

PILLARS |

Building and Construction  Authority

We shape a **safe**, **high quality**, **sustainable** and **friendly** built environment.



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Mr Kenneth Loh is a Contracts and Commercial Manager at Swee Hong Engineering Construction. He was a key contributor in helping the company win the bid for the iconic project at Gardens by the Bay. Kenneth is currently managing a green project in consultation with BCA's Green Mark Department, where building systems and recycled freight cargo containers are being used to build the company's office headquarters. This initiative serves to improve productivity as well as reduce construction wastage and carbon footprint.

Photoshoot location: Construction site for building of Swee Hong's office headquarters.

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CEO's Message

Dear readers,

A very Happy New Year to all!

I am glad to say that the year of 2010 has been a very positive and fulfilling one for BCA. Just a few months back, in November, BCA Academy graduated 457 students from its Specialist and Diploma programmes. I wish to extend my heartfelt congratulations to these graduates whose hard work has paid off, as well as to the Academy for its continued efforts in developing expertise among our future players in this fast-changing industry. I strongly urge all our new graduates to take advantage of the diverse pool of career opportunities in today's construction sector.

During the graduation ceremony, Senior Minister of State Ms Grace Fu announced that Singapore's inaugural Construction Productivity Week would take place in April this year. In conjunction with the Construction Productivity Week, BCA has introduced the Construction Productivity Awards (CPAs) to promote greater ownership in productivity and to recognise key industry practitioners for their achievements and efforts to raise productivity in our industry.

With raising productivity on the agenda, BCA also recently launched 'The Smart Builders Leadership Series', a sequence of sharing sessions by industry players, as well as a seminar on creative adoption of Prefabrication Technology organised by BCA Academy to raise industry awareness on the various productivity initiatives taken by individual companies on their own productivity journeys and to share the technological knowhow with all industry players.

We were also honoured to be able to bring together international delegates from the Asia-Pacific Economic Cooperation (APEC) Workshop that was held at the BCA Academy in October 2010. Since its launch in 1995, the CORENET (Construction Real Estate Network) system, an initiative driven by BCA, has been the key to seamless submission of building plans for construction permits. I am

proud to say that during the workshop, CORENET was held up as a prominent illustration in the adoption of information technology to drastically improve the system efficiency in granting construction permits. The participants were also given a glimpse of 3-D Building Information Modelling (BIM), an enabling information technology that has the potential to be the next major breakthrough in the use of information technology to propel our industry forward.

Of course, not forgetting the growing prominence of "Sustainability" in Singapore, BCA has recently awarded the Green Mark Gold Award to the Circle Line for its environmentally-friendly features. I am glad to see that the interest in BCA's Green Mark Scheme has extended beyond buildings. It is now an opportune time for us to recognise individuals who have been involved and played a significant part in contributing to the sustainability cause. BCA, in partnership with the Singapore Green Building Council (SGBC), is calling for nomination in the inaugural Green Building Individual Awards 2011 to recognize those who have walked with us in this green journey.

Taking with us the positive achievements and initiatives from 2010, I am confident that 2011 will reap even more rewarding results for BCA and our industry partners as we continue to collaborate and develop more fruitful partnerships to shape a safe, high quality, sustainable and friendly built environment for all.

Dr John Keung
Chief Executive Officer

A Proud Moment

BCA Academy graduated 457 students from its Specialist Diploma and Diploma programmes, including 38 Gold, Silver and Bronze Awardees, on 24 November 2010.



Sun He, the valedictorian of the year, delivering his address at the graduation ceremony.



Abu Bakar Bin Salim with his family.



The graduates eagerly awaiting to receive their diplomas at the graduation ceremony hall.

Graduates attending the BCA Academy Graduation Ceremony shared a proud moment when they received their Specialist Diplomas and Diplomas from guest-of-honour Ms Grace Fu, Senior Minister of State for National Development and Education.

While recognising BCA's pivotal role in continually developing expertise among students to tackle the challenges of a fast-changing industry, Ms Fu also extolled the Academy for its contribution in raising construction productivity and adopting green initiatives for the built environment. In her speech, she urged new graduates to exploit the numerous career opportunities in the construction sector.

Among the 457 were 38 graduates who received Gold, Silver and Bronze as well as Merit awards for their outstanding performance. Mr Sun He, the valedictorian graduating from Construction Engineering, found the day especially meaningful as he addressed the ceremony. He had excelled academically and had also managed to develop leadership and management skills by being involved in the Academy's activities. He is now pursuing his degree in Civil Engineering at Nanyang Technological University.

Other graduates are also considering further education. Mr Abu Bakar Bin Salim, who graduated with a Specialist Diploma in Interior and Landscape Design, was inspired by the rewarding experience at the Academy and is considering pursuing a Degree in Architectural Design in the near future. The father of four said that the specialised knowledge that he had gained from the Specialist Diploma course would help to improve his career.

