



EmiratesGBC 2015 AWARDS

**Celebrating Green Building Achievements,
Rewarding Excellence.**

Wednesday 13 May 2015

Al Marooj Rotana, Dubai

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Welcome to the EmiratesGBC 2015 Awards

Since its 2013 launch, the EmiratesGBC Awards have been honoring organizations that demonstrate clear implementation of sustainable design, construction and/or operation of building structures. The Awards Program's ultimate goal is to help establish a regional model for the sustainable built environment that is world-class and replicable.

For the third year, the EmiratesGBC Awards have rewarded the achievements of talented teams for their commitment to green buildings products,

materials, systems, research and education. With one Award category dedicated to students only, EmiratesGBC also recognizes the creativity and excellence of the next generation of green professionals.

Winning and short-listed organizations have been acknowledged and rewarded during the 2015 Awards Ceremony and Gala Dinner that took place on Wednesday 13 May 2015 at the Al Marooj Rotana Hotel in Dubai.

Address from Jotun,

EmiratesGBC 2015 Awards Platinum Sponsor



"Tackling environmental issues is a collective endeavour and calls for combined efforts. Since its inception, the Emirates Green Building Council has played an influential role in promoting sustainability and increasing awareness of designing sustainable environments among the general public.

Jotun is pleased to have worked in close collaboration with the Emirates Green Building Council over the years and we pledge to continue lending support to the Council's initiatives. The EmiratesGBC Awards will help build a greener industry and a sustainable environment that will greatly benefit the generations to come."

Vishaal Kodikal , Marketing Manager, Jotun UAE Ltd. LLC.



From left to right: Mr. Rajesh Singh, Jotun, receiving the plaque as Platinum Sponsor of the EmiratesGBC 2015 Awards from Mr. Saeed Al Abbar, EmiratesGBC Chairman.



EmiratesGBC 2015 Awards

(right): Mr. Ahmed AlMahmood, Ajman Tourism Development Department; Solaiman Al Rifai, Dubai Department of Tourism and Commerce Marketing, and H.E. Dr. Thani Ahmed Al-Zayoudi U.A.E. Permanent Representative to IRENA and Director of Energy and Climate Change at the Ministry of Foreign Affairs.



(top): Mr. Saeed Al Abbar, EmiratesGBC and Ivano Iannelli, Dubai Carbon Centre of Excellence



Meet the 2015 Awards Official Judges

Prof. Bassam Abdel-Karim Abu-Hijleh, Dean and Atkins Chair Head of the Sustainability MSc & PhD Programmes, Faculty of Engineering and IT, The British University in Dubai (BUiD)



Dr. Ghalib Kahwaji, Professor and Chair of the Mechanical Engineering Department, Rochester Institute of Technology



Dr. Michael Schmidt, Board Member of EmiratesGBC, Head of Development, Construction Chemicals Division, ORA: Middle East, West Asia, CIS & Africa, BASF



Mohammed T. Asfour, Chairman of JordanGBC and Member of the Board of Director of WorldGBC



Dr. Rob Cooke, Associate Sustainability Consultant, Buro Happold, and Board Member of EmiratesGBC



Rym Baouendi, Founder & Managing Director, Medina Works



Sarfraz Dairkee, Secretary to the Board of EmiratesGBC, General Manager Corporate Dev. & Engineering, M.A.H.Y. Khoory & Co. LLC



The 2015 Review and Judging Process

Processes and Progress

In line with the first two EmiratesGBC Awards programs in 2013 and 2014, the Official Judges were chosen based on their extensive experience in the fields of sustainability and green buildings.

Their expertise from the private sector, academia and other Green Building Councils allowed them to review the numerous applications objectively and to highlight organizations and individuals that actively contribute to furthering the green building movement, not only in the U.A.E., but also regionally.

Based on the processes in place and the Judges' feedback over the past two years, it is with pride that the Council sees the number of applications growing each year, and to witness an improvement in the quality of submissions. The EmiratesGBC Awards have become a key platform for the industry to recognize green achievements, products, projects and research that are supporting the national vision on sustainability.

Transparency and Lessons learned

As part of the Awards' internal processes and in order to guarantee strict transparency and confidentiality, applicants and Official Judges were provided with dedicated guidelines stating the 2015 Terms and Conditions and information to be added into their submissions.

These guidelines have been prepared and approved by the EmiratesGBC Management Committee, and then reviewed and validated by KPMG as external observer and auditor. Each year, they have been updated to include new categories and take into consideration all feedback received from the previous cycles' applicants and Judges.

