# BUILDING ENGINEER

Association of Building Engineers

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INTERNATIONAL NEWS

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# FERRARI WORLD SCOOPS CITYSCAPE AWARD

The Benoy designed Ferrari World Abu Dhabi, delivered on behalf of Aldar Properties, has won the 'Best Commercial, Office, Retail Future Development' Award at the prestigious Cityscape Abu Dhabi 2010 Awards. The Award recognises design excellence in the Middle East and North Africa.

The unique design of Ferrari World Abu Dhabi is inspired by the double curve of the classic Ferrari profile and delivers an architectural interpretation of one of the world's true design icons. The ambition, location and scale of the project, combined to present enormous architectural challenges that required Benoy to deliver a revolutionary design solution.

Benoy's Chairman, Graham Cartledge CBE added 'We are delighted that Ferrari World Abu Dhabi has won this esteemed award and we are extremely proud to have delivered a project of such national importance to Abu Dhabi.

- Further information from www.benoy.com

# NEW ENGINEERING BOOK TACKLES MASONRY STRUCTURAL DESIGN

Masonry Structural Design, a new book for engineers from the International Code Council and McGraw-Hill Professional, discusses basic structural behaviour and the design of low-rise, bearing wall buildings.

The 592-page, hardcover publication (US$112.50 ICC member price; US$125 non member price) is based on the 2009 International Building Code and 2008 Masonry Standards Joint Committee (MSJC) Code and Specifications.

It includes real-world examples of masonry buildings, and talks about strength design and allowable stress design as well as innovative products, including autoclaved aerated concrete masonry.

Authored by masonry design expert Richard E Klingner PhD, a University of Texas professor of structural engineering and associate chair of architectural engineering, the publication also provides guidance on:

- materials used in masonry construction
- code basis for structural design of masonry buildings, including seismic design
- introduction of MSJC treatment of structural design
- strength design of reinforced and unreinforced masonry elements
- allowable-stress design of reinforced and unreinforced masonry elements
- comparison of design by the allowable-stress approach versus the strength approach
- lateral load analysis of shear wall structure
- design and detailing of floor and roof diaphragms.

'In this book, Dr Klingner focuses squarely on state-of-the-art design procedures for masonry and kept an eye on innovative products,' said ICC-ES President Mark Johnson. 'We are excited to get this outstanding book into the hands of practitioners, professors and students, and that it is the first in a series we are doing in a partnership called the McGraw-Hill Professional ICC Press series.'

The next two books in the series – Reinforced Concrete Design by David Fanella and Structural Steel Design by Alan Williams – are scheduled for release in the autumn.

- The book is available from the ICC Bookstore. Web: www.iccsafe.org/MasonryStructuralDesign

# STUDENT RECEIVES PRESTIGIOUS CHINESE GOVERNMENT AWARD

A talented former student at the University of Sheffield has achieved international recognition after being awarded the esteemed Chinese Government Award for Outstanding Chinese Students Abroad.

Qi Wang, who completed a PhD in Electronic and Electrical Engineering in February this year, was one of only 35 PhD students in the UK and 500 worldwide to have received the prominent award, which recognises outstanding Chinese students undertaking full-time research abroad leading to a PhD in all areas of study.

Awardees are selected on academic merit and research achievements after rounds of judging by invited eminent experts from their field in China as well as their host country. Winners received a US$5,000 cash prize.

In February 2010, Qi, who is currently working at the University as a research associate to continue his research in the field of III-nitride semiconductors, successfully defended his PhD thesis on III-nitride based semiconductor optoelectronic devices (e.g. photodetectors and light-emitting diodes (LEDs) used in traffic lights and full colour display), to complete his qualifications.

During his PhD study, for which he travelled to the UK to begin in 2006, Qi published more than 10 refereed journal papers which appeared in high profile journals with Qi as the author or co-author. One of the important achievements was highlighted in semiconductor magazine Semiconductor Today in 2009 shortly after being published in a high profile journal.

Last year, the Chinese Scholarship Council selected 24 students from the UK for the award, 3 of which came from Sheffield – including Bing Chu from the Department of Automatic Control and Systems Engineering.

Dr Tao Wang, Reader in semiconductor materials and devices from the Department of Electronic and Electrical Engineering at the University of Sheffield, said: 'I am really proud that Qi Wang, one of my PhD students, has been awarded the Chinese Government Award for Outstanding Chinese Students Abroad 2009. It demonstrates the excellent reputation of the University, which attracts intelligent students and provides them with the best education and research environment.'

Qi Wang said: 'I'm very pleased to receive this highly-prestigious award. It is a great honour for me and an acknowledgement of what I've done at the University of Sheffield. I would like to give my appreciation to my supervisor and colleagues for their support, without which this would not have been possible. I will now concentrate on trying my best to make further contributions in my research area.'

# SUSTAINABILITY IN BUILDING

A new edition of ASTM International Standards on Sustainability in Building, a compilation that includes 150 ASTM standards that address sustainability or aspects of sustainability relative to building, including sustainable design, construction and operation of buildings, is available on CD-ROM.

The collection is a valuable resource that helps answer the growing global demand for sustainable building, and includes all of the ASTM International standards referenced by:

- Federal Green Construction Guide for Specifiers as of January 2010
- International Green Construction Code (IGCC) as of the Public Version draft March 2010; and
- Green Globes® green building rating program as of March 2010.

