

Health, Safety & Security Review

VOLUME 7 | ISSUE 4 2021

Middle East

THE IMPORTANCE OF WELL-FITTING PPE FOR WOMEN

INSIDE...

Infection control in a post-Covid landscape

Safety lighting for the modern workplace

ADIPEC Preview

Integrating 4IR technologies



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There is a growing awareness of the need for PPE designed specifically for women, with women all too often forced to use ill-fitting equipment or garments which can pose safety hazards or even discourage their use (p17). We feature the latest developments in the safety lighting market (p20), cover new products in disinfection and decontamination (p14) and highlight the importance of oil and gas companies acting now to counter the threat of cyberattacks. With the welcome return of live events, we preview ADIPEC 2021 (p12) and Intersec 2022 (p11), which will offer opportunities to establish and re-establish business relationships and get up to date on the latest industry developments and innovations. Finally, don't forget our PPE Buyers' Guide on p30 for all your PPE needs.

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EnerMech invests in crane training tech

Offshore oil and gas

EnerMech has invested US\$587,000 in advanced crane simulator training systems at its Luanda (Angola), Doha (Qatar) and Great Yarmouth (UK) facilities.

The investment forms part of the company's ongoing commitment to provide clients with the latest high quality and innovative solutions that enhance and support safe lifting operations.

Utilising the very latest simulator technology, the KraneSIM models support clients across the drilling, engineering, subsea, production and construction sectors.

Delivered via suites of powerful

PCs and high-resolution screens, KraneSIM technology exposes trainees to a range of operating conditions including dangerous circumstances which cannot be replicated safely in real life. This allows crane operators to build the necessary decision-making skills to safely negotiate situations that include equipment malfunctions, adverse weather conditions and human factors.

The system delivers a wide range of training environments including fixed installations, floating platforms and vessels, with various crane models, load-types and subsea configurations. During deck lifting and supply

vessel lifting operations, the trainees experience a variety of dynamic environments, emergency situations and communications skills tests.

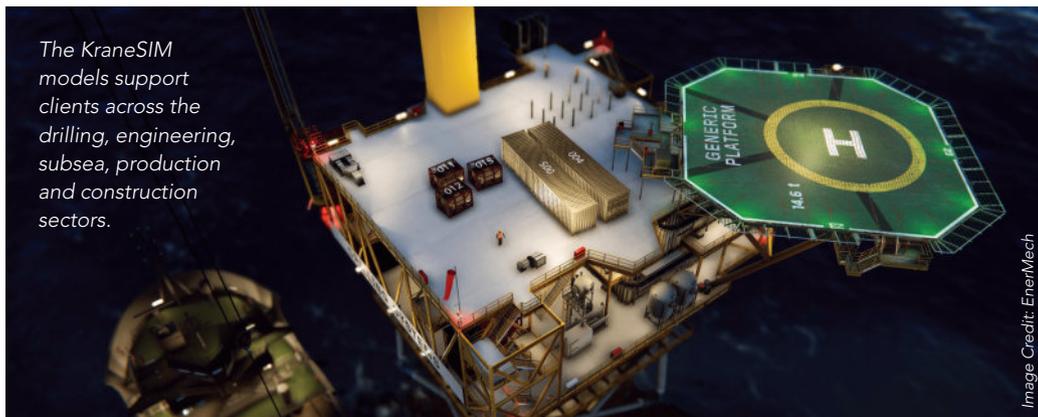
Jennifer Batchelor, head of training at EnerMech, said, "Undertaking crane lifting operations safely is a highly skilled job, and ensuring personnel are competent and certified to support this is essential. The KraneSIM technology creates a safe environment for operators to build confidence and develop strong decision-making skills under pressure that could ultimately save lives and negate downtime offshore."

Partnership for healthcare collaboration

Health

G42 Healthcare, an Abu Dhabi-based leading healthcare technology company, and Mubadala Health, an integrated healthcare network dedicated to establishing the highest international standards of care in the UAE and the region, have announced the signing of an MoU to advance healthcare provision in the UAE through collaboration on clinical and screening programmes, scientific projects and initiatives that will have a lasting impact on the population's health.

Hasan Jasem Al Nowais, CEO of Mubadala Health, said, "The collaboration will help us to further uncover genetic links to chronic diseases. It will enable us to offer our patients insights into specific areas of the genome to assess their risk of developing certain diseases, or to diagnose genetic conditions. We are confident that exchanging best practices and resources will support the establishment of a more connected healthcare system in the UAE."



The KraneSIM models support clients across the drilling, engineering, subsea, production and construction sectors.

Image Credit: EnerMech

Peugeot launches 'Disconnect Before You Drive' campaign

Road safety

French automotive manufacturer Peugeot is embarking on its second road safety campaign entitled 'Disconnect Before You Drive'. It has been launched following a study conducted in the UAE and Saudi Arabia by Peugeot in collaboration with YouGov showing that more than 70% of motorists in the UAE and KSA are using video conferencing platforms while driving. The results highlighted that a staggering 65% of

drivers conduct calls with their videos on, while nearly seven out of 10 said they did feel more distracted on the road whilst doing this.

The results also showed that nearly four out of five motorists claimed that they use video conferencing platforms more frequently now than they did pre-pandemic. The study highlighted that in the UAE, urgent, last minute meetings were the top reason why respondents conducted calls from their cars, with meetings outside of working hours being

most common. In Saudi Arabia, the top reasons were due to personal and work related reasons, with meetings outside of work hours being the main culprit.

The campaign launches with a film, <https://youtu.be/uCjh5FOWRkY>, which Peugeot hopes will encourage customers to think twice about connecting to video calling apps whilst on the road. The campaign will then be supported by wider radio and social media campaigns to drive further awareness.

Honeywell headgear combines face and respiratory protection

PPE

Honeywell has announced a new line of ergonomic and lightweight headpieces that combine face and respiratory protection for challenging work environments such as oil and gas, chemical production and manufacturing worksites.

Honeywell North Primair 900 (PA900) Series Headgear is aimed at delivering an all-in-one eye, face, head and respiratory safety solution, providing ANSI-certified and NIOSH-approved protection for a range of applications.

Kristin Ware, senior product marketing manager, Honeywell Respiratory Protection, said, "Keeping workers safe on the job requires innovative, user-centred personal protective equipment to drive user compliance so that workers will wear their gear consistently and correctly to avoid workplace injuries. Now, with our new PA900 series, workers can get the protection they need without sacrificing comfort or productivity."

Oil and gas, chemical and manufacturing workers are often required to use powered air-purifying respirators (PAPRs) to protect them from inhaling harmful dust, vapours and gas. Honeywell says that with the PA900 Series Headgear, designers have delivered a solution that allows users to perform their jobs, breathe comfortably and help users stay safe from workplace hazards. The new product is designed to make PAPR headgear lighter and more comfortable for the wearer because of its ergonomic



Image Credit: Honeywell

The PA900 series headgear is ANSI-certified and NIOSH-approved for multiple applications.

design, and is said to be easy to put on and take off. The PA920 has also won a '2021 Red Dot design award', recognising its design, functionality and safety.

The product line is also said to come with features such as optimised air-flow distribution, easy to grab ratchet and anti-fog and anti-scratch visor that provides clear visibility with downward and peripheral vision.

DuPont's arc flash fabric to offer multi-hazard protection

Worker safety

DuPont has unveiled its latest Nomex for arc flash fabric, which is aimed at offering utility and industrial workers multi-hazard protection, comfort and durability.

Extending the Nomex brand for heat and flame protection, DuPont says that the Nomex fabric protects against arc flash. Nomex Xtreme Arc and Nomex Arc feature a patented double-faced construction to provide electric arc flash protection at the lightest weight for workers facing the most extreme hazards.

According to DuPont, when the external face of the fabric is exposed to heat, the internal face compensates by creating air pockets. These bubbles are set to provide a critical layer of insulation that keeps the back face of the fabric and the wearer better protected against arc flash and thermal hazards.

DuPont says that the fabric is ideal for workers in utilities, mining, chemical, refinery, and other hazardous industrial jobs.

ENOC Group joins forces with Etihad ESCO for greater sustainability

Sustainability

As part of its sustainability roadmap, ENOC Group, the official integrated energy partner of Expo 2020 Dubai, has extended its partnership with Etihad ESCO, aiming to enhance energy saving across its operations in the UAE.

The partnership was announced at WETEX and will enable ENOC to equip 10 of its old generation service stations with improved conditioning, automated lighting and solar photovoltaic (PV) systems. According to

ENOC, an expected decrease of 40% of its energy consumption is to be observed in these stations over the next seven years.

Saif Humaid Al Falasi, Group CEO, ENOC said, "Sustainability is an integral part of our Group's DNA. Etihad ESCO is a leader in energy efficiency, and the extension of this partnership is a statement to our mutual commitment towards supporting the Dubai Clean Energy Strategy 2050 to help generate 75% of Dubai's total power output from clean

energy by 2050."

The project is expected to be delivered by the end of 2022 as an extension of a 2017 pilot agreement between ENOC and Etihad ESCO, where the latter refurbished an old generation ENOC service station within energy conservation measures, achieving a 35% saving since implementation.

ENOC has also announced that it has achieved US\$1.6 mn savings from Energy & Resource Management (E&RM) projects in 2021.

AD Ports Group and National Ambulance come together to raise workplace awareness of medical emergencies

Health

To support the national efforts of raising public awareness in the field of medical emergency response, AD Ports Group – a global facilitator of trade, industry and logistics – announced the signing of a Memorandum of Understanding (MoU) with National Ambulance, a leading pre-hospital emergency care provider.

Under the agreement, the two parties will work together to develop workplace awareness around medical emergencies and response across a variety of areas. These include cardiopulmonary (CPR) resuscitation, automated external defibrillator usage, first aid emergencies, and the implementation of Emergency Medical Services (EMS) campaigns.

Running for three years from September 2021, the collaboration will also facilitate public education and community outreach. This includes initiatives to highlight EMS safety training, activities surrounding ‘Heartsaver’



month, training events, campaigns, emergency exercises, the introduction of an EMS scout programme for teens, and CPR training events.

Captain Maktoum Al Houqani, chief corporate authority officer of Abu Dhabi Ports, and acting head of Maritime Cluster said, “Our

work with National Ambulance aims to raise public awareness through community outreach programmes. These will comprise a diverse range of events, including training activities for professionals, family-focused events, and an EMS scout programme for teens.”

Ahmed Al Hajeri, CEO of

National Ambulance, said, “The signing of the MoU with Abu Dhabi Ports marks a critical juncture in expanding our strategic partnerships that are focused on educating the public in Abu Dhabi about health and safety measures and extending our reach to all segments of the society.”

‘Rise in cyberattacks on industrial operations in recent years’

Cybersecurity

The frequency of cyberattacks on industrial operations has increased in recent years, with ransomware attacks particularly severe in Saudi Arabia, according to KPMG's latest publication on industrial cyber defence.

