to the website at https://www.casellasolutions.com/uk/en/about/news/nihl-monitoring-your-workforce.html



"Rig owners can avoid such catastrophes if only they take the right safety protocols."

ABOVE: Fire and explosions can have catastrophic consequences in the oil and gas industry..

ncidents of oil rig explosions may be rare, but when they happen, they are nothing short of an apocalypse. However, rig owners can avoid such catastrophes if only they take the right safety protocols. It is important to take the issue of fire safety seriously.

If fire does break out, suppression of flammable liquid and pressurised gas fires requires high-performing foam concentrates and dry chemicals, says Johnson Controls' Isaac Hawari.

What are the main fire hazards in the oil and gas industry?

The primary fire hazards in oil, gas and petrochemical facilities involve the production, storage and transportation of flammable liquids

and pressurised gases. At-risk functional assets include refineries, fuel tank farms, loading areas, offshore platforms, jetties and shipping berth platforms. Major POG fires are typically fuel indepth fires involving hydrocarbons and/or polar solvent products, with another primary hazard being pressurised gas leak fires. There is also the potential ancillary risk of explosions and dispersion of hazardous gases and substances. Facilities are at fire risk from lightning strikes, faulty equipment, electrical failures as well as human error.

Operational centres such as data communications, control rooms and ancillary buildings are also critical to the safe operation of a facility, and should be effectively protected



against fire risk to help assure safety, maximise uptime and secure vital assets.

Can you tell us about your solutions for the oil and gas industry?

Suppression of flammable liquid and pressurised gas fires require high-performing foam concentrates and dry chemicals. Johnson Controls' extensive portfolio of nonfluorinated foam concentrates, AR-AFFFs, and dry chemicals – coupled with the reliable equipment to properly proportion and apply these suppression products – provides effective fire protection solutions for most hazards.

Fixed foam and dry chemical systems:

Foam pump skids, bladder tanks, proportioners, foam chambers, bund pourers, loading bays sprinklers, all tested and listed as complete systems.

Mobile foam systems: From 60 gpm foam carts to 8,000 gpm submersible pumps to 10,000 gpm foam monitor trailers, Johnson Controls mobile equipment offers a full range of emergency response capabilities for flammable liquid hazards in the industry.

Fixed and mobile dry chemical systems: From lightweight portable extinguisher to 500 lb. Gorilla Purple K dry chemical skids to 3,000 lb. ANSUL Large Dry Chemical fixed systems, Johnson Controls offers an array of dry chemical solutions for fast knockdown of flammable liquid and pressurised gas fires.

In addition, our Williams Fire and Hazard Control Services team brings decades of experience to assist in the development of site-specific fire protection solutions, including a comprehensive response plan that considers critical elements such as localised resources, asset logistics, incident management and personnel training.

In space-limited infrastructures such as unmanned control rooms and data centres, our Sapphire Plus gaseous suppression systems provide ideal fire protection for sensitive, high value equipment.

How is the market demand for your products and solutions in the Middle East and Africa?

Several sectors of the energy market continue to drive strong demand for fire protection. Johnson Controls has served the Middle Eastern and African markets for decades, and will continue to partner with the industry in this region to support our customers growth. Demand is forecasted to be strong over the

"Several sectors of the energy market continue to drive strong demand for fire protection... demand is forecasted to be strong over the next few years in this market geography."



A versatile range of alarm and suppression systems are on offer for a burgeoning industry.

next few years in this market geography due to sustained investment in oil and gas.

Johnson Controls is also addressing the untapped Lithium-Ion battery monitoring market by launching Lithium-Ion risk prevention systems. Another innovation is its Sapphire Plus gaseous suppression system, which enables flexible clean agent fire protection systems. It provides ideal fire protection for sensitive, high value equipment.

As the pressure to reach net zero emissions mounts, the oil and gas sector is increasingly shifting towards hydrogen fuel from coal/gas. But since flame is almost invisible when hydrogen burns, it is necessary to keep special early-warning gas detectors handy. With a wide range of flammable concentrations in air and lower ignition energy than gasoline or natural gas, hydrogen can ignite more easily.