ASTM International Standards on Sustainability in Building: 4th Edition, is available in CD-ROM (stock # GREENCD10; ISBN: 978-0-8031-8424-4) for $290. To purchase ASTM publications, search by stock number on the ASTM Website www.astm.org

# GOVERNMENT HOUSE WINS TOP BRISBANE ARCHITECTURE AWARD

A challenging project to secure Queensland's Old Government House for generations to come without detracting from its past has been awarded top honours in the Australian Institute of Architects' 2010 Brisbane Regional Architecture Awards.

The project – Old Government House Conservation and Adaptation by Conrad Gargett Architects – was awarded the prestigious 2010 John Dalton Award for Building of the Year.

In awarding the prize, Queensland State Awards Director Bud Brannigan said: 'The designers have successfully provided a considered and sensitive response to a project that was not without considerable challenges, and the refurbishment allows the public to use and enjoy this building for many years to come, while not destroying or detracting from any of its historical importance and ambience. It is a superb example of how an historic building can be restored and revitalised for the benefit of the wider community as a whole'.

133 architectural projects were entered in this year's Brisbane regional awards, with a total of 35 regional commendations awarded.

The jury presented the House of the Year Award to Stonehawk by base architecture. Mr Brannigan said the project was 'an exceptional solution to an everyday problem'. He said the jury found: 'This single family house on a west facing steep suburban site is a close fit, but flexible house for a young family. Against the trend, this house embraces multiple-use rather than multiplicity of space within a considered architectural framework which deals with the programme, the orientation and the environment'.

Thirty-three other Commendations were also presented. All commendation recipients are now in the running for Queensland Architecture Awards, to be announced in Brisbane on 19 June 2010.

- Further information from www.architecture.com.au

# ASTM STANDARDS SERVE AS TECHNICAL RESOURCES TO SUPPORT OIL SPILL RESPONSE

Standards developed by ASTM International Committees F20 on Hazardous Substances and Oil Spill Response and E47 on Biological Effects and Environmental Fate play a role in both the initial response and follow-up to oil spills. The recent spill in the Gulf of Mexico highlights the importance of standards that cover all aspects of oil spill response and clean-up.

### F20 on Hazardous Substance and Oil Spill Response

Since its founding in 1975, ASTM International Committee F20 on Hazardous Substances and Oil Spill Response has developed a wide variety of standards pertaining to performance, durability, strength of systems and techniques used for the control of oil and hazardous substances. ASTM F20 standards are used for oil response activities around the world.

'Almost everything we have done since 1975 is going to be applied in some way, shape or form in the Gulf of Mexico spill response,' says Peter Lane, chairman of F20, and president and CEO, Applied Fabric Technologies Inc. Lane also notes that some F20 standards are relevant to the immediate response to the Gulf spill, while others could be used during follow-up procedures once the initial response has been completed.

Subjects covered in F20 standards include: containment booms; in-situ burning; dispersant application; spill operation; shoreline countermeasures; and skimmers and skimmer effectiveness.

Among the most prominent F20 standards are F1084, Guide for Sampling Oil/Water Mixtures for Oil Spill Recovery Equipment and F2152, Guide for In-Situ Burning of Spilled Oil: Fire-Resistant Boom. The committee continues to investigate the cutting edge of technology as well, with its proposed new standard WK24607, Specification for the Design and Use of Vessel-Mounted Camera Systems for Oil Spill Response.

ASTM F20 standards are published in Volume 11.05 of the Annual Book of ASTM Standards. In addition, 57 F20 standards that address the latest research in oil spill recovery applications and ecological considerations for the use of chemical dispersants and containment of emergency response personnel are available in the third edition of the compilation, ASTM Standards on Hazardous Substances and Oil Spill Response. The committee also publishes ASTM manuals and special az\technical publications that contribute to the cutting edge of oil spill response technology.

Members of F20 include stakeholders from the petroleum industry as well as manufacturers, regulators, contractors, end-users and environmental advocates.

### E47 on Biological Effects and Environmental Fate

Standards developed by ASTM International Committee E47 on Biological Effects and Environmental Fate are used to measure the effects of toxins in the environment. ASTM E47 standards focus on the following: the effects of physical and chemical stress on aquatic and terrestrial plants and animals (including humans); and those properties of materials that affect and determine their fate, distribution and persistence when introduced into the environment.

In addition to ASTM standards, E47 is responsible for the 1995 publication of Exxon Valdez Oil Spill: Fate and Effects in Alaskan Waters, the first definitive explanation of the effects of the Exxon Valdez oil spill which occurred in 1989. The book contains 25 peer-reviewed papers that cover key topics such as: chemistry and fate of the spill; shoreline impacts of the spill; effects on fish and fisheries; effects on wildlife; and archaeological site impact.

- Further information regarding F20 and E47 can be found at www.astm.org

# STAR ARCHITECT LOOKS BEYOND THE EDGE

Hadi Teherani and Poggenpohl team up to design the new +ARTESIO® kitchen concept.

For years now, Hadi Teherani has been recognised as one of the most creative minds on the architecture and design scene both in Germany and across the globe. Born in Teheran, he studied architecture at Braunschweig, has taught at Aachen University of Technology and began his career in Cologne as an architect and fashion designer.

