

PILLARS

NOV
2018

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

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SINGAPORE'S PIONEERS IN CONSTRUCTION PRODUCTIVITY

Opening doors to India's market

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Shining beacons of tomorrow's built environment

LEARNING
MORE, TO
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TOMORROWS

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WE HAVE GONE DIGITAL!

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CEO'S MESSAGE



Hugh Lim
Chief Executive Officer
Building and Construction Authority

DEAR READERS,

The built environment industry is steadily transforming itself with the wider adoption of more advanced technologies and practices in the market. We can all be encouraged by the rate of progress, given that the *Construction Industry Transformation Map* was just launched last year with **the vision of creating an advanced and integrated sector, supported by progressive and collaborative firms, to provide good jobs for Singaporeans.**

As part of this industry transformation, BCA Academy is offering Continuing Education and Training diploma programmes designed to help firms and working professionals build up capabilities. To date, over 740 firms have benefited from the Academy's specialist diploma programmes from the productivity series. Just this month, more than 800 industry practitioners graduated with the specialist diplomas in a range of advanced topics, focusing on productive construction methods such as Design for Manufacturing and Assembly and Integrated Digital Delivery. In this issue of Pillars, we highlight three outstanding graduates from the BCA Academy. Among them is Joanne Ee from CPG Consultants who has embraced the spirit of lifelong learning and in the process, created better value for herself and her company. The graduates form part of the 80,000 persons who will be taking up new knowledge and skills for the transformation of our industry by 2025, of which some 30,000 have already attended relevant courses. We

hope that many more will join them in the months and years to come. BCA is working closely with industry and academia to ensure the required course capacity is made available, with strong funding support for those attending.

Besides training the workforce, it is also important for our local firms to upskill themselves and adopt advanced methods enabling construction quality and productivity. In this issue, the Pillars team speaks to two local firms, Lum Chang Building Contractors and Tiong Seng Group, which have been leading the way in the built environment's industry transformation. These firms have taken on major projects that have won prestigious awards such as the BCA BIM Gold^{PLUS} Award and BCA's BIM (Organisation Category) Platinum Award.

At BCA, people are at the heart of what we do. This is exemplified by a Public Sector Transformation Awards winner, Principal Customer Relations Associate Ms Tan Soh Hong. Soh Hong was lauded for taking the initiative to kick-start BCA's efforts to enhance payment processes to help customers save time and resources. A total of eight officers, including Soh Hong, were recognised for their contributions to BCA and the public at the Public Sector Transformation Awards ceremony in July. May their stories continue to inspire us to be creative in how we solve our daily challenges at work.

WE KEEP THE BEACH CLEAN!

Corporate Social Responsibility (CSR) with a view! See how 50 BCA staff and their family members hit the beach with one shared mission – to keep the shores of East Coast Park trash-free.

In June this year, BCA staff and their families got together to clean up the beach. The event was held in support of the Public Hygiene Council's "Keep Singapore Clean Movement". Armed with tongs, gloves and a fun-loving spirit, the group spread themselves over 1.2km of shoreline and collected significant amount of trash!



We're all in this together! Some BCA staff brought their families along to join in the fun.

“

It was a very meaningful experience working with fellow BCA colleagues to keep our parks and shorelines clean and appealing to everyone. Through participation in such activities, we demonstrated BCA's core values of "We Care" and "We Can". We care for our environment and we can make a difference and be a role model.

Victor Zheng
Senior Engineer, Strategic Planning Office



“

Thank you to the CSR team for organising this meaningful activity and enabling us to realise how much trash is left on the beach every day. This also serves as a family bonding session for BCA colleagues. Actions speak louder than words. We hope our actions have also created some public awareness on the need to keep our environment clean.

Phang Mei Ting
Senior Manager, Green Building Policy Department

LEARNING MORE, TO BUILD BETTER TOMORROWS

BCA Academy (BCAA) unveiled its new batch of graduates at the BCAA Graduation Ceremony on 7 November 2018. Pillars speaks to three outstanding graduates who have seized opportunities to learn, and at the same time, created new value for their companies and society.

Chan Jianliang Daniel
Diploma in Facilities
Management



From Indifferent Student to Enthusiastic Student Leader

During his time in secondary and vocational school, all Daniel aimed for was to pass his subjects.