Mr Eugene Seah, Joint Managing Director of Davis Langdon & Seah, also graced the occasion to share his insights and experiences with the graduates. He spoke of the passion, interest and "having fun on the job" as he called on graduates to "always improve yourselves, challenge yourselves to embellish what you have done in life." An exemplary model of continual self-improvement, Mr Seah himself is currently pursuing a MSc in Sustainable Building Design, a joint programme between the BCA Academy and the University of Nottingham.

CPAs To Raise Awareness Of Construction Productivity

Be recognised for your productivity efforts with the new Construction Productivity Awards (CPAs). BCA has introduced these awards as the first of its kind for Singapore's construction industry to create more awareness and encourage greater ownership in productivity. Three categories of awards are available under CPA:



CPA – Projects Award

(closing date for applications: 15 January 2011)

This project level award is sub-categorised into CPA – Projects (Building) and CPA – Projects (Civil Engineering). The awards will go out to project teams that have demonstrated productivity in their construction development projects from the design stage to the end of construction. The award aims to encourage designers to create labour-efficient designs, encourage project teams to adopt labour-efficient construction methods and to recognise project teams for excellent project planning and coordination in enhancing productivity.

CPA – Best Practices and Innovations Award

(closing date for applications: 15 January 2011)

This award will be presented to firms that have developed or introduced and implemented best practices or innovative ideas in improving construction productivity. These can include innovative building products, construction methods, work processes or equipment. Consultants and builders will be encouraged to be forward-looking in adopting best practices and innovative ideas to increase construction productivity as well as to promote a creative culture to achieve productivity gains.

CPA – Value Added Productivity Award

(closing date for applications: 28 February 2011)

This award is given out in two sub-categories -- Best Value Added Productivity Builder and Best Value Added Improvement Builder. Both awards seek to raise awareness and encourage builders to increase their productivity by taking ownership in monitoring their own productivity progress. It will encourage more builders to come on board the productivity movement and recognise progressive firms that strive towards higher productivity.

Applications are now open for the inaugural CPAs, which will be presented during the BCA Awards Night 2011. Please visit www.bca.gov.sg to download the application forms or to find out more information on the awards and assessment criteria.



Circle Line's Green Features Strike Gold

The Circle Line has been awarded the Green Mark Gold Award by BCA for its environmentally-friendly features. It was assessed and graded under the BCA-LTA Green Mark for Rapid Transit System framework that BCA had jointly developed with the Land Transport Authority (LTA). This framework, an extension of the BCA Green Mark scheme for buildings, was developed to provide a holistic approach in evaluating and rating the environmental performance of rapid transit systems for existing and future lines.

Under this assessment, the regenerative braking system, which reused energy produced by trains during braking, was one of the features which garnered high scores. This energy, if not harvested, would be wasted as heat. The recovered energy can be reused by a nearby train or channeled through an inverter system to be used by the station. This system allowed the Circle Line to reduce annual energy consumption by 1%, or 433 MWh, enough to power up about 90 HDB flats for a year.

The Circle Line was also graded well on its water conservation efforts. For instance, the use of effective drift eliminator in its air-conditioning units reduces drift loss of the cooling tower. The process helps save 13,550 cubic metres of water every year, equivalent to the water consumption of about 60 HDB households in a year.

Other green features included energy-conserving escalators that would reduce their speed or stop completely when not in use. Wherever possible, the design of the stations also allowed for natural skylight in, instead of using artificial lighting, to reduce energy consumption. This can be seen at stations like Bras Basah and Promenade along the Circle Line.

CEO of BCA, Dr John Keung, said, "I am glad that the interest in BCA's Green Mark scheme has now extended beyond energy efficiency in buildings. BCA is pleased to collaborate and share our knowledge in the development of this framework that would bode well in the environmental performance of existing and future Rail Transit Systems."

With this framework, LTA plans to work with the rail operators to determine the sustainability level of the North-South, East-West and North-East Lines, and identify areas where green technology or advanced methods leading to more efficient use of resources may be implemented.



Quality Raises Productivity

Quality need not be achieved at the expense of productivity. In fact, efficient quality management helps firms improve their productivity.

This direct link between quality and productivity formed the major thrust of this year's Quality/Productivity Seminar, organised by BCA and the Real Estate Developers' Association of Singapore. To further underscore the importance of quality, Mr Lam Siew Wah, BCA's Deputy CEO (Industry Development), launched the Good Industry Practices Guide on Design & Material Selection for Quality (Vol 2) and announced the new Quality Mark tiered rating system at his opening address.

To help participants along, Mr R Ramamoorthy from BCA provided an overview of the new Guide and highlighted various design and material choices that could contribute to good quality construction. This new Guide complemented its first volume published in 2008, which focused more on upstream design choices and material selections. A copy of the guidebook can be found in the Publications section at www.bca.gov.sg.

Mr Richard Lai, Senior Principal Architect from ADDP Architects, then shared his views from a designer's perspective, on the new Guide.

For the new tiered rating system, Mr Goh Thiam Lai from BCA, came on to explain the introduction of Merit, Excellent and Star rating systems for Quality Mark projects. These ratings serves to distinguish and enhance the competitiveness of builders and developers who delivers high-quality projects.