Hadi Teherani made his international breakthrough with the Hamburg-based BRT – Bothe Richter Teherani team of architects set up with fellow students in 1991. Since 2003 Hadi Teherani has also been at the helm of his Hadi Teherani AG product and interior design company that has realised numerous award winning projects and products over recent years.

When Hadi Teherani designs a building, every one of them carries his signature through and through. Whether office, industrial or commercial property, terminal, residential or public building – he always looks for the best possible practical solution while applying his very own stamp.

Frequently considered 'landmarks', his buildings reflect his personally defined and overarching goal of 'turning sensible architecture into a sensuous experience in every last detail'.

Completed under BRT, his most famous projects in Germany include the Dockland and Deichtor office buildings as well as the Europa Passage shopping mall in Hamburg, Frankfurt Airport intercity railway station as well as Hamburg's Berliner Bogen office building. Operating offices of its own in Moscow, Dubai and Abu Dhabi, BRT is now also planning numerous projects in Russia and the Arab world.

Hadi Teherani implants his all-embracing approach and unique instinct for shapes, spaces, surfaces and proportions on other areas of design too. Co-operating with top-ranking names, he has also enjoyed immense success in designing office and home furniture, lighting, flooring and wall coverings, bathroom fittings, shops, exhibition stands and a television studio.

Created in collaboration with Poggenpohl, his latest project is the +ARTESIO® kitchen concept that for the first time goes beyond the actual design of a kitchen and incorporates the entire home.

- Further information from www.poggenpohl.com

# OMA APPOINTS BEN WEAVER AS COMMUNICATIONS DIRECTOR

Ben Weaver has been appointed to the new role of Communications Director at OMA (Office for Metropolitan Architecture), where he will take responsibility for marketing and communications worldwide. Weaver joins OMA in Rotterdam after 12 years in London as strategic marketing adviser to cultural organisations including Tate Modern, V&A, Arts Council England, the Design Museum, Serpentine Gallery and the Architecture Foundation.
'Ben's passion for contemporary culture, coupled with his experience in marketing and communications, is exceptional,' said OMA's Managing Partner, Victor van der Chijs.
Weaver has worked with high profile brands including Selfridges, Nokia, Starbucks, Channel 4 and Visit London. He has also advised the Mayor of London's office, developing cultural campaigns for the Greater London Authority.
'OMA constantly redefines architecture', says Weaver, 'I am thrilled to be joining the organisation at this exciting time'.
OMA is a leading international partnership practicing contemporary architecture, urban planning and cultural analysis. OMA's recent projects include Prada Transformer, a rotating multi-use pavilion in Seoul, Casa da Música in Porto and the Netherlands Embassy in Berlin.

- Further information from www.oma.com

# SIZE OF EUROPEAN AND USA POWERED ACCESS RENTAL MARKETS REVEALED IN TWO IPAF REPORTS

The European and USA rental markets for mobile elevating work platforms (MEWPs) peaked in 2008 and market rebound is not expected before 2011, according to the IPAF European Powered Access Rental Report 2009 and the IPAF US Powered Access Rental Report 2009 released at the bauma construction show in Munich.
The European MEWP rental market is estimated at €2.6 billion in 2009, a decrease of 13% over 2008, while the USA rental market is estimated at $6 billion, a drop of 25% over 2008.
The results are based on independent studies conducted by Ducker Research, using mainly primary research in the form of interviews. The sample of rental companies interviewed here represented 42% of the estimated total MEWP rental market. Secondary sources such as census statistics and market indicators were also used. The 11 European countries covered were: Belgium, Denmark, Finland, France, Germany, Italy, the Netherlands, Norway, Spain, Sweden and the United Kingdom.
The studies found that de-fleeting is not as extensive as claimed. In the USA, de-fleeting was at its peak in 2009. In Europe, small and specialist companies continue to invest. Non-residential construction activity was found to be the most important driver.
Comparing Europe and the USA showed up some key differences. Europe is a market of more specialist rental companies, whereas the USA is a market of more generalist rental companies which is more consolidated and less fragmented than Europe. The top five rental companies in Europe account for no more than 25% of MEWP rentals. In comparison, the figure for the top five rental companies in the US is one-third of MEWP rentals.
The USA market is seeing an oversupply of MEWPs generally and it is also noticeable that there are few truck mounts in the rental fleet. The situation in Europe is more varied. There are more specialist rental companies, especially in the United Kingdom, Italy, Germany, Belgium, and the Netherlands, but there are also countries where generalists predominate: France, Spain and the Nordic countries. Spain, a generalist market, has been more affected by the economic downturn than Germany, a specialist market that continues to invest in niche equipment. The United Kingdom market is seeing growing demand on construction sites for access equipment with no mechanical drive.

- The IPAF European and US Powered Access Rental Reports 2009 are available in English and can be purchased at the Publications section of www.ipaf.org

# WORLDSTEEL SHORT RANGE OUTLOOK

The World Steel Association (worldsteel) has released its short range outlook (SRO) for 2010 and 2011. worldsteel forecasts that apparent steel use will increase by 10.7% to 1,241 million metric tons (mmt) in 2010 after contracting by -6.7% in 2009. This represents an improved figure over the Autumn 2009 forecast for both 2009 and 2010. With these projections, world steel demand in 2010 will exceed pre-crisis levels of 2007. In 2011, it is forecast that world steel demand will grow by 5.3% to reach a historical high of 1,306mmt. The resilience of the emerging economies, especially China, has been the critical factor enabling the earlier than expected recovery of world steel demand.