Today, he is a BCA-Industry Built Environment Scholarship holder, and undergraduate in BCAA's Bachelor in Construction Management Programme.

Daniel attributes his remarkable transformation to the friends he met in National Service (NS). "My peers in NS changed my perception of education. Most of them were waiting to pursue university studies after NS. Hearing about their hopes and dreams inspired me to pursue a diploma so that I could eventually enter university," he explains.

During NS, Daniel started to explore possibilities for further education. His journey into the built environment industry started when his friend brought to his attention BCAA's Diploma in Facilities Management programme.

"I was intrigued by how buildings are constructed and maintained, as well as the role of teamwork and communication with people around the world in every successful project," he explains.

On top of fueling his drive to excel academically, Daniel immersed himself in co-curricular activities. He was Vice President of BCAA's Student Council, and a winner of the National Youth Achievement Silver Award. As class representative throughout the three-year Diploma programme, he was responsible for enhancing school life for his classmates and helping them with school-related problems.

So what's Daniel's plan for the future?

"I've always been inspired by how I could play a part in building a better future for the next generation. Once I complete my degree and gain some work experience, I hope to build my own company," he enthuses.

A Leader Who Never Stops Learning

More than two decades into her career in the built environment industry, Vice President of CPG Consultants Pte Ltd Joanne Ee Hwee San is still, as she puts it, "learning every day". In 2017, Joanne already had two Masters (Masters in Project Management and Masters in Business Administration) under her belt, but was still eager to pursue self-improvement for the benefit of herself, her clients and her company.

Today, as the world enters an era where processes and technologies are evolving at rapid speeds, the drive to pursue continuous learning is more important than ever. In the built environment industry for example, construction solutions such as Design for Manufacturing and Assembly (DfMA) are quickly gaining new ground. Companies that adopt such solutions are reaping the benefits of building better, faster, and safer – giving them a sharp edge amongst their competitors.

"There have been so many changes in recent years – different codes, new technologies, new materials and more. I knew I had to upgrade my knowledge in my mission to build a better environment," Joanne explains. That was why she enrolled herself in BCAA's Specialist Diploma in Design for Manufacturing and Assembly. There, she learnt how best to embrace industry changes and demands and integrate them into the company's processes.

"I've gained valuable insights on advanced precast components from this Specialist Diploma programme. Today, I am in a better position to advise my clients on new construction solutions and components that can enhance their projects' efficiency, safety, quality, cost savings and more," she says.



Joanne Ee Hwee San
Specialist Diploma in
Design for Manufacturing
and Assembly

The Animation-Architectural Specialist

Three years into Jiit Yi's time at an architectural rendering firm as a Digital Matte Artist (Architecture), she knew she needed to acquire more industry-relevant skills to enhance her career.

"Being an animator working in the architectural and interior design industry, the knowledge I had for my position was quite limited at that time. I wanted to equip myself with more skills and deeper confidence in reading landscaping and architectural plans, as well as technical drawings," she says.

Her drive to do better at her job brought her to BCAA, where she signed up to study part-time for a Specialist Diploma in Interior and Landscape Design in 2017. Complementing her creativity with technical knowledge has not just helped her to do better at her job; Jiit Yi is now also better able to mentor her juniors.

"Now, I can confidently guide my juniors to produce stunning images that not only looks good visually, but is also achievable in reality."



Soo Jiit Yi
Specialist Diploma in Interior
& Landscape Design

SINGAPORE'S PIONEERS IN CONSTRUCTION PRODUCTIVITY

We shine the spotlight on two local firms – some of the first to adopt productive construction technologies – that have been leading the way in industry transformation.

Tiong Seng Group

Established for close to 60 years, Tiong Seng has grown into a leading construction and civil engineering company in Singapore. To date, it is the only construction company in Singapore that has been awarded the prestigious Singapore Quality Award (SQA) for its world-class standards of business excellence. The firm also holds the esteemed A1 Grading under BCA's Contractors Registry System for both building and civil engineering, qualifying it to undertake public sector construction projects with unlimited contract value.



The Tiong Seng Building at 21 Fan Yoong Road.