The participants also heard from other industry practitioners. Mr V Yogalingam, from CPG Consultants, shared on his firm's journey towards achieving high quality and productivity for their clients. Mr Billy Cho, from Pacific Interiors Supply, also showed how drywall construction can be used to greatly improve both quality and productivity in projects.



A record number of 293 participants attended the seminar.



BCA's Deputy CEO (Industry Development), Mr Lam Siew Wah delivering the opening address.



The new Guide on Design & Material Selection for Quality (Vol 2).



(From left to right) Mr V Yogalingam, Mr Goh Thiam Lai, BCA's Director (Technology Development), Mr Tan Tian Chong, Mr R Ramamoorthy, Mr Richard Lai, and Mr Billy Cho.

Sharing Green Experiences In Beijing

The Beijing Green Building Forum on 27 September 2010 allowed Singapore firms to showcase their expertise in green building and sustainable urban development. Organised by BCA and the Beijing Municipality, the Forum formed a key part of the Singapore Federation and BCA's Joint Business Mission to Beijing.

About 100 green building professionals from Beijing and Singapore gathered at the Forum to enjoy the lively and open exchange on green building issues. Experts from BCA and Singapore firms – such as CPG, Surbana, BSD and Jurong International – held the audience's interest.

Their presentations covered topics that included Eco-Planning and Sustainable Development, Concept of Green Buildings, BCA Green Mark and Singapore Government Policies towards Climate Change, Green Mark Project – Singapore Case Studies, Green Public Residential Housing and Green Facility Management.

The exchange session then divided the participants into two groups. In the technical-oriented group, professionals from both

countries shared their views on the technical aspects of green building. The business-oriented group, on the other hand, involved participants in exploring the commercial and practical aspects of the green building industry.

The Forum was deemed successful on many fronts. While speakers from Singapore benefitted from profiling their companies and projects to their China counterparts, other participants enjoyed networking with professionals and developers in Beijing. They also learnt more about Beijing's green building industry. For BCA, the collaboration has also sparked new projects such as the potential to adapt the Green Mark Office Interior scheme to China and to organise other forums, seminars and training programmes.



A group photo of the green building professionals from Beijing and Singapore.

Delegates to the workshop were glad to hear from Singapore's experiences. Mr Sidoro Ilya, Head of the Building Activity Control Department in Russia's Federal Ministry of Regional Development, said: "We hold Singapore in high esteem for having a strong regulatory system in dealing with construction permits, especially in coordinating the submission processes amongst the respective regulatory bodies. Their willingness to improve on existing procedures had helped speed up processes and made things easier for the Qualified Persons."

APEC Workshop Studies Efficiency Of CORENET System In Dealing With Construction Permits

Delegates from 14 economies under the Asia-Pacific Economic Cooperation (APEC) convened in Singapore to attend the "APEC Ease of Doing Business Workshop on Reforming the Regulatory System for Construction Permits" programme held at the BCA Academy. BCA had tailored this five-day workshop in October 2010 to share knowledge in dealing with construction permits. It was jointly sponsored by the Ministry of Foreign Affairs, the Ministry of Trade and Industry and APEC under the Singapore-APEC Joint Training Programme.

As a one-stop platform that allows stakeholders to make electronic submissions to multiple agencies simultaneously, CORENET (Construction Real Estate Network) is key to Singapore's seamless process for the submission of building plans for construction permits. It began as an information technology initiative driven by BCA in 1995 to transform a time-consuming and complex submission process into one paperless, easily accessible and highly efficient process.

Over the five-day programme, senior officers from Singapore agencies involved in the building control system gave the 35 foreign delegates an overview of Singapore's regulatory framework, particularly in the area of Building Control. CORENET was used to highlight the challenges, policy considerations and key success factors that contributed to the development and implementation of an effective and efficient building regulatory system.

Commenting on the inaugural workshop, CEO of BCA, Dr John Keung, said: "BCA is glad to bring together the various government agencies to share Singapore's experiences in improving the way we deal with construction permits. CORENET is an integral part of this success and would serve as a great example to illustrate the multi-ministry collaboration in streamlining the processes. The development of CORENET has proven to be a necessary move to propel Singapore and the construction industry forward."



Dr John Keung, CEO of BCA, speaking at the APEC Workshop.



Participants' group photo with BCA's CEO.

Why CONQUAS®?

While building quality is often considered subjective, CONQUAS® (Construction Quality Assessment System), is a unique assessment system to measure building quality objectively. CONQUAS® assessments are carried out throughout the construction phase and cover structural, architectural and mechanical and electrical works. These include tests on the material and functional performance of selected services and installations.

Since its introduction in 1989, CONQUAS® has been widely used by the construction industry to assess the quality of building projects. By leveraging CONQUAS®, builders found that they benefitted from the process and could deliver better quality projects.