The worldsteel Economics Committee met in Beijing in March 2010 and its deliberations took place before the impact of the increase in raw material prices could be fully considered. The risk of increased volatility of raw material prices remains a major concern to the steel industry and its customers.

Commenting, Daniel Novegil, Chairman of the worldsteel Economics Committee said, 'The general picture is an improvement on the forecast we issued in October last year. The world steel industry now seems firmly set on a path to recovery. The emerging economies, who in total maintained positive growth through the crisis, will continue to show strong growth, driving world steel demand in the future, however, the current recovery in the major developed economies is slower and the projected steel demand for them in 2011 is well below the 2007 level.'

'The recovery is not only earlier, but also stronger than expected. It was driven in large part by government stimulus packages and recent inventory restocking. The real concern will be how post-crisis macroeconomic policies deal with fiscal balancing and inflationary pressures.' Daniel Novegil concluded.

China's apparent steel use in 2010 is expected to increase by 6.7% to 579mmt after the impressive increase of 24.8% in 2009. The pace of economic growth and steel production seen in the first quarter of 2010 suggests that apparent steel use could be even higher than this forecast. In 2011, the growth rate will slow to 2.8%, which will bring China's apparent steel use to 595mmt. In 2011, China will account for 45.5% of world apparent steel use, compared to 48.4% in 2009.

India's steel demand maintained stable growth during the crisis and is expected to grow by 13.9% and 13.7% in 2010 and 2011 respectively, after 7.7% in 2009. In 2011, India's apparent steel use will reach 71.6mmt.

In the NAFTA region, apparent steel use in the USA fell by -41.6% in 2009 and recorded 57.4mmt. With the recovery in the US economy and stock rebuilding, apparent steel use is expected to grow by 26.5% in 2010 and then 7.5% to 78.1mmt in 2011, bringing its apparent steel use back to the level of 1991. For NAFTA, the level of apparent steel use that is expected in 2011 is similar to that of 1993.

The EU economies have seen a fall in apparent steel use of -35.2% in 2009 with Spain and Italy hardest hit by the collapse of their construction sectors. In 2010, the region will see an increase of 13.7% in steel demand due to inventory rebuilding and a slight increase in real steel use. In 2011, real demand will drive the recovery and apparent steel use is expected to grow by 7.9% to reach 145.2mmt, bringing it back to the level of 1997.

Japan, which experienced a fall in apparent steel use of -31.7% in 2009, will see its steel use increase by 10.3% in 2010, but in 2011, its steel demand is expected to stagnate with -0.2% growth due to weakening of its major steel using sectors. This brings Japan's apparent steel use in 2011 to 58.6mmt, the level achieved in 1983.

The CIS region was another major victim of the economic crisis due to its heavy dependence on oil revenue and foreign capital. Apparent steel use in the region fell -28.2% in 2009 with a fall of -41.9% in Ukraine. In 2010, apparent steel use in the CIS region will grow by 11% and then by 8% in 2011.

Turkey, which experienced a -9.4% decline in apparent steel use in 2009, will see an increase of above 13% in 2009 and 2010.

The MENA region continued to record positive growth in steel use in 2009 despite significant falls in UAE and Saudi Arabia. The region's better than average performance, despite the decline in the oil price, is attributable to the strength of Egypt and Iran. The region will maintain relatively resilient growth in 2010 and 2011 with apparent steel use reaching 68.2mmt in 2011.

- For further information visit: www.worldsteel.org

| Regions | ASU (mmt) | | | Growth Rates (%) | | |
|---|---|---|---|---|---|---|
| | 2009 (e) | 2010 (f) | 2011 (f) | 2009 (e) | 2010 (f) | 2011 (f) |
| European Union (27) | 118.4 | 134.6 | 145.2 | -35.2 | 13.7 | 7.9 |
| Other Europe | 23.9 | 27.2 | 30.4 | -12.5 | 13.5 | 11.9 |
| C.I.S. | 35.8 | 39.8 | 43.0 | -28.2 | 11.0 | 8.0 |
| N.A.F.T.A. | 80.9 | 99.9 | 107.1 | -37.4 | 23.5 | 7.2 |
| Central & South America | 33.6 | 40.4 | 43.1 | -24.1 | 20.0 | 6.7 |
| Africa | 26.4 | 28.7 | 31.3 | 9.6 | 8.6 | 9.3 |
| Middle East | 40.7 | 44.7 | 48.4 | -8.0 | 10.0 | 8.2 |
| Asia & Oceania | 761.5 | 825.7 | 857.7 | 8.7 | 8.4 | 3.9 |
| **World** | **1,121.2** | **1,240.9** | **1,306.2** | **-6.7** | **10.7** | **5.3** |
| China | 542.4 | 578.7 | 594.9 | 24.8 | 6.7 | 2.8 |
| BRIC | 640.9 | 692.0 | 720.7 | 17.5 | 8.0 | 4.1 |
| MENA | 57.5 | 62.9 | 68.2 | 0.8 | 9.5 | 8.4 |
| World excl. China | 578.8 | 662.2 | 711.3 | -24.5 | 14.4 | 7.4 |
| World excl. BRIC | 480.3 | 548.9 | 585.6 | -26.8 | 14.3 | 6.7 |

*Table 1: Apparent steel use – short range outlook for apparent steel use, finished steel (2009-2011)*

# NORWAY INTRODUCES MAJOR NEW SPRINKLER REQUIREMENTS

At the EFSN conference in Brussels it was announced that the Norwegian government has approved new sprinkler requirements. From 01 July this year, all new housing units of more than two-storeys will have to be fitted with sprinklers. This will affect almost all new apartment buildings.