How Tiong Seng Group Leads Industry Transformation Delivering DfMA

Being an early adopter of Design for Manufacturing and Assembly (DfMA), Tiong Seng has applied this methodology to enhance its capabilities in precast and prefabrication. It has developed its Lite Solutions which comprise Prefabricated Bathroom Units (PBUs) and Prefabricated Prefinished Volumetric Construction (PPVC) technologies, producing robust and slick modules using Ultra-High Performance ductile Concrete (UHPdC). Having conceptualised and developed Singapore's first automated precast hub in 2012, the Tiong Seng Prefab Hub redefines precast by embracing automation to enhance production, safety and quality. Similarly, when Tiong Seng commissioned the production of PPVC in 2016, the deployment of its automated multi-profile cutting and robotic welding operations brought new insights to the industry as these modularised modules were fabricated in a productive and scalable manner.

Driving Integrated Digital Delivery (IDD)

The company is actively pursuing construction excellence through its digital capabilities, specifically in the area of Building Information Modelling (BIM). Tiong Seng is well recognised locally and internationally for its BIM capabilities. In Singapore, it was awarded BCA's BIM (Organisation Category) Platinum Award along with numerous BCA BIM Awards for its projects.

Portfolio Highlights

- Resorts World Sentosa
- PARKROYAL on Pickering
- JTC Space @ Tuas
- Stanford Diversion Canal

In 2016, Tiong Seng was the only builder in Singapore to have won the coveted buildingSMART International (bSI) Award and the buildingSMART Hong Kong BIM Award for its innovative construction using Open BIM. Recently, Tiong Seng received the 'Most Scalable Collaboration' award at the 2018 Singapore International Chamber of Commerce (SICC) Awards for developing a new workflow to procure steel reinforcement bars in the BIM environment.

Digitalising Construction Processes

Tiong Seng's pursuit towards "Manufacturing Construction" has attained a new milestone with its recent co-development of TSCoconnect – a first-of-its-kind digital platform that encompasses the Manufacturing Execution System (MES) methodology specially developed for the construction industry. TSCoconnect strives to establish an efficient human-machine interaction to transform construction practices by empowering construction practitioners to monitor, maintain and manage resources efficiently. This data-centric eco-system tracks and extracts data across the entire construction lifecycle, providing full control and visibility of a holistic DfMA process.



JTC Space @ Tuas was the first JTC development to adopt PPVC technology.



Portfolio Highlights

- Kampung Admiralty
- Northpoint City
- MRT Downtown Line Stage 2 Contract 912

LCBC's portfolio of projects include (clockwise from top-left) The National Library, The Glades, Kampung Admiralty, Northpoint City, Crowne Plaza Changi Airport and The Metropolis.

Lum Chang Building Contractors (LCBC)

LCBC is the construction arm of Lum Chang Holdings Limited, a Group with almost seven decades' experience in general contracting. One of Singapore's leading construction companies, LCBC is ranked by BCA as a Grade A1 contractor under the Contractors Registry System and a Class 1 Builder under the Licensing of Builders.

How LCBC Leads Industry Transformation Making BIMpact

One of the company's projects includes the construction of a new underpass linking a newly-constructed podium at Northpoint City to Yishun MRT station. To better manage such a multi-faceted project that involved many stakeholders, LCBC implemented the Virtual Design Construction-Building Information Modelling (VDC-BIM) process. The intelligent 3D modelling technology enables project stakeholders to visualise the building process and collaborate seamlessly – and as a result, minimise costly reworks. Adopting BIM-VDC has improved construction productivity as well as collaboration across the construction chain. This outstanding effort played a part in LCBC bagging the BCA BIM Gold^{PLUS} Award in 2017.

Greening Buildings

Another of the firm's award-winning projects is Kampung Admiralty, Singapore's first "retirement village". This premium project with healthcare, eldercare, childcare and commercial facilities incorporates cutting-edge green features and technologies such as green roofs and gardens, as well as a façade design that promotes natural ventilation. These green initiatives were recognised with the BCA Green Mark Platinum Award and the Outstanding and Excellence (Community Facility) Award at the Skyrise Greenery Outstanding Awards.