"CONQUAS® has been an important tool for contractors to keep pace with the evolving demands of home owners. As a standardised system and defacto national yardstick, CONQUAS® has enabled us to provide a systematic and standardised means of training to our subcontractors in our efforts to achieve the national standard, which in turn has allowed us to boost our corporate image and remain relevant and competitive in the industry." said Mr Yheng Yee Foon from Straits Construction Singapore. "CONQUAS® has allowed us to boost our corporate image, remain relevant and competitive in the industry."

In fact, a high score of 88.4% for the Coralinus@Punggol public housing project has enabled Straits Construction Singapore to enjoy a bonus under the Bonus Scheme for Construction Quality. The firm was able to tap into the vast knowledge-base of expertise and information available through the CONQUAS® scheme and related courses. By applying it conscientiously, it was able to deliver high-quality public housing projects for the built environment.

Some builders have even taken CONQUAS® one step further to institutional buildings. Among them are Kwan Yong Construction and Guan Ho Construction. Both builders walk the talk and have been delivering institutional projects with high CONQUAS® scores.

"CONQUAS® has provided in-depth knowledge on methods of assessing quality work as well as the best possible ways to achieve high quality work," said Mr Wong Cheng Huat from Guan Ho Construction. Tapping onto his knowledge as a Certified CONQUAS® Manager, Mr Wong expressed that progressive checking of the quality of every trade before proceeding to the next and 'doing it right the first time', a central principle in CONQUAS®, has enabled him to steer his team towards achieving the projects' CONQUAS® targets.



Coralinus@ Punggol – a high quality public housing project by Straits Construction Singapore.



The high-achieving project team for Coralinus @ Punggol.

Mr Lim Kian Huat from Kwan Yong Construction, also a Certified CONQUAS Manager, added: "CONQUAS® has benefited us especially in addressing end-users' expectations of quality, cost saving for defects rectification and for tendering projects assessed under the Price Quality Method."

Both firms have been active in securing public sector projects and delivering high-quality buildings such as Pathlight Primary and Secondary School and Bukit Government High School. In the process, they have also benefitted from the bonuses given out under the Bonus Scheme for Construction Quality.

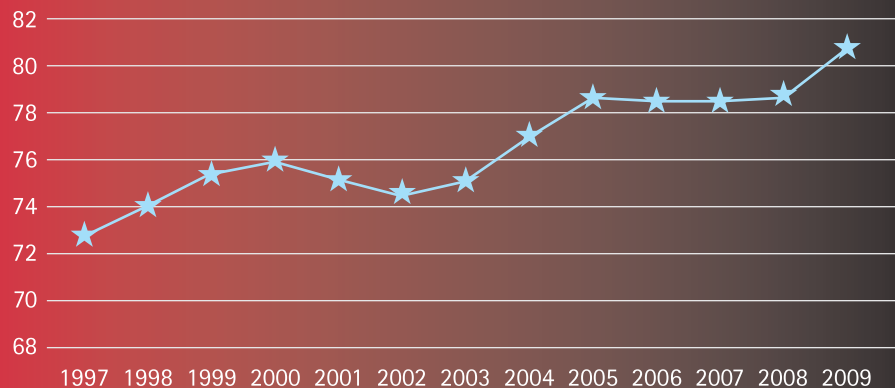


Bukit Panjang Government High School.

Quality on the Rise



Rising average CONQUAS® scores reflect improving quality of building projects.



Increasing trend of CONQUAS® scores of Public Projects.

Get Creative With Prefab

A seminar on "Creative Adoption of Prefabrication Technology to Enhance Productivity and Sustainability" was organised by BCA Academy on 26 November 2010 to showcase innovative ways of prefabrication which Singapore and other countries have adopted to improve construction productivity.

Here are the speakers and the topics they shared at the seminar.

Mr Marc Johnson and Mr Nonda Katsalidis
(UnitisedTM Building (Aust) Pty Ltd)
Sustainable Building Construction Using UnitisedTM Building System



Mr Yukitada Ogihara (Kajima Corporation)
Evolution of Precast Concrete Construction Technology - A Case Study from Japan



Mr Goh Peng Thong (AWP Pte Ltd)
Sustainable Construction and Architectural Precast in NUS UTown Graduate Residences



Er John Ng Peng Yuen
(Surbana International Consultants Pte Ltd)
Semi-Precast Structural System Design and Construction at Casa Clementi



Mr Khoo Sze Boon
(Davis Langdon & Seah Singapore Pte Ltd)
Adoption of Precast & Prefabrication, from Cost & Procurement Perspective



Builders, Get Smart!

Find out more about how technology can boost construction productivity with 'The Smart Builders Leadership Series'. BCA has lined up these sharing sessions where equipment suppliers and builders can come together to discuss how the right technology and tools can help them on their productivity journey.