In addition new hotels, hospitals and care homes must be sprinklered. Norway already leads Europe in the use of sprinklers per thousand inhabitants. This change will, over time, make Norwegian homes, hotels and healthcare facilities the safest from fire in Europe.

Norway has a commitment to Universal Design, by which is meant that housing should be suitable for all Norwegians. Not all Norwegians are able to respond to a fire alarm and leave the building. Sprinklers will enable them to stay in their homes until the fire brigade arrives.

If they are in the room where the fire starts all they need to do is get to another room and close the door. Even if they cannot get out of the room the sprinkler system gives them some chance of survival.

# BURO HAPPOLD PLAYS KEY DESIGN ROLE IN THE IVERIA HOTEL, TBILISI

The newly opened Radisson SAS Iveria Hotel in Tbilisi, the capital of Georgia, has laid the foundation for future commercial development in the region.

Over the last four years the hotel, formerly known as the Interhotel, has been completely gutted and rebuilt to European standards. International multidisciplinary engineering consultancy Buro Happold has delivered the structural engineering and building services design for the project, working in close collaboration with the architect Graft and the client New Hotel Joint Stock Company.

### Energy supplies

One of the challenges the consultancy faced when designing the Building Services systems was the region's often insecure energy supply. Consequently power stand-by units, a water supply system and underground fuel tanks that can bridge potential failures have been utilised to ensure the hotel can maintain a continuous supply of the main utilities.

### Meeting international seismic standards

Working in collaboration with Georgian-based engineers Buro Happold strengthened the existing concrete structure of the hotel as well as that of an adjacent new two-storey building to meet international seismic standards, necessitated by the region's volatile geological nature.

### New facilities

The refurbished hotel now boasts 249 rooms, as well as several restaurants, bars and a conference centre. In addition, the old roof top swimming pool has been removed and replaced with a split-level spa and fitness centre. To extend the Iveria's leisure facilities and competiveness in the hotel arena, a casino, ballroom and restaurant have been housed in the new building adjacent to the existing hotel.

The Iveria has had a colourful past: built in the cold war of the 1960s as the Interhotel, it offered some of the finest accommodation to be found in Tbilisi. However, the hotel fell into disrepair and during the 1990s it was occupied by 800 refugees fleeing the conflict of the Abkhazia war that ensued following the collapse of the USSR. They colonised the building and, to create more living space, erected façades to weather proof the balconies using a variety of materials including cardboard! As the refugees were gradually re-housed it has became possible to restore the building to its original use.

### Project team

Client: New Hotel Joint Stock Company, Tbilisi
Architect: GRAFT Gesellschaft von Architekten mbH, Berlin
Buro Happold services: Building services and structural engineering

For further information visit www.burohappold.com

# TRANSPORT RESEARCH ARENA 2010

Sustaining road transport mobility through innovation in Europe is the theme of the third biennial Transport Research Arena (TRA) event in Brussels from 07-10 June. TRA 2010 will bring together road transport stakeholders and researchers in a single European road transport research area. The event will present innovation, research and development in transport and road construction with a focus on climate change and road safety.
TRA 2010 and its supporting exhibition will be a meeting place for anyone professionally engaged in transport. The Brussels event is supported by the Conference of European Directors of Roads (CEDR), the European Road Transport Research Advisory Council (ERTRAC) and the European Commission. Over 1,000 participants are expected, including public authorities, consultancy and engineering groups, interest groups, contractors, suppliers, car manufacturers and fuel producers.
Transport plays an important role in the European economy and society with many different industries and services involved. TRA provides a platform for transport research in Europe. Following the past two editions in Gothenburg (2006) and Ljubljana (2008), the Brussels event will deal with greener, smarter and safer transport. A large number of speakers will elaborate on the current needs of the transport sector and look at the future challenges.

- Further information from www.traconference.eu

# NEW WEB SECTION DEDICATED TO NATIONAL FOCAL POINTS AND NATIONAL OSH SYSTEMS

The focal points of EU-OSHA have a new web section giving an overview of national occupational safety and health systems in the Member States, EFTA States, and candidate and pre-candidate countries. It is now possible to browse by State the main actors and strategies and link through to national authorities, social partners, and institutes, as well as finding out about local events and news. Each EU-OSHA focal point runs a national tripartite network, contributing to activities such as the Agency's Healthy Workplaces Campaigns.

- Further infromation from http://osha.europa.eu/en/oshnetwork/focal-points

# BICSI EUROPEAN CONFERENCE

Dublin, Ireland
22-24 June 2010

BICSI, the international association providing education and industry intelligence to network and data centre designers, installers, security professionals and end-users, will host the 2010 BICSI European Conference and Exhibition at the Citywest Hotel, Conference, Leisure & Golf Resort in Dublin, Ireland.

This year's event will feature technical presentations delivered by global leaders in the industry, an exhibit hall full of the industry's best suppliers, as well as multiple opportunities to network, share knowledge and experiences and discover new solutions to professional challenges.