This continuous process allows the Council



From left to right: Sarfraz Dairkee, M.A.H.Y. Khoory & Co. LLC., Dr. Michael Schmidt, BASF, Dr. Rob Cook, Buro Happold and Dr. Ghalib Kahwaji, Rochester Institute of Technology, Official Judges for the 2015 Awards.

to build stronger Awards which reflect the actual progresses and industry needs in the region.

To guarantee absolute confidentiality from the Awards launch until results were shared during the Awards Ceremony and Gala Dinner, all parties involved in the 2015 Awards Program were requested to sign Non-Disclosure Agreements.

Identification of Winners and Short-listed Organizations

The identification of short-listed and winning organizations is based on the scores and comments received from the Official Judges. At the end of the official scoring phase, results are compiled and presented to the EmiratesGBC Awards Taskforce and KPMG for final review, recommendations and validation.

This external third-party review ensures that all steps are respected as per the guidelines, terms and conditions, and that the short-listed and winning projects receive the recognition they deserve.

The EmiratesGBC 2015 Awards Categories

In 2015, the following Award categories have been rewarded:

- ♦ Green Facility Management Organization of the Year
- ♦ Green Training Initiative of the Year
- ♦ Green Building Research Project
- ♦ Green Building Material / Product of the Year
- ♦ Green Building System
- ♦ Green Hotel of the Year
- ♦ Green School of the Year
- ♦ Green Commercial Building of the Year
- ♦ Dr. Sadek Owainati Special Student Award

Keynote Addresses



Saeed Al Abbar, Emirates Green Building Council Chairman

"The EmiratesGBC Awards have become a core part of our activities in promoting a sustainable built environment in the U.A.E. The high quality of entries for EmiratesGBC 2015 Awards underlines the increased interest and involvement by various organizations and individuals in the U.A.E. and the wider Middle East region in the green building sector".

H.E. Dr. Thani Ahmed Al-Sayoudi, U.A.E. Permanent Representative to IRENA and Director of Energy and Climate Change at the Ministry of Foreign Affairs

With the country's economic growth and the continuous increase in construction projects in the U.A.E., the pressure on natural resources is forcing us to change our mentalities and ways to approach building design, regulations and construction methodologies. During his keynote address, H.E. Dr. Thani reaffirmed the importance of greening the built environment and commended the EmiratesGBC 2015 Awards as the platform to share best practices, encourage innovation and award excellence.



Green Facility Management Organization of the Year

The Winner

Imdaad is a leading regional Integrated Facilities and Environmental Management company. Imdaad has pioneered environmental sustainability in the industry by successfully integrating ISO 14001 (Environmental Management) with ISO 9001 and OHSAS 18001 through an Integrated Management System. Imdaad integrates sustainability in FM through a three-pronged approach:

Sustainability for Clients: Imdaad develops a sustainable FM plan jointly with clients based on their Assets, People & Processes. This approach has resulted in clients achieving consolidated energy savings of >11 Mn kWh and 1 Mn gallons of water annually. Clients have seen significant value in these initiatives and appreciated Imdaad through multiple awards and recognitions

Sustainability within Imdaad: Building a sustainability culture within Imdaad through several initiatives has resulted in multiple



benefits including 6% energy conservation and 5 tons of recycled waste among others

Sustainability in the Community: As a responsible corporate citizen, Imdaad continuously builds sustainability in the community through awareness programs, participation in regional/global sustainability related events, seminars & exhibitions. Example include Beati (program for schools on environmental awareness), Social Media campaigns on energy/water conservation, Earth Hour/World Environment day participation among others Imdaad continuously innovates in alignment with UAE Government in advancing its Vision of a Sustainable Environment.



Green Training Initiative of the Year

The Winner

The **Carbon Ambassador's Program** was developed to cater to the UAE's future requirements in the field of Green Economy and sustainability. The program entails volunteering Emirati university students to work under the guidance of mentors who are tasked with guiding the students to use their critical thinking abilities and creativity to create a fully functional bus stop out of used shipping containers.

The program, which is supported by Dubai Carbon, DEWA, MOFA and UNDP, was conceptualized in order to create and influence the leaders of Dubai's present to meet the business needs of UAE's future in sustainability.

In line with its pursuit for "excellence" and in compliance with its shareholders best practices, Dubai Carbon implements the highest standards in governance to ensure a functional yet fully transparent and well-governed



كربون دبي
DUBAI CARBON

approach.