The first session in the series, held on 16 November 2010, attracted over 200 participants. Among the speakers were local and international experts, including Mr Peter Killeen, Director of ANCON Beton and Senior Floor and Equipment Consultant in Australia who shared on technologies to improve flat floor without screed; Mr Simon Wong, Regional Sales Manager of Rehau Pte Ltd who shared on the alternative method with flexible water pipes; and Mr Pete Walls, Regional Manager of JCB Asia who shared on innovative usage of telescopic handlers for construction projects.

The next sessions under 'The Smart Builders Leadership Series' will be held on 28 January and 18 March 2011 from 3.00 to 5.30pm at the MND Auditorium. For more information, please contact Ms Tan Mui Kheng at tan_mui_kheng@bca.gov.sg.



Industry representatives attending the inaugural session of 'The Smart Builders Leadership Series' at BCA on 16th November 2010.



Interested participants trying out the various technology systems and tools on display at the exhibition.

Green Building Exhibition Rolls Into Sengkang

BCA's Green Building Exhibition is here once again! Currently into its fifth roving exhibition, this time it was held at Sengkang Compass Point from 11 to 14 November 2010. Graced by Mr Teo Ser Luck, Mayor of the North East District, the event showcased winning entries from a canvas bag design competition organised for secondary schools islandwide.



Mr Teo Ser Luck (centre) and BCA's CEO Dr John Keung (right), touring the exhibits.



Mr Teo Ser Luck going online onto BCA's Green Building Facebook page.

Canvas Bag Design Competition Winners:

First Prize:



"The Repercussions of a Flutter" by Yishun Secondary School.

Second Prize:



"My Flower City" by Xinmin Secondary School.

Third Prize:



"More Green, Less Gray" by Assumption English School.

Join us for more fun-filled and educational activities at the upcoming Green Building Exhibitions lined up for you! To find out where the next exhibition will be roving to, log on to <http://www.facebook.com/bcagreen> for more updates.

Young Leaders and Their Contributions

Charting Strategic Directions

Kenneth Loh contributes to strategic planning initiatives and supports the management's approaches in branding and sustainable development activities to help Swee Hong Engineering Construction respond to future industry challenges.



Panoramic view of the iconic city garden project at Gardens by the Bay, one of Kenneth's successful bids for his company.

The Built Environment Young Leaders Programme (YLP) is BCA's latest initiative to nurture young professionals with the dedication, passion and leadership qualities to lead the construction sector in the near future. Launched in 2009, this programme aims to proactively engage these capable professionals within the industry by giving them a greater stake in the advancement of the industry. In addition, the YLP will facilitate their training and upgrading progression so that they can constantly enhance their competency and enjoy greater job satisfaction.

Kenneth Loh
Contracts and
Commercial Manager
Swee Hong Engineering
Construction



As the Contracts and Commercial Manager at Swee Hong Engineering Construction, Kenneth plays a key contributory role in the company's contracts, tenders and projects, such as in the company's successful bid for the iconic city garden project at Gardens by the Bay. Kenneth's latest tender is a Downtown Line 3 rail tender. Being in a competitive market, his role has also extended to support strategic planning and charting of new directions for the company. Rather than compete on low-cost constructions, Kenneth sees that the company can move into niche areas where they can be a provider of value-added construction solutions. To prepare the company to be ready for more opportunities, Kenneth has recently seen to the completion of the company's branding project, which has resulted in the launch of the company's new logo.

A believer in contributing back to the society through fulfilling their corporate social responsibility, Kenneth has recently led their organisation's National Day Parade participation as a Gold Sponsor, as well as supporting the Yellow Ribbon programme. Kenneth Loh also believes in nurturing the next group of leaders. By re-making the industry into an attractive place to work in and giving the younger generation construction professionals more opportunities, the construction industry as a whole will greatly benefit from a continuity of skilled human resources.

"My previous education and work experiences have prepared me well to respond to the industry challenges that Swee Hong Engineering Construction now faces." Having graduated from the National University of Singapore with a Bachelor of Science (Building) and a Master of Science (Environmental Management), accompanied with career experiences outside of Singapore for a few years as an executive in the Philippines and Greater China, Kenneth contributes with broader commercial perspectives.

In one area, Kenneth is managing a green project to build the company's office headquarters. This potential Green Mark project seeks to improve productivity by utilising building systems and recycled freight cargo containers that will help to reduce construction wastages and lower construction carbon footprints. Kenneth believes this development will help to contribute to the sustainable development in Singapore.

"I am very optimistic of the construction industry's future in Singapore. Increasingly, we will see builders adopting and harnessing the powers of technology to build more creatively. With more sharing of accurate information, builders can work more precisely, reduce wastages and thus improve their productivity and profits. The future is indeed very much in the hands of those builders who choose to confront challenges and do something for themselves!"

AMP

Learn and Network Within Key Markets

BCA's annual Advanced Management Programme (AMP) in Real Estate Development helps construction industry professionals explore business opportunities and ventures beyond Singapore. Jointly delivered with a prestigious overseas institution, the AMP programme examines key issues and challenges relating to a particular country's socio-economic growth aspects, culture, human resources, land law, legal and financial frameworks for doing business in the real estate and construction industry. Catch highlights of this year's AMP programmes organised in partnership with Tsinghua University and Vietnam National University.

