

OFFICIAL NEWS PUBLICATION OF THE BIG 5

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DUBAI WORLD TRADE CENTRE | 26 NOVEMBER 2017



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A two-day event featuring internationally renowned precast experts



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GLOBAL SOLAR LEADERS SUMMIT

This high level conference puts renewable energy in the spotlight

WELCOME

Dear visitor

I would like to personally welcome you to The Big 5 and The Big 5 Solar 2017.

At The Big 5 we pride ourselves on having brought under one roof the most innovative products for the built environment over the past three decades, providing the best and latest solutions that have helped build thousands of regional landmarks, many of which inspire the global construction community today.

When dmg events Middle East, Asia & Africa acquired the exhibition in 2000, The Big 5 covered some 12,000m². Today, this figure has risen to over 100,000m² in gross floor space and is known as the largest and most influential event for the construction industry in the

Middle East. That the show keeps growing at such an incredibly fast pace proves that, even in today's digitalized world, there's a thriving demand for face-to-face, personal interaction, which is still crucial to building strong and positive business relationships. Our event is here to provide the construction and solar industries with a unique and enhanced platform to network, do business and learn.

On behalf of the team I'd like to personally thank you for attending the event, contributing to yet another outstanding edition of The Big 5, and a successful launch of The Big 5 Solar 2017. I wish you an informative, profitable and enjoyable time.



Josine Heijmans Portfolio Director

Tojine Hijmany



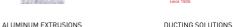
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The Big 5 2017 opened its doors today to welcome thousands of visitors from around the world. Over the next four days around 79,000 people are expected to make the trip to Dubai World Trade Centre, where they can connect with around 2,500 exhibitors from 60 countries.

This year's event is being held against the backdrop of the most optimistic sentiment the regional construction industry has seen for a number of years, with many experts confidently predicting that 2018 will herald the start of a strong period leading up to 2020, at the very least.

In a recent note, BMI Research said construction was one of three sectors, alongside tourism and logistics, that will benefit from of an expected economic upturn in the UAE over the next couple of years, driven by a recovering oil sector.

A favourable business climate and greater economic diversification will continue to create numerous investment opportunities and the construction sector is tipped to be at the forefront of that expansion. BMI's infrastructure team forecasts construction growth (in real terms) of 6.8% in 2018 and 6.4% in 2019, underpinning this positive outlook.

And though Expo 2020 is undoubtedly one of the key drivers of that growth, the good times will not be limited to Dubai. "While Dubai will be the main recipient of tourism and other infrastructure-related projects in light of Expo 2020, we also expect construction activity to pick up in Abu Dhabi over the coming years," the report said.

SPOTLIGHT ON INNOVATION

Gazing further into the future, innovative technologies such as 3D printing, hyperloop, renewable energy and much more will feature prominently at the Middle East's largest construction show this year.

Josine Heijmans, Portfolio Event Director of The Big 5, said: "This edition of the event will mark a turning point in the construction industry, setting the way to build better, more efficiently, and develop smart, sustainable cities.

"We're extremely proud that The Big 5 2017 will gather some of the most brilliant and forward-thinking minds from around the globe to discuss the present and even more the future of construction. The most promising technologies, building solutions and materials will be on display at the exhibition, which will define key industry trends, opportunities and best practices in the region and beyond."

In line with the theme of innovation, The Big 5 2017 offers an expanded educational programme focusing on the latest topics and trends in the construction industry. Beyond the returning 'Excellence in Construction Summit' taking place today, the first 'Big 5 Innovation in Precast Summit' on days one and two has the backing of the UAE Ministry of Infrastructure Development.

In addition, more than 80 regional and international experts

will deliver 72 CPD-certified 'Big 5 Talks' across all four days of the show, focusing on Architecture, Project Management, MEP, Business, Sustainability and Technology in construction.

Throughout the event, a series of Live Product Demonstrations will provide visitors with interactive presentations of the most innovative products and technologies in real time by The Big 5 exhibitors. The GAIA Awards, meanwhile, will recognise the most sustainable construction product of the year, selected by a distinguished panel of industry experts.

For the first time, the event will be co-located with The Big 5 Solar, a platform showcasing the latest solar technologies as well as an education agenda featuring 12 Big 5 Solar Talks and the third edition of the Global Solar Leaders Summit under the patronage of the UAE Ministry of Energy.

It's fair to say that anyone wanting to know what the future of construction looks like, can see it here at The Big 5 over the next four days.



We kindly invite you to visit Turkey stands to discover the high quality line of the products manufactured by Turkish exporters at The Big 5 2017!

Hall 1-4 Hall 7-8 Main Concourse Sheikh Maktoum Hall Sheikh Rashid Hall Sheikh Saeed Hall Za'abeel 1-3 Za'abeel 4-6









IN THE SPOTLIGHT

PRECAST CONCRETE

The Big 5 Innovation in Precast Summit has UAE government backing

UAE Minister of Infrastructure Development, Dr. Abdullah AlNuaimi, will inaugurate the first 'Big 5 Innovation in Precast Summit' today at The Big 5.

The two-day event brings together global precast experts and suppliers of concrete products and offers delegates exclusive insights on the latest trends, technologies and techniques in precast concrete construction.

"Achieving a balanced and sustainable infrastructure development is in line with the best international standards is one of the Ministry's main missions, along with ensuring the completion of the national housing programme," Dr. AlNuaimi said.

"Precast concrete is a strategic component of our development plans and The Big 5 Innovation in Precast Summit will go a long way in advancing the infrastructure industry in the United Arab Emirates.

"Hosting such a summit highlights the role of the UAE in leading the change process to achieve a promising future in the field of infrastructure development, as it brings together decision makers and major international companies."

Precast technology plays an important role in achieving the Ministry's initiatives and objectives. It can boost the quality and speed of construction projects, and is widely employed for both infrastructure components as well as structural building and architecture components.

Organised in partnership with BetonTage, Europe's largest precast congress, the event will feature leaders in the international precast



industry, including Elematic, Hard Precast, German Plant Experience, Columbia Machine, Weckenmann and Command Alcon.

The summit will also offer a high-level education agenda, spanning from structural design & innovation, to transformation technology, and sustainability and green buildings.

The Big 5 Innovation in Precast Summit will take place on the first and second days of the show and is free to attend for all pre-approved delegates from the concrete industry.

HYPERLOOP TT CHAIRMAN TO OUTLINE HIS VISION

Bibop Gresta to address the Excellence in Construction Summit today at The Big 5

The chairman and co-founder of one of the companies racing to launch the first working hyperloop transportation system will address The Big 5's Excellence in Construction Summit today.

Abu Dhabi is among a number of cities and regions around the world working towards building a Hyperloop Transportation Technologies (HyperloopTT) system. Others include Toulouse in France as well as Jakarta, Seoul and India's Andhra Pradesh.

On paper, the technology has the potential to transport passengers between Abu Dhabi and Dubai in around 12 minutes, a journey that currently takes around one hour by car. "It is coming, and it is real," says Bibop G. Gresta. "We are currently working on eight projects around the world. "The feasibility studies

we are conducting prove that the Hyperloop™ transportation system is not only doable, but also sustainable and profitable."

While high-speed trains are energy intensive, the HyperloopTM system has the potential to produce more energy than it consumes, using a combination of renewable energy sources including solar, wind and kinetic. "Speed is what I call 'a very nice consequence' of the HyperloopTM, but efficiency is probably the best outcome of this new technology," says Gresta.

The first passengers will be able to travel in a Hyperloop 36 months after the conditional permit approval, says Gresta who will deliver a keynote speech titled "Hyperloop is real: how will the Hyperloop idea be brought to life?" at the Excellence in Construction Summit today in Za'abeel Hall 6 at 17:00.





SOLAR KEY TO ACHIEVING UAE'S 2050 ENERGY STRATEGY

The Big 5 Solar 2017 gets UAE Ministry of Energy patronage

The UAE Ministry of Energy is encouraging public and private entities to roll out solar projects across the UAE in a bid to achieve the goals of the country's 2050 Energy Strategy.

As part of these efforts, the Ministry has become the official patron of The Big 5 Solar, which takes place alongside The Big 5

The event will showcase solar technologies from local and international exhibitors, as well as offering an education agenda geared towards industry development.

Day 2 of the show will feature the third edition of the Global Solar Leader's Summit (GSLS), which will be opened by the Undersecretary of the Ministry of Energy, His Excellency Dr. Matar Al Neyadi.

"Our energy authorities have progressed at a steady pace in the development of solar energy: only last year, the UAE achieved a global record with the lowest solar prices achieved through a competitive tendering process," a UAE Ministry of Energy spokesperson said. "We are also engaging the UAE population to generate demand in household solar energy projects across the nation."

"Our support of events such as The Big 5 Solar 2017 and the third edition of the Global Solar Leaders' Summit is important as it allows energy stakeholders in the UAE to benchmark their industry and learn from global best practice," the UAE Ministry of Energy said.

Other key speakers at the summit include Dr. Rashid Aleem, chairman of the Sharjah Electricity and Water Authority (SEWA), and H.E Dr. Nasser Saidi, chairman of the Regional Clean Energy Business Council.

In addition to this, a series of free-to-attend CPD certified Solar Talks will cover topics such as the impact of VAT on the solar industry, and the role of small and medium enterprises in developing the solar sector.

GET INSIGHT FROM THOMSON REUTERS PROJECTS

Thomson Reuters Projects is hosting a series of seminars and panel discussions on the current state of the construction market today at The Big 5.

The first session will cover the state of compliance within the construction industry. Topics discussed will include how to prevent bribery and manage corruption risk as well as the role of regulatory authorities.

The second panel discussion will focus on technologies disrupting the construction industry such as 3D printing, satellite imagery, automation and robotics. It will also look at how BIM has revolutionised project planning and execution in the construction sector.

In the final session attendees can get the market outlook for the sector in 2018 to help understand what major changes are in store.

The event kicks off at 11am and takes place in Hatta Room D.



HVAC SPEND ON DUBAI PROJECTS HITS \$1.5BN

Dedicated HVAC hall introduced at The Big 5 due to popular demand

HVAC spending on Dubai's construction projects has reached \$1.5bn, according to a recent industry report prepared by BNC Network for The Big 5.

The growth is in line with the values of contracts awarded in the urban construction sector, with demand drivers including new green

building regulations and smart city initiatives, which promote energy efficient units.

"In Dubai only, the value of project investments with HVAC applications in the early stages of construction has reached \$59bn," said The Big 5 portfolio director Josine Heijmans.



"Boosted by government initiatives like the UAE Vision 2021 and the Dubai 2021 Smart City Plan, new green building specifications and energy efficient cooling technologies are gathering momentum."

The Big 5 Dubai has introduced a dedicated HVAC hall this year to support the local construction market in advancing industry best practices. In addition, day 3 of the free-to-attend CPD-certified MEP Talks will focus exclusively on HVAC-related topics.

The talks will feature experts discussing present and future of cooling and air conditioning solutions in the region.

SPEAKER INTERVIEW

HOT PROPERTY

As Dubai builds towards 2020, construction activity is heating up. But are we in danger of building too much? We asked David Godchaux, **CEO of Core Savills**

AS THE COUNTRY GEARS UP FOR EXPO 2020, DUBAI'S SKYLINE APPEARS PACKED WITH BUILDING CRANES. IS THIS AN ILLUSION OR A **REALITY?**

This is a reality, although very nuanced. There is a lot being built, with over 100,000 units announced to come by 2020. However, the conversion rate between announced and delivered stock has consistently hovered between 30-50% over the last few years. We actually expect a spillover of supply from one year into the next, with the actual number of units delivered, not exceeding 60,000. I do not foresee the market to become oversupplied across all segments, but the real worry is on the lower end of the spectrum, with a large majority of units being apartments priced below AED 1.5M. These products are selling very well nowadays among investors, but there is no guarantee that end user demand will be sufficient to absorb all this stock in a few years from now.

HOW ARE DEVELOPERS KEEPING PACE WITH DELIVERY DEADLINES? AND HOW IS THIS AFFECTING CONSTRUCTION?

Prominent developers have mostly abided by delivery timelines and withheld brand reputation, whilst few others struggle to align supply with relatively weak demand. Overall, there has been a considerable gap in delivery timelines while the conversion rate between announced and delivered stock has been between 30-50% over the last several years.

The introduction of delay penalties, a practice prevalent in many international markets, may provide some relief to buyersalbeit, further impacting developer margins and their ability to align stock with demand. This paradox of delay in stock, however, has partially helped the market match demand and not fall further over the years. As projects continue to be phased or delayed, the construction industry is increasingly facing the pressure on margins in the backdrop of an uptick in construction costs.

THIS YEAR HAS SEEN HIGHER **NUMBERS IN AFFORDABLE** HOUSING PROJECTS. HAS THIS **CREATED AN OVERSUPPLY?**

Although actual handovers may vary substantially from expected supply figures, the possible risk of oversupply in the lower end of the market building is starting to emerge. Instead of adjusting supply to demand, few developers are taking the risky route of adjusting prices - by occasionally offsetting quality or shrinking their margins. This brings a significant amount of lower quality stock to the market which may find short-term investor take up on the back of lucrative payment plans, sometimes aided by the high level of marketing spends. If sales and tenant demand for such products has been overestimated, this may not be sustainable in the

WHAT IS THE BIGGEST CHALLENGE THE DUBAI REAL **ESTATE MARKET FACES?**

There are challenges both on the supply and demand side which have a multi-fold ripple effect on the market. We believe addressing actual end-user demand (those who are trying to move from rental to ownership to avoid



"AS PROJECTS CONTINUE TO BE PHASED OR **DELAYED, THE CONSTRUCTION INDUSTRY** IS INCREASINGLY FACING THE PRESSURE ON MARGINS IN THE BACKDROP OF AN **UPTICK IN CONSTRUCTION COSTS"**

penalising level of yields) is one of the foremost, followed by aligning residential supply of unit types to demand.

We also remain cautious of the market shift to off-plan sales and lucrative payment plans which continue to undercut both low and mid segment sale prices as well as adding systemic risk to the overall market - something which might require further regulatory strengthening.

Nonetheless, there are few positive outliners in the market. Demand for mid-prime residential market in core locations continues to stable, underpinning a portion of the residential investment segment. The maturing office market, with most new office stock coming in the prime segment, further cements Dubai's position as a global economic hub.

WHO WILL BENEFIT MOST BY ATTENDING YOUR TALK?

Real estate and construction industry professionals, homebuyers, developers, architects, urban planners and economists will probably benefit from the Talk. It will provide them with keys to understand real estate market drivers and fundamentals in Dubai, allowing them to forecast changes and fine tune their construction industry outlooks.

SPEAKER: SUMMIT: TOPIC: TIME AND DATE: 16:30 - 17:30, 26 November THEATRE:

David Godchaux, CEO, Core Savills **Business Talks**

The Ripple Effect of Dubai's Real Estate Market on the Construction Sector

Za'abeel Hall 1







With three years to go until Expo 2020 Dubai opens its doors to the public, construction work on site is now forging ahead.

Last month the organisers released images showing impressive progress being made on Expo's three theme districts – Opportunity, Mobility and Sustainability - while smaller pavilions for some participant countries have reached aboveground level.

Work on the districts began in March after Dubai-based Al Futtaim Carillion was awarded a AED 2.2bn (\$600mn) contract. The three theme districts will contain a total of 136 pavilions for countries, NGOs and commercial partners, while dozens of other 'self-built' country pavilions will be erected outside the theme districts.

Ahmed Al Khatib, Vice President of Real Estate and Delivery at Expo 2020 Dubai, said in October: "The first superstructure – buildings that have reached above-ground level – to emerge in the theme districts marks a key milestone in our journey to Expo 2020.

"It is an exciting period because these are areas of the Expo site that will be experienced and enjoyed by millions of people from around the world. We are making great progress in the construction and marking this milestone already means we are right on schedule."

The pace of development across the Expo site is accelerating now that the main construction phase is underway. At least 17 km of roads have been built to allow equipment and materials to access the site and infrastructure work is also well advanced, with three DEWA substations near completion.

Twelve tower cranes are currently operating on site, with a further 10 to be erected in the coming months. Each week, 6,100 cubic metres of concrete is poured on site.

From April 2018, participant nations will begin taking over their plots and start constructing their pavilions. All heavy construction is due to be completed by October 2019, a full year before the Expo opens on 20 October 2020.

The final portion of packages, which also has awards scheduled to run into next year, is the Horizontal/Infrastructure/Site Wide/Construction Packages, which include some of the largest components. Among them are elements for the Thematic District, including the precast concrete facade, vertical transportation, MEP, landscaping, pavilion facades and public shading.

By the end of this year, a total of 47 construction contracts worth \$3bn will have been awarded in 2017 alone.

DESIGN

A leading array of architectural talent has been hired to design the districts and the pavilions. The thematic districts, being designed by Hopkins & Partners, will cover

"WE ARE MAKING GREAT PROGRESS IN THE CONSTRUCTION AND MARKING THIS MILESTONE ALREADY MEANS WE ARE RIGHT ON SCHEDULE"

145,000m2 and will house more than 120 pavilions.

The UK's Foster & Partners won the design of the Mobility pavilion while Grimshaw Architects has designed the Sustainability pavilion and Bjarke Ingels Group (BIG) is designing the Opportunity pavilion. Spanish architect Santiago Calatrava secured the commission for the Falcon-shaped UAE national pavilion. A 6km long shade structure for the site is being designed by German firm Werner Sobek and Aecom is responsible for the design of the site's public realm.

The final piece of the design puzzle fell into place in April when the last major design element for the site was unveiled. Designed by renowned US architects Adrian Smith + Gordon Gill Architecture, Al Wasl Plaza will be a hub with a space 150 metres in diameter at its centre. A 65 metre high domed and translucent trellis will top the space off and double as a projection surface.