How should hydrogen-driven industries equip themselves against probable fire hazards, given that it is a highly flammable alternative?

Given that hydrogen fires are not extinguished until the hydrogen supply is removed, these highly volatile fires with early colourless flames require an early-warning gas detection system. When hydrogen is detected, our Vesda Eco system can automatically activate a ventilation system to help prevent a buildup of explosive levels of hydrogen gas. If hydrogen levels continue to increase, an alarm can notify staff.

A few such precautions are all it takes to prevent another Piper Alpha or Deepwater Horizon.



"The impact of smart cities will be felt far beyond the city walls..."

he impact of smart cities will be felt far beyond the city walls, with the technological landscape shifting to the growing demands of the smart city revolution.

Industry will undoubtedly benefit from the rise of smart cities across the globe and specifically in the Middle East – but how can operators, manufacturers and suppliers ensure they rise to the challenges of widespread implementation of Artificial Intelligence (AI) and the Internet of Things (IoT)?

Sectors across the technological landscape will benefit from

growing smart city space. ResearchAndMarkets.com's 'Computers Global Market Report' predicts a compound annual growth rate (CAGR) of 9.8% through 2026, resulting in the market's valuation at US\$595.93 by 2026. The computing technology behind the urban services offered in smart systems will have to innovate, but is sure to reap the rewards over the coming years.

And yet the computer industry will not have to do all the heavy lifting – Video Surveillance As A Service (VSaaS) is a key component of keeping citizens

safe within smart cities. Integrating intelligent video monitoring systems to aid emergency reponse, reduce crime, and gather analytics is a much-documented benefit of smart cities. The Covid-19 pandemic induced greater demand for VSaaS solutions, as remote surveillance and smart solutions helped quash the impact of the virus. Should operators continue to stabilise output following the expontential growth fuelled by demand during the pandemic, the same research instituion's 'VSaaS Global Market Report' anticipates a CAGR of



transportation systems, and public service networks. Considerations will have to be made for a more frequent level of maintenance due to the sheer scale of smart cities, and the variety of systems and maintenance requirements will require a holistic HSE approach to protect workers and citizens during phases of construction.

On a security level, all operators' involvement in the surveillance technology integrated into the space will require stringent cybersecurity measures to protect from data compromises – both from hackers outside of the system and internal actors.

Industries across the landscape are set for a host of growth periods throughout 4IR, but it will not come without its challenges.

"... the variety of systems and maintenance requirements will require a holistic HSE approach to protect workers and citizens during phases of construction."

Below: 4IR is the beginning of the smart city revolution, with industry set to welcome growth and challenges.

23.5%, dragging the market to a US\$7.23 bn valuation by 2026.

Government will also have a role to play in the future of smart technologies, cities, and the Fourth Industrial Revolution (4IR). The global smart government market is expected to grow to US\$58.08 bn by 2026 at a CAGR of 19.27%, according to ResearchAndMarkets.com's 'Smart Government Global Report 2022'. Integrating the technologies shared with smart cities will undoubtedly aid governments to monitor and work in tandem with smart cities while integrating IoT to make

government activity more efficient and strengthening government-citizen interaction.

With all these sectors of industry pulling their weight towards the implementation of smart technology within cities, the global market in its entirety is predicted to gather pace from a US\$1 trillion valuation in 2022 to up to US\$2.8 trillion in 2027.

What lasting legacy will this impressive impact leave on its associated industries?

The construction industry will have a host of challenges to rise to – with operators tasked with developing infrastructure,



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Sharing cyber INSIGHTS

GITEX GLOBAL 2022 took place in Dubai from 10-14 October, uniting more than 4,500 companies and over 100,000 attendees from 170 countries to share the latest cyber insights and consider the future of the cyber landscape.

"GITEX GLOBAL cut through the hype and emotions, gathering the best minds in all businesses around the world to debate, challenge, and rationalise the impact of the tech fusion."

Trixie LohMirmand, organiser.