The cybersecurity threat to industrial operations has rapidly evolved and expanded over the last year. This is due to several factors, including a shift to more engineering and maintenance remote

activities, more remote operation work on production lines and incomplete digitalisation efforts.

Ransomware attacks have increasingly targeted the Industrial Control System environments such as oil and gas, and manufacturing. The estimated costs of these ransomware attacks skyrocketed from US\$11.5bn in 2019 to US\$20bn in 2020.

“Despite the growing threat and public pressure, organisations remain unprepared. The cybersecurity industry includes myriad

services, many of which are relatively new and sometimes untested. Confounded by choices, many organisations end up unprotected,” said Hossain Alshedoki, IT/OT Cybersecurity ENR lead, KPMG in Saudi Arabia. “Risk assessment teams must be aware of the changing threat landscape and update their work processes and templates in line with those changes. Cyber PHAs should link realistic threat scenarios with known vulnerabilities and existing counter measures,” he added.

Image Credit: AD Ports Group

PROW implements cybersecurity solution for United Arab Bank

Cybersecurity

PROW, a Dubai-based provider of system integration and professional IT and ICT services, has implemented the Reveal(x) solution from ExtraHop, the leader in cloud-native network detection and response (NDR), for United Arab Bank (UAB) to ensure visibility within its network and improve cybersecurity across its applications and services. PROW announced the partnership at GITEX 2021, where they presented an award to

Ayman AlQudsi, chief information officer at UAB, for being the first to implement the solution in the region.

Roland Hashem, managing director at PROW, said, "United Arab Bank has consistently proven itself as an innovator within the financial services technology area, and we are pleased to work closely with the team to implement ExtraHop into its comprehensive monitoring and cyber security platforms."

Mahmoud Yassin, head of IT

Infrastructure and Security Operations at United Arab Bank added, "As one of the region's most respected financial institutions, we continually strive to improve both our operational excellence and cyber security posture. With the addition of ExtraHop Reveal(x) we gain unparalleled visibility into our layer seven application network traffic, enabling us to improve both operational efficiency and detect potential cyber threats at the earliest possible opportunity."

The ExtraHop Reveal(x) 360 platform uses the power of cloud intelligence to help security teams eliminate blind spots and detect threats other tools miss. Built on cloud-scale AI, Reveal(x) 360 decrypts and analyses all network and cloud traffic in real time to expose advanced threats such as supply chain attacks, zero days, and APTs. Indexed records and a streamlined investigation workflow enable users to investigate and quickly remediate threat activity.



PROW presented an award to Ayman AlQudsi, chief information officer at United Arab Bank, for being the first to implement the NDR solution from ExtraHop in the region.

Applications open for British Safety Council's International Safety Awards

Safety

The British Safety Council's International Safety Awards 2022 are now open for applications, with a new category to celebrate the achievements of individuals and organisations who go the extra mile to transform health, safety and wellbeing.

The internationally-renowned awards recognise an organisation's commitment to excellent standards of health, safety and wellbeing management. There are 12 award categories for 2022.

Launching the awards, chief executive of the British Safety Council, Mike Robinson said, "The awards offer companies, teams and individuals the chance to be recognised for their hard work in protecting and enhancing the health and safety of their organisations' workers."

<https://www.britsafe.org/awards-and-events/awards/international-safety-awards/>

New worldwide fire safety initiative launched

Fire safety

A global coalition of more than 80 fire safety organisations has launched a new Decade of Action for Fire Safety 2022-2032, to ensure an internationally consistent approach to the safety and management of buildings and infrastructure with the aim of saving lives by reducing risk and preventing fires.

The launch of the Decade of Action for Fire Safety is backed by the UN and builds on the International Fire Safety Standard – Common Principles (IFSS-CP) published by the

International Fire Safety Standards Coalition (IFSS) in October 2020. The Decade of Action delivers a clear goal, performance-based objectives framework and common actions that align with the UN Sustainable Development Goals (SDGs) that can take place at the individual, community, city, national, regional, and global level, covering awareness raising, actions to reduce fire hazards associated with products and structures, enhancing firefighting infrastructure, and facilitating sustainable and

fire resilient communities.

Gary Strong, chair of the IFSS Coalition, said, "This new initiative is the first agreement on fire safety actions on this international scale, with its development supported by the United Nations in line with its own sustainable development goals. It will bring reassurance that the construction and management of buildings and infrastructure upholds appropriate fire safety standards, with improved training, education and resources."

Showcasing the latest in security technologies

At the International Security Expo, held on September 28 and 29 in London, exhibitors and suppliers showcased innovations and solutions, with conferences dissecting the current and future security landscape. Matthew Hayhoe reports.



“One of the event’s common threads was the pandemic’s impact on security... major compromises arose around cloud services, reliance on personal devices, bandwidth issues and IT staff focused on operation over security.”

International Security Expo 2021 brought together worldwide leaders in the security field to spotlight innovations and unite for conferences.

Remote incident response in a pandemic

One of the event’s common threads was the pandemic’s impact on security, especially with the rise of remote working.

Joani Green, a consultant at incident response firm FSecure, spoke of how remote cyber incident response was affected.

Citing the key risks faced by a remote workforce, Green explained that the major compromises arose around cloud services, reliance on personal devices, bandwidth issues and IT staff focused on operation over security. Cloud services were under more operational pressure due to remote access needs.

Reliance on personal devices left workers vulnerable as security precautions (such as anti-virus) were not in place. Bandwidth issues arose as home Wi-Fi services were left more vulnerable. This all resulted in IT staff dedicating more time to maintaining operation across the workforce than increasing security measures.

Another rising security risk was ransomware, with a 151% increase globally in attacks, often targeting medical data with Covid-19-related phishing schemes. Sophos’ ‘State of Ransomware in Financial Services’ estimated an average cost of ransomware attacks to business of US\$2.1mn.

Green continued, suggesting that the best preparation businesses can take against cybersecurity compromises is to utilise an incident response service. Many incident response operators already function remotely, allowing the remote deployment of Endpoint Detection and Response (EDR) services to protect businesses.

Fighting back against visual hackers

Remote working also triggered a rise in visual hacking – visual hackers only need one piece of information to unlock a large scale data breach. Peter Barker, EMEA business manager at 3M Privacy Solutions, demonstrated how 3M Privacy Filters can help nullify this threat.

Potentially the biggest change that workers and employers are experiencing is the movement towards work outside of the office which is, now more than

ever, being conducted at public spaces as much as at home.

The rise of remote work has birthed opportunity for visual hackers who can see information on an employee’s screen. Barker noted that this does not even have to be particularly sensitive information, but even a recognisable name could give someone an ‘in’ to a company.

64% of IT managers are concerned about visual hackers and the security of remote worker, yet 55% of managers have not taken steps to prevent people from viewing their colleague’s screens when they are away from the office.

Research conducted by 3M showed that it only takes 15 minutes to complete a visual hack in 45% of attempts and, on average, five pieces of sensitive information are stolen at each attempt. Alarming, 70% of these attempts were not stopped.

These statistics are particularly

ABOVE RIGHT: The event was held in London from September 28-29, 2021.

RIGHT: D-Fend Solutions have developed counter-drone technology designed for sensitive scenarios.

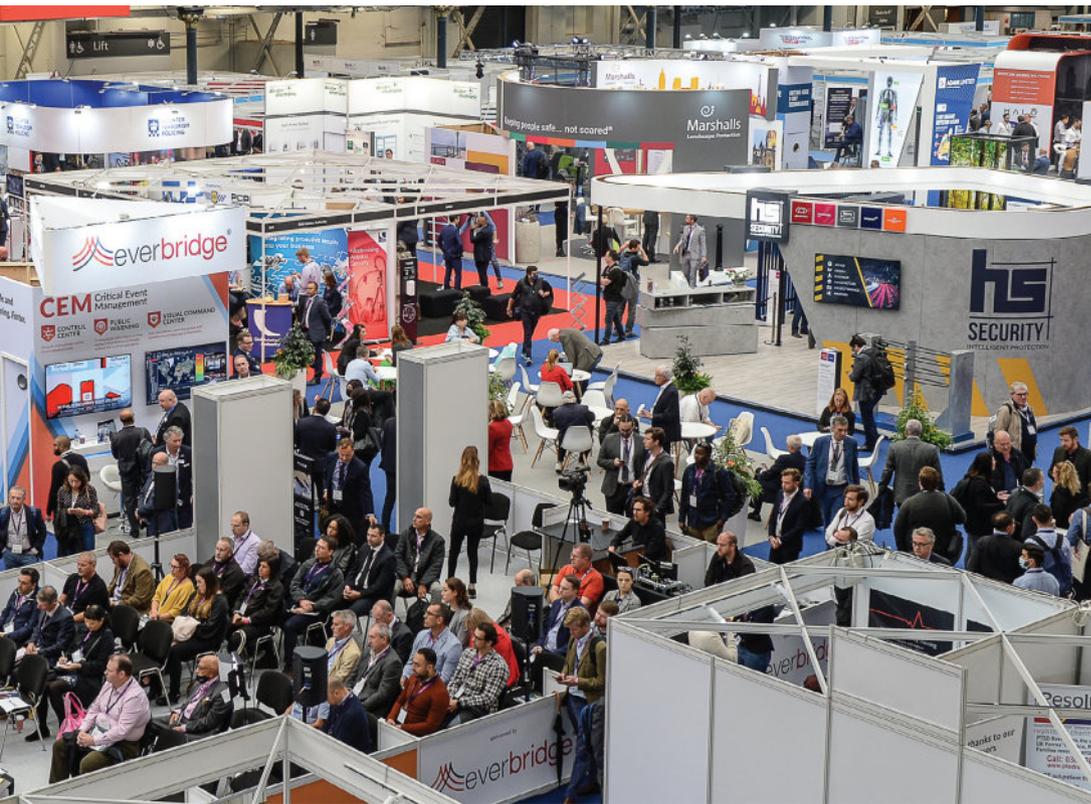


Image Credit: International Security Expo

worrying for industries most vulnerable to data breaches, such as banks and finance, healthcare, IT and tech centres.

To protect against such threats, 3M Privacy Solutions has developed Privacy Filters which prevents views from side lookers by blocking 60° on either side of a screen. The product has a breadth of range, and is usable on monitors up to 49". It has also been designed to be securely and effortlessly attached for ease of

use and to prevent it being left behind. The product does not affect workflow as the image clarity remains crisp and clear.

Control the drone to control the threat

Drone and counter-drone technologies were a focus at the show. Martin Broomhead, UK general manager at D-Fend Solutions, discussed the D-Fend's counter-drone technology, which is based on a 'control the drone to

control the threat' strategy and is ideal for sensitive scenarios.

Broomhead highlighted the wide-ranging nature of drone threats: smuggling contraband into prisons, disrupting events, posing dangers to planes and striking government buildings. Users can range from "misguided individuals wanting their YouTube moment", to state actors.

"They all use commercially available drones, from small, short-range drones, right through to the large drones capable of carrying a payload of more than 15 kilos and able to fly long distances. They are easily available and represent a clear and present threat."