Technology topics include:

- A future-proof approach to ITS design for safety and security
- Auditing a data centre – but to what standard?
- Cabling for distributed antenna systems: a cost-effective and non-disruptive strategy to cater for today's and tomorrow's in-building wireless coverage needs
- Essential fibre toolkits for next generation networks
- Fibre optic connector end face quality and maintenance
- Getting the best from your integrated IP security solution.

- For more information about the 2010 BICSI European Conference, please visit www.bicsi.org/european

# BAHRAIN WORLD TRADE CENTER WINS PALME

The Bahrain World Trade Center has won at the PALME Middle East Awards. Held at the Al Multaqua Ballroom at the Dubai International Convention and Exhibition Centre, the ceremony celebrated achievements in the categories of AV, audio technology and lighting design.

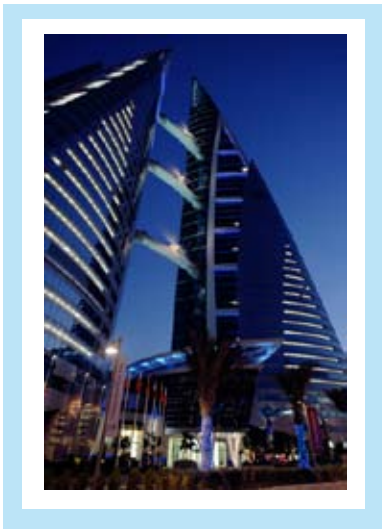
BWTC sub-consultants, LDP International, were awarded 'Best Use for Exterior Lighting' for their subtle and elegant lighting design illuminating the outside of the building.

Designed and engineered by Atkins, the twin sail-shaped towers are famous for being the world's first commercial building to incorporate large-scale wind turbines, and symbolise Bahrain's positive approach to the principles of sustainability.

The location and the coastal setting created opportunities for interesting play and interaction of movement and light. Inspiration for the lighting concept was driven by the iconic architecture visualised by the Atkins studio. Lights follow the curved elliptical form linked by the three bridges incorporating the feature wind turbines. These three 29m diameter turbines produce 11-15% of the towers' electrical requirement and are very much the focal point of the project.

Douglas Hamilton, a lead designer on the project commented: 'LDPi are delighted to receive this accolade which recognises a combined effort with Atkins in establishing a fully integrated lighting solution which emphasises and enhances the strength of Atkins' design concept. We are encouraged that such design strength is recognised in such a competitive environment.'

The Bahrain World Trade Center is not the first award-winning collaboration between the two consultancies. LDP International were a part of the Atkins project team on the Barr al Jissah Resort and Spa in Muscat, which collected two awards for lighting design at the Middle East Lighting Design Awards (MELDA), winning in the Hospitality and Leisure category, and the Middle East Project of the Year in 2007.



Building on an established and successful partnership, Atkins and LDP International are currently collaborating on the exterior façade and landscape lighting of the IPIC HQ commercial tower project in Abu Dhabi, and the interior lighting design of the Marriott Renaissance and Courtyard Hotels, also in Abu Dhabi.

- For more information contact Helen Dixon,Marketing Manager, Atkins Global. Tel: +973 39472849. E-mail: helen.dixon@atkinsglobal.com

# FROM TREND FORECASTS TO HYBRID THINKING

10-11 June 2010 – Berlin, Germany

Tickets are now available for Future Forum 2010, Design Hotels™' sixth architecture and design symposium. An international roster of architects, designers and trend experts will present and explore futuristic concepts in the context of hospitality.
For the first time Design Hotels™ has teamed up with DMY, the International Design Festival in Berlin (09-13 June 2010) and with the Bauhaus live Workshops of the Bauhaus Archiv (07-12 June 2010). This concentration of events will establish Berlin as an international hub for architecture and design this June.
The topic of this year's Future Forum is 'Hybrid Thinking'. Hybrid thinkers blend different skills and fields of thought to develop innovative concepts. The speakers are pioneers and personalities from the fields of hospitality, architecture, design and art. The symposium will take place at the Bikini House in Berlin's Charlottenburg neighbourhood. In collaboration with Maginwulf Studios the space will be transformed into an environment that reflects the Future Forum theme.

## The Symposium

The Future Forum kicks off with a Welcome Event on Thursday evening. Following the topic of 'Challenge Your Senses' Ottmar Pohl, chef de cuisine at Cosmo Hotel Berlin Mitte in Berlin, Hans Becker, chocolatier from Lapp & Fao, and winemakers Irène Tolleret and Michael Trenz, will demonstrate how important the senses are in the context of hospitality.
On Friday, Claus Sendlinger, founder and CEO of Design Hotels™ will open the forum together with business journalist and consultant Ralf Grauel. Chris Sanderson and Martin Raymond of The Future Laboratory in London will then give an insight into social movements and business trends of the coming years. In the afternoon, Dr David Bosshart, CEO of the Gottlieb-Duttweiler-Institut in Zurich will outline why hybrid thinkers have the ability to shape entire industries. The editor-in-chief of Frame, Robert Thiemann, will then present a vast selection of hybrid concepts from around the world. This will be followed by Sissel Tolaas who will talk about her fascinating work as a smell researcher, chemist and scent artist. Tolaas exhibited at the MoMA in New York, is a professor at the Harvard Business School, and works with companies including Sony, Cartier and Louis Vuitton. She describes herself as a 'professional in-betweener' connecting science and art. To finish the day, designer Werner Aisslinger will present the top ten design talents from this year's DMY.