The event spanned 26 halls in Dubai from 10-14 October.

ith the digital economy in full velocity, Dubai welcomed the return of GITEX GLOBAL, which reached record capacity this year.

The five-day event, from 10-14 October 2022, spanned 26 exhibition halls hosting more than 4,500 companies and over 100,000 attendees.

GITEX GLOBAL's organiser, Trixie LohMirmand, said, "GITEX GLOBAL cut through the hype and emotions, gathering the best minds in all businesses around the world to debate, challenge and rationalise the impact of this tech fusion on society and our future."

"GITEX GLOBAL continues to be one of the biggest and most important regional and international tech events for global ICT leaders like Huawei," said Steven Yi, president of Huawei Middle East, GITEX GLOBAL's Diamond Sponsor.

Huawei enjoyed an elevated presence at this year's event, showcasing technological advancements and value creation by helping governments and enterprises unleash the potential of the digital transformation.

The tech organisation spotlighted the importance of



cloud native 2.0 architectures, which sees applications go cloud native from their installation. It offers efficient resources, Internet of Things (IoT) compatibility, intelligent services, and industry enablement. The digital infrastructure spans the public cloud, a full-stack dedication regional cloud, and a hybrid cloud comprises of HUAWEI Cloud Stack.

"Under the theme 'Unleash Digital', this year at GITEX, Huawei explored where industry digitalisation is heading, what opportunities it brings, and how digital technologies like cloud, AI, and 5G can be practically applied in different industry scenarios to fully unleash their value," concluded Yi.

Vectra AI, a leader in AI-driven threat detection and response for hybrid and multi-cloud organisations, also took to the event, showing attendees how they can reduce security teams' alert fatigue and develop more rigid and effective defenses of digital assets and frameworks.

"Very rarely do organisations know where the gaps in their security lie. And this is a great advantage to attackers, who Image Credit: GITEX GLOE

continually bypass prevention, circumvent signatures, blend in and infiltrate, and progress laterally inside an organisation to wreak havoc," said Taj El-khayat, managing director for EMEA South at Vectra AI.

Vectra AI integrates a signalintelligence approach in its solutions, rendering processes and workflows more efficient than prior incarnations. The intelligence exposes the entire narrative of digital attacks, continuously monitoring for known tactics, techniques, and procedures, and executing pre-defined models to correlate and sift out threats.

Tenable, the cyber exposure management company, showcased its combination of exposure management solutions, allowing organisations to translate technical asset, vulnerability and threat data into actionable insights.

"When we think of traditional network security, the goal is to fortify the perimeter to prevent threats outside of the network from getting in. However, the way we work today means this approach is no longer feasible," said Maher Jadallah, senior director Middle East & North Africa, Tenable.

"At GITEX 2022, we wanted to help organisations appreciate what constitutes the modern attack surface. Our team was on hand to help them understand how they can focus their efforts to prevent likely attacks, and accurately communicate exposure risk to their business partners to improve performance cross functionally."

Tenable gave live demonstrations of its various exposure managment platforms, including Tenable.io, Tenable.sc, Tenable.ot, Tenable.ad, and Tenable Lumin.

Swimlane, the low-code security automation firm, spotlighted its cloud-scale automation platform,



"GITEX GLOBAL is an important platform... to display our full suite of reliable solutions and engage with some of the industry's biggest business innovators and executives."

Brant Shen, general manager for the UAE, Oman and Yemen at Dahua Technology.

Swimline Turbine. The system captures hard-to-reach telemetry and expands actionability beyond closed extended detection and response ecosystems.

"As a world leader in cloudscale, low-code security automation for companies across several verticals, Swimlane is committed to preventing breaches and enabling continuous compliance with a next-generation security automation solution that functions as a system of record for all security operations," commented Ashraf Sheet, vice president of Middle East, Turkey and Africa for Swimlane.

Also participating at the event was Dahua Technology, which showcased its range of security solutions via an immersive LED screen. The end-to-end solutions on show are designed to provide diverse security solutions across transport, banking & finance, construction, and critical infrastructure.