Going Digital

LCBC has implemented Integrated Digital Delivery and is working to align its team, from office to onsite staff – with a single database platform solution. It has implemented a cloud-based software that enables seamless collaboration and integrated project delivery. This collaborative workflow has enhanced communication, coordination, data transfer and decision-making processes by all project stakeholders. Today, all stakeholders, including administrative staff, subcontractors and suppliers, can be in sync every step of the way and in real-time.

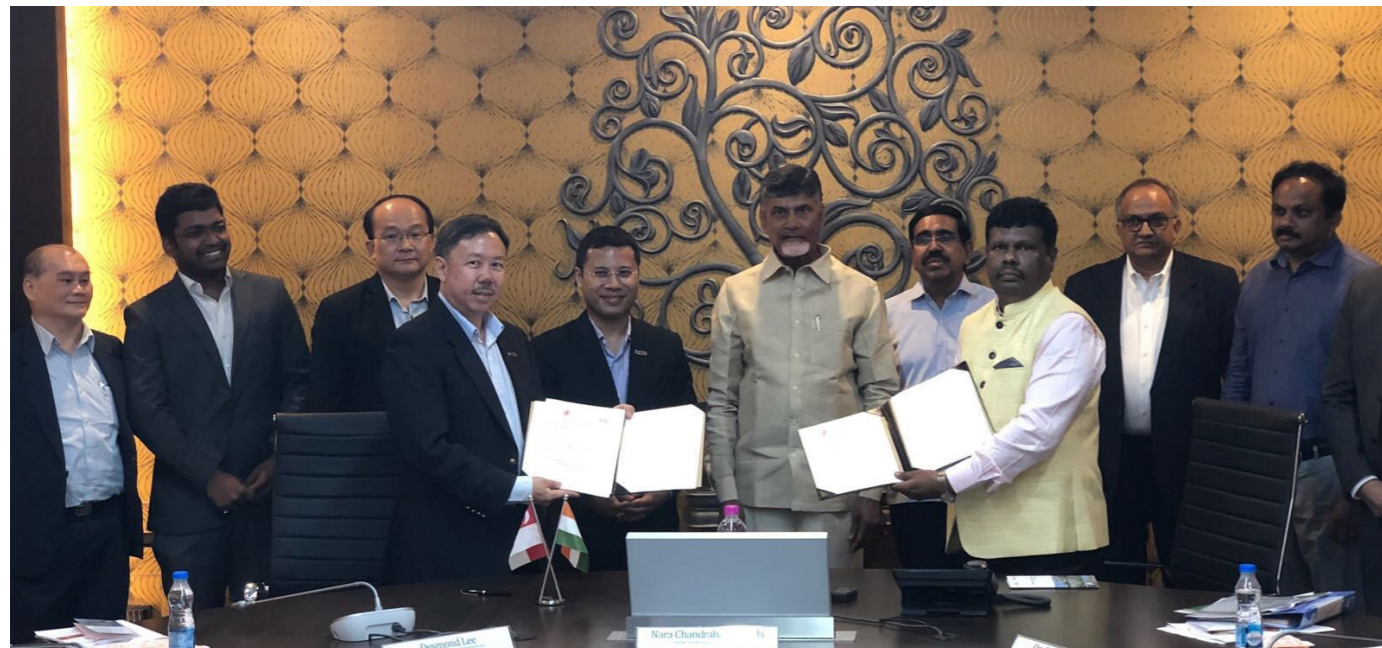
A BOOST FOR SINGAPORE AND INDIA BUILDING SECTORS

A new MoU with India's APRERA will support Andhra Pradesh's transformation into a thriving state with advanced infrastructure. For Singapore firms, it opens new doors to overseas growth opportunities.

On 26 June 2018, BCA and Andhra Pradesh Real Estate Regulatory Authority (APRERA) signed a Memorandum of Understanding (MoU) to support Andhra Pradesh in strengthening its construction capabilities. This MOU follows two other MOUs that Singapore has signed to facilitate the masterplanning and master development of Amaravati, the greenfield Capital City of Andhra Pradesh. BCA will share its initiatives towards building a safe, high quality, sustainable and productive built environment and lead Singapore construction firms in sharing their knowledge and experience as they enter this new market that will present them with more business opportunities.

One Singaporean company is finalising a S\$60 million textile park design and construction project with the Indian state's developers. Some of Singapore's construction companies are already in talks with Andhra Pradesh's developers to provide precast solutions.