Broomhead discussed some of the limitations of conventional counter-drone technologies, which can struggle in sensitive areas. Jamming solutions may affect legitimate communication signals, such as emergency services, and operators can

regain control of the drone once the jamming ceases. Acoustic solutions are often ineffective in noisy environments, optical solutions mainly require line of sight and radar will struggle in a built-up environment and often result in false positives.

Counter-drone measures must focus on the risk: the most dangerous drones, and assess and prioritise detection and mitigation efforts.

"Security and law enforcement agencies want to know what the drone has done, the make and model, the origins of the pilot, and look at the recording the drone is making. The system needs to be able to do that. You can't just jam a drone and drop it out of the sky," said Broomhead.

He explained that D-Fend's EnforceAir solution detects, tracks and identifies drones and pilots without the pilot's knowledge. In this mode it is passive, with no transmission. When it detects a rogue drone, it transmits a signal that takes control without interfering with authorised drones and signals. The pilot loses control of operation, including video and telemetry information. The drone can then be reprogrammed and rerouted to a safe landing site, avoiding or minimising disruption and collateral damage.

The system enables fast and accurate detection and does not require a line of sight, so can operate in dense environments. It offers multiple deployment options and operational flexibility.

Broomhead said that the system is constantly evolving to stay ahead of the threat and is updated at least every three months, with 50% of the company's staff engaged in R&D. ♦



Image Credit: D-Fend Solutions

→ events calendar 2021-2022

November			
1-3	IFSEC FIREX EGYPT	CAIRO	www.ifsecandfirexegypt.com
15-18	ADIPEC	ABU DHABI	www.adipec.com
22-24	Middle East HSE & Sustainability Week	VIRTUAL	www.energyinst.org/whats-on
January 2022			
16-18	Intersec	DUBAI	https://intersec.ae.messefrankfurt.com/dubai/en.html
March 2022			
7-9	Middle East Energy	DUBAI	www.middleeast-energy.com
16-17	MENA HSE	DUBAI	khushboo.narang@alaincharles.com
May 2022			
17-19	Safety & Health Expo	LONDON	www.safety-health-expo.co.uk
17-19	IFSEC International	LONDON	www.ifsec.co.uk

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

Middle East HSE & Sustainability Week

Middle East HSE & Sustainability Week, which takes place virtually from 22-24 November, brings together conferences focusing on HSE and sustainability to deliver essential learning and sharing of good practice to organisations across the energy industry.

Hosted jointly with Bapco, the conference will bring together industry, academia, regulators, consultants, think tanks and solution providers to discuss topics including:

- Strategies for HSE management
- Improving health, welfare and wellbeing of workers and society
- Managing hazards that have the potential to cause major accidents and controlling risk and uncertainty
- Improving human performance and operating safely
- Strategies and policies to drive sustainability and decarbonisation
- Insights and innovation in reducing emissions, OPEX and carbon footprint
- Lifecycle resource management, processes for mitigating environmental impacts and exploring the latest technological development in sustainable economies.

For further information contact Francesca Ferrari, email: FFerrari@energyinst.org or see the website at www.energyinst.org/whats-on/search

MENA HSE Forum 2022

The next edition of the highly acclaimed HSE Forum series will be held from 16-17 March 2022, in Dubai, as an in-person event.

The MENA HSE Forum 2022, the premier meeting point for HSE professionals, will bring together key stakeholders for the sharing of expertise and insights on HSE best practices, the latest regulatory developments and technology innovations.

Focusing on topics that will address the most business-critical aspects of HSE, the conference has as its theme ‘Optimise your HSE and ESG strategy by utilising innovative digital technologies and best practice process frameworks to meet ambitious regulatory targets’. The five sessions will address:

- The role of HSE leadership in a post-pandemic world
- The future of digitalisation in the HSE sector
- Process safety and its framework
- Learning from the pandemic about occupational health and behavioural safety
- Sustainable value creation: how ESG moved from a cost centre to a value driver

Two exclusive breakout workshops will cover the formation of resilient safety cultures and digital transformation – from strategy to execution.

For further information, email khushboo.narang@alaincharles.com

Bringing together the global safety and security industry

Intersec – the world-leading emergency services, security and safety event – will mark its return in 2022 with a programme uniting global and regional leaders as they explore solutions for the rapidly evolving challenges facing the industry.

The 23rd edition of the flagship Intersec event, under the patronage of His Highness Sheikh Mansoor Bin Mohammed Bin Rashid Al Maktoum, will take place at Dubai World Trade Center from 16-18 January 2022.

The event will operate with the theme of ‘Uniting the world’s leading industry specialists for

the safety & security of future generations’, and host panels on how specialists can look ahead to the future of safety and security.

His Highness said, “Intersec will be the most important platform of the year for businesses and governments to collaborate and continue on their paths of building a sustainable, safer and more secure world for

“Intersec will bring together stakeholders for discussions on mitigating and addressing vulnerabilities of the future.”

our generation and those that follow.

“We look forward to hosting our communities once again, safely, physically and live in-person.”

Intersec 2022, featuring an expanded three-day conference, will see cybersecurity and technology take centre stage, with its first ever Cyber Lab offering a vital platform for knowledge.

Christine Davidson, Intersec’s group exhibition director, said, “Intersec 2022 brings the industry together at this crucial juncture to share knowledge from recent experiences and look to the future with the event’s most powerful series of conferences.”

Seen as a nexus for the industry, Intersec will bring together thousands of its most powerful stakeholders for bilateral government and business discussions on mitigating and addressing vulnerabilities of the future. They will be joined by leading regional and international brands exhibiting the most innovative systems and solutions in a dynamic environment that will enable face-to-face and virtual exchange through interactive roundtables, workshops and ‘closed-door’ confidential conversations. ❖



Intersec 2022, organised by Messe Frankfurt, is supported by leading government entities, including: Dubai Police, Dubai Civil Defense, Dubai Municipality and Security Industry Regulatory Agency (SIRA).

Debating the post-COP26 energy pathway

ADIPEC, the leading global oil, gas and energy show, returns to the Abu Dhabi National Exhibition Centre as an in-person event from 15-18 November, with a strong focus on the energy transition and emissions reduction.

Hosted by the Abu Dhabi National Oil Company (ADNOC), ADIPEC will provide eagerly anticipated opportunities to reconnect, establish business relationships, gain exposure to the latest technologies and debate industry challenges in the transition to a net-zero energy world.

The exhibition will feature new products, solutions and technologies from more than 2,000 exhibiting companies, which include more than 51 NOCs, IOCs and IECs from around the world, along with 26 international country pavilions.

The conference programmes will see more than 1,000 leading ministers, CEOs, policy makers and influencers debate and share their

insights on the latest developments that shape the industry.

The Strategic Conference will enable attendees to gain unique insights into how the energy industry can align itself with the outcomes of COP26 and post-pandemic market dynamics, in order to thrive in the face of the growing global ambition for sustainable, integrated, low carbon energy value chains. It will focus on four core areas:

- New market dynamics in a changing energy world
- Fuelling the future: the new energy agenda
- Building the energy company of the future
- Transformational technologies.

ADIPEC also features:

“ADIPEC continues to be one of the most influential meeting places for the energy sector.”

BELOW: ADIPEC is returning as an in-person event in November.

- Technical Conference organised by SPE
- Offshore and Marine Zone and Conference
- Digitalisation in Energy Zone
- Smart Manufacturing Zone and Conference - new
- The Forum for Diversity, Equity and Inclusion
- Downstream Technical Conference
- Dedicated Hydrogen Sessions – new

“After over a year of lockdowns, restrictions and virtual sessions, the message we have received from the industry is clear: it is eager to again meet in person, share knowledge, and find new opportunities that simply could not happen virtually,” said Christopher Hudson, president of organisers dmg events.

“ADIPEC continues to be one of the world’s most influential meeting places for the energy sector. There is a great amount to discuss this year, from the challenges posed by new emissions targets to the possibilities opened up by the world’s ongoing economic recovery.”

www.adipec.com

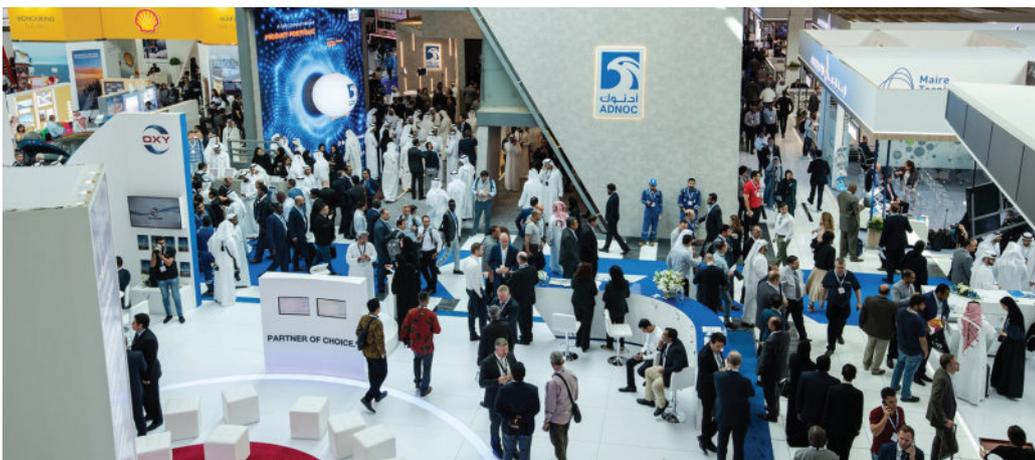


Image Credit: dmg events

STEALTH NEXGEN

Ultra lightweight, super low profile, flexible bonded anti impact guards, designed to protect hands from light impacts, scrapes, bumps and bangs... Proprietary direct bonding onto most knitted liner types including Cut Resistant - provides secure and reliable attachment without the need for stitching.

Ultra High Abrasion Resistant Palm Coating - Maximum Precision Grip for Wet & Oily Applications

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Maintaining best practice in decontamination



Image Credit: Adobe Stock

With the surface disinfectant market globally around US\$12mn in 2021, the Middle East is offering a number of decontamination solutions for the global market.

Covid-19 swab testing for MEDG, the nano-copper antimicrobial film solution.

The product's effectiveness will be independently verified via Intertek Protek, the company's network which provides support to all sectors and businesses looking to improve health and safety best practice.

Lothar Hohman, president of PRECISE, explained, "Active Antimicrobial Nano Copper technology uses active copper nano particles that deactivates pathogens with amazing results. Copper ions quickly inactivate viruses and bacteria by immobilising all life support systems in their cells.

"Science tells us that applying the protective nano-copper antimicrobial film helps to reduce the risks of cross-contamination.

"This novel composite film also significantly reduces the direct cost of continuous disinfection protocols through traditional methods."

PRECISE has already launched the product across the UAE and Saudi markets following a pre-launch campaign that implemented the product on high-contact surfaces on a public bus.

Targeting the commercial market,

Market Data Forecast anticipates an annual growth of 1.5% in the Middle Eastern disinfectant market – bringing it to a value of US\$12.8mn over the next five years. In light of the outbreak and spread of Covid-19, industry's reliance on decontamination products to prevent further outbreaks will only accelerate this growth.