TRANSPORT INFRASTRUCTURE

Public transport is an important part of the event's sustainability

with Dubai's metro being extended to reach the site. Contracts for the 15km route extension, worth around \$2.8bn, were awarded to a consortium led by the French Alstom conglomerate, Spanish Acciona and Turkish Gulermack in June 2016.

The extension running between the Expo 2020 Dubai site and Nakheel Harbour and Tower station will feature seven stations and include 3.2km of underground track running through Dubai's Green Community development.

BUILDING A LEGACY

Expo 2020 Dubai's organisers have ensured that the site will have a strong legacy once it finishes. Around 80% of built assets will be reused when the site is transformed into a mixed-use location combining commercial, retail, residential, social attractions and exhibitions that will make the most of the site's location and existing infrastructure.

The event will open on 20 October 2020 and will run for six months until 10 April 2021, the year the UAE will celebrate its 50th anniversary.



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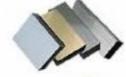
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INNOVATIVE ACCESS CHAMBERS

Hindrostank Hall: Hall 2 Stand No.: 2G76

Hidrostank is back at the show for the third consecutive year and this year will be presenting its innovative modular polypropylene access chambers for electrical and telecom ducting.

These access chambers represent a significant qualitative leap as they not only facilitate their installation but also improve their performance. Both these factors will enable contractors to enable the efficiency of civil works and speed up construction.

For both simple and reinforced manholes, they have developed a new frame for fixing the cover to the access chamber with no use of concrete. This frame also allows to level the frame to the slope of the street.

In reinforced models (from 80 cm on), they have replaced the reinforcing steel rod with a new angular.

The main advantages of these

precast manholes are that they are modular, innovative self-resistant (due to the use of reinforced polypropylene and a patented design), easy handling because of its lightness and cost effective and easily installed.

Compared to concrete access chambers, this product saves a lot of time (important when the runtime work is tight), as it does away with the need a crane for transport and handling and, therefore, it is much safer for the work force. Another added feature is that they are environmentally friendly as the raw materials come from recycled polypropylene and can be recycled.

Spain-based Hidrostank has more than 15 years of experience and an increasing activity in Europe, LATAM, Africa and the Middle East, particularly the UAE, Oman, Qatar, Jordan and Lebanon.



SIMPLICITY, EFFICIENCY, CONNECTIVITY

Neptronic Hall: Za'beel 5 Stand No.: Z5 G66

The new SKE4 series of resistive electric steam humidifiers is a revolutionary design that combines next-generation mechanical, hardware and software innovations to provide end users with unparalleled energy savings, ease of maintenance, cost reductions, application versatility, and web accessibility. The SKE4, with capacities ranging from 6 to 270 lb/hr, is designed to maintain close control on required humidity levels for commercial, institutional and industrial applications.

The design of the SKE4 enables the engineer/technician to remove only the evaporation chamber, without any tools, and without having to access or

manipulate any other component of the humidifier, including the heating elements, and steam hose. Accessing the evaporation chamber takes less than 20 seconds, which is 70% faster than most humidifiers on the market. Fixed heating elements and power cables reduce maintenance time and the weight of the evaporation chamber. The evaporation chamber hangs freely on the edge of the humidifier; which means no lifting, and reduced manipulation.

The SKE4 features a patentpending water level detection system that combines multiple sensors using different detection technologies. The sensors cross-verify their respective functions, which results in automatic self-zeroing throughout the lifetime of the humidifier. If one sensor fails, the other sensor takes over and ensures safe and uninterrupted operation while providing a local/remote warning – especially useful in critical applications, such as pharmaceutical or laboratory environments.

The technician/engineer to easily configure schedules and event-based conditions thus not wasting energy by operating or draining when not needed. Other features, such as BMS integration, IP communication, web services, and firmware upgrade make it adaptable to the requirements of the installation. Numerous diagnostics are available, and with the optional Ethernet module, the engineer/contractor and can monitor, configure and troubleshoot remotely without having to make a visit, which is more efficient and saves money. Factory application engineers can even access the



humidifier for technical support in real-time

By combining industry standards with unique innovations, the SKE4 is the new industry benchmark for ease of maintenance, energy savings, and reliability of electric steam humidifiers in the HVAC market.

Founded in 1976, Neptronic is a private corporation that designs, manufactures and distributes products for the HVAC industry. The new product line includes intelligent controllers, electronic actuators, actuated valves, humidifiers and electric duct heaters.

www.neptronic.com.













TESTING THE WATERS

SKZ German Plastics Center Hall: Hall 2 Stand No.: 2C90

SKZ German Plastics Centre provides a one-stop shop offering expert advice for independent, highest quality comprehensive testing, inspection, supervision for site installations and plastic products certifications solutions/ services.

Companies looking to source competent independent specialist solutions in polymer plastics can benefit from more than 55 years of experience that the company boasts.

They offer expert solutions/ services for all plastics including multi-layer pipes, fittings, manholes, geosynthetics, moulded parts & components, PVC window profiles, composites, fibre reinforced parts and several other plastic products.

SKZ - German Plastics Centre recently opened its fully accredited testing laboratory for plastic pipe systems in Wuerzburg, Germany.



As an accredited testing laboratory, the brand offers complete system $\,$ solutions for the polymer plastics industry.

In the region, SKZ training centre in Dubai is fully equipped with welding machines, tools and devices to provide the trainees with practical hands-on experience. Training courses for welding of HDPE piping systems, as well as welding of polymeric sheets and membranes are also offered.

Since 2008, the centre has

successfully trained and certified more than 850+ specialists according to the renowned German standards DVS and DVGW. The company also has an office in Abu Dhabi.

www.skz-me.com

SENSING AIR LEAKS IN DUCT SYSTEMS

Sensing Precision Limited Hall: Hall 1

Stand No.: 1G26

Air leakage from ducted distribution systems is important in the design and operation of ventilation and air conditioning systems. A ductwork system that has limited air leakage will ensure that the design characteristics of the system can be maintained. It will also ensure that energy and operational costs are kept to a minimum.

A duct leakage performance test is the most effective way to highlight leakage and enable an engineer to carry out the necessary repairs by either sealing or replacing a faulty duct. Many are unaware of the advantages made when diagnosed maintenance is carried out following a duct leakage performance test. These include considerable savings

in future energy bills as well as improved levels of occupant comfort.

Carrying out a duct leakage performance test with an ALF 150 PID from Sensing Precision is a simple process. One person can pressurise and examine the duct system for air leaks. The test involves pressurising the duct system with a high accuracy volume flow measuring device that simultaneously measures air flow and its effect on the pressure within the duct system. The tighter the duct system, the less air you need from the fan to create a change in duct system pressure.

Duct leakage measurements are used to diagnose and demonstrate leakage problems, estimate efficiency losses and certify the quality of the duct system. Testing is carried out to Standard DW/143 (Class A-D) or SMACMA and captured data outputs

in CSV format via SD card or mini USB cable.

A duct system that leaks can significantly increase air conditioning and heating bills, and dramatically reduce equipment capacity and performance. Equally, potentially dangerous indoor air quality problems can arise, and duct leakage contributes to many of the comfort complaints experienced by occupants today.

Duct leaks can create air quality problems by pulling pollutants and irritants directly into the building. Leaks in supply ductwork cause expensive conditioned air to be dumped into non-target areas such as above suspended ceilings, loft spaces & warehouses.



Leaks in return ductwork can draw air into the building from nonconditioned areas such as above a suspended ceiling or an industrial area bringing with it dust, mould spores, insulation fibres and other airborne contaminants.

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Acrysil International Hall: Rashid Stand No.: Rashid B191

Designer sanitary wares from Sternhagen have been launched here today for the first time in the Middle East and Africa region, by UAE's Acrysil International.

These innovative award-winning products were first introduced at European events and have enjoyed a positive response from interior designers and home builders. Sternhagen vanity basins, 3D wall tiles are made using Acrysil's patented material Sani-Q, which offers a smooth silky finish, unmatched elegance and durability in bathrooms. The range includes vanity wash basins, 3D quartz tiles, water closet, bidet and concealed rain showers.

Also being presented is a wide range of Carysil granite kitchen sinks – the company's flagship brand recognised globally for its designing excellence and sheer lasting value. Carysil sinks are as much a manifestation of stunning looks as much as being scratch & stain proof, easy to clean and maintain.

Carysil granite sinks are made of 80% natural quartz; the second-hardest material found on the earth's surface after diamonds. Each sink is moulded by a unique CNC-controlled polymerisation process of micro fine quartz material with high-grade acrylic resins & pigments. These composite sinks are very easy to maintain and remain as good as new even after years of use.

Together with these, Acrysil has also brought Quadro - handcrafted stainless steel kitchen sinks made of AISI 304 & AISI 316 grades of steel. When installed these composite sinks look and feel like natural stone. They are also scratch-resistant, heat-resistant, dent proof and fully hygienic. Due to its non-porous nature, they are extremely resistant to most household stains like tea, coffee, mustard and beet juice.

The company has also brought a premium range of water closets (WCs) and bidets in golden and silver

Acrysil first began designing and manufacturing composite quartz kitchen sinks under the 'CARYSIL' brand in India in 1987. The company is today a premier name in high-end world-class kitchen sinks crafted in quartz. These sinks are distinguished in design and styling. We proudly claim to win the trust of our customers in more than 50 countries across the globe.

As a result of a successful participation at last year's show, Acrysil International FZCO, UAE was set up to support customers in the rapidly growing Middle East and Africa market. In a short while the company has already established itself in this region, particularly in the project and retail segments in the UAE which constitutes a bigger proportion of Middle East turn over.

The team at Acrysil is looking forward to welcoming existing customers, to whom they plan to introduce the new products and strengthen partnerships. Also, having identified key emerging markets in Africa the company will be actively targeting visitors from those countries during the show.

www.carysil.com







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- Corrugated Sheet Lines
- Metal Roof Tile Machines
- UC Purlin Machines
- Mini Cut to length lines

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Dubai International Exbition & Convention Centre

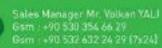
Stand No : SS2 D116 Hall No : Sheikh Saeed2



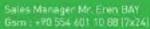














SPEAKER INTERVIEW

THE JOURNEY TO SUSTAINABILITY

How do you introduce sustainability at all levels of the built environment? Nandan Tavkar, Sr. Engineer – Sustainability, BuroHappold Engineering, explains.

WHAT IS MEANT BY SUSTAINABLE PRACTICES IN THE BUILT ENVIRONMENT?

The journey of implementing sustainable practices starts with the city level (macro), through the district/campus, onto buildings and finally to the most important aspect, the People (micro). In broad terms, this covers energy, water, environmental quality, materials, waste, transportation, etc.

HOW ARE SUSTAINABLE PRACTICES BEING ADOPTED IN THE CONSTRUCTION SECTOR?

Sustainability is generally implemented on the building scale via Green Building Rating Systems like 'LEED', and 'Estidama', and with mandatory guidelines such as 'Dubai Green Building Specifications and Guidelines'. We have seen this for around ten years. This has created a considerable support industry of suppliers, commissioning agents, testing companies, waste management companies, etc.

More recent trends include sustainable master-planning on a district scale and city-scale policies such as Demand Side Management, Etihad ESCO Building Retrofit and Shams Dubai Roof-Top Solar. Even more recent are the health and wellbeing related policies. These are relatively nascent and the support industries are not completely formed yet. There is a significant opportunity for businesses to enter this sphere and for government entities to understand the impacts of these programs and to focus their efforts towards their 2020, 2030 and 2050 visions through policy instruments and investments.

WHAT ROLE DO SUSTAINABLE STRATEGIES PLAY WITHIN



THE FRAMEWORK OF A CONSTRUCTION PROJECT?

Other than the obvious environmental factors and greenhouse emissions, the key roles include operational cost reduction, robust and resilient utilities and infrastructure management, and the creation of desirable and healthy spaces for people to live in and thrive, with the added benefit of improvement in productivity.

HOW ARE GCC STATES DOING WHEN IT COMES TO SUSTAINABLE CONSTRUCTION PRACTICES?

Within the GCC countries, UAE and Saudi Arabia are at the forefront of sustainable construction practices. Of the other GCC countries, Oman is now picking up momentum, having recently shown interest in renewables, and green building rating systems. Bahrain uses LEED

certification (Green Building Rating System from USA) for a lot of its developments. Kuwait has undertaken some Renewable Projects, and may be moving towards Green Building Rating Systems for its buildings.

WHAT ARE THE BIGGEST CHALLENGES THAT THE INDUSTRY FACES IN ADOPTING SUSTAINABLE PRACTICES?

The primary challenge is subsidised utility rates. It is difficult for energy efficiency and renewable energy businesses to make the financial argument while the rates remain artificially subsidised. Removal of some subsidy would be beneficial for the businesses implementing energy efficiency, water efficiency and renewables, and for the wider take up of more sustainable practices.

In terms of the construction industry, we have observed that there is this legacy of traditional, non-sustainable practices which a lot of the contractors, and even some consultants, still use. Through platforms like The Big 5, wider education and training and educational sessions in project meetings, it is possible to help them (contractors, and some consultants) unlearn non-sustainable practices, and outline the wider benefits of adopting sustainable practices.

Culture is also a major factor.
Currently sustainable practices are not integrated into our daily culture.
Awareness is necessary to create a culture of sustainability. This will be a key element to determine the success of the programs implemented by governments.

DURING YOUR TALK, WHAT WILL BE YOUR KEY FOCAL POINT?

While I will talk about integrating sustainability in various scales of the built environment, cities, districts, and buildings, it is the 'people' who are the connecting elements of each scale. The focus will be on how the ultimate beneficiaries of integrating sustainability in the built environment are you and me, and what we can in-turn do to help integrate sustainability.

WHO WILL BENEFIT THE MOST BY ATTENDING YOUR TALK?

Although the intention is to reach out to everyone in the Construction industry, it will be especially beneficial to property developers, policy makers, change makers, urban planners and architects, property owners and managers.

"WE HAVE OBSERVED THAT THERE IS THIS LEGACY OF TRADITIONAL, NON-SUSTAINABLE PRACTICES WHICH A LOT OF THE CONTRACTORS, AND EVEN SOME CONSULTANTS, STILL USE"

SPEAKER:
EVENT:
LOCATION:
TIME AND DATE:
TOPIC:

Nandan Tavkar Sustainability Talks Sheikh Rashid Hall 16:30 - 17:30, 26 November

Integrating Sustainability into all Scales of the Built Environment



نؤسِّس للمستقبل Shaping The Future



www.emiratessteel.com







SPEAKER INTERVIEW

THE CASE FOR ZERO **ENERGY BUILDINGS**

Everyone needs to become familiar with this concept which is set to become the norm. Darrel Strobel, Managing Director, MEP **Engineering, KEO International Consultants** explains why.

WHAT ARE THE CURRENT TRENDS IN MEP?

As a result of global acceptance and ratification of the Paris Agreement to combat climate change and global warming, there is a drive towards near zero and zero energy buildings. The concept is in its embryonic stage, particularly in the GCC region, but is starting to impact the way we will design buildings now and will do so even more in the future. As legislation is developed to encourage a reduction in the carbon footprint of our buildings, this will become more the norm and it is something everyone should become familiar with.

HOW FAR IS THE GCC IN ALIGNMENT WITH THE GLOBAL ADOPTION OF NET ZERO AND **NEAR NET ZERO ENERGY BUILDINGS?**

In the UAE, the Emirates Green Building Council issued a booklet earlier in 2017 defining nearly zero energy buildings (nZEBs) for the UAE and encouraging stakeholders to adopt them with the main aims of combating global warming, achieving a net positive built environment and decarbonising the economy (where economic growth and environmental degradation are decoupled). The concept is not currently included in local legislation for buildings, but as an understanding is developed in the coming months and years, the expectation is that this will happen which will therefore require building owners, designers and other stakeholders to adopt it. In

Europe, for example, legislation is being put in place that will require all new buildings to target near net zero by as early as 2020.

WHAT ARE THE IMPLICATIONS OF THESE CHANGES FOR THE INDUSTRY?

There are a number of challenges associated with targeting near zero net energy buildings, from understanding and defining the concept in the first place, to gaining recognition and uptake in the market place, to having educated clients who demand it in their new building projects. There is however one major requirement for making the concept of nZEBs achievable and that is the reliance on the technologies available for producing renewable energy on site. Manufacturers are constantly looking at developments to improve equipment efficiencies and reduce costs, and as there is increased demand for renewable energy. such breakthrough developments will occur. The whole industry will come to rely on them in the future.

CAN YOU GIVE US SOME **EXAMPLES OF LOW ENERGY BUILDING PROJECTS IN THIS REGION?**

In my presentation, I use a theoretical case study of a villa in the UAE to show the development required to achieve an nZEB project. We are currently working on a project in Dubai that we understand will be the first zero energy building in the GCC region, however we cannot discuss the details of this project at this stage.



"WE ARE **CURRENTLY WORKING ON** A PROJECT IN **DUBAI THAT WE** UNDERSTAND WILL BE THE FIRST ZERO **ENERGY BUILDING IN THE** GCC REGION"

There are many examples globally, two widely recognized ones are the Edge in Amsterdam and Apple Park in Cupertino, California.

DURING YOUR TALK, WHAT WILL BE YOUR KEY FOCAL

The presentation will start by making the case for nZEB and ZEB buildings, and will then discuss what it means in the UAE. I will also go through a theoretical case study in detail to show how the process works.

HOW DO YOU PLAN TO ENGAGE WITH YOUR AUDIENCE?

The presentation is very visual with difficult concepts explained in a graphical representation which makes it easier to grasp and understand.

WHO WILL BENEFIT THE MOST BY ATTENDING YOUR TALK?