## Hybrid Thinking

The Design Hotels™ Future Forum 2010 will focus on 'Hybrid Thinking' in the context of hospitality. Hybrid thinking requires much more than a multi-disciplinary team – it requires a team of multi-disciplinary people. Like-minded, visionary hotelliers around the globe have begun to create hybrid properties that go far beyond the original purpose of simply providing a bed. Multi-dimensional hotel concepts focusing on authentic experiences are on the rise, combining elements from galleries, hospitals or film theatres with the traditional idea of hospitality.

For details about the speakers and programme, please visit the official website: www.designhotels.com/futureforum and the related blog: http://futureblog.designhotels.com

Tickets may be purchased online from the Design Hotels™ shop: www.designhotels.com/shop

# FCC AWARDED CONTRACT TO BUILD RAILWAY IN ALGERIA

FCC in a joint venture with Algerian company ETRHB Haddad, has been awarded a contract to build a 185km long railway line running west of the capital city, Algiers, and connecting the towns of Relizane, Tiaret and Tissemsilt.

The contract, awarded by the Transport Ministry via ANESRIF (National Agency of Studies and of Follow-up of the Realisation of the Railway Investment), is part of the 2009-2014 economic development programme promoted by Algeria's President, Abdelaziz Bouteflika. The programme has a budget of 114 billion euro, a large part of which is aimed at infrastructure construction.

### Technical details

The new line will have a single high-performance track which allows for a maximum speed of 160km/h, divided into two sections: Relizane-Tiaret, measuring 121.1km, in very rugged terrain where the New Austrian Tunnelling Method (NATM) will be used to build five tunnels; and Tiaret-Tissemsilt, measuring 64.2km. The project includes the construction of seven passenger stations, five junctions, seven maintenance buildings along the length of the railway, and renovation work on existing stations in Relizane and Tissemsilt. The line will be electrified in the future.

### FCC's global expansion

This new contract strengthens the international expansion of FCC's Infrastructure division (construction and concessions). Currently, 44% of FCC's revenues come from outside Spain (54% in the Construction division). Mr Baldomero Falcones, Chairman and Chief Executive of Grupo FCC, said: 'Algeria has become a very important market for us. The railway project there, is further proof of FCC's growing global reach and reinforces our commitment to be a major player in the development of the infrastructure in Algeria. This prestigious contract sits alongside prominent FCC rail projects around the world including: the Singapore Metro; a New Delhi metro link and railway infrastructure for the Gotthard Base Tunnel in Switzerland.'

- Further information from www.fcc.es

# BUILDING AUTOMATION – A MARKET WITH A FUTURE

Providers of building automation products look optimistically to the future. At a working meeting in Paris on 05 May 2010, eu.bac, the European industry association for building automation, announced its guiding principles which illustrate the significance of intelligent technology in energy-efficient buildings. 'We provide the shortest payback periods for saving energy in buildings,' said eu.bac managing director, Peter Hug. 'This brings a new impetus for innovation, competitiveness and job creation.'

Where energy can be saved, economic activity is livelier than before. This also applies to building automation. Buildings consume 40 per cent of Europe's primary energy. In this way technical building systems become an investment that is sought after. Intelligent networking, consumption regulation, controlling and contracting – from eu.bac's point of view these are new products and services that form a basis for new jobs and growth across Europe.

What is also clear in the guidelines is that intelligent building services engineering is not only cost-effective. Rather, it is also a guarantee of compliance with the political directives for climate protection. eu.bac promotes the comprehensive equipping of buildings and houses with the most modern control technology. This reduces both costs and greenhouse gas emissions.

The latest generation of automation products lastingly improves the energy efficiency of buildings – by up to 14 per cent compared to standard products according to calculations by eu.bac. To ensure this, the association has created an independent quality assurance system. Over 100 controllers already bear the eu.bacCert mark. This stands for top quality and guaranteed energy efficiency.

In eu.bac's view, indoor environments that promote comfortable and efficient work are not in conflict with energy efficiency. High quality products and installations offer comfortable as well as economical solutions. When it comes to health and hygiene no one needs to do without. On the contrary, building automation also takes care of the elderly and this allows them to lead independent lives as long as possible. Intelligent technology in energy-efficient buildings – a market with a future.

- Further information from www.eubac.org

# ISSF ELECTS NEW MEMBERS

The International Stainless Steel Forum (ISSF) has elected two new members during its fourteenth Annual Conference (ISSF-14) in Rio de Janeiro, Brazil. ISSF has now 72 members in 27 countries.

The new company members are the United Stainless Steel Company (USCO) from Bahrein and Villares Metals from Brazil.

- Further information from www.worldstainless.org

# SOLUTIA ANNOUNCES WORLD OF COLOR AWARDS PROGRAM

Solutia Inc, manufacturer of the Vanceva Color System by Saflex® has announced its inaugural Solutia World of Color Awards Inspired by Vanceva®. The new international design awards program is designed to honour architects, interior designers, glass fabricators, furniture designers, glazing engineers and other industry professionals for their innovative design use of coloured laminated safety glass in building design and interior spaces around the world. Entries will be accepted online from 14 June 2010 at www.worldofcolorawards.com

'Glass is the portal through which we experience light in the built environment. Adding colour to that glass, whether it is in exterior glazing, interior partitions, furniture or art, elevates the experience of light,' says Julie Schimmelpenningh, global architectural applications manager for Solutia. 'This competition seeks to honour architects, designers and glazing professionals who use colour to enhance the built environment and inspire occupants.'