"GITEX Global is an important platform for Dahua Technology to display our full suite of reliable and comprehensive solutions and engage with some of the industry's biggest business innovators and executives, on a regional and international scale," said Brant Shen, general manager - UAE, Oman, Yemen.

Nozomi Networks demonstrated its infrastructure-focused OT and IoT solutions at the event, including its subscription-based Threat Intelligence Feed, which can now be used alongside third-party platforms. The feed provides data on malicious IP addresses and URLs, new indicators of compromise, threat sources, malware hashes, and methods to gain system access.

"GITEX Technology Week is one of the premier technology exhibitions in the Middle East, and we were excited to make a return as the threat landscape evolves and gives businesses new challenges to overcome," explained Bachir Moussa, regional director (MEAR) at Nozomi Networks.

Mimecast rounded up a stacked show lineup by drawing attention to the availability of the Mimecast X1 platform, which is engineered to leverage a rich source of communications intelligence and showcase how users and threat actors interact and collaborate, enabling organisations to protect their staff, data, and communications.

GITEX GLOBAL united thousands of world leaders in the field to spotlight the technologies leading the way as risks grow in complexity and prominence.

Personal Protective Equipment Buyers' Guide

2022

The Middle East's annual where-to-buy guide

Section One: Listings by category

Section Two: International and regional suppliers

Section Three: Contact details of Middle East agents & subsidiaries listed by country

Categories

Body Armour

Teijin Aramid GmbH

Breathing

Equipment/Protection/Respirators

Bauer Kompressoren GCC FZE Bullard Asia Pacific Pte. Ltd. EYEVEX SAFETY LLC

Ear Protection

EYEVEX SAFETY LLC

Face Protectors

Bullard Asia Pacific Pte. Ltd. EYEVEX SAFETY LLC

Foot Protection/Safety Footwear

D-S Safety AS EYEVEX SAFETY LLC G.B. Industries Sdn Bhd

Hand & Arm Protection

G.B. Industries Sdn Bhd Shanghai Select Safety Products Co. Ltd

Head Protection/Helmets

Bullard Asia Pacific Pte. Ltd. Shanghai Select Safety Products Co. Ltd Teijin Aramid GmbH

Heat & Fire Resistant Clothes & Garments

D-S Safety AS Teijin Aramid GmbH

Protective Clothing

Teijin Aramid GmbH

Protective Eyewear/Safety Glasses

EYEVEX SAFETY LLC Shanghai Select Safety Products Co. Ltd

Protective Gloves

D-S Safety AS G.B. Industries Sdn Bhd Shanghai Select Safety Products Co. Ltd Teijin Aramid GmbH

Fall Protection

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Tockout Tagout

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Agents:

Oman - Al Dastoor Contracting LLC Qatar - Teyseer Industrial Supplies & Service Co. W.L.L (TISSCO) Saudi Arabia - Khalifa A. Al Gosaibi Trading LLC

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Siemens launches digital service portfolio for fire safety

Fire safety

Siemens has launched Fire Safety Digital Services, a portfolio of digital and managed services which connects fire safety systems to the cloud, enabling businesses to move from a reactive, compliance-led approach to total protection through intelligent safety. By embracing digital services in operation, event-handling and maintenance, customers can improve hazard identification and prevention, make better risk-control decisions, protect business continuity, and provide a safe environment for people and assets.

"It's important to remember that with fire systems, compliance does not necessarily equal safety," said Brad Haeberle, senior vice president, Services, Siemens Smart Infrastructure. "With digital services for fire safety we can go beyond simply meeting fire system regulations, by using data and intelligently-applied analytics to fully protect people and assets. Developing smarter protection systems through cloud connectivity reduces the burden on people, eliminates unnecessary interruptions and gives businesses much-needed transparency over their processes, for smoother operation and system availability."



With a combination of on-site and abovesite services, the new portfolio delivers remote diagnosis and services for automatic data capture, analysis and disturbance-free testing.

Continuous monitoring of detector soiling levels ensures that all fire detectors are working correctly, preventing environmental and other external risk factors from compromising the performance of fire safety systems.