Any stakeholders involved in owning, designing, constructing and operating buildings will be interested in the developments relating to nZEB happening around the world and in our region.

SPEAKER: SUMMIT: TOPIC: THEATRE:

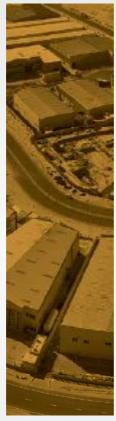
Darrel Strobel, Managing Director, MEP Engineering, KEO International Consultants

Net Zero and Near Net Zero Energy Buildings

TIME AND DATE: 12:30 - 13:30, 26 November

Za'abeel Hall 4







DUBAI INVESTMENTS PARK

Definition:

(i) A unique concept of a 'city within a city'. A benchmark in real estate with numerous integrated residential, industrial and commercial developments, Dubai Investments Park is the mix-developed hub of the city.

(ii) An area surrounded by leisure of life, nature, comfort and satisfaction making it a perfect destination to **live**, work and play.



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SEALED WITH EXCELLENCE

Al-Bahar Industries Company Hall: Hall 4

Stand No.: 4C186

Al-Bahar Industries has brought a range of their well-known products to The Big 5. On display are three of the company's distinct manufacturing lines - adhesives and sealants, detergents and automotive

Products within the adhesives and sealants manufacturing unit includes contact adhesive (HexaTex), PVA adhesive (HexaBond) with grades to cover a wide range of applications, roof coating membranes (HexaRoof & FlexiRoof) and silicone sealants (K-Seal, Super Seal, W-Seal, R-Seal , F-Seal and U-Seal) for different applications.

The detergents line includes white labels for big operators encompassing a wide range of products like dish cleaners, disinfectants, fabric softeners, glass cleaners, general cleaners, sanitisers and others, as well as own consumer brands such as Areej, Bareeq, Tino, Tube, Handy and more. Al-Bahar is also are a key player in supplying

institutional clients like hospitals. buildings and ministries with similar speciality products under the brand B.Ok.

Al-Bahar is licensed by Axalta to mix and sell its brand of automotive paints (Cromax and Nason). Information on these product lines is readily available at the stand on all four days of the show, in addition to a range of other products.

Based in Kuwait, Al-Bahar Industries was founded in 1972. The company is supported by a network of suppliers to collaborate with major international firms to produce products of quality. Partnerships include leading multinationals such as GE, DuPont, Dow, Sabic and others. The company is ISO 9001 and 14001-certified, working within strict environmental and manufacturing regulations.

Presently the company operates in four regional markets - Kuwait, KSA, UAE and Qatar - but has regular export activities in the entire Middle East and parts of North Africa with plans to cover the rest of Africa and East Europe.

www.albahar-industries.com





several new ranges in different finishes such as polish, matte, satin, antislip and lappato, in a large variety of colours and graphics, available in many sizes from 450x900 to 600x600, 300x600, 150x600, 300x300 and

solutions using advanced and state-of-the-art colour technologies. As well as for the ceramics industry, the brand also provides their expertise on applications in interior designing such as cabinets, carpets and furniture to ensure that tile colours match the remaining interior elements of the house.

The company wishes to show visitors the potential of getting Italian service and quality from China. Key advantages of their products are original design,

high quality, brand value, stock service, protection on the market, attractive packing presentation.

Starstile has developed a footprint in more than 30 countries, including

the US, Canada, Australia. The team is inviting visitors to their booth to be able to find "an investment for the future."

www.starstile.it

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DEVELOPING STRONG BONDS

Weicon Hall: Hall 5 Stand No.: 5C232

The manufacturer of adhesives and sealants Weicon from Germany has developed a new adhesive that is especially suitable for bonding different types of plastic.

Weicon Easy-Mix RK-7300 is a fast curing, solvent free structure and construction adhesive based on MMA (methyl methacrylate). The adhesive has a high-strength and a high viscosity, is impact resistant and withstands both static and dynamic loads.

Special fillers (glass beads), which have been added to the product, ensure a consistent bonding line of approx. 0.25mm. The adhesive allows a maximum gap-bridging of 1mm. High-

strength bondings are possible even in the case of low-energy plastics which are difficult to bond, such as PE or PP.

"RK-7300 is a universal multitalent when it comes to the bonding of a wide variety of plastics," says Holger Lütfring, product manager at Weicon.

The application of the new adhesive is not limited to the permanent bonding of various plastics. Its high viscosity characteristics also permits material pairing with different expansion coefficients, such as plastic with aluminum or steel.

The adhesive is particularly suitable for use in the plastics processing industry. RK-7300 can also be used in a variety of applications such as mechanical engineering or rail vehicle construction.

The company headquarters is located in Muenster, Germany and has been producing speciality products for the industry since 1947. The range of products includes special adhesives and sealants, technical sprays and high-performance assembly pastes and greases for all areas of industry - from production over repair up to maintenance.

Another field of activity is the development, sales and distribution of stripping tools.

Weicon has subsidiaries in Dubai, Canada, Turkey, Romania, South Africa, Singapore, in the Czech Republic and in Spain. The company has representatives in Italy and Qatar and partners in more than 100 countries all over the world.

www.weicon.com



VINYL ADHESIVES FOR VITAL STICKINESS

Vital Technical Hall: Hall 4 Stand No.: 4D192

Malaysia's Vital Technical is showcasing a range of its vinyl adhesives. The VT-780 Vinyl Adhesive is a high-strength, waterbased and easy-to-spread adhesive designed for installing vinyl floor coverings like vinyl planks, vinyl sheets, vinyl tiles etc. onto most types of subfloor surfaces. The adhesive will become tacky and is able to grab resilient vinyl floors, easing installation works especially when the subfloor is not 100% even.

Vinyl flooring has become increasingly popular due to its low-cost, resilient and durable characteristics. However, environmental and human factors at project sites could affect its installation works. V-tech VT-780 Vinyl Adhesive is specially

formulated to address these issues.

The key features of VT-780 include the following:

High Tack: The cement subfloor of some project sites can be unlevel due to poor workmanship. When a vinyl floor strip is installed on an unlevel subfloor, and if the adhesive is not sufficiently tacky, the strip will lift up even it is repeatedly pressed down. This problem is worse if the vinyl floor strip is stiff.

VT-780 will become tacky in about 30 to 40 minutes after being trowelled on subfloor. It is able to grab a stiff vinyl floor strip even on unlevelled subfloor, preventing it from lifting up, therefore greatly simplifying installation. Besides, its high initial grab strength also allows light foot traffic on the vinyl floor right after installation.

Long residual tack time: Workers can complete the



application in batches due to its long working time or long residual tack characteristic.

Repositioning of vinyl floors: VT-780 allows this without damaging the floor and affecting its bonding strength.

V-tech is one of the leading

providers of bonding and sealing solutions in South East Asia. They manufacture, package and distribute a wide range of adhesive, sealant and waterproofing products in a variety of market segments.

www.vitaltechnical.com



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A key and popular feature at The Big 5 is the Live Demos that take place on all four days of the event. Showcasing the latest and most innovative products to support your upcoming construction project, this is an interactive and engaging feature not to be missed.

Make the most of your experience at The Big 5 by witnessing innovation in action at the Live Demo area in Za'abeel Hall 3 today.















CONSTRUCT TECHNOLOGY AND INNOVATION

TIME	COMPANY NAME	PRODUCT BEING SHOWCASED	
Sunday, 26 November 2017			
12:00 - 12:30	Vetrotech Saint-Gobain	Contraflam	6
13:00 - 13:30	Milano by Danube	Foam Block Tiles	Gr.
14:00 - 14:30	Danaos Projects	ProjectView™	Ž,
15:00 - 15:30	KIMMCO	Climaver	<i>\$</i> \$
16:00 - 16:30	ALCHIMICA SA	HYPERDESMO®- 300	
17:00 - 17:30	Technical Supplies & Services Company L.L.C.	Mega Jaws (BB-01) Glass Crusher	క్ష్మ
18:00 - 18:30	KAN-Therm GmbH	KAN-Therm Press System	•
Monday, 27 November 2017			
11:00 - 11:30	Cobra Industrial Machines/ Fom Industrie S.R.L	Adir C	
12:00 - 12:30	Leminar Airconditioning	Galloway Acoustics Sound Attenuator	•
13:00 - 13:30	RUBI	TZ-1300 Professional Manual Tile Cutter	3
14:00 - 14:30	Effisus	Effisus EasyRepair membrane	<u>(</u>
15:00 - 15:30	Khansaheb Industries LLC	Spiralite Energy Saving Ductwork	<u> </u>
16:00 - 16:30	KGS DIAMOND	KGS SWIFLEX series	2
17:00 - 17:30	Doby Verrolec	Doby AeroSeal	
18:00 - 18:30	Ecotile Flooring	E500 Interlocking Floor Tile	e e e e e e e e e e e e e e e e e e e
Tuesday, 28 November 2017			
11:30 - 12:00	CALEFFI Spa	Fan Coil Kit 149 Series	•6
12:30 - 13:30	GAIA Awards	Award Ceremony	7
14:00 - 14:30	Planner5D	Interactive Design Tool	de de
15:00 - 15:30	Tri-Spectrum Co. Ltd	Spectra sockets	F
16:00 - 16:30	Castolin Eutectic	CASTOLIN OHM 2.4	3
17:00 - 17:30	APOC	585 Armor Flex	<u>(</u>
18:00 - 18:30	Samsung Electronics	360 Cassette	3 -19
Wednesday, 29 November 2017			
11:00 - 11:30	Human Recognition Systems Limited	MSite	رمج
12:00 - 12:30	Alcaplast	Concealed tank	(# (*)
13:00 - 13:30	Alayoubi Technologies	Smart House solutions	چ
14:00 - 14:30	Den Braven	High Tack	3
15:00 - 15:30	Wassertek Ltd.	Pipe Threading Machine	-
16:00 - 16:30	Novacolor Srl	CALCECRUDA	<u> </u>
17:00 - 17:30	Acme Engineering Products Ltd	MultiSensor IoT Platform	
17.00 17.00	Active Engineering Froducts Eta	Muttiselisor for Ftationii	

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DESIGN IS GREAT

ROLLING IN THE GOOD TIMES

ALUSOL Rolling Shutter Industries

Hall: Sheikh Saeed 3 Stand No.: SS3 B76

Alusol Rolling Shutter Industries has brought one of their most popular innovations to the show, horizontal sliding gear for shutters.

With heights up to 8m, the shutters are reputed for their durability under extreme weather conditions, in particular for this region with heat resistance of up to 70 degree centigrade. Their production maintains the British Standard, BS EN 1396, and the GCC standard, GSOEN1396.

The advantages of rolling shutters in the residential and commercial environment lies in the sun protection, acoustic and thermal insulation, weather protection, noise protection and most importantly, saving electric power consumption.

The shutters are available in a variety of colours, and boxes for rolling shutters of types 45, 90 degree and round boxes in different sizes from 150mm up to 400mm and variety of colours.

Other products being showcased include new coloured slats and also a range of their recently-launched remote control systems.

Established in 2006, the Kuwait-based company has been offering a range of insulated rolling shutter slats with sizes ranging from 39mm to 77mm. The company is a one-stop shop for rolling shutters and roll-up doors. Alusol uses the concept of a hypermarket in its operations — allowing the customer to order a wide variety of materials from insulated slats, boxes, accessories, motors and controls, all under one roof.

Good investments made with a dynamic approach in manufacturing, logistics, and







storage, have been responsible in guiding the company to become one of the leading rolling shutter manufacturing company in the GCC states and MENA countries.

The company's outlook for 2018 includes enhancing business activities with their new factory in Sabhan, with new products related to the rolling shutters. They are equipped with up-to-date European technology and high-tech equipment and machinery utilising good

quality raw material. As regular participants at the show, Alusol has enjoyed a successful working relation with The Big 5, and plans to continue their commitment next year and beyond. The company is targeting current ongoing housing compound projects in Bahrain and the UAE and is looking forward to meeting new customers from Bahrain, Oman, Iraq and Libya, as well as their existing partners from around the region.



WHY METAL TILE ROOFING?

TILCOR Roofing Systems Hall: Sheikh Saeed 2 Stand No.: SS2 A104

Returning to The Big 5, Tilcor is launching new products at the show this year - the Shake and Shingle concealed fastening systems. With Innovative interlocking between tiles these two new profiles can be fixed direct to plywood or battens.

Tilcor products have natural cooling properties, which will be attractive to buyers in this region. Stone coated steel tiles are combined with an insulated foil wrap that help to reduce heat, perfect for enduring hot Middle Eastern summers.

The metal tile roofs are in high demand due to properties that are lighter than a concrete or clay tile roofs, more durable than an asphalt shingle roof, easier to handle than long-run corrugated sheets and the most cost effective roof for transportation that provides a low carbon footprint.

The metal tile roofs have an

extensive choice of profiles, styles and colour options. The research and development in the design process ensures every product is manufactured in New Zealand using modern manufacturing techniques that enhance this durability and gives customers a product intended to last a lifetime. Metal tile is attractive to buyers for its long term durability and longevity by being wind, hail and fire resistant. These tiles are engineered to interlock and overlap in order to resist wind lifting and keep out the harsh elements.

The brand is at the forefront of improvements in paint technology. This involves the move from galvanised (zinc coated) to zincalum, a protective steel finished with natural stone chips to provide a significantly longer life. Made by New Zealand Steel this technology provides robust roofing that will withstand harsh environments.

Grounded in the Auckland roofing scene since the mid

mena.projects.thomsonreuters.com







1900's, Tilcor Roofing Systems are 100% made in New Zealand. The company is excited to showcase its high-performance roofing products to the Middle Eastern market. The Tilcor team is welcoming visitors

to their stand where they will share information and International Test reports on their new products and look forward to connecting with new distributors and key buyers. www.tilcor.com

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CONSTRUCTION'S 'GREENEST' PRODUCTS REVEALED

Judging panel shortlists finalists of The Big 5 GAIA Awards 2017



The winner will be announced at 10th edition of The Big 5 GAIA Awards ceremony on November 28, the third day of The Big 5 construction exhibition at Dubai World Trade Centre.

"The GAIA Awards is a reflection of the maturity level The Big 5 has reached and the new path drawn to immerse renewable energy solutions. It's the best way to recognize and award the companies and innovative solutions that might be known in a limited profile," said judging panel chair Anwaar Al Shimmari, Director of the Design Department - United Arab Emirates Ministry



of Infrastructure Development. Adding a global perspective from the judges table, Professor of Civil Engineering & Dean of the School of Engineering American University in Dubai Dr. Alaa K. Ashmawyobserves added: "The construction industry worldwide is responsible for a large proportion of carbon dioxide emissions and greenhouse gases. The inclusion of the GAIA Awards within The Big 5 exhibition and The Big 5 Solar conveys a strong message that the construction sector cares about sustainability and the environment."

"The Big 5 has proudly hosted the GAIA awards since 2008 in a consistent effort to honour those construction equipment and products that have truly integrated the concept of moving towards a more sustainable built

environment," said Josine Heijmans, Portfolio Event director of The Big 5. "The increasing demand for sustainable building solutions is becoming a global requirement and an unavoidable challenge for the construction industry. It is essential that we notice the top innovative products in order to allow a market growth that is free of interruption."

As a part of The Big 5, the judges will have plenty of opportunity to see the competing products on show, and to quiz the brands on what sets them apart from the pool of competing applicants.

Pulling ahead of 100+ companies that initially applied, the GAIA Awards 2017 winner will receive a prize of \$50,000 in marketing value as well as continued support and exposure across The Big 5 brand.

THE TOP GREEN PRODUCTS FOR CONSTRUCTION 2017



CASTOLIN EUTECTIC - DYOMIX®

With CleanTech dyomix® it is possible to easily produce a clean high-performance fuel from the oxygen and hydrogen naturally present in water.



CLIMASYS CONTROLS EQUIPMENT TRADING LLC – ACCUTROL AVC FUME HOOD CONTROL SYSTEM

The AVC Fume Hood Control System with the Insight Graphical User Interface provides for precise sustainable low energy airflow control, lower cost of installation and operation, safety and ease of use.



DOBY VERROLEC - AEROSEAL DUCT

Aeroseal is a duct sealing technology that can easily access leaks throughout the entire duct system without the demolition or disruption associated with manual sealing.



GLEN DIMPLEX – XPELAIR C4

The Simply Silent™ Contour range of axial extract fans effectively eliminates humidity, condensation and odour to improve air quality in bathrooms, shower rooms, cloakrooms and toilets.

COSPICON SA

${\color{red}\mathsf{COSPICON}}\,{\color{blue}\mathsf{SA}}-{\color{blue}\mathsf{COSPIBIO}}$

CospiBio pergola is designed in a way to make the most of sun's radiation and the natural circulation of air. This system enables energy reductions while setting and maintaining a pleasant temperature and favouring natural light.

GREEN STUDIOS

GREENSTUDIOS – LIVING WALL SYSTEM

Green Studios aims to occupy roof spaces and vertical walls to bring back nature to the cities, decrease air pollution, asthma, obesity depression, stress and create a more active green public sphere.



HIDROSTANK – PP ACCESS CHAMBERS

HIDROSTANK modular manholes can be installed by a single man in very little time compared to concrete access chambers, they do not need a crane for transport and handling and are made out of raw materials from recycled polypropylene.



KDK COMPANY – ENERGY RECOVERY VENTILATOR (ERV)

Using KDK Energy Recovery Ventilator (ERV) helps to achieve a green Lifestyle; outdoor air will be filtered and ventilated indoors and it will also effectively filter the indoor polluted air to outdoors.