Understanding the Vietnamese Way

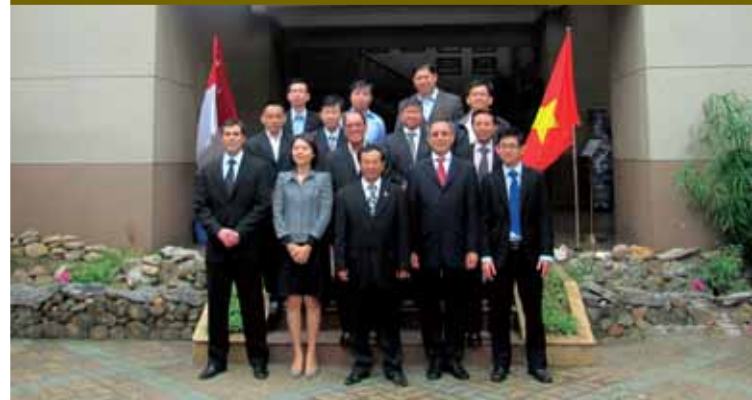
The BCA-Vietnam National University Advanced Management Programme (AMP) took on its second intake from 27 to 30 October 2010. Attending the programme in Hanoi, Vietnam, the 13 participants learnt the fundamentals of Vietnam's economy, culture and human resources and gained insights into the government's requirements for doing business in the real estate and construction industry.

They also benefitted from business dialogue sessions with the Vietnam National Real Estate Association and VIMECO, a state-owned enterprise. At the end of the programme, they each received a certificate issued by the Hanoi School of Business, Vietnam National University.

Full Immersion into China

For the ninth year running, the Tsinghua University – BCA Advanced Management Programme (AMP) welcomed another batch of participants from 10 to 17 October 2010. Conducted in Mandarin at Tsinghua University, the programme provided the 13 participants with in-depth knowledge of the business operations and the opportunities in China's real estate and construction industry. The participants also enjoyed a visit to the Tianjing Eco-city Project.

The networking sessions throughout the programme further provided ideal opportunities for them to build and strengthen ties with their counterparts in China. Graduates of this programme were invited to the distinguished University Overseas Alumni, joining an international network of industry professionals beyond Singapore.



Participants of the VNU-BCA AMP with HSB speaker Mr Pham Hong Tung (front row, centre) and BCA's Executive Director (Services) Mr Choo Whatt Bin (front row, second from right) at the entrance of Hanoi School of Business.



A group photo of the Tsinghua-BCA AMP participants taken during their graduation day.

Build A Maintenance Culture

The industry needs to cultivate a strong maintenance culture and learn from past structural failures to protect public safety – that was the opening message in a recent seminar organised by BCA's Enforcement and Structural Inspection Department.

The seminar, held on 15 October 2010, attracted 200 participants, including building owners, managing agents, professional engineers and government agency representatives. It was also attended by an industry delegation from the Hong Kong Institution of Engineers and the Hong Kong Concrete Institute.

Three expert speakers joined two professional engineers from BCA to deliver their speeches following the opening address by Acting Deputy Director of BCA Enforcement and Structural Engineering Department, Mr Clement Tseng. Dr Tan Teng Hooi from T.Y.Lin International presented on the assessment of fire-damaged reinforced concrete structures, while Professor Wong Ing Hieng from Mitic Associates delivered a paper on risk assessment and protection against landslides. Mr CK Cheung, from the Hong Kong Concrete Institute and Hong Kong Accreditation Service, also shared his expertise on the proposed Mandatory Building Inspection Scheme and building diagnostics for old buildings.



Mdm Chua Bee Tee (extreme right), Deputy Director of BCA Civil Defence Sheltering Department and Mr Clement Tseng (third from right), Acting Deputy Director of BCA Enforcement & Structural Engineering Department, with seminar speakers (from left) Mr Han Wann Kuang and Mr Tan Kwan Joo, from BCA, Dr Tan Teng Hooi from TYLin International, Professor Wong Ing Hieng from Mitic Associates, and Mr CK Cheung from the Hong Kong Accreditation Service.

MoU With Bahrain

BCA signed a memorandum of understanding (MoU) with Bahrain's Ministry of Works on 18 October 2010 to cooperate in the development of infrastructure and construction industry capabilities for mutual benefit. The MoU was signed in Bahrain between Mr Choo Whatt Bin, BCA's Executive Director/Services, and Mr Khalifa Al Mansour, the Bahrain Ministry's Acting Undersecretary, in the presence of HE Fahmi Bin Ali Al-Jowder, the Minister for Works.

In his short address before the signing, Minister Fahmi expressed his high regards for the Singapore administration as well as his hopes that both parties would benefit greatly from active cooperation.

In the closing meeting, BCA agreed to draw up a proposal for a green building roadmap as one of the initial projects. The Ministry of Works also proposed the development of a training programme for its technicians and improvements to its pre-qualification system for contractors.