As part of the portfolio, the Sinteso Connect App has permanent cloud connectivity and allows users to access fire safety assets, check on live incidents and receive push notifications from their connected sites.

Disturbance-Free Testing (DFT) provides regular, frequent and automated functional testing of all DFT-enabled peripherals in the fire system.

العمل في المناطق الخطرة، حيث تشتد أهمية الإلمام بالبيئة التي يعملون فيها. ويوجد ذاك النقص في كل من قطاعي النفط والغاز، حيث يكمن نشاطنا الأساسي، وفي قطاع الهيدروجين الناشئ الذي ينطوي على قواسم مشتركة من حيث استخدام الأجهزة الكهربائية في بيئات قابلة للانفجار. ولا يزال الهيدروجين من الحقول الجديدة نسبيا لإمدادات الطاقة، ولسوف يشكو من نقص هائل في المهارات العالمية على مختلف مستويات الإنتاج والتخزين والتوزيع والاستخدام الآمن.

وتتعدد أسباب هذا النقص، وأبرزها فقدان الكوادر المتقدمة في العمر، من أصحاب الخبرات الكبيرة. إذ طفح بها الكيل على إثر تأرجح أسعار النفط وتدني الأجور طيلة سنوات، تليها تحديات فيروس كورونا (كوفيد19-)، فقررت الرحيل من هذا القطاع للأبد.

كما كان لقيود السفر الناجمة عن كورونا أثرٌ ملحوظٌ على فجوة المهارات في جنبات آسيا والشرق الأوسط وشمال إفريقيا. وقد تسبب ذلك، فضلا عن قلة ذوي الخبرة، في تغيير منهج المشغلين وشركات سلسلة الإمداد والتوريد في تدريب وإرشاد الفنيين الشباب في كلٍ من سنغافورة وتايلاند والإمارات وبلدان أخرى.

إن الجيل القادم من المواهب الشابة المبشرة بالخير التي تتطور في كل من هذه البلدان حريصة على التعلم ومتقدة الذكاء وجاهزة للعمل، بيد أن الشباب والحماس لا يغنيان عن الخبرة والتجربة والفطرة التي أصقلتها الأيام والسنون في بيئة عالية

المخاطر لا محال فيها للخطأ.

والتدريب المناسب يوفر أساسا لا يُقدر بثمن، ولكن ينبغي اكتساب الخبرة العملية، وعلينا البحث عن حلول تتراوح من قصيرة إلى متوسطة الأجل حتى تتزايد خبرات هؤلاء الفنيين الشباب. وبما أن «يوتكس» تأتي في مصاف الشركات العالمية، فقد سلكت سبيل التكيف وغيرت نهجها، شأنها في ذلك شأن الكثير من الشركات الأخرى؛ إذ كنا قبل الجائحة نستقدم أهل الخبرة، أصحاب الباع الطويل على مستوى العالم، لتدريب الفنيين الشباب الواعدين داخل كل دولة وتبادل خبراتهم معهم، وتوجيههم على أساس فردي، بحيث ينقلون خبراتهم الطويلة اللجيل القادم.

لكننا لم نتمكن من ذلك خلال العامين الماضيين، فاضطررنا إلى تعديل نهجنا، وأمسينا نقدم الآن دعما وتوجيهًا عبر الإنترنت في ظل توقف سبل التدريب المباشر. وهذا يكفل توفير كوادر يستطيع الجيل القادم من الفنيين الكهربائيين التواصل معها لاستشارتها، فيوجهونهم في الاتجاه الصحيح خلال تعمقهم في المعرفة واكتساب الخبرات.

ومن المزايا الأخرى، أن الشركات العاملة على الصعيد الدولي تجاهد للتقليل من اعتمادها على العمالة الأجنبية، وصارت توجه تركيزها إلى توظيف المواهب المحلية وتدريبها وتنميتها. وقد وأسفر ذلك عن تسريع التزامها بدعم سياسات التوطين في ربوع المنطقة، فزادت من إنماء وبناء علاقات متينة مع العاملين معها وفي البلدان التي تعمل فيها. إذ سيكون تشكيل قوة عاملة تتألف في الغالب من أبناء سيكون تشكيل قوة عاملة تتألف في الغالب من أبناء

الوطن ركيزة أساسية للنمو المستمر لقطاع الطاقة، ونحن ننبري في العمل مع عملائنا الرئيسيين لمساندة مبادرات التوطين التي تقلص فجوة المهارات.