PRIVATE JOIN STOCK COMPANY "VENTILATION SYSTEM" – TWINFRESH EXPERT RW1-50

TwinFresh Expert is the most stateof-the-art and efficient solution for a comfortable indoor climate and required air exchange in renovated premises, brand new recently inhabited houses or reconstructed apartments. November 26, 2017 THE BIG 5 SHOW DAILIES: DAY 1 33

METAL MARKET LEADER

Christian Witsch joined Al Ghurair Group in July as CEO of Gulf Extrusions. He shares his thoughts on the company and his outlook for the market

YOU STARTED AS CEO OF GULF EXTRUSIONS IN JULY. WHAT ARE YOUR FIRST IMPRESSIONS OF THE COMPANY?

Gulf Extrusions is a fantastic company with a great team and an excellent reputation in the market. It is great to hear from our GCC customers: "When we need good quality plus reliable supply, we order from you!" Similarly, our European customers have also expressed their satisfaction with the excellent Gulf Extrusions quality and service. I feel honoured to be given the possibility by the Al Ghurair family to lead this company towards further excellence.

WHAT IS YOUR STRATEGY TO TAKE THE COMPANY FORWARD?

At The Big 5 we will launch some innovations to meet today's requirements with respect to improved energy efficiency and fire protection products. These are very important topics for society and in line with the global trend towards more sustainable products. We take our responsibility in this field as the leading GCC aluminium extrusion company very serious.

This is reflected in all our improvements on the shop floor. Our investment in excellent SMS Schloemann presses helps a lot. We've built on a solid foundation which allows the upgrading with new billet heaters, modern PLCs and fast reliable profile handling and cooling systems. All of these have higher energy efficiency and less environmental impact.

Customers appreciate Gulf Extrusions' capabilities and quality as a best supplier in the GCC market. This is a very good starting point and further evolutions will



have to focus on preserving these strengths. The improvement path the company has taken over the last years was rewarded with the prestigious Mohammed Bin Rashid Al Maktoum Award for Manufacturing Excellence.

HOW WOULD YOU DESCRIBE THE OVERALL STATE OF THE MARKET RIGHT NOW AND WHAT ARE THE MAJOR FACTORS DRIVING IT?

The GCC is a market of huge potential with all the ongoing and future investments. There are lots of building and construction activities initiated and in the pipeline, especially in the light of Expo 2020 Dubai. In addition, it

is very encouraging that projects like the "The Heart of Europe" are shaping up. It shows that there is plenty of investor confidence in the Middle East region.

Aluminium facades and building system products, with their light weight and ability to be shaped in almost any way, can play an important role in all of these construction activities. In addition, developments within the global automotive industry, with the increased emphasis on aluminium extrusions to make cars lighter and more fuel efficient, present very good global market opportunities.

WHAT PRODUCTS ARE YOU SHOWCASING AT THE BIG 5 THIS YEAR?

Gulf Extrusions is a long-term exhibitor at The Big 5. From visibility to credibility, exhibiting at The Big 5 has hundreds of benefits for our business. This year we are presenting a wide range of products and systems from opening and sliding doors and windows to curtain wall



and relevant accessories - that fulfill every construction and architectural need.

Moreover, customers can choose from hundreds of different colours and finishes, ranging from a matt, gloss or metallic finish. We even offer the most sophisticated anodizing colours—. This choice is available for both the inside and the outside of the system, matching perfectly with the interior and exterior look of every property.

WHAT ARE YOU HOPING TO ACHIEVE AT THE SHOW THIS YEAR?

The show provides a powerful platform for meeting new customers, reaching out to existing clients and building a more established and reliable brand.

"THE SHOW PROVIDES A POWERFUL PLATFORM FOR MEETING NEW CUSTOMERS, REACHING OUT TO EXISTING CLIENTS AND BUILDING A MORE ESTABLISHED AND RELIABLE BRAND"

SPEAKER INTERVIEW

DISPOSING OF A WASTEFUL MODEL

The shift to a circular economy where nothing is wasted is just a matter of time, explains Sarfraz Dairkee, General Manager, M.A.H.Y. Khoory & Co and Secretary to the Board at Emirates Green **Building Council**

CAN YOU ELABORATE ON THE CONCEPT OF 'CIRCULAR ECONOMY'?

A circular economy is an alternative to a traditional linear economy (make, use, dispose) in which we keep resources in use for as long as possible, extract the maximum value from them whilst in use, then recover and regenerate products and materials at the end of each service life.

The circular economy aims for the elimination of waste through the design of products and business models. Its essence is to design products with no waste products that facilitate disassembly and reuse. It is a concept to ensure that solutions are creatively produced in a manner that can be broken back down at the end of life to the individual parts and materials that form that product.

In terms of building it would be a precast structural element that can be reworked/re-used rather than being sent to landfill. Materials are needed in a variety of modern products, and these materials can then re-enter the system as good as new.

WHAT ARE THE CURRENT TRENDS IN THE CONCRETE **INDUSTRY?**

The current practice in the concrete industry is slowly moving towards diverting the waste to raw material from the make, use and dispose model.

WHAT ARE THE CHALLENGES **FACED IN THE CONVENTIONAL** PRODUCTION MODEL? HOW **DOES THIS IMPACT THE INDUSTRY?**

The construction industry



"SMART PLANNING AND SUSTAINABLE **DESIGN COULD REDUCE ENERGY CONSUMPTION AND POLLUTION, BUT REQUIRE A NEW APPROACH TO PROJECT** MANAGEMENT- AN APPROACH THAT THE CONSTRUCTION INDUSTRY ON THE WHOLE IS NOT YET PREPARED TO UNDERTAKE"

has one of the largest carbon footprints of any industry. Considering the population, the current conventional take-make-

dispose model of linear growth puts exponential demands on the resources. This volume of natural resource utilisation is not sustainable and could compromise the environment for the sake of growth.

Achieving targets for global carbon dioxide emissions reduction will be a major challenge for the construction industry in rapidly developing countries like India and China.

Smart planning and sustainable design could reduce energy consumption and pollution, but require a new approach to project management- an approach that the construction industry on the whole is not yet prepared to undertake.

WHAT IS THE WAY FORWARD FOR INNOVATION IN THE **CONCRETE INDUSTRY?**

Innovative application of the technology with the emphasis on the life cycle and adapting to a way of doing things where nothing is wasted and the resources are rejuvenated and utilized with a different life!

WILL YOU BE PRESENTING **ANY PARTICULAR CASE** STUDIES? IF SO, CAN YOU SHARE THEM WITH US PLEASE?

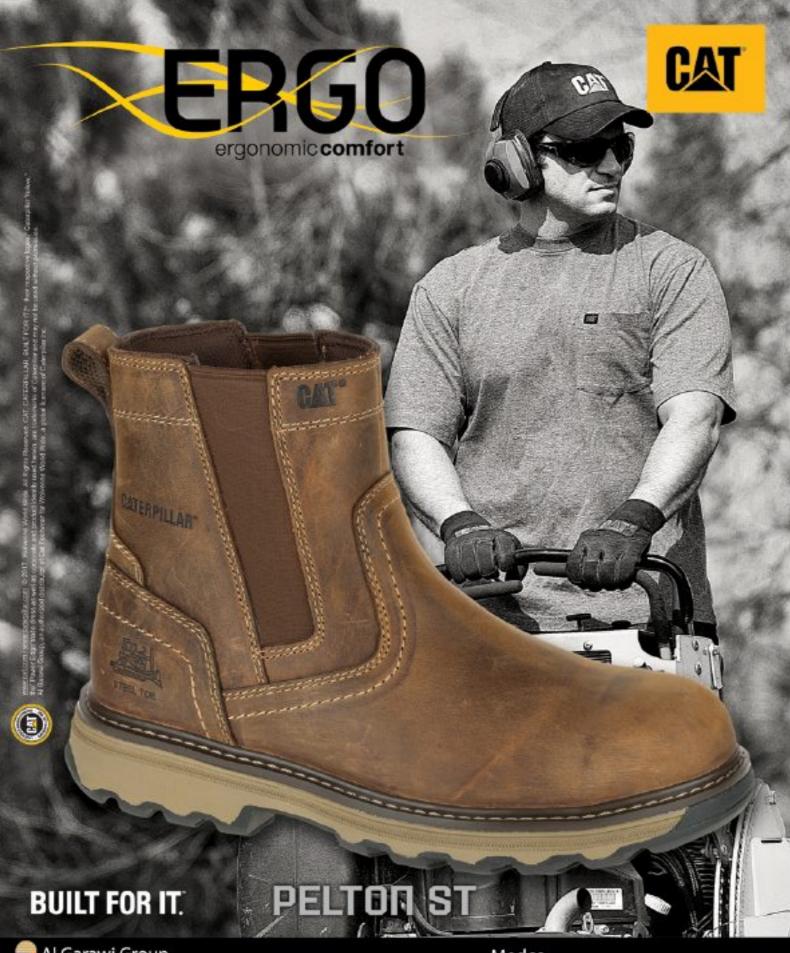
The federal government in general and Dubai in particularly have put in place the directives and regulations that is providing impetus to the accelerated adoption of sustainable practices, innovation and adoption of technologies that encourages the circular economy. Lego type pre-cast concrete blocks are now getting to the market and that is a good example of recycling due to likely high value end of life usage.

SPEAKER: SUMMIT/TALK: TOPIC: TIME AND DATE: 16.45 - 17.15, November 26 THEATRE:

Sarfraz Dairkee, General Manager, M.A.H.Y. Khoory & Co and Secretary to the Board at Emirates Green Building Council The Big 5 Innovation in Precast Summit

The circular economy and the way forward with Innovations in the concrete Industry

Al Multaqua





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Tel.+966 11 4196096 / 4195058
Fax. +966 11 4196101 / 4196103
Email: zakir@algarawigroup.sa / cesar@algarawig

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Medco

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Tel.: +971 4 881 8821 Fax: +971 4 8818944,
Showroom: Al Kwakeb Building. (B-Block) Sheikh Zayed Road,
P.O. Box: 2904, Dubai, U.A.E
Tel.: +971 4 343 7400 / 343 7500 Fax: +971 4 3437600
Email: rajesh@algarawigroup.sa / medco@algarawigroup.sa



Swisspearl Hall: Sheikh Saeed 3 Stand No.: SS3 E61

Swisspearl will introduce a range of creative facade panels to visitors at their stand. The Swiss company has brought two of their specialised products, one of which is described as a "2 and 3D expression of architectonic creativity".

A façade is the defining element of every building and the Swisspearl Façade Panels leaves lasting impressions with their installations. These panels are the leeway available for accentuation and differentiation. They combine diversity of design and long-lasting functional reliability, to achieve high living standards, while their long service life ensures lasting comfort.

Swisspearl panels are installed in accordance with uninterrupted rear ventilation technology. This fully-developed and proven cladding system effectively protects the building structure and with it the whole building. The panels are rot-resistant, incombustible and virtually maintenance free.

The company will also showcase

the Swisspearl large size fiber cement panels, which allows a freedom of design without limits. Within the Swisspearl colour range are more than 85 variations available. The panels are integrally coloured with a transparent or pigmented acrylic top finish shade.

The large-format Swisspearl panels give façades what they need: a face, individuality, character, texture, colour and, most importantly, a highly effective protective layer. Swisspearl allows an immense range of possibilities for the design of façades, with an extensive selection of surface options, various types of joints and fastenings and panel formats that can be freely selected within the maximum useable size.

The products from their workshops in Niederurnen and Payerne in Switzerland have become an essential part of Swiss building culture, also having earned an international reputation. 95% of Swisspearl is made up of natural raw materials from the Swiss mountains: cement, pulverized limestone, water and air. This ensures an effective protection of material resources, avoiding unnecessary transport distances.

When developing its products, Swisspearl draws on its own history, and examples of pioneering architecture, as well as seminal advancements in technology.

www.swisspearl.com





and machinery for the brick and tile industry, starting from the study and engineering of the project, up to the construction and installation of machinery needed for a complete factory.

The company has built its reputation by achieving high technological standards for its machinery, employing qualified and experienced personnel and providing reliable consulting and after-sales support services. These are the main targets in its attempt to provide profitable and successful projects to its customers.

Its product range includes all

machinery for the brick and roofing tile industry starting from the cutting line up to the packaging line.

The company supplies brick plants as turnkey projects and offers a complete range of automations for the loading, unloading of the dryer and kiln, firing and drying systems, packaging lines, dryer and kiln equipment, chamber, tunnel and rapid dryers, tunnel kilns, automatic regulation, robotic and smart factory applications.

Currently, 97.5 % of the company's

sales are exclusively in exports into markets such as Europe, Africa, Middle East, Asia and Latin America with completed projects in more than 40 countries.

Founded in 1984, SABO is the eldest member of SABO Group, a group of companies structured to create synergies in offering complete and integrated projects. It is located in Greece, in a privately owned 25,000 sqm area with manufacturing facilities in Romania and Brazil.

The Group occupies specialised employees from multiple sectors of expertise while each of its member companies concentrates in a specific area, ensuring a vertical integration, which is important for turnkey projects in several sectors (brick & tile, general industry, waste, energy, civil works, etc.). Its members operate independently but also act as one unit when the needs of their clients are calling for a turnkey solution.

www.sabo.gr



SPEAKER INTERVIEW

MAKE YOUR CONTRACT DISPUTE PROOF

Nabeel Ikram, Partner at international law firm Hogan Lovells, on the most common causes of construction disputes and how to avoid them





WHAT IS THE THEME OF YOUR TALK?

The focal point of my talk will be the big 5 areas to consider when resolving the disputes and how they can be effectively managed without lengthy and expensive formal proceedings arising.

WHAT ARE THE TOP 5 CAUSES OF CONSTRUCTION DISPUTES?

Design: Errors in design or lack of complete information as to the design can lead to delays and additional costs, which can ultimately lead to disputes.

Variations: Lack of clear definition of the scope of work can lead to delays and additional costs and ultimately disputes. Variations are often sources of dispute, either in valuing the variation, or agreeing whether part of the works constitute a variation at all.

Delays/Extension of Time:

Disputes frequently arise in respect of delays and who should bear the responsibility for the same. This often arises from over-ambitious programmes and/or unrealistic timelines, which have little scope for contingencies to arise.

Quality/Defects: Disputes often arise as to whether or not the completed work is in accordance with the specifications.

Supply chain: Employers and contractors working on construction projects work with a wide range of sub-contractors creating a long chain of contracts. Issues cropping up at one contractual level in the said chain can trigger a domino effect and lead to disputes at other contractual levels.

WHAT ARE THE CONSEQUENCES OF CONSTRUCTION DISPUTES AND WHAT ARE THE BEST WAYS TO RESOLVE THEM?

The consequences of construction disputes can be far-reaching and relate to:

- The delivery of a project (delays, costs and reputational damage);
- On a macro-level, the economy in the region as the failure to resolve

disputes and enforce decisions may lead to decline in investors' confidence in the markets and potentially withdrawals of investment.

Disputes are unfortunate facts of life in many construction projects and are sometimes unavoidable. What can be, however, avoided are long and expensive litigation/arbitration proceedings by spotting at a very early stage issues that may lead to disputes. To do so, effective management and certainty in relation to the parties' obligations in the contract are key.

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HOW IS THE INDUSTRY MEETING CHALLENGES IN DISPUTE RESOLUTION?

The industry is meeting the challenges by using standard form contracts which aim to ensure certainty as to the parties' obligations and contain clear dispute resolution clauses. In the GCC, the FIDIC Form of contract is considered best practice and is widely used. Most standard forms are amended to take into account the parties' preferences and allocation of risk. But these changes are often made without the benefit of legal advice, can lead to uncertainty and be a source of disputes.

WHAT ARE THEY MAIN TYPES OF DISPUTES OBSERVED IN THIS REGION?

In the GCC, the bulk of the disputes are real estate and construction ones. Most construction disputes arise from the aforementioned

WHO WILL BENEFIT THE MOST BY ATTENDING YOUR TALK?

Anyone that may be involved in a dispute. This could be developers, contractors, sub-contractors, suppliers or consultants.

SPEAKER:
SUMMIT/TALK:
TOPIC:
TIME AND DATE:
THEATRE:

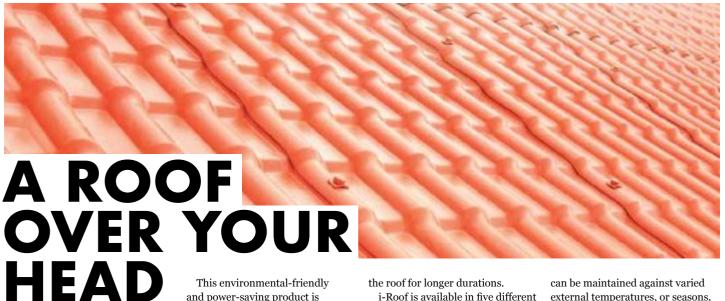
Nabeel Ikram, Partner, Hogan Lovellscil

Business Talks

Big Five Areas to Consider when Resolving the Inevitable Construction Dispute

14:10 - 15:10, 26 November

Za'abeel Hall 1



Idea Industries Limited Hall: Sheikh Saeed 3 Stand No.: SS3 E57

Idea Industries Limited has brought a range of branded roofing solutions to the show. The highlight of their showcase will be a range of Spanish-styled roofing sheets for residential, commercial and industrial applications.