The Vanceva Color System by Saflex offers architects and designers unparalleled creative freedom to incorporate colour into glass and glazing systems using tinted interlayers which are laminated in between 2 pieces of glass. A palette of 15 colours can be combined in up to 4 layers to produce more than 3,000 transparent, translucent and opaque glass colours. This gives designers unparalleled flexibility to create custom colours and one-of-a-kind aesthetics. Vanceva color interlayers also offer all the benefits of polyvinyl butyral (PVB) interlayers for laminated safety glass, including security, solar, sound insulation and UV protection.

The World of Color Awards competition is an international recognition programme open to all industry professionals. All entries must include liberal use of Vanceva color interlayer products and must have been completed between 01 January 2006 and 31 December 2009.

Nominating a project is easy, simply visit www.worldofcolorawards.com to submit photographs and a brief background for each project. There are no entry fees, and multiple entries will be accepted. The deadline for entry is 15 August 2010.

Entries will be judged by a jury of architectural and colour marketing professionals. The architectural and design community will also be able to cast their votes for their favourite projects online. The glass fabricator who supplied the laminated glass for each of the winning projects will also be recognised.

# THE ZED PAVILION OPENS, SHANGHAI EXPO 2010

Shanghai Expo 2010 was officially opened earlier this month. This international event is expected to attract 70 million visitors over the next 6 months. ZEDfactory, an award winning Architectural practice based in London, is proud to have designed the building and exhibition that is The ZEDpavilion – having won an international competition to build a legacy section of street within the Urban Best Practice Area of the Expo. The ZED concept (Zero Energy Development) was pioneered by Bill Dunster and the ZEDfactory in the construction of BedZED in South London, which opened in 2002.

The ZEDpavilion showcases an holistic approach to urban sustainability, highlighting a range of key strategies, technologies, and components that The ZEDfactory believe are key to meeting our global commitments to a low carbon future. The ZEDfactory also now has a satellite office in Shanghai to work with the Chinese construction industry and continue to develop low carbon solutions for a wide range of climates and densities.

The building is an exemplar of low carbon design – super-insulated with high levels of thermal mass, an airtight construction and passive solar orientation. A large photovoltaic solar panel array provides the building with green electricity and a ventilation system, complete with rotating wind cowls, providing fresh air with coolth recovery. The pavilion houses exhibitions designed by The ZEDfactory, London Development Agency (LDA) and the University of Nottingham and there is an extensive programme of events for the duration of the Expo. The building also contains a restaurant, bar, lecture hall, 6 showflats and even a catwalk set to host the latest Chinese eco fashion design shows. This is all based on the themes of Better City, Better Life – showcasing innovative and holistic solutions to Zero Carbon Urbanism. When the Expo ends in 6 months the plan is for it to be retained as a permanent Zero Carbon Museum of Shanghai.

Bill Dunster – ZEDfactory founder and principal: 'Imagine you are the mayor of a Chinese city, considering how to deliver a low carbon regeneration or urban extension, and you have come to find out how to create a better city and a better life. The ZEDpavilion shows how to build super energy efficient family homes or flats over a 2-storey commercial street frontage that is designed to recreate the lively mix of medium density shops, showrooms and office space that makes the pedestrian prioritised arts quarter of old Shanghai so desirable today. Integrating generous private roof terraces for both home and workspace – with green roofs to attenuate rainwater, maximise biodiversity, and reduce the problematic urban heat island effect – this small city component can be easily scaled up to provide near zero carbon urban districts.'

'Powered by durable monocrystalline solar electric panels, manufactured by the largest renewable energy production line in the world, the ZEDpavilion shows how to integrate meaningful renewable energy systems into the urban streetscape. This strategy does not require the unaffordable up front investments in centralised engineering infrastructure that has made many of the larger scale ecocities so hard to deliver across the globe. The ZEDpavilion has been entirely made by Chinese industry, collaborating with London to develop special components such as the passive heat and coolth recovery wind cowls with solar powered dehumidification optimised for the Shanghai climate.'

'The spectacular economies of scale achieved by Chinese investment in volume production of both energy efficient building components and renewable energy systems, mean that the ZEDpavilion strategy of first minimising energy and water demand then meeting these reduced loads from the sun, wind, and rain falling on the site – is now economically viable in many parts of the USA and Europe. The ZEDpavilion showcases a wide range of low and zero carbon technologies and components that can significantly reduce air pollution and noise. These range from electric personal transportation, to the innovative production of hydrogen gas from agricultural crop waste; providing clean energy for higher density urban developments whilst sequestering agricultural carbon emissions from the atmosphere and returning nutrients back to the soil.'

'The ZEDpavilion moves beyond architecture and engineering to discuss climate change art, low carbon furniture, local organic food and even alternative fashion. This is a relaxed vision of a fun, workable lifestyle powered by renewables, with fresh design principles, a fresh aesthetic – housing a future zero carbon/zero waste population that have no need to fight for dwindling international supplies of carbon accelerating coal, oil, gas or uranium. The ZEDpavilion shows one vision of a better city and a better life. Now all you have to do is ask for it.'

- Further information from www.zedpavilion.com