TOMI, the environmental solution specialist, has consistently been deploying its SteraMist Surface unit throughout the pandemic.

The unit is used to spray hydrogen peroxide mist over surface areas, requiring five seconds per square foot, to disinfect areas that regular disinfectants cannot. Rooms are safe to enter minutes after disinfection.

Intertek recently confirmed a partnership with PRECISE, a Gulf-based distributor, to test its antimicrobial protective films for

"In light of the outbreak of Covid-19, industry's reliance on decontamination products to prevent further outbreaks will only accelerate growth."

high-contact surfaces, MEDG. Intertek will provide exclusive

ABOVE: The surface disinfectant market is set for 1.5% annual growth.

Ion Shield unveiled its Smart Sterilisation Gate. Designed for rapid deployment, the gates provide touch-free and instant disinfection for mass events and crowd gatherings, utilising artificial intelligence (AI)-enabled thermal imaging.

The unit operates a practically instant three-step process. As users walk towards the gate, infrared thermal imaging runs a temperature check, and alerts security in the event of a high temperature recording. As users step into the gate, instant sterilisation technology creates a field of chemical-free charged air ions, which attach instantly to viruses and bacteria, rendering them too heavy to remain



Image Credit: Ion Shield

Ion Shield's Smart Sterilisation Gate offers a rapid three-step decontamination solution.

airborne, and they fall to the floor. This process takes second

and is ideal for mass gatherings. Commenting on the release of

the revolutionary solution, Nasser Lootah, deputy chief executive officer at Soghan Energy, said that the Ion Shield Smart Sterilisation Gate could be a significant gamechanger in the post-COVID world, adding, "This innovative product is in line with the vision of HH Sheikh Mohammed Bin Rashid Al Maktoum, to improve the well-being and maintain a high quality of life for people in the UAE. We are proud to support local initiatives that make a difference in people's lives, and help us return to normalcy."

Innovations such as these are anticipated to fuel the forecast 1.5% CAGR in the global disinfectant market over the next five years. ❖

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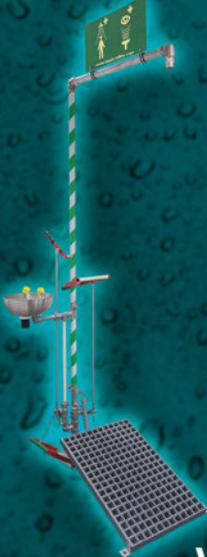


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A breath of fresh air

Dyson research shows four in five UAE residents took measures to protect the air quality of their homes.

A recent Dyson survey, conducted in collaboration with YouGov in the UAE, highlighted thoughts regarding air quality and measures against pollution concerns.

The report found that 84% of households have taken preliminary measures to optimise air quality in their homes.

However, alarmingly few are aware of potentially dangerous airborne pollutants like volatile organic compounds, including formaldehyde – an invisible indoor pollutant that can be released into homes by furniture and cleaning products. Only 33% of respondents are aware of the such harmful pollutants, which is particularly crucial to highlight with many people having used the past year to remodel their homes, and home retailers reporting an increase in sales of

paint and wallpaper during lockdown.

Furthermore, the Dyson/YouGov survey showed that only a third of respondents are aware of formaldehyde and of

the long-term adverse health effects of continuous exposure to it.

Dr Iyad Al-Attar, a regional air filtration expert, speaking at a Dyson event, said, “Clearly, spending up to 90% of our time

indoors puts us at a greater health risk. Frequent exposure to a high concentration of pollutants can weaken the immune system and compromise its ability to respond to infections. It is, therefore, crucial to monitor our indoor air quality and identify the internal sources of contaminants ailing indoor air quality.”

Alex Knox, vice-president of environmental care at Dyson, said, “The off-gassing tendency of indoor pollutants like formaldehyde means that it can go undetected in a home for years. Every day, humans breathe up to 9,000 litres of air, and even prior to 2020 spent as much as 90% of their time indoors.”

While the survey reflects a greater need for Indoor Air Quality (IAQ) understanding, it also spotlights a positive shift in consumer behaviour towards IAQ solutions. ♦



Image Credit: Adobe Stock

Domestic pollution control devices, such as air purifiers, have grown in popularity since the outbreak of Covid-19.

The urgent need for women's fit PPE

.....

There is an increasing awareness of the need for PPE designed for women to improve safety and compliance.

According to a Research and Markets.com report "Global Personal Protective Equipment (PPE) Market for Women Driven by Increasing Adoption Rate" published earlier this year, the global PPE market for women stood at US\$799.7mn in 2020. Growth is driven by an increase in women employees across industrial sectors, an increase in awareness, stringent regulatory compliance, and

realisation of increased hazards at the workplace due to ill-fitting PPE.

"The growth in demand for women-specific PPE is also because women have a different body structure than men, and therefore, smaller, scaled-down versions of men's PPE are not the right fit for women. This explicit need for women-centric PPE is expected to drive higher adoption in the near future," says the report.

The lack of availability of PPE products in adequate sizes,

designs, and colours for women has created a demand-supply gap, the report says, adding that a number of manufacturers are expected to enter the market with their offerings of PPE for women in the coming years.

Protective clothing, head protection PPE, foot protection PPE, and hand protection PPE for women are expected to have the highest compound annual growth rates (CAGRs) of 4.2%, 4.1%, 3.8%, and 3.7%,

respectively, from 2020 to 2026.

"This higher growth rate is a recognition of the need for women-specific PPE," the report highlights, saying that the expected increase in women employees in construction, transport and manufacturing sectors will boost the growth of PPE specific to women in these industries.

Manufacturers are actively engaged in developing research and development (R&D) facilities to create PPE for women to provide a better fit for women employees. The focus is to manufacture PPE for women that are comfortable, enhance safety, and improve the performance.

"The lack of availability of PPE products in adequate sizes, designs and colours for women has created a demand-supply gap."

Coming together to close the gender PPE gap

In the offshore oil and gas sector, PPE solutions provider Red Wing is leading the call for the offshore industry to come together to close



Image Credit: Adobe Stock

The increasing presence of women in industrial sectors is driving the demand for female-fit PPE.

the gender PPE gap and improve the safety of women's kit.

The provider said female workers were being put at risk by being given men's PPE, with many having to roll up coverall legs and sleeves, as well as not having appropriately fitting footwear. With potential hazards caused by ill-fitting PPE including sleeves getting snagged in machinery, long trouser legs resulting in slips, trips and falls – as well as fraying and damage to hem – the need for change is about more than aesthetics. There is also a danger associated with flash fires if clothing doesn't fit properly.

The call comes after a survey by the AXIS Network, in partnership with Step Change in Safety, found 62% of women said their coveralls did not fit effectively, while 51% said their outerwear / jacket was not suitably sized.

Dez Young, senior HR of Red Wing Shoes, said, "Women not having the right PPE is something that has been accepted for too long, and the solution is out there. Over 70% of our customers feature women's-fit PPE in their safety programmes, which shows that availability and price isn't the issue. However, the kit is still not reaching those who need it.

"We know from our research that women working offshore and the purchasing teams buying products on their behalf, don't fully understand why women's PPE is so important. They also aren't aware of the tools they need to find the right fitting coverall for them.

"It's not just about comfort or looks, it's about safety, and we have a duty as an industry to keep everybody as safe as possible."

To drive compliance, the



Woman wearing standard men's offshore PPE on the left, with a correctly fitting women's kit on the right.

Image Credit: Red Wing

international organisation, which has been making work boots specifically for women since 1926, has produced a Right Fit Toolkit, complete with visual sizing guide and correct fit instructional video for offshore companies to ensure workers get the right kit.

Dez added, "There is a need to educate procurement departments to enable them to offer the right kit to the right people. We want women to know the PPE they need is available, but they shouldn't have to wait to be offered it. That's why we have created the Right Fit Toolkit – to help make the process of getting the correct PPE easier."

The issue was highlighted at The Right Fit event, which was held in collaboration with Wood, the OGUK Diversity and Inclusion Taskforce, AXIS Network, Harbour Energy, Step Change in Safety, East of England Energy Group

"It's not just about comfort or looks, it's about safety, and we have a duty as an industry to keep everybody as safe as possible."

(EEEGR), and the Institution of Occupational Safety & Health (IOSH), in an attempt to tackle the challenges in accessing work wear and making offshore PPE more inclusive.

Red Wing has implemented a four-point supply matrix based on availability, quality, price and compliance. Red Wing hubs in Dubai, Stavanger and Houston, as well as Aberdeen, commit to hold women's workwear solutions, ensuring the company provides quality kit across its global locations.

Jon Bodicoat, Red Wing Europe managing director, added, "Companies, distributors and manufacturers have the responsibility to ensure every person has the correct clothing to keep them safe, while giving them the opportunity to succeed. A more inclusive workforce is commonly linked to performance. It's in everyone's best interest to make women's fit available." ♦

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A bright FUTURE

Light Middle East 2021, which ran from September 28-30, 2021, welcomed a series of innovations in the safety lighting sector, with new technologies in heavy industry and workplaces paving the way for safer lighting solutions. Matthew Hayhoe reports.

“Adaptation is the key word here... the eminent slowdown brought forth by the pandemic has given innovators much-needed time to come up with creative new uses of light.”

Samer Moukalled, vice president of Lighting Solutions at Scientechnic.

The pandemic brought with it a series of key workspace responses – in addition to enhancing sanitation and hygiene processes, the emergency lighting sector took the time to evaluate workplace best practices and innovate solutions to improve and enhance safety lighting solutions and implementation.

Global analyst 6Wresearch authored a report into the Middle East’s lighting fixtures market, anticipating an annual growth of 5% between 2021 and 2027 – growing to US\$6.5bn in 2027, from a baseline of around \$5bn in 2020. Of this, Saudi Arabia comprised 29% of the regional market, with the UAE earning around 15%.

Light Middle East

Ahead of the Light Middle East event, which was held at the Dubai World Trade Centre from September 28-30, 2021,

Scientechnic’s Samer Moukalled explained, “Adaptation is the key word here, and we took the pandemic to expand. The eminent slowdown brought forth by the pandemic has given innovators much-needed time to come up with creative new uses of light.”

Appleton IHC LED Series

Elsewhere, Emerson showcased its latest lighting solution. The Appleton IHC LED Series comprises high-lumen output LED luminaires, designed to support heavy industry.

The luminaires, with varying outputs of 50,000; 60,000; 75,000; and 90,000, can withstand ambient temperatures up to 75°C. The high output and temperature

threshold of the IHC LED Series can rise to the challenging demand of supplying safe light levels over large areas.

The Appleton IHC LED Series supplies up to 250% more output than standard LED fixtures, reducing its operational cost by requiring fewer units and consuming 60% less energy than traditional lighting solutions.

In high ambient temperature locations, such as mills and power plants, luminaires must be mounted 80



Image Credit: Adobe Stock



electricians don't have to open the luminaire to access internal wiring components.