Sealing the agreement are Mr Choo Whatt Bin (second from left) and Mr Khalifa Al Mansour (second from right).

Vietnam: A Closer Look



The seminar was well-attended by local construction industry players.

A total of 75 participants attended the 'Developing Business in Vietnam' seminar in September 2010 to find out more about the business landscape and opportunities in Vietnam. The event was one in a series of seminars BCA had organised to support local firms in venturing overseas.

In his opening address, Mr. Choo Whatt Bin, BCA's Executive Director (Services), shared the positive macroeconomic outlook of Vietnam and explained the reasons behind strong demand for the real estate sector in the country. He encouraged the participants to explore Vietnam's lucrative market, such as joining in the upcoming mission trip and Advanced Management Program held in Vietnam.

Four guest speakers were invited to share their experiences relating to doing business, investment law, taxation framework and cultural norms. They were Mr Doan Anh Hung, Deputy Country Head of Keppel Land International, Dr Ha Nguyen, Director of MBA Programs at Hanoi School of Business; Professor Hoang Duc Hai, Head of General Management Department at Hanoi School of Business, and Mr Tien, Nguyen Hung, Account Manager at Hanoi School of Business.

For more information on business opportunities in Vietnam, please contact Mr Eddy Susilo at eddy_susilo@bca.gov.sg.

BCA inked a Memorandum of Intent on Green Building Technologies with Japan's New Energy and Industrial Technology Development Organisation (NEDO) on 16 November 2010 in the presence of representatives from EDB Urban Solutions Office. This agreement establishes a framework of collaboration for Japanese green building technologies to be tested and adapted for buildings in the tropical climate. Following the signing ceremony, the BCA-NEDO team will be drawing up plans to call for suitable green building technology proposals in Japan.

EDB will then assist the BCA-NEDO team in identifying suitable project sites and assist firms in developing and demonstrating their urban solutions for the future today. The transfer of Japanese green building technology hardware and software to participating Singapore firms would be funded under the auspices of NEDO. At the signing ceremony, Mr Lam Siew Wah, BCA's Deputy CEO, expressed hopes that this demonstration project using advanced technology from Japan could bring sustainable performance of Singapore buildings to a new level. Mr Takefumi Fukumizu, President of NEDO, likened the partnership to a marriage of champions as both organisations, who were already championing sustainability in their respective countries, would complement each other well.

BCA Collaborates With NEDO



Mr Lam Siew Wah (left), BCA's Deputy CEO for Industry Development, and Mr Takefumi Fukumizu (right), NEDO President, upon signing of the Memorandum of Intent.

ARE YOU A GREEN LEADER?



Are you a fore-runner in the field of green buildings in Singapore? Do you have the passion and vision for creating a green and sustainable built environment for Singapore? If so, BCA is now calling for your nomination in the inaugural Green Building Individual Awards 2011, jointly awarded by BCA and Singapore Green Building Council (SGBC)!

The new Awards will be given out in four categories- Green Architect, Engineer, Advocate and Innovator. Nominees for the Architect, Engineer and Advocate categories must have strong involvement and track record in green developments in Singapore

for the past three years while nominees for the Innovator category must have strong involvement and track record in green building R&D/innovation, at least over the past three years.

Industry professionals and individuals who have displayed leadership in the development of green and sustainable buildings can nominate themselves or be nominated by their industry counterparts. If you are the one that we are looking for, what are you waiting for? Come forward today!

The closing date for nomination is 15 Feb 2011.

For more details on the entry requirements and assessment criteria, please contact Mr John Lim at 6325 5095 / john_lim@bca.gov.sg or visit www.bca.gov.sg.



Ms Alice Goh, BCA's Senior Executive Research Officer, leading the ZEB tour for Brunei Minister YB Pehin Dato Haji Mohd Yasmin (top), followed by another tour for Vietnam Minister Mr Hoang Quoc Vuong (bottom).

Foreign Dignitaries Visit ZEB

The Zero Energy Building recently welcomed YB Pehin Dato Haji Mohd Yasmin, Brunei's Minister of Energy in the Prime Minister's Office, and Mr Hoang Quoc Vuong, Vietnam's Vice Minister of Ministry of Industry and Trade. Both ministers had requested for a tour of the building to find out more about its energy efficiency features when they were in Singapore to attend the Singapore International Energy Week in early November.

Pit Your Skills and Win!

How good are you in these skills that improve construction productivity?

- Telescopic Handler Operations
- System Formwork Installation
- Drywall Installation
- Crane Operations
- Building Information Modelling

Join in the Skills Competition on 25 and 26 April 2011 and find out how your team performs against other teams. There will be individual category winners and one overall winner who will be drawn from the first four categories listed above. The competition is held in conjunction with the Singapore Construction Productivity Week and is organised by BCA, Singapore Contractors Association Ltd, Building Smart and SPHERE Exhibits.

Registration opens in mid January. For more information, please log in to www.bca.gov.sg.