A 50-member delegation from 22 private firms, eight government agencies and three associations across the built environment sector led by Second Minister for National Development Desmond Lee witnessed the signing of the MoU and expressed their interest to partake in the development of Andhra Pradesh and Amaravati.



MOU signing between BCA and AP Government.

HOW BCA WILL SUPPORT APRERA

Share tried-and-tested best practices with Andhra Pradesh officials and developers in areas such as:

Initiatives to create a safe built environment in Singapore

- Construction and Real Estate Network (CORENET) e-Submission system for project approvals

Quality Assessment Systems

- Construction Quality Assessment System (CONQUAS)
- Bonus System for Construction Quality (BSCQ)

Green Expertise in Built Environment Sustainability

- Green Building Roadmaps
- Green Mark Certifications

Construction Productivity Roadmap

- Construction Industry Transformation Map (ITM)



Organise training sessions for senior Andhra Pradesh officials through:

- Visits around Singapore's built environment
 - Precast production sites
 - Construction sites
 - Consultants' offices

Conduct sharing sessions in Andhra Pradesh on:

- Construction productivity initiatives
- Design for Manufacturing and Assembly
- Green Mark Schemes and Design of Green Buildings
- Briefings by architects, civil & structural engineers and contractors on designing, fabricating and erecting precast structures
- Precast factory site visits



With APRERA driving quality and on-time delivery of real estate projects in Andhra Pradesh, Singapore firms will be able to value-add to these efforts as they have built up expertise and experience in these knowledge areas. This is also in line with our Construction Industry Transformation Map to facilitate local firms to venture overseas.

Mr Hugh Lim
CEO of BCA

FOUR WINS FOR BCA

Congratulations to our teams for receiving the MND Minister's (Team) Awards at the National Day Observance Ceremony 2018 on 8 August!



In celebration of Singapore's birthday, 15 teams from the MND family were recognised for their exceptional efforts in innovation, collaboration and public service delivery in their projects. BCA is proud to present four of our teams and the projects that have won them the MND Minister's (Team) Awards this year!

01 SHAPING A FUTURE-READY BUILT ENVIRONMENT

Launched in October 2017, the Construction Industry Transformation Map (ITM) envisions a future building life cycle that starts with upfront stakeholder collaboration in design, to extensive prefabrication off-site using precision automation, assembly of high-quality building components on-site, to smart downstream facilities management and operations. The roadmap strives to see a future construction industry that builds smart, builds green and builds efficiently – honing Singapore's competitive advantage locally and globally as well as creating new and well-paid jobs to form a competent workforce.

Project: Construction Industry Transformation Map (ITM)



02 ENGAGING YOUTHS TO BUILD A SUSTAINABLE ENVIRONMENT

Youths are a crucial part of BCA's journey towards championing a sustainable environment. This is why we are always working to engage and groom our next generation of "green collar" workforce. Students from Institutes of Higher Learning (IHLs) stepped up as green consultants to help their alma maters attain the BCA Green Mark Certification during their period of internship. The programme was also conferred the Gold Award at the 2017 Best Practices Awards (Smart Jobs and Consumers Category) organised by Asia-Pacific Economic Cooperation (APEC) Energy Smart Communities Initiative (ESCI).

Project: BCA-MOE Back to School Programme



03 GOING BEYOND CONSTRUCTION – A MULTI-AGENCY EFFORT

After the launch of the Construction ITM, BCA was tasked to coordinate the transformation of the facilities management sector under the Real Estate ITM. This ITM is a collective effort of various government agencies and industry partners in Singapore, and aims to help the sector provide good jobs and take on challenges and opportunities of the future. It focuses on enhancing property transaction services and facilities management. BCA's main role is to ensure that buildings are well maintained for optimal performance and sustainability.

Project: Real Estate Industry Transformation Map



04 STORM RECOVERY – ANOTHER MULTI-AGENCY EFFORT

Earlier this year, a storm caused extensive damage to four farms in the north-western part of Singapore. Structures collapsed and roofs were damaged. The worst-hit farm was Chew's Agriculture, where collapsed chicken sheds halted egg production operations. Together with AVA and SLA, BCA helped to minimise disruption to the farm's egg production by expediting processes to lift the building closure order. This cross-agency collaboration also involved NParks, which cleared road obstructions caused by fallen trees along Murai Farmway within the day; as well as PUB and NEA, which ensured that water resources were safeguarded throughout the recovery effort.