إن فقدان المعارف الذي نراه في الخارج لا يختلف عن فقدان الحرفيين المهرة العاملين في قطاعات أخرى، حيث تحل الأثمتة محل أهل الخبرة في أحيان كثيرة. إلا أن الأثمتة ليست خيارا مجديا لنوعية العمل الذي نتولاه. فلا سبيل للآلة إلى ارتقاء السلالم ونزولها، وسحب الكابلات في مكانها وربطها بإحكام، ولذلك لا يمكنها أن تغني عن أصحاب المهارات وأهل الخبرة.

ولذا وجب علينا النظر في خيارات أخرى، ومنها كيف يمكننا تعديل بعض المنتجات التي نستخدمها، كالكابلات وأنواع عروة ربط الكابلات «الجلاندات» وعلب التوصيل لتيسير عملية التركيب. فللتقدم التكنولوجي فوائد جمة في قطاع الطاقة، ولا سيما خلال السنوات الأخيرة، ولكن لهذه الفوائد ثمنها، بعض الشيء؛ وأقصد بهذا الثمن الطريقة التي تبين لنا أن التدريب المتوفر اليوم يواكب التكنولوجيا المتكرة غدا.

والتأهب للمستقبل يستلزم اتباع نهج جديد، والتكيف مع المتطلبات المتغيرة باستمرار، ويتطلب التحلي بروح المبادرة والاستعداد لمواصلة النظر في كيفية القيام بما نقوم به بشكل أفضل أو بشكل مختلف. ولسوف يتأثر هذا القطاع أشد تأثر بفقدان جيل من المهارات، ويتمثل التحدي الذي يعترض سبيلنا في إعداد الجيل القادم مع الحرص على أن تظل السلامة أولويتنا الأولى وعلى رأس عملنا.

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تقل المهارات لاسيما في الأدوار الفنية

البحث عن حل لمشكلة نقص المهارات

في هذا المقال، يناقش المهندس فريزر هيجي، المسؤول الفني لشركة «يوتكس» العالمية لخدمات المناطق الخطرة، تأثير فقدان الكوادر المتقدمة في العمر على بنك المهارات العالمي، وتوابع ذلك على تسريع عملية التدريب داخل كل دولة في جنبات منطقة الشرق الأوسط وشمال إفريقيا وآسيا. وهو يقول إن المهارات تقل في الفنيين الكهربائيين ذوي الخبرة، ويوجد ذلك النقص في كل من قطاعي النفط والغاز.

لا نغالي حين نقول إن السنوات الثماني المنصرمة ـ أو نحو ذلك ـ كانت من السنوات التي اختبرت صلابة قطاع الطاقة، إذ كان لطول فترة الانكماش التي شهدت هبوط أسعار النفط تأثيرٌ شديدٌ على قطاع النفط والغاز. وفيما كنا نتقدم نحو التعافي،

فإذا بجائحة عالمية تضربنا. وبعد انقضاء عامين، ومع خروجنا من تلك الجائحة، نرى انتعاشاً مطرداً في قطاعنا بفضل السعر الحالي لبرميل النفط وتصاعد قطاع الطاقة المتجددة بخطى سريعة. ومع أن هذه بشرى خير لقطاعنا، فإنها تترك عدة قطاعات أمام

تحدٍ نوعي، وأقصد بذلك تقلص مجموعة الكوادر المؤهلة والماهرة من أصحاب الخبرة اللازمة للمضي قدما بهذه الطفرة في هذا القطاع.

تقل المهارات ولا سيما في الأدوار الفنية، وهو عندنا نقصٌ في الفنين الكهربائيين ذوي الخبرة في

في هذا العدد ...



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