This environmental-friendly and power-saving product is manufactured with a special synthetic resin formula and uses a layer of ASA material (acrylonitrile styrene acrylate) that extends the sheets' life time and its all-weather resistant quality. This formula has a high resistance to the heat from the sun and so helps reduce the energy that is built up within interior spaces while also cutting harmful UV rays. These features help maintain a cool and comfortable environment while also preserving

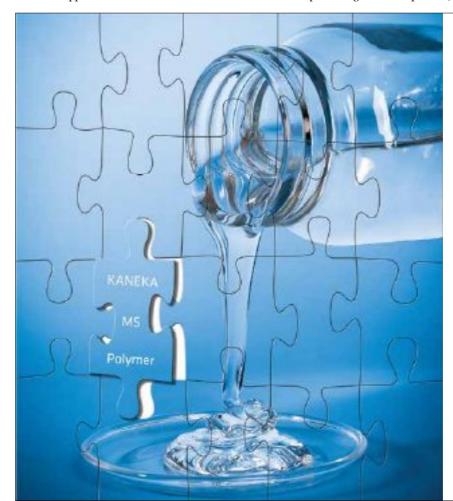
the roof for longer durations.

i-Roof is available in five different colours. They come in a standard width of 3 feet and 5 inches, with 10 different height options - 5'9" to 20'10". The product is eight times lighter than traditional clay tiles, the company says. The maximum weight of a square fot of i-Roof sheet weighs only 500 grams. This means that the structural material consumption is comparatively low, saving costs and installation time. Due to the non-absorbent nature of this product, a constant weight

can be maintained against varied external temperatures, or seasons, making it a strong a durable choice of roofing.

Based in Colombo, Sri Lanka, Idea Industries is a subsidiary of Idea Group Limited. It was formed in 2008 and has been successful at building a reputation in the regional and international market. The company aims to become a global leader in the roofing industry by consistently evolving their offerings.

www.iroof.lk





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OpenAire Hall: Sheikh Saeed 1 Stand No.: SS1 A121

The latest retractable enclosure developments from a portfolio of waterpark projects from around the world are being showcased here at the show.

US-based OpenAire is offering new construction techniques for retractable windows and sidewalls, which will allow entire walls to open wide to the sun and outdoor air in ways never seen before.

Also in focus will be ETFE, a glazing material for retractable enclosure panels. This ultralightweight, highly-flexible material provides exceptional UV protection while offering the ability to be shaped to almost any design.

One of the signature features of OpenAire's designs is their adaptability to weather conditions. OpenAire uses thermally broken aluminum alloy frames and large, glazed panels. These materials allow the structures to provide flexibility for clients in their designs, as well as drastically reducing maintenance costs. Clients can open the roof in the winter and close it in the summer to allow for 100% utilisation of their venues, 365 days a year, while still maintaining an outdoor atmosphere.

Examples of projects in the Middle East include Sharjah Mall which features a sunlit outdoor atmosphere beneath its large elliptical shaped skylight dome, offering the shelter and UV protection of an indoor mall.

The benefits of an OpenAire enclosure are even greater for owners of water parks and aquatic attractions, where the structures naturally vent moisture and pool chemicals when open. Operable water park enclosures also reduce energy costs such as air conditioning, HVAC and lighting up to 27% compared to traditional



Cay Water Park in the US have enjoyed lower energy use after installing OpenAire enclosure solutions.

The company is dedicated to

The company is dedicated to creating complete architectural solutions that either stand-alone or integrate perfectly with other structures.



www.openaire.com



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Ausonia Nanutti Beltrame Hall: Hall 4 Stand No.: 4 E180

Ausonia Nanutti Beltrame S.p.A. is a historic company from the industrial region of Maniago in northeast Italy famous for the production of blades. The company has grown since the end of the First World War and now operates two manufacturing sites.

Ausonia has developed a worldwide reputation for the quality of its knives, scissors and tools for

building, agriculture, gardening and catering. It boasts a range of more than 3,000 items, known for their quality, reliability and tradition with more than 3,000 distributors and retailers in Italy, Europe and the rest of the world.

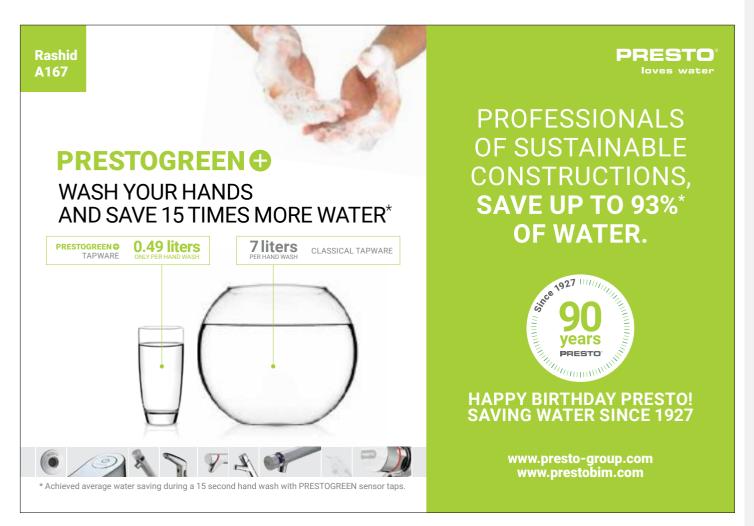
Products are tested for use in the

harshest climates and therefore are perfect for use in the Middle East. For that reason, at The Big 5 this year the company is hoping to attract new distributors in this region. Ausonia will showcase its full range of trowels, chisels and hammers for the construction industry. Its ever-

growing range of products means this year it will surely have something new to present to visitors to its stand.

Ausonia adheres to the highest European standards and guarantees full compliance with the strictest parameters of quality and safety.

www.ausoniatools.com



AROUND THE WORLIN 40 YEARS

Gamma Meccanica S.p.A. Hall: Hall 5 Stand No.: 5A222

Gamma Meccanica S.p.A. celebrates 40 years of activity, an important goal achieved thanks to the customer's confidence. Established in 1977, the company consolidated the experience and the competence, that combined with innovation and industrial diversification allowed the expansion of Gamma Meccanica all over the world. Today the company is present in five continents with the lines for the production of insulation materials and systems for recycling of plastic materials.

Gamma Meccanica S.p.A. is one of the leading companies in the world that specialising in the mineral wool production lines (individual machines and complete lines for the production of mineral wool: rock wool and glass wool).

The company manufactures also special lines for production of pipe

sections and stitched mattresses, lamellar production lines, ceramic fiber machinery and rock wool and glass wool hydroponic production lines. Since 1990 Gamma Meccanica S.p.A. designs and realises also complete lines and single machines for the production of XPS boards. The capacity of the line for the production of extruded polystyrene (XPS) boards can vary from 300 to 1,500 kg/h, equivalent to 70,000-300,000 m³/year.

Gamma Meccanica's machineries offer high performance and advanced technology. Gamma Meccanica uses structural simulations FEM (finite element method) to improve the mechanical efficiency and the productivity of existing machines, mainly, in the research and development of new technological solutions.

The FEM analysis allows the company to calculate the structural behavior of mechanical details of the

different machines and to replicate virtually a real complex process (e.g. aerodynamic flow within a chamber), and to modulate some key stages of the production process (e.g. formation of the fiber starting from the melt).

To meet and exceed customer

requests the company constantly improves upon quality and maximum energy efficiency – through the evolution of technology and a high level of technical support, in compliance with the strictest environmental standards.







QUALITY MADE IN **GERMANY**







KNIPEX Hall: Za'abeel 2 Stand No.: Z2 P117

Plier specialists KNIPEX is exhibiting at The Big 5 for the seventh consecutive year, showcasing products and providing onsite demonstrations and training sessions.

Since 1882, the company has focused on technologies needed for the production of their pliers. From the product concept to the dispatch of finished pliers to customers: everything is done under one roof. KNIPEX influence all steps of value creation in terms of quality and efficiency and makes continuous improvements.

With more than 400 machines, their product range reflects the specialised knowledge of

generations. Many of the machines are built in house or are adapted to high standards using components the company has manufactured. In many cases KNIPEX programmes the software for the control and operation of the machinery.

KNIPEX tools have been used across various industries including construction, electrical and solar power, oil and gas, aviation and marine, with typical fields of specialisation including cooling and refrigeration, cable cutting, gripping, fixing, crimping, pinching, tightening and fixing.

Whether cutting cables on a construction site or stripping cables in a workshop, the brand promises a high degree of reliability, durability and service

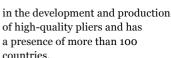
Headquartered in Wuppertal, Germany, the company specialises





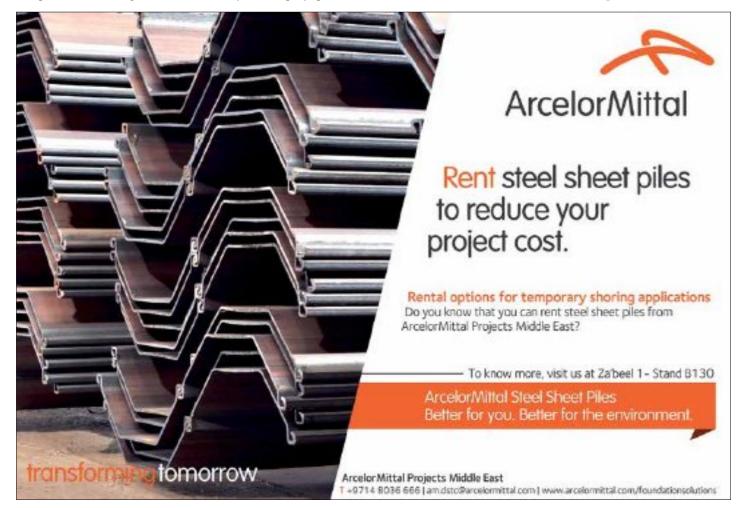








KNIPEX also provides advice and training, and supplies extensive digital product data. www.knipex.com





URKEY





URKEY'S COMMERCIAL PARTNER IN THE GULF REGION



\$9BN+

THE TOTAL VOLUME OF BILATERAL TRADE BETWEEN TURKEY & THE UAE IN 2016



\$5.4BN

TURKISH EXPORT TO THE **UAE IN 2016**



\$3.2BN

EXPORTS TO KSA IN 2016, FROM \$555MN IN 2002

"WITH ALL THE MEGA PROJECTS CURRENTLY **GOING ON, AND THE HIGHLY-ACTIVE** CONSTRUCTION INDUSTRY IN THE **UAE, THERE ARE PLENTY OF BUSINESS OPPORTUNITIES FOR TURKISH COMPANIES IN**

THE GULF ARAB COUNTRY. THANKS TO THE EXCLUSIVE **COOPERATION AGREEMENT BETWEEN DMG EVENTS AND EXPOTIM,** WHICH SUPPORTS **AND INTRODUCES TURKISH EXPORTING COMPANIES TO THE UAE CONSTRUCTION MARKET** THROUGH PRESTIGIOUS **EVENTS LIKE THE BIG 5,**

TRADE BETWEEN TURKEY AND THE UAF WILL SEE RECORD-BREAKING HEIGHTS IN THE FUTURE."

ELIF KAYA, **Expotim head of marketing**



15.5%

Y-O-Y GROWTH OF TRADE IN H1 2017

36%

INCREASE IN BILATERAL TRADE IN 2016 COMPARED TO THE PREVIOUS YEAR



MARKET SHARE ⊞∐ \blacksquare Ħ Ħ IN THE UAE MORE **THAN DOUBLED FROM 2.2% TO 5.5%** IN H1 2017.



\$36.4BN

TOTAL VALUE OF INFRASTRUCTURE AND CONSTRUCTION PROJECTS WON BY TURKISH
CONTRACTORS IN FIVE
YEARS TO THE END OF 2016 IN THE WHOLE ARAB



\$9.7BN

TOTAL VOLUME OF PROJECTS THAT TURKISH CONTRACTORS HAVE UNDERTAKEN SINCE 2002 IN THE UAE





- Building materials Interior fittings
- Building envelopes
- Construction technology

TURKEY IS UAE'S

- 15th biggest global trade partner
- 6th largest importer
- 13th top exporter

ARTEMIS A.S

Hall: Rashid

Stand No.: Rashid C240

Sector: Building Interiors & Finishes



Acrylic and hydro massage bathtubs, showers, shower trays, as well as bath enclosure, compact system and SPA is being presented by Artemis A.S. Here today, they have also unveiled their new range of solid surface shower trays, bathtubs and washbasins - all examples of modern fine design. These products are made from raw materials sourced from across Europe such as acrylic from Lucite (England) and Altuglas (France) and hydro massage components from Italy, Germany, Spain and from Balboa (US).

Established in 1997 in Istanbul, the company has approximately 140 models of bathtubs in different sizes and 140 models of shower travs in varying sizes with different sizes. The company today exports their products to 27 countries.

www.artemis.com.tr



KOSEDAG TEL ORME CIT SAN. VE ITH. IHR. A.S.

Hall: Za'abeel 2 Stand No.: Z2 K111

Sector: Construction Tools & Building Materials

Fences that shine

Unseen before, a solar-powered illuminated fence is being showcased at the KOSEDAG Fence stand.

KOSEDAG Fence is a specialist in high security perimetre systems as well as decorative and industrial systems. The company was founded in 1978 in Istanbul, when it claimed the reputation for being the first company in Turkey to produce mesh wire and fence and today exports to more than 65 countries. In collaboration with their worldwide solution partner SIBERTEK Inc, KOSEDAG also offers advanced physical security systems. KOSEDAG is welcoming visitors and prospective partners to discuss their unique fence solutions.

www.kosedag.com.tr

GUL PRES DOKUM SAN. (GPD)

Stand No.: Rashid D240

Sector: Building Interiors & Finishes

Armatures of style

GPD has returned to the show this year with their extensive ranges of bath and kitchen armatures, valves and plastic products. New this year is their latest models of armatures.

Founded in 1978, GPD has a deep rooted place in their domestic and foreign markets for the production of bathroom and kitchen armatures, taps and water, gas, radiator valves & unions, main water entrance connecting products as well as bathroom fittings, flush mechanisms, concealed cistern, seat covers and plastic pipes. The company offers a 5-year warranty on their products.

GPD's manufacturing facility is located in Istanbul-Beylikduzu, and exports to more than 30 countries all over the world.

www.gpd.com.tr





INTRODUCING THE X FACTOR

Exactal Hall: Za'abeel 6 Stand No.: Z6 F30

Exactal is introducing their CostX range of products at the show this week to a new audience that could benefit from its powerful volley of features. The highlight of their stand is the latest release of CostX 6.6, which contains a range of new features including the ability to select multiple dimensions on 2D drawings at once and apply actions to them. One of the fastest growing and most recognised names in the takeoff and estimating software industry, CostX is used throughout the Middle East and 80 countries around the world by quantity surveyors, builders, subcontractors and estimators, from SMEs to large enterprises. It is also highly regarded as an academic implement and is taught at universities

globally. CostX facilitates the implementation of a BIM workflow with a range of compatible features, including support for Revit BIM files and IFCs, ability to automatically extract quantities or manually measure from a model, ability to add information (such as QS-IDs) to the model, ability to link 2D drawings to BIM, ability to link BIM takeoffs to phraseologies, and more. In addition, a variety of 2D drawings (scanned, PDF, CAD and more) are still supported. The software helps save time, add more flexibility with the ability to load scanned, PDF and CAD drawings and 3D BIM models, to never miss a quantity with our powerful auto-revisioning tool to compare drawings, and highlight



changes and update quantities automatically. Furthermore, they help eliminate copy-paste errors, impress clients by producing customised, professional BOQs & other reports, go paperless with one fully integrated system – access all your estimating in one location and save on printing costs. One of the main reasons for the increasing interest in CostX is its ability to work with BIM. With standards and mandates quickly evolving, experts note that BIM compatibility is key for future development. Exactal has

a proven track record of innovation, with continual development of the CostX platform to remain abreast of changing industry technologies, and ahead of the competition. The CostX software platform is entirely developed and owned by Exactal which means the company is highly responsive not just to changing market conditions, but to the needs and demands of their users as they implement and develop their CostX-based service offerings.

www.exactal.com

IN SUPPORT OF THE INTERNET OF THINGS

Distech Controls Hall: Za'abeel 6 Stand No.: Z6 E36

The ECLYPSE Connected BACnet/ IP and Wi-Fi HVAC Controller Series by Distech Controls provides powerful connectivity, advanced control, monitoring and analysis, to prepare users for the Internet of Things building.

The Canadian energy management solutions provider is launching this solution in the region for the first time at the The Big 5. The controller is designed to control terminal units such as fan coil units, chilled beams, ceilings and heat pumps by offering empowered connectivity, with building management systems now able to leverage and converge with a building's IT infrastructure to share a common and secure IP network.

These ECLYPSE Controllers allow for the choice between wired

IP and Wi-Fi – or a combination of both on one controller while ensuring that communication is relayed with its integrated fail-safe feature.

As part of the ECLYPSE
Connected BACnet/IP and Wi-Fi
HVAC Controller Series, these
controllers facilitate data exchange
with its documented RESTful API
and provide unique opportunities
for value-added services, with the
ever-expanding range of available
Internet of Things building
management and tenant services
applications. The documented
RESTful API interface enables to
create personalised custom mobile
apps, dashboards and analytics
tools.

Its embedded ENVYSION, web-based HTML5 design and visualisation interface and easyto-use pre-loaded configurable applications ease and improve the installation and configuration process, thereby enabling significant time and cost savings. BTL listed as a BACnet Building Controller (B-BC), the controllers also feature embedded schedules, alarms and trend logs.

In addition, the

Connected Terminal
Unit Controllers
support the company's
Smart Room Control
solution, a unified
system for the
control of HVAC room terminal
equipment, lighting, and shades/
sunblind. The ECLYPSE PTU
controllers can bring IP-based
connectivity to this unique and
modular solution, resulting in
the highest levels of comfort for
occupants, as well as operational
cost savings.