Eaton RoundTech and CGLine+ compact controller

Designed to bring simplicity to the global emergency lighting marketplace and make installation and remote monitoring of lighting solutions easier than ever, Eaton has launched the RoundTech luminaire range and CGLine+ Web compact controller.

The RoundTech range combines rapid installation with high performance output and flexible electronic focus features, allowing the products to be utilised in escape routes and open areas.

RoundTech's circular format offers a design advantage, whereby installers can fit the units with standard-sized cut-out tools. The range has been engineers for standard hole sizes between 64mm and 78mm, with the units opting for a 110mm diameter round bezel footprint to offer a flush, recessed appearance whilst maintaining practicality. Square bezel footprints are also available as a swappable accessory.

Ashraf Yehia, managing director of Eaton Middle East, explained, "RoundTech's circular format offers a key design

advantage already widely recognised in the mains lighting sector – it can be installed far more quickly and efficiently."

RoundTech delivers a low-temperature light engine with an

"There's a lot at stake when it comes to emergency lighting, from the safety of the building's occupants to protecting its physical structure and the valuable equipment inside it."

Ashraf Yehia, managing director of Eaton Middle East.

IP65 rating, and is available in Low Bay and High Bay variants.

Installers can configure the multi-lens light engine with a dip-switch for narrow escape routes or wide anti-panic areas. In anti-panic mode under mains power, RoundTech solutions offer the option to dim from 100% to 70% or 30%.

The CGLine+ Web compact controller enables safe and cost-effective maintenance of lighting systems in vacated premises. The controller allows operators to run maintenance tests before, during and after building closure. By enabling access to the Blocking function on CGLine+ luminaires, the system prevents them from turning on when mains power goes off, avoiding expensive

damage and inconvenience from fully discharged batteries and saving on wasted energy.

Yehia continued, "There's a lot at stake when it comes to ensuring emergency lighting systems are operating in peak condition. From the safety of the building's occupants to protecting its physical structure and the valuable equipment inside it, CGLine+ brings peace of mind round the clock, as well as contributing to sustainability."

HIMOINSA HBOX+ Lighting Tower

HIMOINSA has unveiled its new lighting tower, the HBOX+, which utilises a 1,500RPM two-cylinder Yanmar engine, fuelling 230V of LED lighting, offering up to 50 metres of coverage.

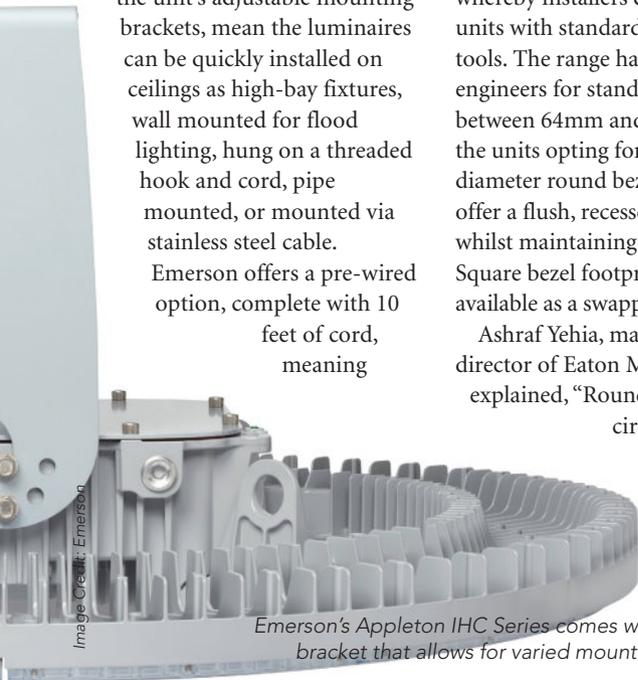
The unit's 'SafetyMast' functionality integrates an electronic control device that can detect obstacles, impact and high wind speeds, and regulates mast height in accordance with these detections.

The CET8 controller includes a joystick to raise and lower the mast, with a stability control function. The controller's interface is designed to be as intuitive and user-friendly as possible, reducing training, set up and operational time.

In addition to their report regarding the Middle Eastern lighting fixtures market, 6WRResearch also conducted a report regarding the UAE's Light Tower market in 2019, which predicted an annual growth of 1.5% through 2025. ♦

to 100 feet above the plant floor due to equipment size and heat generating processes. Versatile mounting options, afforded by the unit's adjustable mounting brackets, mean the luminaires can be quickly installed on ceilings as high-bay fixtures, wall mounted for flood lighting, hung on a threaded hook and cord, pipe mounted, or mounted via stainless steel cable.

Emerson offers a pre-wired option, complete with 10 feet of cord, meaning



Emerson's Appleton IHC Series comes with a versatile bracket that allows for varied mounting solutions.

Image Credit: Emerson

Flame detectors for effective fire suppression

Nishant Thankappan, business development manager – Analytical & Detection, Emerson Automation Solutions, discusses the critical role of flame detectors, outlining the main flame detector technologies and when to use them.



Image Credit: Adobe Stock

ABOVE: Many plants and facilities contain flammable liquids and gases that pose a fire hazard.

Many plants and facilities deal with large quantities of flammable and explosive liquids and gases that, even with the application of best practices, are prone to equipment and operator errors, causing leaks and resulting in fires.

The first step to battling a blaze is to recognise when it is happening by selecting and

applying the right detectors for spotting flames, with little to no false alarm conditions.

A flame detector that activates an automated fire suppression system can prevent potential incidents by cutting off the fuel source and extinguishing the fire to minimise equipment damage, personnel injury, and environmental impact.

The flame detector also alerts first responder plant personnel to arrive at the scene promptly. Fire detection and prevention can be carried out immediately before incidents escalate with effective safety systems and personnel training. Plants of the past used to depend mainly on human operators to trigger firefighting efforts. Today,

“A flame detector that activates an automated fire suppression system can prevent potential incidents by cutting off the fuel source and extinguishing the fire.”

automated systems are considered a best practice in initiating efforts with improved flame detectors and fewer human operators.

Recognising flames is the fastest way to detect a fire, as they form immediately upon initial gas or liquid combustion; however, doing it quickly and correctly proves to be a challenge.

Detecting flames

Humans recognise flames through the light and heat they generate. However, different fuels burn differently, as alcohol burns almost invisibly compared to oil. Flame detectors can distinguish these differences and identify hot emissions and products of combustions, radicals, and other by-products in the electromagnetic spectrum. When placed effectively, these can trigger a response in a matter of seconds.

Most products considered as combustible contain carbon producing carbon dioxide as a primary effluent. However, other inorganic products such as hydrogen, ammonia, metal oxides, and silane are not fuelled by carbon but by hydrogen producing water vapour. Alcohols, hydrocarbons, and other fuels contain hydrogen and

carbon, generating carbon dioxide and water vapour effluents.

Regardless of the fuel source, flames and the resulting hot gases generate electromagnetic radiation in a variety of wavelengths, from ultraviolet (UV) through the visible spectrum and into infrared (IR). Hot carbon dioxide has a strong peak at 4.2–4.5 μm (micrometers) with hot water vapour at 2.7 μm . Flame detectors are typically designed to detect light emission at those wavelengths with intensity patterns common to open flames.

Flame detector technologies

There are four primary optical flame detector technologies depending on line-of-sight radiation:

- Ultraviolet (UV)
- Ultraviolet/infrared (UV/IR)
- Multi-spectrum infrared (MSIR)
- Visual flame imaging

Within the major categories, specific types vary according to application.

UV detectors respond to radiation in the 0.18–0.26 μm range. They offer the fastest response and good sensitivity at comparatively short ranges (0–15 m for a 0.1 square metre heptane pool fire). The downside is their susceptibility to arc welding, halogen lamps, and electrical discharges such as lightning. They tend to be used indoors, but thick, sooty smoke can cause failures due to attenuation from UV radiation.

UV/IR hydrogen detectors combine a UV optical sensor (0.18–0.26 μm range) with an IR sensor (2.7–3.0 μm range) designed to detect water vapour from hydrogen and hydrocarbon combustion. The combined

UV/IR flame detector mitigates the drawbacks of a straight UV detector so it can be used outdoors, but with a slightly slower response time. As with UV detectors, detection range may be reduced by heavy smoke.

MSIR multi-spectrum hydrogen detectors zero-in on infrared spectral regions at 2.7–3.0 μm and 4.2–4.7 μm to detect water and carbon dioxide emissions. The hot water band is particularly useful for detecting hydrogen fires, the flames of which are practically imperceptible in the visible light range. This type has a long range and high immunity to smoke and false alarms.

MSIR multi-spectrum hydrocarbon detectors concentrate on a wide infrared band to detect carbon dioxide emissions produced by hydrocarbon fires but with no sensitivity to water vapour. This type can detect fuel and gas fires at long range and has high immunity to false alarms, but cannot recognise hydrogen fires.

Visual flame detectors employ a charged couple device (CCD) image sensor and flame detection algorithms. The imaging algorithms process live video images from the CCD array and analyse the shape and progression to discriminate between flame and non-flame sources. Unlike IR or UV flame detectors, CCTV visual flame detectors do not

depend on emissions from carbon dioxide, water, and other combustion products to detect fires, nor are they influenced by fires' radiant intensity. Despite their advantages, visual flame detectors cannot detect flames invisible to the naked eye, such as those produced by hydrogen fires. Heavy smoke also impairs the detector's capacity to detect fire.

Emerson's Rosemount™ 975 Flame Detector family offers a wide range of sophisticated flame detectors. Rosemount 975MR Multi-Spectrum Infrared detects hydrocarbon fuel and gas fires at long distances and provides the highest immunity to false alarms with its multi-spectrum infrared design. Rosemount 975HR Multi-Spectrum Infrared for Hydrogen offers the combined capability to detect hydrocarbon and hydrogen fires simultaneously with all the benefits of multi-spectrum infrared technology. Rosemount 975UR Ultraviolet Infrared Dual UV and IR detector with sensors tuned to 0.185 – 0.260 μm and 4.4 – 4.6 μm respectively, suitable for detecting flames produced by clean-burning hydrocarbon fuels. Rosemount 975UF Ultra-Fast Ultraviolet Infrared Detects hydrocarbon fires plus hydroxyl, hydrogen, metals, and other inorganic fuels.

The flame detector is arguably the most critical element of a fire suppression system. It must be sensitive enough to quickly respond to an incident while avoiding false alarms. Fortunately, such detectors are available in a range of options covering the most complex and demanding applications. These can help ensure minimal damage in an incident while maintaining unhampered productivity and profitability. ♦

“There are four primary optical flame detector technologies depending on line-of-sight radiation.”

Integrating 4IR technologies

The 4th Industrial Revolution (4IR) is set to bring a host of new technologies to the forefront of innovation – the integration of these is a priority for many companies in the health, safety and security landscape.



Image Credit: Adobe Stock

“IoT is most definitely the future... we believe, over time, anything that can be connected, will be connected.”

Dharmendra Patel, managing director of Creation Gulf

The 4th Industrial Revolution is a landmark event for innovation.