Dubai Carbon is a think tank and consulting services provider that focuses on sustainability and low carbon development. Since 2013 Dubai Carbon has added a new business line that focuses on knowledge products and programmes.

In order to achieve Dubai's vision of becoming the Capital of Green Economy, Dubai Carbon in its core essence has conceptualized and successfully implemented the Carbon Ambassadors Programme.



EmiratesGBC 2015 Awards

Green Building Research Project of the Year

The Winner

“Outdoor space comfort – making summer living better” - **WSP | Parsons Brinkerhoff’s *Outdoor Space Comfort* research project** combined the findings of the latest research in human comfort and cutting edge software tools to create a system that helps to improve the usability of outdoor spaces and their commercial values.

The tool is the first of its kind and represents a significant step towards changing the environment of outdoor spaces in the Middle East. It brings huge benefits to the industry by simplifying the process of measuring comfort so that solutions for individual projects can be provided within a week, rather than months.

The *Outdoor Space Comfort* system has been successfully implemented on a number of projects, resulting in a substantial environmental impact including a 10 percent reduction of uncomfortable hours, reduced water consumption and an additional two months usage of outdoor commercial spaces.



The project not only offers a successful methodology but also provides commercial benefits for any development in the Middle East hoping to utilize outdoors spaces by allowing restaurants and cafés that would usually experience a decline in patronage during the summer season to open up outdoor space throughout the year.



EmiratesGBC 2015 Awards

Green Building Material / Product of the Year

The Winner

Khansaheb Bionest is an odourless and near silent wastewater treatment solution that produces high quality crystal clear treated reusable water. Its low operational power demands and minimal mechanical equipment result in low energy consumption, and little maintenance. The system requires no hazardous chemicals, only chlorine tablets for final disinfection, and reduces the pressure on the municipal sewage networks by treating domestic sewage at source.

Treatment at source also contributes to a reduction of sewage tanker traffic and the resultant reduction in carbon emissions. The high quality of treated water allows for multiple opportunities for re-use thereby reducing the demand and consumption of sweet water, whilst at the same time increasing the potential for green areas to be used for agricultural purposes or recreational activities.

This innovative system uses a submerged fixed film bioreactor.



At the core of this bioreactor is the patented "ribbon shaped" media, where biomass (beneficial bacteria) develop and firmly attach to the uniquely textured surface. The ribbon shaped media's unique 3D structure allows complete distribution throughout the tank, whilst occupying only 3% of tank volume. This produces an extremely high population density of beneficial bacteria, and results in the reactor's outstanding performance as well as excellent resistance to flow variation.

The Khansaheb Bionest system has been developed with the flexibility to cater for a wide variety of facilities, from permanent labour camps, hotels and golf courses to temporary offices and construction sites. It can be located underground to maximise available ground space, above ground, or in shipping containers making it easily portable.





(above left): Ms. Joelle Khoury, emcee

(above right): HE Dr. Thani Al-Zayoudi, Guest of Honor, Ministry of Foreign Affairs

(left): Mr. Ali Jassim, Etihad ESCO, and Mr. Saeed Al Abbar, EmiratesGBC



Green Building System of the Year

The Winner

Smart Box Industries introduced a new permanent building system to construct a 13,440 sq ft office-cum-archive area at **Techno Park, Dubai**, consisting of 42 units of 40-foot high-cube containers as well as a complete roof structure. Being the FIRST approved permanent building to be constructed using shipping containers in the entire region, it has set Smart Box as pioneers in the field.

The system design uses shipping containers as building blocks, which have an extremely strong structural framework exceeding the IBC standard code. Shipping containers provide an extremely flexible method of construction.

The use of containers for civil construction, synonymously called 'Cargotecture', represents an ideal opportunity to use them in a green, constructive manner, rather than send them for recycling or as waste.



The modular building system consists of insulated office spaces with a reception, several individual cabins, a large open office area, conference rooms, prayer rooms, IT room, pantry and dining room etc. and an archive area of about 5200 sq ft..

With natural tubular lighting, LED downlights, ozone friendly air conditioning using R410a, external roof (mounted on the container structure) with an approved reflective index, the Green building standards stipulated by Trakhees have been followed.



Green School of the Year

The Winner

The **American University of Sharjah (AUS)** is a non-profit, independent, coeducational institution formed on the American model founded in 1997 by His Highness Sheikh Dr. Sultan Bin Mohamed Al Qassimi, Member of the Supreme Council, Ruler of Sharjah and President of the American University of Sharjah.