An innovation leader in energy management solutions, Distech Controls provides building management technologies and services that optimise energy efficiency and comfort in buildings, while reducing operating costs. The company serves multiple market segments through its worldwide business divisions, service offices and a superior network of Authorised System Integrators. Distech Controls, Inc. is a subsidiary of Acuity Brands Lighting, Inc.

www.distech-controls.com

SunMan

Hall: Za'abeel 6 Stand No.: Z6 A01

SunMan is presenting a line of renewable energy technologies and products at The Big 5, and in focus will be eArche. The company describes the range as a technology that "turns the building skin into green electricity generators".

eArche products are developed by a patented technology and have several unique features. There are four types of commonly-used eArche products which are ultalight. While conventional panels with a wind load of 2,400 Pa weigh between 22 and 27 kgs, eArche panels weigh just 7.4kg. They offer flexible designs, adding aesthetics to a building structure. The installation process of these panels is easy as is their transportation.



eArche can be deployed across a broad range of solar applications. They have an advantage of high output power similar to conventional crystalline silicon modules, and are as flexible as thin film modules. These panels can withstand extreme winds (2400 Pascal).

SunMan has developed

new patented materials and encapsulation processes to fulfil these features. The qualified materials and stringent quality control ensure a robust durability of the products, which are certified to IEC61215 standard. SunMan has earned a good reputation with its portfolio of projects spanning across nations including Japan,

China, Thailand, the Philippines and Australia.

The company believes that eArche has the potential to dramatically change the way solar is deployed in the market. SunMan is registered in Hong Kong with a subordinate R&D branch in Qingpu District, Shanghai City. www.sunman-energy.com



WELLNESS IN THE AIR

Airwell Residential SAS Hall: Za'abeel 6 Stand No.: Z6 D31

For 70 years, Airwell has specialised in air conditioning systems and thermal solutions for individuals and businesses. Since its inception in 1947, the manufacturer has been a sought-

after reference for the sector in France, Africa and the Middle East, and at the time also the first. Today, Airwell Residential is a leading supplier of air conditioning systems for residential and commercial customers, benefiting from their extensive product

www.airwell-res.fr

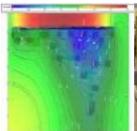


most respected Dewatering Specialists and Leasing & Rentals Company for Construction Machinery in UAE & GCC. In the arena of commercial and institutional construction, we have proven our ability to continuously take on and complete Proven and consistent performance makes us the choice for many of UAE & GCC's most successful Oil & Gas, structure and Construction Compan





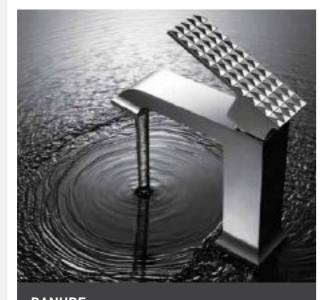
Pumping Tests and Modeling **Equipment Rental**





For Inquiries: Call: +971-4-323 2440 Email: dewatering@transmak.ae





DANUBE Hall 3 3A131 MEP Serivces

Milano presents a wide variety of faucets of distinguished design from classic to neo-classic, and from contemporary to modern. Manufactured in three different countries - Italy, Spain and China, Milano faucets share the same technology, raw materials and galvanisation procedures. They faucets use galvanic machineries that are set on Italian manufacturing standards and use technologies made in Spain. These faucets are available in a range of plating surfaces including chrome, gold or any other RAL colour. www.milanoitalysrl.com





NEA STEREOTIS Sheikh Saeed 1

SS1 A166

Building Envelope & Special Construction

Stereotis is a family-owned company based in Cyprus and specialised in interior and exterior doors. Their collection includes laminated, veneer and solid doors in a range of colours and designs.

www.stereotis.com

HÜRNER

Visit us at Hall 2 Stand 2D61

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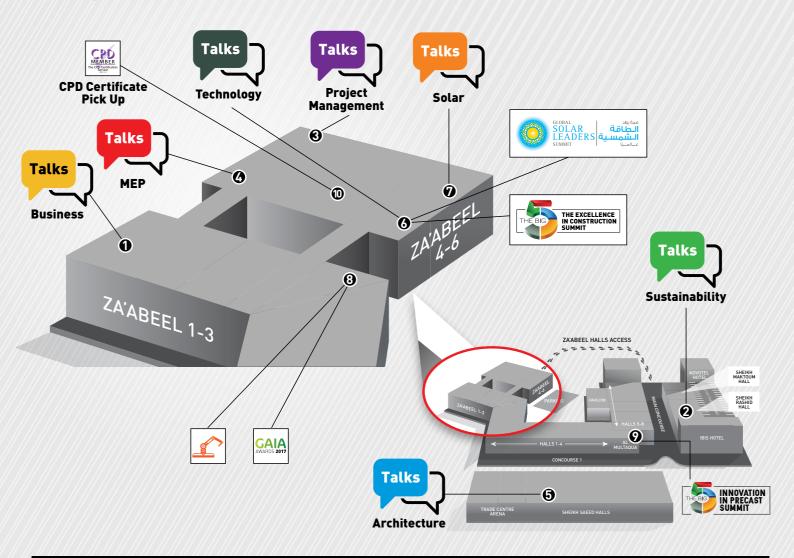
Approved by: ADWEA, FEWA, ADDC, AADC etc..

HÜRNER Schweisstechnik Gulf L.L.C

P. O. Box 233586 Al Qusais Ind. Area 4 DUBAI -United Arab Emirates
Tel: +971 42584886 Fax: +971 42584887 Email: sales@hurnergulf.ae / Website www.hurnergulf.ae



2017 FLOOR PLAN



EDUCATIONAL EVENTS & FEATURES

a



Za'abeel Hall 3



















Opening Remarks

Rania Ali

Public Speaker, TV and Events Presenter - Middle East Region



12:30 - 13:00

Keynote: A 360 Degree View on the Fastest Changing Nation in the Middle East - UAE

- The UAE's successful business model
- Lifestyle and mind sets are rapidly changing in the UAE, within its social fabric
- "A Pioneering and Excellent Government"

His Excellency Dr. Ahmad Bin Hassan Al Shaikh

Chairman - Ducab HV and Vice Chairman - Dubai Cable Company (DUCAB)



Keynote: How the Much Anticipated Expo 2020 will Positively Drive the Economy and Transform the Landscape of Dubai?

- While 2016 was an important year for design, 2017 is building momentum for the construction processes when the momentum of construction will really build, ahead of international participants
- beginning work on their pavilions in 2018 The Expo's commitment to empowering and engaging businesses of all sizes, and leaving a tangible economic impact through the economic growth and job creation it has stimulated
- Latest developments in Expo 2020 The Al Wasl Plaza A legacy that will remain forever

Ahmed Al Khatib

Vice President- Real Estate and Delivery, Expo 2020 Dubaid



Panel: How to Avoid Delayed Payments and Generate Cash Flow?

- The need for shift of perspective to combat the impact of changes in oil prices on construction
- Finding solutions: How can the region turn-around its construction situation to the good times? Boom in construction or drop in liquidity? Unravelling the reality
- What are the secrets of Dubai's rise investment into the construction projects? Is spending on construction projects the solution to boosting the global economy?

Rania Ali

Panelists: Mark Andrews

Managing Director Laing O'Rourke



Sachin Kerur

Partner and Head of Middle East

Pinsent Masons



Sameer Daoud

Group Chief Development Officer and Managing Director, Drake & Scull



Panel: Effect of VAT on the Construction Industry

- What does the introduction of VAT mean for construction? In an economy that has been tax-free for most of its history, what are the
- challenges that could be faced by businesses to get used to timely tax
- All you need to know about preparing for VAT Compliance arrangements, cash-flow implications, proper invoicing and more

26 NOVEMBER 2017 LOCATION: ZA'ABEEL HALL 6

Rania Ali

Panelists:

David Clifton

Regional Development Director, Faithful+Gould



Gurdeep Randhay

Head of Tax and VAT Grant Thornton



John Voyez

VAT Partner Smith & Williamson LLP



Mohamed Fayçal Charfeddine Global Head of Tax, Aujan Group Holding

16:00 - 16:30

Keynote: Tomorrow is Here: Discover First Hand All You Need to **Know About 3D Printing in Construction**

Benjamin Piper

Partner and Design Principal, Killa Design



Nick Billoti

Special Projects, e.construct

Break

17:00 -17:30

Keynote: Hyperloop: Creating the Future of Human Mobility

- What is Hyperloop? How this amazing innovation in travel is more efficient than other modes of transport?
- How will Hyperloop lead to a cleaner, greener and sustainable environment for future generations?
- What lies in store in near future? How will the Hyperloop impact economies and countries in future?



Bibop G. Gresta

Chairman and Co-founder, Hyperloop Transportation Technologies



Keynote: Journey of the Dark Horse – Secrets to Success and **Future Plans of Sobha Group**

- Sobha is one of the fastest growing and only backward integrated real estate organisation in the world
- Sobha is an organisation where quality meets excellence, technology meets aesthetics and passion meets perfection
- The company's residential projects include villas, townhouses, presidential, super luxury & luxury apartments, plotted developments and aspirational homes
- Sobha Hartland, a mixed-used development in the centre of Dubai

PNC Menon

Chairman and Founder, Sobha Group



Closing Remarks and End of Excellence in Construction Summit

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DAY 1 - 26 NOVEMBER 2017

Registrations

Breakfast for Delegates

10:45

Opening Address

His Excellency Dr. Abdullah Belhaif **AlNuaimi**

Cabinet Member and Minister of Infrastructure Development, UAE

Opening remarks from the Chair



Managing Director, FBF Betondienst

GLOBAL MARKET OUTLOOK

State of the Market Address

- Impacts of sustained low oil prices
- VAT impact on the GCC's construction sector Population growth driving demand for
- affordable housing solutions
 Rising popularity of prefab construction
- Skilled labour, education and localisation policies

Christopher Seymour
Regional Development Director and Head of Markets MESA, Mott MacDonald

STRUCTURAL DESIGN AND INNOVATION

Earthquake

Resilience: Performance-based seismic design of precast concrete structures

- Overview of regional building codes pertaining to earthquake resistance Ensuring structural safety
- Incorporating seismic risk mitigation and disaster risk reduction strategies
- Lessons learnt from past earthquakes

Dr. Haluk Sucuoğlu

Director, Structural and Earthquake Engineering Laboratory, Department of Civil Engineering, METU (Middle East Technical University)

Fire Safety: International guidance on fire resistance properties of precast concrete building envelopes

- Latest updates on building codes and regulations
- Exploring architectural precast concrete under fire conditions
- Assessing fire endurance characteristics of precast exterior walls
- Applying global best practice to fire safe design and engineering

Associate Director, Fire Engineering, Buro Happold; Branch President, Institution of Fire Engineers in the Middle East (GCC UAE Branch)

State-of-the-art of modern precast construction technology: Automation vs. flexibility - going for win-win

- Structural engineering challenges in the Middle East market
- Solutions for 2D and 3D precast production
- Integrating more value into precast

Joerg Reymann

Managing Director, RATEC

13:30 LUNCH BREAK

Slim and multifunctional facade elements and transparent concrete with UHPC

- A brief history of translucent concrete
- · Exploring typical production processes
- Understanding current applications worldwide

Dr. Andreas Ro

Chief Executive, LUCEM

SUSTAINABILITY AND GREEN BUILDING

Multifunctional Precast Concrete Construction: Integrated, cost efficient and sustainable

- Overview of the latest developments in today's multifunctional precast concrete technology
- Mitigating environmental impact of buildings
- The benefits of using multifunctional precast concrete in construction projects

Claus Bering Managing Director and Chief Executive, CRH

Improving health & safety in the precast concrete cycle

- Identifying and minimizing risks Initiatives that produce sustainable results
- Achieving a zero harm industry

Martin Clarke

Principal Consultant, ClarkeConsult; Former CEO,

Innovations in Sustainability Roundtable: A

- new approach to green building
 Advancements in sustainable concrete
- Comparative performance analysis of precast
- concrete technologies LEED and Estidama
- Exploring durability and sustainability of concrete in extreme climates
- Sustainability and environmental performance measures

Moderator:

Dr. Ulrich Lotz

Managing Director, FBF Betondienst



Jyri Nieminen

Chief Sustainability Officer and Lead Adviser, **SWECO**



Omair Awadh

Senior Sustainability Consultant, AESG



Commercial Director, Gulf Precast Concrete



Circular Economy and the way forward with the Innovations in Concrete Industr

- Concept of Circular Economy
- Challenges faced with the conventional
- Production- Consumption Model Its impact on the current practices cement
- concrete industry Key goals and strategy

Deepak Rai

Director, CoPartners

Closing remarks from the Chair and end of **Innovation in Precast Summit Day One**

COMPLIMENTARY DELEGATE DINNER

Delegates are invited to our complimentary *Delegates Dinner* at Palm Garden, Dubai World Trade Centre Plaza.

18:00 - 18:30 Pre Dinner Drinks 18:30 - 20:00 Dinner

NEW TRENDS, TECHNOLOGIES AND TECHNIQUES IN PRECAST CONCRETE CONSTRUCTION 26-27 NOVEMBER 2017

AL MULTAQUA BALLROOM DUBAI WORLD TRADE CENTRE

DAY 2 - 27 NOVEMBER 2017

Breakfast for Delegates

Opening remarks from the Chair

Raman Mangabhai

President, Institute of Concrete Technology

TRANSFORMATIONAL TECHNOLOGY

Opening Address: Next generation design transforming buildings of the future

- Structural design of tall and supertall buildings
- Observations on the disruptive technologies
- Innovative materials and forward-looking techniques shaping buildings of tomorrow
- Role of precast concrete and ultra-high performance concrete

Bill Price

Director, Strategic Growth, WSP

Disruptive Innovation: 3D printing and manufacturing trends of tomorrow

- How does the technology work?
- Process technology Material technology
- Design

Prof. Dr. Eng Dirk Lowke Head of Department of Building Materials, Technical University of Braunschweig

BIM Zone:

Optimising BIM and intelligent 3D modeling for precast concrete construction

- · Latest advancements in 3D modeling, BIM and parametric processes
 Understanding the key differences between the
- technologies
- Challenges: How much data is too much

Christopher Tebb

Practice Leader - BIM, Middle East Unit, Mott MacDonald

12:15

Engineering innovations of precast concrete structures

- Assessing alternative uses of precast concrete in structural design
- Exploring high performance precast concrete to deliver tall and supertall towers
- Identifying challenges and solutions from real world case studies

Jens Fussing

Technical Director, BG&E Consulting



Innovations in Technology Roundtable: Techniques, technologies and skills development driving change in

- prefabrication design and construction What global technologies are transforming the prefabrication design and construction industry?
- What are the latest advancements in materials used and associated assembly techniques?
- How are concrete technologies developing in line with construction trends and how are they contributing to more efficient, sustainable structures?

Moderator:

Raman Mangabhai

President, Institute of Concrete Technology

Dr. Abdulaziz I. Al-Negheimish

Prof. of Structural Engineering and Executive Director, Centre of Excellence for Concrete Research and Testing, Civil Engineering
Department, College of Engineering, King Saud



Director, Head of Innovation Design, Facades & Sustainability, Ramboll

Martin Clarke

Principal Consultant, ClarkeConsult; Former CEO, British Precast

13:15 LUNCH BREAK

INSTALLATION AND MAINTENANCE

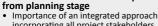
Exploring the long life cycle and low maintenance costs of modular and flexible precast concrete elements in

- Electric poles, transformer substations, electric manholes
- Water and sewage pipes, manholes
- Bridge beams, slabs and elevations, road

Loay Ghazaleh

Advisor, Ministry of Works, Bahrain

Project Costing: Measuring the impact of precast concrete on improving project cost-effectiveness when incorporated



- incorporating all project stakeholders Quantifying how prefab including precast can
- improve efficiency and cost-effectiveness Comparative analysis of project cost savings of precast versus site cast construction

Chief Sustainability Officer and Lead Adviser, **SWECO**

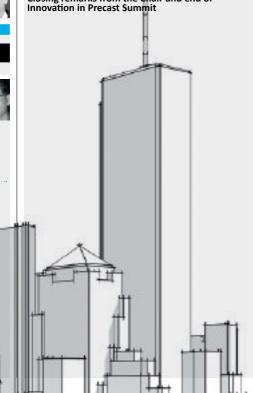
Maintenance Best Practice: Repair. **strengthening and performance of concrete buildings and infrastructure
 ** Main causes of defects of concrete buildings

- in the Middle East
- Importance of testing and inspection of concrete structures
- Assessment and evaluation methods for existing structures
- Cost-effective concrete solutions and decision making in repair and strengthening
- Dr. Moetaz Maher

Associate Professor, Kuwait University

El-Hawary

Closing remarks from the Chair and end of





THE BIG 5 TALKS - DAY 1

MEP TALKS Za'abeel Hall 4



12:30 - 13:30

Net Zero and Near Net Zero **Energy Buildings**

- The case for low energy buildings
- What do the regulations require?
- Examples

Darrel Strobel

Managing Director, MEP Engineering, KEO International

14:10 - 15:10

MEP Market in UAE - Trends and Forecast for 2018

- 2017 MEP market analysis
- · Actual trends and challenges
- 2018 MEP market forecast

Fabio Shacches

MEP Manager, LC & Partners **Engineering Consultants**

Top Solutions and Challenges in the MEP Industry

- DM circular 196 regarding the mandatory use of BIM
- Contracts and cash flow
- Sustainability

Moderator:

Balachandran Senthilraj

Vice President - Engineering and Projects, Southern General Contracting & Real Estate LLC

Panelists:

Darrel Strobel

Managing Director, MEP Engineering, KEO International Consultants

Fabio Sbacches

MEP Manager, LC & Partners **Engineering Consultants**

Nathan Cartwright

Partner, Godwin Austen Johnson

Aurecon

Robert Charles Gregory MFP Technical Director.