With a fusion of advances in Artificial Intelligence (AI), the Internet of Things (IoT) and more marking the 4th industrial revolution, the health, safety and security industries are racing to keep up with the rapidly innovating landscape.

Integrating IoT into its product range is no stranger to UAE-based Elettrico Lighting, which recently unveiled LED control hubs that will utilise IoT in its ultraviolet LED disinfection products. These UV LED systems can be configured to wavelengths between 260nm and 270nm to kill the Covid-19 virus and other viruses, bacteria and pathogens. Enabling IoT to control and operate such

technology could help eliminate the risk of human error or cross-contamination.

Creation Gulf’s managing director, Dharmendra Patel, explained, “IoT is most definitely the future. Like most of our manufacturing partners, we believe, over time, anything that can be connected, will be connected. IoT will also enable remote management and access which would further make lives easy for clients and operators.”

IoT integration is also a priority for KORE, who has worked with logistics company Swoop Aero on drones to transport Covid-19 vaccines to isolated parts of the world.

“I’m grateful that the IoT connectivity and solutions we

provide are being used so that people in the remotest parts of the world are not forgotten or overlooked,” explained KORE CEO and president, Romil Bahl.

4IR technologies are also set to aid innovation in the cyber security field, with Mimecast Limited recently unveiling its CyberGraph solution, engineered to use AI to detect phishing attacks.

“Phishing and impersonation attacks are getting more sophisticated... CyberGraph leverages AI and machine learning technologies to keep employees one step ahead,” commented Josh Douglas, vice president of product management for threat intelligence at MimeCast. ❖



Mitigating the risk of cyberattacks

The oil and gas industry needs to increase its systems' cyber resilience now, says Nina Terp, specialist author/freelance writer in the area of energy.

“Cyberattacks will have to be taken even more seriously in the future.”

The protection of IT and OT ensures the safety of people, systems and data.

In May 2021, the possibility of a cyberattack on the oil and gas industry was brought to the public's awareness when U.S. pipeline operator Colonial Pipeline suffered a ransomware attack. This latest example shows that attacks are becoming more and more frequent – and more sophisticated. The threat did not begin with the establishment of digital applications in this sector: Information systems (IT) and especially operational technology (OT) are also at risk. Their protection ensures the safety of people, systems and data. Siemens Energy is convinced that the only way to remain one critical step ahead is by taking immediate action.

Ahmed Bakr is a senior cybersecurity officer (CSO) based

in the Saudi Arabian city of Jeddah. He and his colleagues support the various Siemens Energy Business Units and their customers in every aspect of cybersecurity. Services include critical asset identification, vulnerability management for IT applications and support for those responsible for industrial cybersecurity of Siemens Energy's portfolio, which also covers the oil and gas business field.

According to Bakr, “Oil and gas companies are targets of cyber criminals. We all are. Their attacks are intended to target a company's systems and inflict damage by compromising the availability, integrity, and confidentiality of data for example. Although awareness is growing, defence against cyberattacks will have to

be taken even more seriously in the future.”

The case of Colonial Pipeline in the USA shows what a single attack can do. The company was forced to stop running the systems that operate its 5,500-mile pipeline. The economic damage was tremendous. The next cyberattack is on its way; the only question is when and how. “The oil and gas industry has to prepare right now,” Bakr says. As early as 2017, the U.S. research institute Ponemon was commissioned by Siemens to conduct a survey of the oil and gas industry. According to its findings, 68% of U.S. oil and gas cyber managers said that their organisation had experienced at least one loss of confidential information or disruption to

operations in their OT environment over the past 12 months. At the same time, the study asserted that many of the organisations lacked awareness of the OT cyber risk.

Cybersecurity can save lives

“Although the most common motive of cyber criminals is to make money, attackers are no longer limiting themselves to implanting malware. Some simply want to destroy systems and harm people. So it’s also a matter of protecting the physical operational technology,” Bakr comments.

For some time, people in the industry have been talking about one of the most dangerous attacks on industrial oil and gas facilities so far. According to an analysis by cybersecurity company FireEye, one of these attacks was not only planned to disrupt operations, but also to cause physical damage threatening human lives. But what is clear, according to Bakr, is that successful cybersecurity needs to be based on a so-called layered defence approach to prevent the worst and save lives. A layered defence, also called ‘defence in depth’, is a proven concept based on various types of overlapping cybersecurity controls. The idea is that if one control fails or gets bypassed by the attacker, another layer offers protection.

Strict internal and external standards

As an experienced authority on the industry, Siemens Energy makes its comprehensive expertise available to the oil and gas industry to assist in its fight against cyberattacks. The company’s offerings range from



Image Credit: Siemens Energy

Ahmed Bakr (left), senior cybersecurity officer, Siemens Energy, and Ahmed Khalifa (right), technical sales manager for Cybersecurity, Siemens Energy.

cybersecurity products and their implementation to consulting and training services, as well as comprehensive cybersecurity solutions.

Having established its own robust in-house organisation to fight cyber criminality years ago, Siemens Energy now has more than 100 cybersecurity experts stationed worldwide who are directly supported by their colleagues in the various business areas known as Product and Solution Security Officers (PSSOs). The PSSOs are responsible for ensuring that products and solutions comply with global industry standards such as IEC 62443. This means that compliance with extremely high cybersecurity standards is constantly being promoted – beginning with development and throughout the entire value chain all the way to product hardening and cybersecure project execution.

Suppliers and the company’s partner network are also subject to strict requirements.

One of these requirements is the secure use of these products, for example, in oil and gas companies. Experts agree that technology companies should take more responsibility and become more involved in the deployment of solutions in the customer’s environment.

“We employ a variety of approaches to support our customers’ cybersecure operations,” says Bakr. “For example, our division Industrial Applications has achieved IEC 62443-2-4 certification in several locations for project execution processes to provide secure solutions.”

However, some companies do not have any in-house cybersecurity processes, let alone a dedicated organisation, or else

they have no qualified personnel. In these cases, they can purchase expert knowledge – including, of course, from Siemens Energy, whose goal is to become the world’s most valued energy technology company. Upon request, customers can be supplied with everything they need for cybersecurity structures and vulnerability or gap analysis, including measures and their implementation. This is called ‘cybersecurity as a service.’

Consulting and analysis

The first step is usually a consultation on the latest cyber threats, gateways, and potentially effective measures. Ahmed Khalifa is the company’s technical sales manager for Cybersecurity. He and his colleagues are located in Dubai in the UAE.

“Many of the initial measures are easy to implement and aren’t very expensive,” says Khalifa. “For

example, knowledge is an important key to an effective defence.”

Knowledge lays the foundation for secure processes and successful access management, and it also raises the awareness of all personnel. In 2020, a study by Stanford University professor Jeff Hancock and the security company Tessian determined that 88% of data breaches are caused by employee error. This means that one of the greatest risks to cybersecurity – human error – can be prevented through training.

Does digitalisation offer more benefits than risks?

One thing that the two cyber experts emphasise is that while the unstoppable growth of digitalisation can increase certain cyber risks, these risks are outweighed by the benefits for industry.

Khalifa notes, “Digitalisation, which is especially practical for

the oil and gas industry, doesn’t automatically mean operation in the cloud. For critical infrastructures like oil and gas, it primarily means using digital applications to monitor physical assets such as gas compressors and offshore drilling equipment, with the goal of making the operation more efficient and cost effective. We’re able to protect these functions from cyber threats very effectively.”

Whether it is from remote monitoring or predictive maintenance, reduced carbon emissions or optimised fuel consumption, useful data is only transferred in one direction, thanks to a Siemens Power Plant Automation (SPPA) unidirectional gateway that turns data highways into one-way streets. Data transfers in the opposite direction – in the direction of the plant – are absolutely impossible. The benefits for customers are a comprehensive overview of their

“Successful cybersecurity needs to be based on a so-called layered defence approach.”

BELOW: The oil and gas sector is increasingly the target of cyber criminals.

systems’ health status and automatic notification if any disruptions occur.

Artificial intelligence protects against cyber crime

Digitalisation itself is one of the most effective weapons against cyber threats, and so is artificial intelligence (AI). AI is the basis for Siemens Energy’s innovative Plant Security Monitoring. The company wants to use AI primarily to help small and medium-sized oil and gas companies protect their plants from cyberattacks. As Khalifa explains, “The Plant Security Monitoring algorithms study and learn a plant’s ‘normal’ behaviour. Afterwards, if any deviations occur, the system records the abnormal behaviour and issues an alarm. This is how we make very effective use of every aspect of digitalisation’s strengths – including and especially in the fight against cyber criminals and terrorists.” ♦



Image Credit: Siemens Energy

IDIS launches new VMS

Security

IDIS has released IDIS Solution Suite (ISS) version 3.5, its newest enterprise-class VMS (video management software). New features and service modules are designed around increased situational awareness, efficient response coordination, and speeding up investigations.

Improving real-time monitoring, text-to-speech allows operators to configure verbal multilingual notifications to pre-determined events. Operatives can now also benefit from real-time pop-ups based on the GPS location of a triggered alarm, providing enhanced wide-area awareness from cameras ranging from a 10-100 km radius.

A new centralised audio feature enables control of multiple devices, giving security teams the capability to automate audio alerts for day-to-day operations and issue warnings in the event of a security or safety breach or emergency situation.

A new Real-Time Transport Protocol (RTP) service also enables seamless and stable video



Image Credit: IDIS

All the new features are said to work in harmony with enterprise-class streaming, recording and administration functionality.

and voice relay to third-party devices and software without an SDK or API, increasing system flexibility and helping security teams coordinate responses to threats and incidents.

To speed up investigations, IDIS Person Match extracts a person's characteristics based on deep-learning video analytics from multiple streams to present a clear timeline of events and last known locations. Synchronised Playback also presents operators with precisely time-synched

screen views of video streams across single or multiple sites, removing the need for manual configuration, and reducing stress and complexity, particularly during time-critical events.

All the new features are said to work in harmony with enterprise-class streaming, recording and administration functionality and come with no annual license fees or OPEX burden, to make ISS significantly more affordable than traditional enterprise video management software.

Upgraded process safety software

Plant safety

Yokogawa Electric Corporation has announced a major upgrade to its Exaquantum Safety Function Monitoring (SFM) software, an OpreX asset operations and optimisation solution that helps identify whether actual operating performance meets safety design targets. The new upgraded software, SFM R3.35, provides continuous monitoring and evaluation of safety data to highlight deviations or failures in plant safety system performance.

SFM collects all safety-related data to track and analyse key performance metrics, including safety-instrumented function (SIF) activations and maintenance (proof testing), independent protection layers (IPLs), and initiating causes and overrides. This new version now supports the International Electrotechnical Commission (IEC) 61511 standard, and includes several new features to help users identify potential safety issues, optimise maintenance activities and improve overall safety solution design.

Tyco Rapid Install Sprinklers to improve warehouse fire protection

Fire safety

Johnson Controls is releasing two new Tyco early-suppression, fast-response (ESFR) Rapid Install Sprinklers (RIS) for the protection of warehouse and storage facilities.