Events (Jan ~ Feb 2011)

Date	Event	Contact
11, 14, 18, 21 & 25 Jan 2011	Certificate in Concrete Technology	BCA Academy – Business Development Unit DID: 62489843/824 Email: bca_academy@bca.gov.sg For details of the seminars and courses, please visit www.bcaa.edu.sg .
12 Jan 2011	BCA-REDAS Construction & Property Prospects Seminar 2011	
12 Jan 2011	Programme Preview: Master of Science in Sustainable Building Design by The University of Nottingham	
19, 20 & 21 Jan 2011	Certified QM/CONQUAS Managers Course	
14, 15 & 16 Feb 2011	Essential Knowledge in Construction Regulations & Management for Licensed Builders (English)	
15 Feb ~ 15 Mar 2011	Certification Course for Green Mark Facilities Manager	
18 Feb 2011	CORENET e-Submission System Training	
22 Feb ~ 10 Mar 2011	Internal Audit (OEHs) Course based on Quality ISO 9001, Environmental 14001 & Health & Safety OHSAS 18001	Mr Tan Yong Beng DID: 6325 5091 Email: tan_yong_beng@bca.gov.sg For details on BuildTechAsia 2011, please visit http://www.buildtechasia.com/index.html
25 April ~ 29 Apr 2011	Productivity Week	
Day 1 and 2 (25 - 26 Apr 2011) Day 3 and 4 (27 - 28 Apr 2011) Day 3 to 5 (27 - 29 Apr 2011)	Skills Competition "Build Smart" Conference BuildTechAsia 2011 International Building Technology Expo	
14 Jan 2011	BCA Academy Open House	Ms Hong Pham DID: 6248 9842 Email: hong_pham@bca.gov.sg OR Ms Cindy Ng DID: 62489 923 Email: cindy_ng@bca.gov.sg
15 Jan 2011	Built Environment Scholarship, Training and Career Fair	Mr Wong Kok Leong DID: 63255006 Email: wong_kok_leong@bca.gov.sg OR Mr Aaron Seow DID: 63255079 Email: aaron_seow@bca.gov.sg
28 Jan and 18 Mar 2011	'The Smart Builders Leadership Series' second and third sharing sessions	Ms Tan Mui Kheng Email: tan_mui_kheng@bca.gov.sg



Public Lecture on **Tropical Cool - Raising cooling set-points without affecting occupant satisfaction and productivity: opportunities and challenges**

This lecture will address the opportunities and challenges associated with increased cooling set-points in air conditioned non-domestic buildings, with a particular focus on the tropical belt. It will explore how the FM industry and FM practitioners in Singapore may be affected by - and contribute to - raising cooling set-points in air-conditioned non-domestic buildings.

THIS SEMINAR WILL FOCUS ON:

- Thermal comfort requirements
- Adaptive opportunities
- Strategies and experiments for raising indoor temperatures
- Implications on occupants' satisfaction and productivity

We are fortunate to have Dr Marcella Ucci, Lecturer in Facility and Environment Management at the Bartlett Faculty of the Built Environment, Co-Investigator in the network project Welline (Wellbeing and the Indoor Environment), and Vice-Chair of the UK Indoor Environments Group (UKIEG) to share with us on the above topic.

Introduction to **Master of Science in Facility and Environment Management**

UCL, University College London, an academic powerhouse with strong research credentials and ranked 4th globally under the Times Higher Education Ranking is offering the MSc in Facility and Environment Management. The MSc is a unified programme taught concurrently to both London and Singapore cohorts. Covering the practical provision and management of facilities and services to support high performing organisations, it is ideal for practice-based facility professionals of varied levels, experience and sectors looking to develop knowledge and capability to advance their careers.

To learn more about this programme, please join us at this public lecture, where there will be a preview.

Date: 6th January 2011 • Time: 6.30 - 7.30pm • Venue: BCA Academy

As seats are limited, please register by calling 6248 9843 / 6248 9824 or email: bca_academy@bca.gov.sg

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Master of Science in **Sustainable Building Design**

A Postgraduate Programme for Green Professionals in Singapore **2011 INTAKE**

The Master of Science (MSc) in Sustainable Building Design is a multidisciplinary postgraduate study programme tailored to the specific needs of 'green' built environment professionals. The curriculum emphasises the importance of an integrated approach to sustainable building design and its associated technologies.

The subjects, taught by distinguished academics from the University of Nottingham, include passive and bioclimatic design, renewable energy technologies and solutions, energy efficient services and systems, computer modelling and simulation, and total building performance solutions.

Students of the programme will acquire a broad range of competencies ranging from undertaking macro, meso and micro analyses of buildings to applying advanced simulation techniques in the design process.

Preview by Programme Director, Peter Rutherford,
University of Nottingham

You are invited to the programme preview on 12 January 2011,
6.30pm, BCA Academy, 200 Braddell Road, Singapore 579700.

As seats are limited, please register by calling 6248 9843 / 6248 9824
or email: bca_academy@bca.gov.sg



The University of
Nottingham

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