SUSTAINAIBILITY TALKS Sheikh Rashid Hall



12:30 - 13:30

Practically Green Sustainable Achievements and Lessons Learned on Live LEED Projects in the GCC Region

- Optimising success rate on LEED projects
- Identifying and pre-emptively addressing common pitfalls on LEED projects
- Leveraging 'Green' technology

Ranya Metwalli Shields

USGBC Faculty, LEED AP BD+C, CEM, Head of Sustainability, Al Hamra Kuwait Co. W.L.L

14:10 - 15:10

Energy and Indoor Environmental Quality (IEQ) Strategies for LEED v4

- Building commissioning and verification
- Minimum energy performance Minimum indoor air quality performance

Hasitha Herath

Project Manager Green Technologies;

Mario Seneviratne

Director Green Technologies

16:30 - 17:30

Integrating Sustainability into All Scales (Macro, Intermediate and Micro) of the Built Environment

- Implementing sustainability from macro (city) to the micro (person) level
- Project case studies of actual
- · Sustainability strategies

Nandan Tavkar

Sr. Engineer

Sustainability, BuroHappold Engineering

ARCHITECHTURE TALKS Sheikh Saeed Hall 1



Through Value-driven Design

- Drawing inspiration from the context Functional diversification of the main
- Cost vs. value

building elements Abdulmajid Karanouh

Director - Innovation Design and Head of Sustainability and Facades, Ramboll

14:10 - 15:10

Impact of Architecture: **How Architecture Can** Connect People and Build Communities?

- The role of architecture
- Understanding context Creating dialogue between buildings, people and the environment

Sumaya Dabbagh

Principal-Dabbagh Architects and President-RIBA Gulf

16:30 - 17:30

What Does it Mean to be an Arab Architect

in These Times?

- Do we have obligations or message that we have to communicate?
- What is Arab architecture and what forms it should translate?
- · Discovering the real challenges to build

Farid Esmaeil

Founding Partner and Principal Architect, X Architects

BUSINESS TALKS Za'abeel Hall 1

12:30 - 13:30

Construction Contracts: **Issues and Practical Solutions**

- UAE forms of construction contracts Formation of a construction contract including contract
- commencement procedures and variations to the contract Common construction disputes in the UAE and options for
- dispute resolution

Partner, Afridi & Angell

Big Five Areas to Consider When Resolving the Inevitable Construction Dispute

- Main causes of disputes
- Main types of disputes
- Best dispute resolution forum for resolving the dispute

Nabeel Ikram

Partner, Hogan Lovells

The Ripple Effect of Dubai's Real Estate Market on the



- Demand for off-plan units Developers' delivery timelines and their effect on construction
- Outlook leading up to 2020

CEO. Core Savills

"AS A RESULT OF GLOBAL ACCEPTANCE AND RATIFICATION OF THE PARIS AGREEMENT TO COMBAT CLIMATE CHANGE AND GLOBAL WARMING. THERE IS A DRIVE TOWARDS NEAR ZERO AND ZERO **ENERGY BUILDINGS. THE CONCEPT IS IN ITS EMBRYONIC STAGE, PARTICULARLY IN THE GCC** REGION, BUT IS STARTING TO IMPACT THE WAY WE **WILL DESIGN BUILDINGS NOW AND WILL DO SO EVEN MORE IN THE FUTURE."**

- DARREL STROBEL

PROJECT MANAGEMENT TALKS Za'abeel Hall 4





12:30 - 13:30

Data Driven Project Management & Benefits Realisation – New Concepts in PM

P.E. Ahmed Altarawneh Senior Specialist, RTA



14:10 - 15:10

Construction Quality Management

Mohamed Batran

Projects Manager, Alrajhi Ekhwan Group



16:30 - 17:30

Technology and PMO Business Value

Tarik Al Hraki

Managing Director, Founder, Strategic Project Management Consultant and Trainer, PM House Consulting

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THE BIG 5 TALKS - DAY 2

MEP TALKS Za'abeel Hall 4



12:30 - 13:30

Engineering a Safer, Sustainable and High Performance HVAC System for Healthcare

- Integrated design approach and its importance in healthcare
- engineering Sustainability vs indoor air quality
- Future proof design: Adaptability and flexibility

Harris Qureshi

Principal Mechanical Engineer, TAHPI

14:10 - 15:10

The Selection Criteria and Pre-qualification for MEP Specialist in Terms of Technical and Financial Capabilities

- Examining the importance of developing the prequalification process
- Identifying the benefits of enhancing the tendering process

Dr. Shetha Alzubaidi

Overcoming design issues that impact the MEP performance and maintenance

CEO, Alfahim Avenue Group Companies - Brookson Project Management

16:30 - 17:30

How to Address the Pressures on the MEP Designer in **Today's Market Place?**

- Programme BIM
- Quality

Robert Charles Gregory MEP Technical Director, Aurecon

SUSTAINAIBILITY TALKS Sheikh Rashid Hall



12:30-13:30

Sustainable Waste Management Solutions -

- Waste Energy
 Regional waste management strategies
- Environmental design Sustainable development opportunity

Anita Nouri

CEO and Business Development Director, **Green Energy Solutions &** Sustainability LLC

14:10 - 15:10

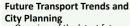
Challenges and Sustainable Symbiosis Between Architecture and Ceramics Porto Cruise Terminal

- From territory to detail
- From the detail to the site
- From the site to the body

Arch, Luís Pedro Silva

Partnership with APICER -Ceramics, Portugal Does It Better

16:30 -17:30



- City Planning

 Overview of the latest future transport trends
- Trends taken forward globally and in the UAE
- Trends affecting the way cities and communities are planned

Martin Tillman

Director - Transport Planning, **AECOM**

ARCHITECHTURE TALKS Sheikh Saeed Hall 1



12:30-13:30

The Architecture of a **Responsive Environment**

- people and build communities
- Design and architectural innovation in facades
- Fixing the current environmental challenges

Wesam Nassar

CEO and Architect, **Wunderkammer Architects**

14:10 - 15:10

A Rollercoaster Ride Architecture and **Construction Over the Past** 10 Years

- What happened in the last decade?
- Innovation, sustainability and design
- Challenges and opportunities for the next decade

Ralf Steinhauer

Director, RSP

16:30-17:30

How Sustainable and Creative Design Enhances your Quality of Life?

- What is sustainable design?
- Why should interior designers and architects choose sustainable materials?
- Why sustainability is now the key driver of innovation?

Fadia O Chaker

Founder and Director, FOC **DESIGN**

BUSINESS TALKS Za'abeel Hall 1



The Key to Getting Paid in the UAE Construction Market

- The construction market in the UAE
- Key provisions for payment protection

Senior Legal Consultant, DLA Piper Middle East LLP

Opportunities for the Private Sector to Invest in Public Infrastructure

- Nation building From physical to social infrastructure
- Opportunities in the education and health sectors
- PPP's and other vehicles for private sector involvement

raig Plumb

Head of Research, MENA - JLL

Sustainability for C-Level



- Increase efficiency by reducing
- Creating a continuous
- development and monitoring programme

Mario Seneviratne

Director, Green Technologies

PROJECT MANAGEMENT TALKS Za'abeel Hall 4





Integrating Extension of Time Claims with Risk Management in One Context

Hossam Eid Mohammed

Project Controls Manager, Hill International



Financial Planning for the Construction Projects

Mohamed Abdalla Hassan Hamed

Project Manager, Arab Consulting Engineers



16:30-17:30

Critical Success Factors of Organisational Project Management (OPM) Governance in Construction Organisations in the Middle East Region

Ahmed Al Senosy

Executive Director, Professional Engineers

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THE BIG 5 TALKS - DAY 3

MEP TALKS



12:30-13:30

World's Most Efficient HVAC Systems and Case Study on **Zero Energy**

- Self-financing solution to resolve global warming Types of HVAC systems
- Case study of a zero energy villa in Dubai

eorge Berbari CEO, DC PRO Engineering

14:10 - 15:10

HVACR Leadership Workshop by Eurovent Middle East: **Evaporative Cooling- Part 1**

- · State-of-the-art evaporative
- cooling Latest standards on evaporative cooling
- Case study

Jelle Wagelmans

Sales Manager, EVAPCO Middle East DMCC

Rafael Van Eijcken

Regional Manager Middle East, Baltimore Aircoil Gulf FZE



HVACR Leadership Workshop by Eurovent Middle East: **Evaporative Cooling- Part 2**

- Trouble-free HVAC cooling towers A maintenance guide Eurovent Certita Certification & cooling technology institute
- team up for certification Trust in certified products to demonstrate total efficiency of
- the cooling tower equipment Eurovent certified performance programme for cooling towers

Stephen Andrew

Service Operations Manager, SBX Cooling Technologies UK



Director International Affairs, Certita Certification

TECHNOLOGY TALKS

Za'abeel Hall 6

Digital Transformation of

Global adoption of the BIM

the Built Environment

Smart cities Kitemark



A Year is Not Enough: The Impact of the Yearly Software Upgrade Rate on the BIM Implementation

Djordje Grujić

Contracting

· Internet of things (IoT) Andrew Butterfield

Director of Built Environment, BSI **Global Product Certification**

12:20-13:20

11:00-12:00

Kitemark

Innovation in Projects Controls in Construction

Taking building information

- modelling (BIM) to 4D
- Orchestrating drones for business
- Building the future with virtual reality

Maged El Hawary

Project Controls Director, ASGC

SUSTAINAIBILITY TALKS Sheikh Rashid Hall



12:30-13:30

Building Envelope Integrity Saves Significant Money and **Energy for your Clients**

- Building envelope integrity is the least costly, least controversial and most effective sustainability strategy today in the GCC
- Our climate is changing faster than predicted, increasing building costs in the GCC
- Case studies and new technologies that highlight energy and money savings

William Whistler

Managing Director, Green **Building Solutions International**

The Impact of Sustainable Materials and Strategies in Architectural Design
• The basics of sustainability in

- architecture design
- Strategies on the use of sustainable materials
- Examples and case studies throughout the presentation

Michel Francis

Chief Architect, DEC Consultants

16:30-17:30

Sustainable Structures for Buildings and Bridges

- Material and structural system selection
- Examples of built projects
- Cost impact and challenges

Magsood Ahmed

Design Director, Specialty Structures USA

13-40-14-40

- Upgrading software solutions Implementation of new
- features
 Is the industry listening to the
- users?

Design Manager, City Diamond

15:00 - 16:00

The Amalgamation of BIM and Machine Learning in AEC Industry

- Changing landscape of BIM in machine learning era Machine learning and BIM
- Future automation possibilities

Sachin Singh

Technology Strategist and Project Coordinator, Archcorp Architectural Engineering

ARCHITECHTURE TALKS





- The design of a building Authentic designs
- Interactions with design

Nadia Magbool

Director and Architect, 23° North

14:10 - 15:10

Buildings of the Future -**Building in the Future** New ways of pitching for

- projects
 Balanced co-operations
- Case studies

André C. Meyerhans

Principal, Fischer Meyerhans Architects

16:30-17:30

Sustainability Towards a **More Conscious Design** Approach

- Global warming awareness Technology and sustainability
- The future

16:20-17:20

for Buildings

Smart Technologies

in energy usage

smart campus

Jyothi Gupta

17:40 - 18:40

IoT 101

smart city

Alaa Dalghan

SmartWorx

Case Study: Real life

Senior Manager – Techno

An IoT and Smart Cities

Update: How Internet of

Things is Re-shaping the

Construction Industry and Paving the Way to Realise

the Dream of Smart Cities

A sneak peek at breakthroughs in IoT just

· Manifestation of IoT in a

around the corner

General Manager (UAE)

and Director (Middle East

and Africa), Advantech B&B

Commercial, Synergy Property Development Pvt Services

Making green buildings smart with IoT

learning to drive improvements

experiences with smart cities/

Using big data and machine

Joe Tabet

Managing Director, JT+Partners

and Saudi Vision 2030

Oil production cuts

BUSINESS TALKS Za'abeel Hall 1

Construction Bid?

How Can You Win that

The attributes of consistently successful bids

Golden rules to deliver bid

Managing Director, Purpol

GCC Macroeconomic Outlook

Growth acceleration in 2018

Preparing for Expo 2020 Dubai

How to recover from a lost bid

12:30-13:30

success

Marketing

14:10 - 15:10

Denise O'Leary

Head - Macro Strategy, Emirates NBD

Construction Claims and Defense in a Changing Context

- Effective claims for loss of productivity
- The new and extended FIDIC vellow book
- The law and the FIDIC conditions

Managing Director, MPGQS

PROJECT MANAGEMENT TALKS - Za'abeel Hall 4



12:30-13:30

Leadership to Drive Projects and Project Management Career to an Effective Change

- Leadership and change and the mixed equation of change
- Career and organisations and
- changes Market place consideration

Hossam Eid Mohammed Project Controls Manager, Hill International

14:10-15:10

and Suppliers in the UAE

- Selection suppliers and
- subcontractors
 Benefits and risks associated with nominated suppliers and subcontractors

Michael J. Lawrence Director, Insite

Dispute Mitigation Due

- Organisation understanding level of change management
- Developing and controlling change management plans
- Pre-actions to mitigate

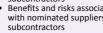
Essam Mohamed Lotfi PMP, CCP, ELV-Projects

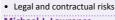
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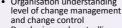






16:30-17:30





Manager, NAFFCO

THE BIG 5 TALKS - DAY 4

MEP TALKS Za'abeel Hall 4



12:30-13:30

Improving Business Performance through Proper Risk Management • Role of HSE in today's business

- environment
- Importance of risk management in project life
- · Achieving business excellence

Waseem Ahmed

Sr. HSE Engineer, ADNOC Drilling

14:10-15:10

Advanced Technologies for **MEP in Future**

- Active LEED engineering models
- Future tech (cro) nology
- · An advanced technology to cultivate water

Balachandran Senthilraj

Vice President- Engineering and Projects, Southern General Contracting & Real Estate LLC

16:30-17:30

BIM - Driving Innovation in MEP Design

- MEP, bringing a building to life
- Improving the quality of design Engaging clients using virtual reality

Tom Sweeney

Technical Director, WSP Middle East

SUSTAINAIBILITY TALKS Sheikh Rashid Hall

12:30-13:30

Challenges in Sustainability

- Achieving sustainable outcomes
- One of the biggest challenges is
- the word 'Sustainability'
 Potential resolutions to these

Nicholas Lander

Sustainability Director, CH2M

14:10-15:10

Two Phase: Designing Day and Night

- Consideration of exterior lighting during concept design
- Achieving different moods through façade lighting design Finding the optimum solution
- for building lighting

Bassel Omara

Senior Design Architect and BIM Manager, Dorsch Holding GmbH - DC Abu Dhabi

16:30-17:30

Sustainability Management Plan under LEED Rating System • Preparing and assessing a LEED

- programme
- Developing an action plan
- Implementing and monitoring the plan

Dr. Hany Salem

Director, Integrative Sustainability Group

ARCHITECHTURE TALKS Sheikh Saeed Hall 1

12:30-13:30

Future of Mobility in the UAE

- Future of mobility in the UAE How do people feel about this
- evolution?
- The impact of future mobility trends on urban settings and cities developments

Speakers:

Luisa Coelho Associate, Gensler

Raghdan Hassan Junior Architect, Gensler

Architect LEED AP BD+C, Gensler

14:10-15:10

The Art of Implementing Sustainable Design and Architecture to Fix the Current **Environmental Challenges**

- What we mean by 'sustainable design and architecture'?
- What are the environmental challenges today and in the near future? Approaches and solutions to
- fixing these issues and tackling such challenges

Hasim Altan

Chairman and Associate Professor-Department of Architectural Engineering, University of Sharjah

Design and Architectural Innovation in Facades/ Advanced Facades Geometries

- Review of the historical importance of the façade
- Innovation and trends of facade implications in the region
- The best innovations for the region

Nigel Eckersall

Design and Development Director, VE Experts

BUSINESS TALKS Za'abeel Hall 1

An Introduction to VAT in GCC Countries

- The need of maintaining information under VAT era
- Managing input credit to reduce the cost liability
- Hiring the right services to manage VAT

Javan Balakrishnan

Managing Director, Apt Management Consultancy

VAT Considerations for the **Construction and Build** Industry

- Sub-contracting
- Importing services
- Are you well prepared?

Rakesh Pardasan

Audit Accounts Advisory and Partner, RSM Dahman

VAT: Real Estate Realities

- The broad intention of the UAE
- VAT in the supply chain
- · VAT affecting patterns of payment

Michael Patchett Joyce

A Barrister, Founder- CAPPLEX Limited, a Member of the Scientific Board of the MENA Business Law Review (LexisNexis), Editor of 'Special Edition on VAT in the Gulf'



TECHNOLOGY TALKS - Za'abeel Hall 6

Cities Alive: Rethinking Cities in Arid Environments

- Creating a climate responsive city planning and design paradigm The role of gulf cities in providing a sustainable template for the future
- arid city
 Innovation, technology and rediscovery

Hrvoje Cindrić

Associate, Middle East Urbanism Leader, Arup

12:20-13:20

AR7: BIM 7D + AR for Facility Management

- Mixing technologies in the design-build-finance-operation model
 BIM 7D + AR for facility management
- Augmented reality

Camilo Jimenez Project Manager, AECOM

13-40-14-40

To Drone or Not to Drone?

- Drone development and applications
- Case study

Rabih Bou Rashid Managing Director, Falcon Eye



15:00-16:00

BIM and Project Information Management/BIM from

- **Organisation View** BIM and design process/
- Bill allu design process, understanding and challenges
 Success and failure (step by step)
- · BIM project is not only a model

Waleed Elewa

BIM Consultant, BIM Road

16:20-17:20

BIM and Sustainability - A Perfect Match?