The Model ESFR-22 and Model ESFR-25 pendant sprinklers and their accompanying custom welded outlet fitting, simplify installation by featuring pre-installed rubber gaskets and a thread connection that can be installed by hand.

The ESFR-22 RIS (22.4 K-factor) and ESFR-25 RIS (25.2 K-factor) both provide warehouse design flexibility by eliminating the use of in-rack sprinklers when protecting high-piled storage. The ESFR-22 RIS and ESFR-25 RIS are cULus listed and FM approved for specific applications with a maximum storage height of 43-feet and a maximum ceiling height of 48-feet without the requirement for in-rack sprinklers. Both sprinklers permit the use of a maximum

deflector-to-ceiling distance of 18-inches.

Johnson Controls says that the Tyco ESFR Rapid Install sprinklers are ideal for ceiling-only sprinkler protection of warehouses and storage facilities containing cartoned and unexpanded plastics, exposed and expanded plastics (in accordance with NFPA 13 and FM Global standards), and some storage arrangements of rubber tires, roll paper, flammable liquids, aerosols, and automotive components.

Reliable decontamination for all environments

Decontamination

Emergency safety showers and eyewashes are a must-have in situations where emergency decontamination may be required. Aqua Safety Showers' emergency tank showers guarantee more than 15 minutes of tepid water without the need for a mains water supply. The company provides a full range of models suitable for any environment, (both hazardous and non-hazardous) remote locations or extreme temperatures (-55°C to +50°C / -67°F to +122°F).

The company's units are manufactured in-house in the UK, and are designed to be completely corrosion-resistant. These products also meet (and exceed) EN and ANSI standards.

Aqua tank showers are available in three sizes: 350L, 1500L and 2500L; with the latter guaranteeing more than 30 minutes of tepid water (far exceeding ANSI standards). They are also highly customisable, meaning that any additional features (such as alarms, sirens and eye wash stations) can be added to suit individual requirements.

Aqua Safety Showers supplies emergency safety showers worldwide, and has developed solutions to suit any country or climate. For extremely hot locations such as the Middle East, tank showers are accompanied by an accompanying water chiller. This is essential to curb the risk of scalding water or legionella growth. Conversely, its Arctic Tank



The TS1500CN tank shower with water chiller.



Image Credit: Aqua Safety Showers

Shower is supplied with a number of internal fittings, making it suitable for temperatures as low as -55°C (-67°F).

The company's newly-introduced inspection ladders make tank shower maintenance safer and easier than ever before. The anti-slip rubber feet and caged platform provide peace of mind when working at height.

Constructed from Glass Reinforced Plastic (GRP), these ladders, manufactured in the UK to the BS EN 131 standard, are corrosion resistant and extremely heavy-duty.

New training programme

Cybersecurity

SANS Institute is holding an online and in-person training programme, SANS Gulf Region 2021, from 6-25 November, 2021.

The interactive event, led by industry experts, aims to build practical skills that participants can put into immediate effect. It includes nine courses covering a range of cybersecurity tactics.

"Synchronous with the acceleration in remote work due to the pandemic, the cyber threat landscape is rapidly evolving in the GCC region. Consequently, the need for relevant and updated security increases as cybercriminals take advantage of this ongoing shift to execute attacks on vulnerable networks. By participating in and implementing learnings from regular training programmes like SANS Gulf Region 2021, organisations will be better prepared to detect and prevent security breaches before they can escalate and disrupt workflow," said Ned Baltagi, managing director Middle East and Africa at SANS Institute.

Digital Barriers launches new HD camera

Video security

Digital Barriers, a UK-based provider of IoT surveillance and security technologies, has launched the EdgeVis MiniCam, a rapidly deployable HD camera which securely streams live footage over 2G, 3G, 4G and WiFi.

With only a requirement for power and no additional cabling, up to 2TB of storage, an IP66 rating and NDAA compliant, the one-piece unit can easily be attached to existing street furniture or dedicated wall or pole

mountings in minutes. The camera includes advanced onboard analytics, enabling rapid set-up, VMS integration and alerts.

The EdgeVis MiniCam includes patented low bandwidth video streaming technology, which saves more than 50% of bandwidth and can be capped to control costs.

The video analytics on the EdgeVis MiniCam prioritises operators' time by sending alerts to connected devices only when events require action. Capturing, sharing and enhancing areas

of interest means users can better coordinate events live, and as they unfold.

"Our world-leading technology was developed to meet the demanding requirements of specialist law enforcement and defence agencies. Now available to everybody, the EdgeVis MiniCam represents a new generation of flexible mobile surveillance. World-class technology at standard market pricing," explained Zak Doffman, CEO, Digital Barriers.

Personal Protective Equipment Buyers' Guide 2021

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

Breathing

Equipment/Protection/Respirators

Bauer Kompressoren GCC FZE
Bullard Asia Pacific Pte. Ltd.

Face Protectors

Bullard Asia Pacific Pte. Ltd.
Rudolf Uhlen GmbH

Fall Protection

Kee Safety Ltd.

Foot Protection/Safety Footwear

Saudi Leather Industries Company Ltd

Hand & Arm Protection

Shanghai Select Safety Products Co. Ltd

Head Protection/Helmets

Bullard Asia Pacific Pte. Ltd.
Shanghai Select Safety Products Co. Ltd

Protective Eyewear/Safety Glasses

Shanghai Select Safety Products Co.

Protective Gloves

Shanghai Select Safety Products Co. Ltd

Suppliers



Aqua Safety Showers

Redgate Road
South Lancashire Industrial Estate
Ashton-in-Makerfield
Wigan
WN4 8DT
United Kingdom
Tel: +44 (0) 1942 318096
Web: www.aqua-safety.com
E-mail: sales@aquasafety.com

Aqua Safety Showers are an independently-owned UK manufacturer of emergency safety showers and eye wash equipment. With over 50 years experience serving the water, chemical, oil and gas industries, we are proud to offer a full range of standard and bespoke safety units to suit any requirements.

Agents:

United Arab Emirates - BBCON
United Arab Emirates - Sabz International

Bauer Kompressoren GCC FZE

S103, AF07, South Zone 1
Jebel Ali Free Zone
PO Box 261413
Dubai, United Arab Emirates
Tel: +971 4 8860259
Fax: +971 4 8860260
Web: www.bauer-kompressoren.de
E-mail: sales@bauer-kompressoren.ae

BAUER KOMPRESSOREN GCC FZE offers an industrial range of compressors for Air, Helium, Nitrogen and CNG. All the applications will be fully supported from our Jebel Ali Depot with installation, commissioning, training and long term maintenance contract all available from BAUER employed engineers and technicians.

Bullard Asia Pacific Pte. Ltd.

51 Changi Business Park Central 2
The Signature #03-04
486066, Singapore
Tel: +65 67450556
Fax: +65 67970299
Web: www.bullard.com
E-mail: bullardasia@bullard.com

Bullard is a global leader in personal protective equipment and systems

designed to help save lives. Founded in 1898, Bullard helps protect workers in the Emergency Responder and Industrial Health & Safety industries. With headquarters and manufacturing located in Kentucky, Bullard is a fifth-generation family-owned company with offices and facilities in the United States, Germany, Singapore and Switzerland.

Cam Lock Middle East LLC

PO Box 51, Al Rusayl, Muscat
PC124, Oman
Tel: +968 24237148
Web: www.camlockme.com
E-mail: info@camlockme.com

CeoTronics AG

Adam-Opel-Strasse 6
Rödermark, 63322, Germany
Tel: +49 607 487510
Fax: +49 607 48751265
Web: www.ceotronics.com
E-mail: sales@ceotronics.com

CeoTronics communication systems, including effective hearing protection and other protective functions, are far superior to simple hearing protectors because users can still communicate with each other. Whether working, for example, in noisy or dangerous environments or wearing personal protective equipment (PPE), CeoTronics

systems offer more protection in the workplace, increasing productivity and efficiency.

Eyevex Safety LLC

Sheikh Sana Warehouse A 06
29A Street, 27 Umm Suqueim Road
Al Quoz Industrial Area 3
Dubai, United Arab Emirates
Tel: +971 4 255 0024
Web: www.eyevexsafety.com
E-mail: scheffer@emirates.net.ae

We are Eyevex Safety LLC, PPE manufacturer/supplier Group under the umbrella of Eyevex Safety U.S.A. Inc. Our brand EYEVEX has been recognised and being distributed in India, UAE, GCC, MENA and CIS regions. Our range of products include the biggest names in the PPE field like Soill Master, FireWarrior, HUNK, ORYX, EYEVEX, TAG-iT that are known and trusted by HSE professionals.

Kee Safety LLC

Dubai Investment Park
Near Green Community
PO Box 18448, UAE
Tel.: +971 4 885 9066
Web: keesafety.ae
Email: uaesales@keesafety.com

Kee Safety is one of the world's largest manufacturers and suppliers of fall

protection systems, guardrails and working at height safety equipment. We can provide our customers with expert project consultations, a full design and installation service, site surveys and technical support for each project throughout the ME Region.

Packline Materials Handling

Unit28,
Newtown Business Park
Ringwood Road
Poole
BH12 3LL
United Kingdom
Tel: +44 (0)1202307700
Fax: +44 (0)1202722066
Web: www.packline.co.uk
E-mail: info@packline.co.uk

Packline Materials Handling has been designing and manufacturing lifting and handling equipment since 1993, and with its 'compact' range of

stainless steel reel, roll and drum handling equipment has established itself as the leading supplier of quality materials handling equipment for the food, drink, dairy, pharmaceutical and medical processing industries worldwide.

Rudolf Uhlen GmbH

Am Höfgen 13
Haan
42781
Germany
Tel: +49 2129/1444
Fax: +49 2129/59980
Web: www.aschua-uhlen.de
E-mail: info@aschua-uhlen.de

Saudi Leather Industries Company Ltd

PO Box 31691
Dammam 2nd Industrial City
Al Khobar, 31952, Saudi Arabia
Tel: +966 13 8121066
Fax: +966 13 8122253/8468838
Web: www.slicshoes.com
E-mail: faris@slicshoes.com

SLIC is a Saudi company leading supplier of safety & work footwear in Saudi Arabia, Gulf, Middle East & Africa. Footwear are comfortable & tough. Footwear produced under latest technology featured with Quality, Flexibility & Performance. Meets EN & ASTM standards. Composite toe & ladies footwear are available, apart from guaranteed against manufacturing defects for 6 months.