The **Campus Service Center (CSC)** is one of AUS's latest and most significant administrative buildings, uniquely integrated within the built environment and serves as the heartbeat of the campus; complemented by a utility service block which provides 30% efficiency savings and once at full operation, it will serve half of the academic buildings' cooling requirements.

The highlights of the CSC, for the Campus Development Department, are the innovative design techniques used to improve the green standards of the building.

AUS | الجامعة الأميركية في الشارقة
American University of Sharjah

The linear orientation, in coordination with an irregular floor plan with sun shading control provides an efficient layout which enhances productivity and reduces the cooling capacity requirement; while at the same time creating an open environment, designed to be as flexible as possible.

The CSC is a major step forwards for the Campus Development Department and the AUS Campus, as it creates an exemplar for efficient design while incorporating important sustainable initiatives across the AUS campus in support of the university's sustainability master plan.



Green Hotel of the Year

The Winner

Since its inauguration nearly two years ago, **Sofitel The Palm Dubai** has demonstrated a great deal of importance to sustainable and green initiatives. The property has been granted several awards and certifications from the Green Globe Certification, to the ISO 14001 Environmental Certification and the Blue Flag Award for Best Beach.

The resort has achieved a saving of almost 1,000,000 kWh of energy through the use of technology and the replacement of 80% of halogen lamps with LED lamps.

The implementation of an efficient recycling programme has generated a saving with environmental equivalent of 2,330 trees, 575,610 kWh of energy, 959,350 gallons of water, 8,223 pounds of air emissions and 166,260 litres of oil. The waste diversion from the landfill is almost 30% with hazardous waste being disposed through a government approved agency.



The resort also has unique design features incorporated including a Green Wall covering an area of 600 square metres with 120 different plant species as well as 232 solar panels covering 530 square metres and generating 2,200 kWh of heat output per day.

Sofitel The Palm Dubai's strive for sheer excellence in the hospitality industry is reflected in the sustainable initiatives implemented and awards earned, recognising brilliance in concept, design, quality, sustainability and guest experience within a resort environment.



Green Commercial Building of the Year

The Winner

A new **commercial headquarters building for IRENA (International Renewable Energy Agency)** – designed by global architectural practice **Woods Bagot** and constructed by global contractor **Brookfield Multiplex** under a Design and Construct contract, has been completed in Masdar City, Abu Dhabi, UAE.

IRENA Headquarters, a Grade 'A' office building – developed by the Masdar organisation, the company responsible for delivering Masdar City as a completely self-sufficient, sustainable city – also includes speculative commercial space which, combined with the space occupied by IRENA staff, will offer a total floor area of 32,000m².

The design of the IRENA HQ building was driven by achieving a series of ambitious targets set by Masdar and meeting the environmental objectives that satisfy a Four Pearl Estidama building. These targets were captured by Key Performance Indicators against which the success of the project could be measured.

In addition, the project team were required to

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MULTIPLEX** | **BM**

meet all of these objectives within a budget that demonstrates a commercially viable building.

To achieve the highest ever Estidama Construction Rating, and to be one of the UAE's most sustainable and energy-efficient buildings, is a reflection of the commitment of all project team members throughout the project's lifecycle. The IRENA HQ building will serve as a prime example of how early project involvement by key stakeholders as well as collaboration between the end-user, developer, design team and contractor have attained greater synergies, producing a highly desirable end-product.



Dr. Sadek Owainati Special Student Award

The Winner

Ms. Muna Saleh Al-Nahdi, Rochester Institute of Technology, Dubai: "Low and Medium Voltage Chiller Drives: A life Cycle Analysis", February 2015

Chiller's Electrical requirements include energy-related prerequisites, electrical supply backbone, distribution equipment such as switchgear, operation and maintenance and others. A comparative analysis between the electrical requirements, criteria and performance of LV and MV chillers was carried out. The electrical requirements for two chillers with 1000TR refrigeration capacity and rated for Low Voltage (415V) and Medium Voltage (11kV) were taken as a case study.

Load, cable sizing and equipment sizing calculations were performed for both of the chillers separately. Then, their technical, financial, operational and environmental performance was analyzed. In addition, impacts of the chiller operation on the power quality were also studied. Based on the analysis; both standard and high MV chillers outperform the LV chillers in almost all of the aspects considered. For MV chillers, both standard and high efficiency chillers have very similar performance with the High efficiency one exceeding the standard one in all aspects.