- · Difference between BIM and Thermal simulation inside and outside
- of a BIM editor · Calculation ROI and payback times

Florian Techel

University Professor, Canadian University Dubai

BIM and Emerging Technologies (BIM Coding, Level 3 and Virtual Reality) **Disrupting Building Construction**

· BIM coding in construction documentation Level 3 BIM

17:40-18:40

Virtual reality disruption

Bhanu Gejjela

Managing Director, BIM & GRAFX Integrated Studio Pvt Ltd

PROJECT MANAGEMENT TALKS Za'abeel Hall 4

12:30-13:30

Client, Consultant and Contractor (3Cs) Interaction and Interrelation in Project

- Success/Failure
- Type of contracts used e.g. FIDIC versus NEC3 contracts Comparison between traditional and private public partnership (PPP)
- Ethical issues between the 3Cs

Moawia Abdulrahman Project Engineer, Al Ain Distribution Company (AADC)

Why Do Projects Take Too Long and Cost Too Much?

Examine examples of projects which have gone wrong



- Define the reasons (lessons learned)
- Mitigating actions that can be taken by project managers to avoid this

Jonathan Mullan BSc, MSc, MAPM, Director, Insite

16:30-17:30 Lean Construction in the Era



- platform The intersection of lean and BIM Emerging trends and technologies for
- lean construction

Dr. Hamad Al Jassmi

Assistant Dean for Research and Graduate Studies, College of Engineering, UAE University

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THE BIG 5 SOLAR TALKS 26-29 NOVEMBER 2017

ZA'ABEEL HALL 6

A SERIES OF BOUTIQUE AND HIGH LEVEL FREE-TO-ATTEND WORKSHOPS BRINGING TOGETHER THE WHO'S WHO IN THE SOLAR INDUSTRY TO SPEAK ON LATEST INDUSTRY TRENDS, CHALLENGES AND SOLUTIONS EMPOWERING A POSITIVE CHANGE AND TRANSFORMATION OF THE RENEWABLE ENERGY SECTOR WITH A FOCUS ON SOLAR. THESE HIGH QUALITY SPEAKERS WILL LEAD KNOWLEDGE DRIVEN SESSIONS THROUGH POWERFUL KEYNOTES.



DAY 1 - 26 NOV 2017

All You Need to Know About VAT for the Solar Industry

- VAT and solar Industry
- Are you ready for VAT
- Penalties or peace of mind

Michael Vaughan

Senior VAT Director, Grant Thornton - United Arab Emirates



Where Solar and Construction Meet: Building Integrated PV (BiPV) and **Energy Efficient Building Design**

- Global BIPV market and possible ways of solar integration
- Local BIPV projects, regulations and challenges
- Benefits of BIPV for property developers

Anoop Babu

BiPV Expert and MENA Regional Manager, Architectural Solar Association (ASA)

Renewable Energy Technology Trends and Prospects for Fueling Growth

- Renewable energy technology trends globally
- Latest renewable energy events and records in MENA
- Drivers of renewable energy investments and trends in green financing

Fazil Abdul Rahiman

Assistant Manager - Climate Change & Sustainability Services MENA, EY MENA

website www.thebig5.ae

DAY 2 - 27 NOV 2017

Achieving Energy Independence with Off-grid, Battery-based Solar Energy Systems

- Major difference between the solar energy system – ON and OFF grid
- Understanding the need for the solar at remote locations
- Crucial components to be considered for designing the solar
- How operation cost can be saved by giving advantage to environment with clean energy
- Installation, operation and maintenance for off grid type solar system



Director (RPS), Telectron

Optimisation of Solar Energy at District

- How to develop existing cities towards carbon neutral energy
- Optimisation of existing energy systems with regard to solar energy
- Case studies on solar energy at district level

Jyri Nieminen

Chief Sustainability Officer, Sweco Structures Ltd

India - A 500 Billion USD Rooftop Solar Opportunity

- Basis of size of this market
- Explicit opportunities and how to exploit them
- Low hanging fruits i.e. the immediate short term realizations

Anui Nigam

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of The Big 5 show dailies and/or visit the show

Director, Startling Solar Pvt. Ltd

DAY 3 - 28 NOV 2017

How to Design and Implement a Reliable PV System Which Could Last for 30+ Years

- NEC guidelines for safety
- I-V curve interpretations
- MPPT window consideration with respect to bandwidth of inverter input voltage
- Selection of inverter based of the above consideration
- Derate factors depending of the geographical location that affects PV installation

Senior R&D Engineer, RAK Research and Innovation Center, NABCEP-PV Associate

Coupling Desalination with Solar Energy – Step Towards Moving Away from Reliance on Fossil Fuel for Energy Needs of Desalination

- Solar energy provides a sustainable way to meet the energy requirements of desalination
- Significant reduction in CSP/PV costs and its implications
- Environmental impact of solar desalination

Imteyaz Ahmad

Head of Desalination-Middle East, WSP



Turning Buildings into Power Stations, Without Making Them Look Like One

- Using the building fabric to generate energy
- When to Integrate and when to apply
- Thin film compared to crystalline

Justin Canning

Chief Commercial Officer.



DAY 4 - 29 NOV 2017

Energy Storage System for Solar Energy Systems from Utility Scale to Small Scale: Over-rated and Underrated Parameters and Alternatives to **Batteries**

- The need for storage for solar energy systems, both utility scale and small scale
- Important parameters to be considered for choosing the right storage system
- Batteries and their alternatives

H. Pirouz Kavehpour

Ph.D., Professor and Vice Chairman - Department of Mechanical & Aerospace Engineering, UCLA

14:10 - 15:10

Commercial Viability of Battery Assistant

Solar Desalination- When Does it Make Sense to Use Battery-based Energy Storage for Off-gird PV Solar -**RO Desalination Systems?**

- The benefit of energy storage in solar desalination applications
- Impact of energy storage cost on produced water price Under which conditions will the
- increased solar RO plant utilization result in a lower produced water cost

Claudio Palmieri

CEO, CLS Energy Consultants DMCC

The Evolution and Prospects of **Dubai's Solar PV Market**

- A brief history of DEWA's shams netmetering program
- The market as it stands today real case studies, predominant finance models, current market trends
- Dubai's potential to build a sustainable future for generations to come and be a global city leade

Rohail Majid Director - Business

Development, Enerwhere

الطاقة

الطاقة SÖLAR الشمسية LEADERS

GLOBAL SOLAR LEADERS SUMMIT

THE WORLD OF SOLAR ENERGY REIMAGINED 27 NOVEMBER 2017 - ZA'ABEEL HALL 6

10:00 Registration and Refreshments

10:40

Chairman's Opening Remarks

Rania Ali

MC, Public Speaker, TV and Events Presenter -Middle East Region



Opening Keynote

His Excellency Dr. Matar Al Neyadi Undersecretary, Ministry of Energy, UAE



10:55

Award Ceremony

11:05

SEWA Keynote

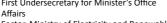
His Excellency Dr. Rashid Alleem Chairman, SEWA

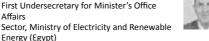


11:15

Keynote: Egypt's Initiatives to Source 20% of its Energy from Renewables by 2020 and Support the Ongoing Development of the Country









11:25

Policy and Regulation Panel: Recent Trends in Renewable Energy Policies and Emphasizing the Role of Auctions in **Electricity Markets**

Moderator:

Tim Armsby

Partner, Head of Energy and Infrastructure -Middle East, Eversheds



Ahmed S. Nada

President, MESIA



Ali Mohammed Al Jassim

CEO, Etihad ESCO



His Excellency Dr. Khaled M. Eldestawy

First undersecretary for Minister's Office Affairs Sector, Ministry of Electricity and Renewable Energy (Egypt)



His Excellency Dr. Nasser Saidi

Chairman, Clean Energy Business Council



12:10 Networking and Coffee Break

12:40

The Next Big Thing Panel: How the Kingdom of Saudi Arabia is Top Trending in Solar Energy?

Moderator:

Tim Armsby

Partner, Head of Energy and Infrastructure -Middle East, Eversheds



Yasir Mahmoud

Browning Rockwell

Executive Director - Business Development, Investments, ACWA Power



Founding and Executive Director, SASIA & Solar GCC Alliance



Dr. Martin Stickel

Executive Director Photovoltaics, Fichtner Consulting Engineers

Mona Hammadi

Legal Consultant, DLA Piper



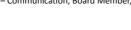
Head - International Business Development, Solar Vertical, Sterling and Wilson Pvt Ltd



Top Technology Panel: Innovations, Advancements and Recent Breakthroughs in the World of Solar Technology

Moderator:

Gurmeet Kaur Marketing - Communication, Board Member, **MESIA**





Alireza Mehrtash

Vice President - Global Sales and Marketing, ARR



Frank Wouters

Director, EU-GCC Clean Energy Technology Network



Kevin Robinson

Technical Services Manager-Middle East and Africa, JinkoSolar and Founding Member, South African Photovoltaic Industry Association (SAPVIA)



CTO, Desert Technologies



Dr. Nicolas Calvet

Assistant Professor, Chair of the Masdar Institute Solar Platform (MISP), iEnergy Center, Department-Mechanical and Materials



Engineering 15:00

Popular Finance Panel: Exploring Solar **Finance and Investment Opportunities**

Moderator:

Frank Wouters

Director, EU-GCC Clean Energy Technology Network



Panelists:

Brendan Cronin

Head of Management Consulting -Middle East. Pövrv



Clint Dempsey

Partner-Banking & Finance, Eversheds



Cornelius Matthes

CEO. Kuwekeza Holdings and Senior Vice President, Dii Desert Energy



Jaikishin Asnani

Investment Officer, IFC - International Finance Corporation



Marc Norman Lawyer, Covington & Burling LLP



Keynote: Designing & Implementing Innovative Tools, Through Industry Collaboration – To Promote Competitive Solar Power, as a decisive tool to address the global power needs, sustainable development goals and climate change

Nicole Iseppi

Project Director - Terrawatt Initiative (TWI) and Co-Leader of TWI and IRENA's "Global Solar Energy Standardisation Initiatived"



Thought Leaders' Speak Panel: Powering Solar Market Transformation to Create a Sustainable Future

Moderator:

Karel De Winter

General Manager, Alsa Solar Systems Limited;



Panelists:

Faisal Rashid

Director, Demand Side Management, Supreme Council of Energy



Nicole Iseppi

Project Director - Terrawatt Initiative (TWI) and Co-Leader of TWI and IRENA's "Global

General Manager, Smart PV Business - Middle East and Africa, Huawei Technologies Co. Ltd



Sami Khoreibi

Enviromena Power Systems



Steven Geiger

President - Innova Partners



Distributed Generation of Power: How to Effectively Structure and Finance DG

Projects?

Marc Norman

Lawyer, Covington & Burling LLP



Daniel Zywietz

CEO, Enerwhere



David Auriau

Director, SirajPower



Erik Voldner

Chief Commercial Officer, Enviromena Power Systems LLC



Karel De Winter

General Manager, Alsa Solar Systems Limited



H. Pirouz Kavehpour

Ph.D., Professor and Vice Chairman -Department of Mechanical & Aerospace Engineering, UCLA



Closing Remarks

Rania Ali

17:30

End of Global Solar Leaders Summit

Solar Energy Standardisation Initiatived" Paul Pan

Founder and Chief Executive Officer,



Moderator:

Panelists:

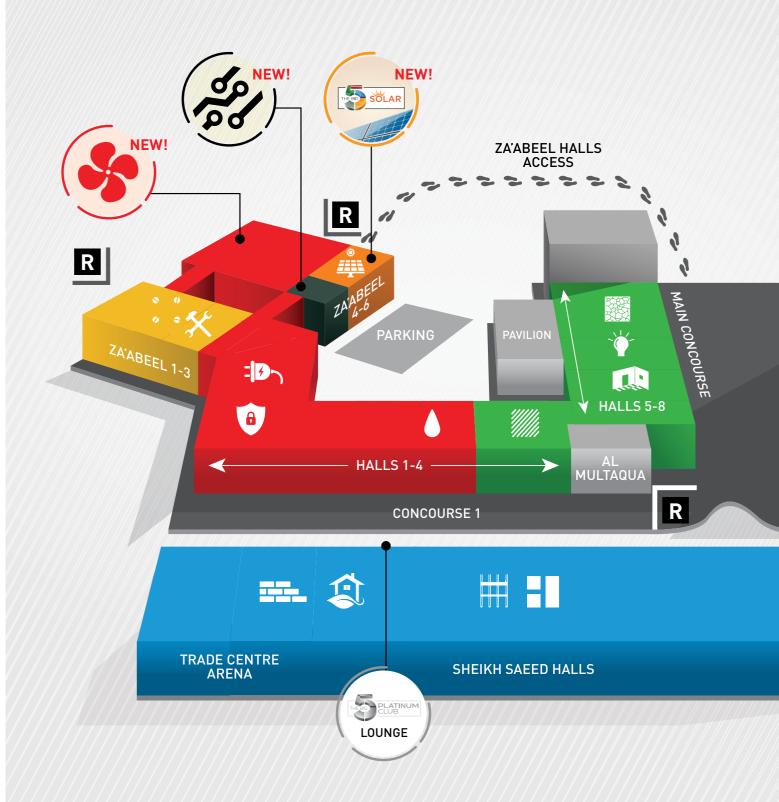






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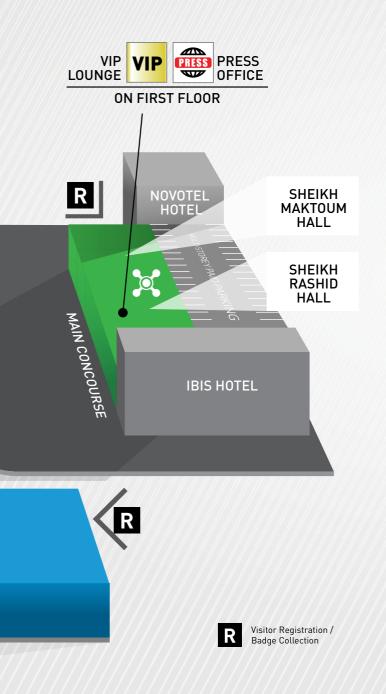
2017 FLOOR PLAN

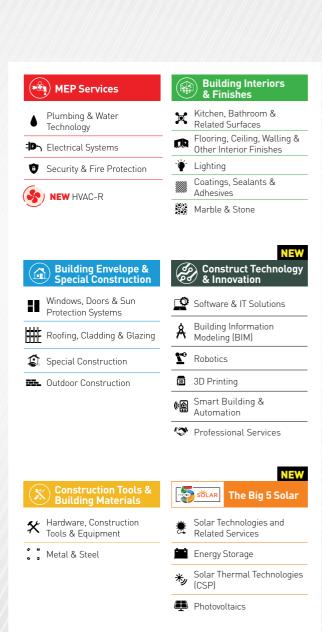






DEDICATED PRODUCT SECTORS





PLAN YOUR DAY TOMORROW

Global Solar Leaders Summit (GSLS) LOCATION: Za'abeel Hall 6 TIMING: 10:00 - 17:30

The 3rd edition of Global Solar Leaders' Summit (GSLS), a CPDcertified conference, will once again bring lively debates, clear business-relevant focus groups and very high degree of interaction.

Highlight of the conference this year will be on the global vision on renewable energy, where attendees will have the opportunity to learn directly from industry leaders, gain insight into developments within the solar market and stay up to date with the latest technologies and trends.

See P56 for the complete agenda.

The Big 5 Innovation in Precast Summit LOCATION: Al Multaqua TIMING: 11:30 - 16:00

In continuation from today, the Innovation in Precast Summit is a must-attend event for you to meet industry leaders and gain insight into the latest techniques and technology for the Middle East

Check out P50 to learn more on tomorrow's sessions

The Big 5 Talks LOCATION: Different Locations* TIMING: 12:30 – 17:30

Top industry leaders will speak on six powerful themes for The Big 5 5 talks 2017 – MEP Talks, Architecture Talks, Sustainability Talks, Business Talks, Technology Talks and Project Management Talks.

The Big 5 Solar Talks LOCATION: ZA'ABEEL HALL 6 TIMING: 12:30 - 17:30

The Big 5 Solar event, under the theme 'Driving a Solar Powered World' is an opportunity for visitors to source the latest products and technologies, network with top solar companies and learn about the latest trends and updates in the industry through our CPD certified Big 5 Solar Talks.

*To learn more about both Talks agendas, don't forget to pick your copy of the Show Daily on your way to the Halls.

LIVE PRODUCT DEMONSTRATIONS LOCATION: ZA'ABEEL HALL 3

Z3 U161

TIMING: 12:00 - 18:30

Witness innovative products in real time, demonstrated by industry professionals. Each demonstration is 20 minutes - where demonstrators explain how to operate these products and other practical applications. With demonstrations from every key product sector there will be something for everyone. Every demonstration will be followed by a brief Q&A session allowing interested buyers an opportunity to gain more knowledge on the product.

Find the full programme on P28



To find out more information about any of the above events, please visit our website www.dmgeventsme.com



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Ideal staff housing solution for companies that employ male workers in and around the Jebel Ali district.

Nuzul is a gated community with ample parking that offers modern buildings with spacious residences. It is a beautifully landscaped community where employees can live, relax, and take advantage of our many facilities. Have peace of mind to rent directly from one of Dubai is largest landlords, ensuring professional property management for your staff accommodation.

TYPE OF UNITS



Nutruit offers three types of units: 5 and 7 bedicapacity rooms for emoloyees and studies for subervisors. Each building includes dedicated diring rooms and kitchers, and every floor has laundly facilities.

AMENITIES



We understand the importance of a work/life balance. Nucul community offers brokerball & volleyball courts, a sturming cricket ground, supermarkets, emosque. ATMs and much more. We also provide 24-hour security to ensure the safety of your employees.

LIFESTYLE



Regular activities are run at Nacol such as sporting competitions, move enemings and talents shows. Your employees will feel the a part of our throing community.

LOCATION

The community's strategic location in Jebel Ali means it is easily accessible from major highways and is connected to a metro station by RTA feeder buses.



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