Agents:

Bahrain - Bahrain Workshop Company
Jordan - Bashiti Hardware Stores

Kuwait - S B Co.
Oman - Altes
Qatar - Mannai Trading Co
United Arab Emirates - Bin Jabr Fire Fighting & Safety Equipments Co
United Arab Emirates - Saleem Jacobson



Shanghai Select Safety Products Co. Ltd

1508 Huahong Business center
No.5, lane 388, Daduhe road
Putuo District, Shanghai
200333, China
Tel: +86 1381 7677572
Web: www.safety-inxs.com
Email: jason.sparrow@safety-inxs.com

Agents & Subsidiaries

Bahrain

Bahrain Workshop Company

Tel: +973 17777800
Fax: +973 17770994
Web: www.bwcbah.com
E-mail: office@bwcbah.com
vinesh@bwcbah.com

Season Intl. Trading & Industries

P.O. Box 886
Manama
Bahrain
Tel: +973 17704647 (Ext. 219)
Fax: +973 17704648
Web: www.sitco.com.bh
Email: balajji@sitco.com.bh

Egypt

Mechanical Tools – Cairo

62, Gomhouria St.
11111
Cairo
Egypt
Tel: +202 25919971
Fax: +202 25919934
E-mail: m.eid@mechanical-tools.com
Web: www.mechanical-tools.com

Jordan

Bashiti Hardware Stores

Amman
Tel: +962 6 4784533
Fax: 00962 6 4754558
Web: www.bashitihardware.com
Email: pbme@bashitihardware.com
info@bashitihardware.com

Kuwait

S.B Co WLL

Tel: +965 249 23570
Fax: +965 249 23572
Web: www.sbkwt.com
E-mail: haresh.j@sbkwt.com

Libya

Al Daman Safety Protective Import Co.

Al Daman Safety Protective Import Co. Benghazi, Airport Road
Benghazi – Libya
Tel: +00218 918230797
E-mail: aldamansafeet@gmail.com

DOFASS Ltd.

Tripoli.
Hay Demsheq St.
Tripoli – Libya
Tel: +218 21 7173495
E-mail: abdulg@dofass.com

Oman

Al Alalan Trading – (ALTES)

Mina Al Fahal, Muscat 116
Tel: +968 245 71426
Fax: +968 24571425
Web: www.altesoman.com
E-mail: mangesh@altesoman.com

Mauritius

CME Company

Royal Road, Arsenal, Mauritius
Tel +230 2491247
Fax +2302488314
Email: renousha.bhun@gmail.com
Web: www.cmecoltd.com

Qatar

Mannai Trading Co

Tel: +974 440 76000
Fax: +974 44076398
Web: www.mannaiindustrial.com
E-mail: Manal.Jradi@mannai.com.qa

United Arab Emirates

BBCON

Hamsah Block (Ansar Gallery Building)
Office No. 29, Al Karama
P O Box: 91929, Dubai, UAE
Tel: +971 4 2388 144
Web: www.bbconme.com
E-mail: sales@bbconme.com

Bin Jabr Fire Fighting & Safety Equipment Co LLC

Abu Dhabi 46711
Tel: +971 264 18284
Fax: +971 264 15388
Web: www.binjabr.com
E-mail: bjfse@binjabr.com

Petro Plus for Oil & Facilities Services.

Abu Dhabi
P.O. Box: 29861, Abu Dhabi, UAE
Tel: +971 2 6334446
Fax: +971 2 6334436
Web: www.petroplus.ae
E-mail: info@petroplus.ae

Sabz International

2nd Floor, Office # 21, EMITAC Building, Al Garhoud
P.O. Box: 300369, Dubai, UAE
Tel: +971 4 298 0472
Web: www.sabzinternational.ae
E-mail: sales@sabzinternational.ae

Saleem Jacobson Trading

Dubai
Tel: +971 4 3393400
Fax: +971 4 3393932
Web: www.saleemjacobson.com
E-mail: alex@saleemjacobson.com
sales@saleemjacobson.com



يتحمل كل شخص في موقع البناء مسؤولية إعطاء الأولوية للسلامة

فسوف يكون من المرجح أن يعمل المشروع بسلاسة وكفاءة وربحية إذا تم التنبؤ بمخاطر أي موقع بشكل صحيح، والتخطيط لها وإدراجها في العقد. وقد يعني عدم الاستعداد لها أنه من الضروري التوقف عن العمل وإضاعة الوقت والمال. وبطبيعة الحال، يتحمل كل شخص في موقع البناء مسؤولية إعطاء الأولوية للسلامة، ولكن هذا ينطبق بشكل خاص على مدير سلامة البناء. لحسن الحظ، هناك أدوات متاحة لتسهيل التوفيق بين العديد من المكونات المختلفة لإدارة السلامة في موقع عمل مزدحم، مثل «جو كونتراكتور».

«جوكونتراكتور GoContractor» هو برنامج للتدريب على البناء والسلامة يمكنه تبسيط العديد من جوانب سلامة الموقع والامتثال، بما في ذلك التدريب عبر الإنترنت وتوجيه الموقع، والوصول إلى الموقع، وامتثال العمال، وإدارة مخاطر كوفيد-19. ويعتبر تنفيذ برنامج «جو كونتراكتور» في بداية أي مشروع طريقة مثالية للمساعدة في ضمان تحقيق أعلى مستويات سلامة القوى العاملة قبل أن يخطأ أي شخص الموقع. اكتشف المزيد حول كيف يمكن لبرنامج التدريب على البناء والتدريب على السلامة «جو كونتراكتور» أن يساعدك في إدارة السلامة في موقع البناء الخاص بك من خلال مشاهدة كيفية عمله، على <https://get.gocontractor.com/get-a-demo>.

وللحصول على مزيد من المعلومات حول برنامج جو كونتراكتور، ومزيد من الأفكار المفيدة حول سلامة البناء، الرجاء زيارة www.gocontractor.com.

- منع الالتزام بمستويات موارد السلامة غير الواقعية أو غير الضرورية للفوز بالمشروع.
- التأكد من أن صاحب المشروع يُبلغ بوضوح توقعات السلامة للمشروع من أجل التخصيص المناسب للموارد.
- المشاركة النشطة في عملية تقديم العطاءات، وغالباً ما يُشار إليها باسم «الصرحة الواضحة».
- التأكد من فهم الجميع لقواعد الموقع، ولا سيما فيما يتعلق بإمكانية الوصول واستخدام المعدات والترتيبات الخاصة بحالات الحرائق والطوارئ.
- إنشاء قائمة مرجعية بقضايا السلامة الشائعة والتي ستساعد مديري العقود ومتخصصي السلامة على تذكر تضمين العناصر الضرورية في العقد النهائي.
- تحديث لغة العقد من الباطن المعيارية لتضمين لوائح سلامة جديدة.
- تشجيع العملاء على فحص أماكنهم مبكراً بحثاً عن المواد الخطرة (الأسبستوس والطلاء الرصاصي والتربة الملوثة). إذ يمكن أن يؤدي الإصلاح إلى تعطيل جدول المشروع وميزانيته، لذلك كلما اكتشفت هذه الأمور مبكراً، كانت خياراً أفضل للتعامل مع المشروع.

■ استخدام خطتك اللوجستية لإنشاء ميزانية واقعية لتدابير السلامة؛ مثل السلم المؤقتة أو الدرابزين أو السقالات.

يجب أن يراجع فريق السلامة التابع لك - بشكل شامل - جميع المستندات والعقود في بداية المشروع قبل بدء العمل. وهذا يمنحهم الفرصة لتحديد أي مخاوف تتعلق بالسلامة وإثارة هذه المخاوف والتأكد من معالجتها بشكل مناسب قبل بدء المشروع.

أهمية تاريخ الموقع في تخطيط السلامة

تاريخ الموقع شيء آخر يجب أخذه في الاعتبار في مرحلة التخطيط والتعاقد لأي مشروع بناء. فاعتماداً على المكان الذي تقوم فيه بالبناء، قد تكون هناك ميزات غير عادية يمكن أن تشكل خطراً محتملاً. على سبيل المثال:

- الأسبستوس أو الملوثات الأخرى.
- خطوط الكهرباء العلوية أو الخدمات تحت الأرض.
- ظروف الأرضية غير العادية.
- حق الطريق العام عبر الموقع.
- الطرق أو السكك الحديدية أو ممرات المشاة المجاورة.
- أي أنشطة أخرى يمكن أن تجري بالقرب من الموقع.

← مفكرة الفعاليات 2021

نوفمبر/تشرين الثاني

www.ifsecandfirexegpt.com	القاهرة	معرض معدات مكافحة الحرائق - IFSEC FIREX 2021	3 - 1
www.adipec.com	أبوظبي	معرض ومؤتمر أبوظبي الدولي للبترول - أديبك	18 - 15
www.intersec.ae.messefrankfurt.com/dubai/en.html	دبي	المعرض الدولي للأمن وخدمات الطوارئ - إنترسك	22/1/18 - 16
www.safety-health-expo.co.uk/en/home.html	لندن	معرض الصحة والسلامة - إكسبو	22/5/19 - 17



مناقشة السلامة في مرحلة مبكرة لها أثر إيجابي على سلامة العاملين

أهمية إشراك فريق السلامة من مرحلة التعاقد

في هذا المقال يشير جيمس أومدال، من «جوكونتراكتور GoContractor»، إلى أن إشراك فريق السلامة في مشروعات التشييد والبناء من البداية يمكن أن يمنع حدوث مشكلات تتعلق بالسلامة في مرحلة لاحقة من البناء. فعملية البناء تنقسم عادة إلى أربع مراحل متميزة؛ هي مرحلة التخطيط، ومرحلة ما قبل البناء، ومرحلة البناء ومرحلة الإغلاق. وتُعرّف مرحلة التخطيط والتعاقد على أنها إدارة جميع الأنشطة المعنية قبل بدء العمل الفعلي في الموقع. ومن الممكن منع حدوث العديد من مشكلات السلامة أثناء الإنشاء من خلال تضمين إدارة السلامة في المراحل المبكرة الممكنة للتخطيط والتفاوض بشأن مشروع الإنشاء.

ذلك - أيضا - في ضمان تشغيل المشروع في الوقت المحدد وفي حدود الميزانية، وهذا أمرٌ يأمل جميع أصحاب المشروعات في تحقيقه.

هناك عدد من الإجراءات التي يمكن للفرق، بما في ذلك مديرو سلامة البناء، القيام بها للمساعدة في القضاء على المشكلات التي قد تحدث أثناء مرحلة التعاقد، وكذلك لتحسين الصحة والسلامة العامة في المشروع. وتشمل هذه الإجراءات ما يلي:

- وضع خطة لوجستية قبل إصدار مستندات العطاء بحيث يمكن للمقاولين من الباطن تقديم عطاءات على عملية واقعية.

مشروع البناء الآمن هو مشروع بناء ناجح

يعتمد نجاح أي مشروع بناء على مجموعة متنوعة من العوامل المختلفة؛ أحدها هو ضمان تنفيذ جميع الأعمال بأمان، وأن هناك حدا أدنى من مخاطر وقوع حادث أو إصابة خلال أية مرحلة من مراحل المشروع. وقد أظهرت الدراسات أن تضمين السلامة كموضوع رئيسي للمناقشة في مراحل العقد لأي مشروع بناء، له تأثير إيجابي على سلامة العمال.

إذ يمكن للقوى العاملة الأكثر أمانا أداء أدوارها بشكل أكثر فاعلية، ويمكن أن يساعد

فني هذا العمود ...



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