Special Recognition for Achievements with Emirates Green Building Council

Adnan Sharafi

Former Chairman of Emirates Green Building Council
(served from 2011-2013)



Jeff Willis

Former Chairman and Vice-Chairman of
Emirates Green Building Council
(served from 2009-2010 / 2011-2014)

During the Awards Ceremony and Gala Dinner, Saeed Al Abbar, current EmiratesGBC Chairman, awarded Jeff Willis, former Chairman and Vice-Chairman (2009-2010 / 2011-2014), and Adnan Sharafi, former Chairman (2011-2013) for their years of technical support to the Council's activities and programs since 2009. Over the past years, Mr. Willis and Mr. Sharafi have contributed to the Council's greater visibility and connectivity with the local industry and governmental authorities, placing EmiratesGBC as a key stakeholders for the greening of the U.A.E. built environment.



The Short-Listed Organizations

Emirates Green Building Council sincerely thanks all the organizations which have submitted an application to the EmiratesGBC 2015 Awards, and strongly commends the projects and achievements of the short-listed applicants:

Green Facility Management Organization of the Year

- ◆ Emaar Community Management
- ◆ MAF Dalkia

Green Training Initiative of the Year

- ◆ Midfield Terminal Building Project, by TAV/CCC/Arabtec Joint Venture
- ◆ Khansaheb Training School, by Khansaheb

Green Building Research Project

- ◆ Heriot Watt University-Dubai Campus School of Engineering and Physical Sciences & Green Building Solutions International, for the research "Green Buildings & Accountability -- Significance of In-Situ U- Value Measurements for Wall Assemblies"

Green Building Material / Product of the Year

- ◆ Ecomag Boards, by Genesis Ecomag Boards IND Factory LLC

Green Building System

- ◆ Energy Optimization System (HVAC) in Sheraton, Mall of the Emirates, by Grundfos Gulf Distribution

Green School of the Year

- ◆ Al Maharat Private School

Green Commercial Building of the Year

- ◆ YAS Mall

Dr. Sadek Owainati Special Student Award

- ◆ Mahmood Ali Sohoo, The British University in Dubai
- ◆ Munis Abdul Hameed, Heriot Watt University Dubai



EmiratesGBC 2016 Awards

Closing the 2015 Awards Program does not mean our work ends here, as we are already preparing the 2016 Program based on the applicants', Judges' and auditors' comments.

If you have any feedback regarding the Awards process and the Gala Dinner & Awards Ceremony, please send them to egbcawards@emiratesgbc.org or +971 4 346 8244.

Your feedback will help us build an even stronger event in 2016.

The categories for the EmiratesGBC 2016 Awards Program and the modalities to apply will soon be shared on the EGBC website and other social media. Keep yourself posted and do not hesitate to contact us if you have any questions.

Special Thanks

Emirates Green Building Council would like to thank the Sponsors who contributed in making this 2015 Awards Program a great success:

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Emirates Green Building Council would like also to extend its gratitude to its corporate member and external auditor KPMG which for the second consecutive year has officially audited the EmiratesGBC Awards Program.



Finally, Emirates Green Building Council would like to thank all those who contributed to the success of the 2015 Awards Program and Gala event:

- ◆ Office team: Lora Shrake, Marie-Helene Westholm-Knebel, Hussam Eddin, Tara Tariq, Sheena Khan, Adelita Cortenias.
- ◆ EmiratesGBC Management Committee
- ◆ PR/media: Asda'a
- ◆ Photography: Anique Ahmed
- ◆ Awards Ceremony and Gala Dinner Emcee: Joelle Khoury
- ◆ Oud Player: Nina Boutchakjian
- ◆ Gala Dinner & Awards Ceremony: Al Marooj Rotana, Dubai





EmiratesGBC Annual Congress

“How do green buildings scale up?”

20-21 October 2015, Dusit Thani Hotel, Dubai

The 4th EmiratesGBC Congress will provide a platform to discuss the opportunities and challenges related to the role of cities and regions in catalyzing, facilitating and stimulating sustainable innovation, products, services, technologies and new business models.

Under the theme “**How do Green Buildings Scale up?**”, the event will bring together government and industry, thereby stimulating interactive discussions and creating a space for learning, networking and capacity building.

If you would like to know more about the 2015 Annual Congress in terms of program, speaking and sponsorship opportunities, please contact our office at events@emiratesgbc.org or +971 4 346 8244.

The EmiratesGBC website will be updated soon with more details, keep yourself posted!



Sustainability Sponsor

The Emirates Green Building Council was formed in 2006 with the goal of advancing green building principles for protecting environment and ensuring sustainability in the United Arab Emirates.

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