Project: Management and Coordination of Storm Recovery Efforts for Farms in Murai



ABOVE AND BEYOND

Her unfaltering efforts to help customers led to something even more impactful – the start of a transformation at BCA. Congratulations to Ms Tan Soh Hong for her well-deserved win at the Public Sector Transformation Awards 2018!



Thanks for the prompt reply, as well as for making online credit card payment an option for customers. I no longer need to drive to BCA to make payment.

Mr Goh,
a satisfied BCA customer

As Principal Customer Relations Associate at BCA, Soh Hong is always going the extra mile to help BCA customers. But one particular contribution shone even brighter than the rest, and it led to her being nominated for the Star Service (Individual) Award at the Public Sector Transformation Awards 2018. It was one that not just helped customers, but also sparked change in BCA's operations.

Before August 2016, online payments for plan fees could only be done via eNets or Internet Banking. Several customers had suggested to Soh Hong that online payment modes should include credit card payment. She raised the topic to management, and later worked with the IT and Finance departments to enhance BCA's online payment modes. Thanks to Soh Hong's outstanding proactiveness in kick-starting BCA's efforts to enhance payment processes, customers today save time and resources.



You are indeed an exemplary model of an officer going the extra mile to help a customer in need. Your attitude is highly commendable.

Ms Ng

On another occasion, Soh Hong's resourcefulness and quick-thinking saved a customer from a wasted trip to BCA. The customer, Ms Ng, had forgotten to bring along some documents necessary to process her lift lodgement payment. Not wanting Ms Ng's trip to be futile, Soh Hong took the initiative to approach the relevant BCA department for the required information. Payment was processed successfully. Soh Hong also took the time to explain the requirements to Ms Ng, who returned later that month to make a second payment well-prepared with the necessary documents. Ms Ng, grateful for and impressed by Soh Hong's initiative, wrote in to thank and commend her.

BCA'S OTHER SHINING STARS

Kudos to these BCA officers who have done us proud at the Public Sector Transformation Awards 2018!

The Star Team

Business Development Group/ Procurement Policies Department

Team Members:

Mr Adelbert Ngui Hin Liang, Principal Manager
Mr Alvin Kin Wei Li, Senior Assistant Executive

Award: Star Service (Team) Award

What the team did: Launched a large-scale cross-agency review that eventually helped small and medium-sized enterprises (SMEs) and the Government. This team went beyond the call of duty to help SMEs in Singapore overcome challenges. But what's really outstanding is how they did it – by initiating and conducting a review that involved over 10 Government agencies.

Since 1985, employing a licensed electrical worker (LEW) was a mandatory requirement for ME05 (Electrical Engineering) workheads. In October 2016, BCA received feedback from an unsuccessful ME05 applicant on difficulties employing an LEW, and found that it is a common issue across the industry. Adelbert and Alvin then initiated a full review and proactively consulted the relevant Government agencies: CAAS, DSTA, HDB, JTC, LTA, MOE, MOH, NEA, NParks, PA, PUB, and SPF. After a thorough evaluation, all agencies agreed to remove the mandatory requirement. This has helped SMEs minimise unnecessary costs and eliminate the poaching of LEWs. SMEs can now also submit more competitive bids, resulting in a win-win situation for both themselves and the Government.

The Star Engineer/Mediator

Er David Tey Dah Wei, Principal Engineer

Award: Star Service (Individual) Award

What he did: Resolved an engineering-related conflict that threatened the safety of nearby buildings.

Er David Tey is more than an engineer – he also plays the role of a communicator and mediator. These qualities were what won him the Award, and also a glowing personal letter of commendation from Ville Royale's MCST (Management Corporation Strata Title) Chairman Dr Koh Kim Seng.

Some misunderstandings between MCST and a Professional Engineer had resulted in delays in repair works. Such delays could eventually lead to unsafe conditions for some of MCST's condominium buildings. The matter called for BCA's intervention, and that was when Er Tey stepped in. His engineering expertise and mediation skills kicked in and he successfully got both parties to reach an amicable resolution – and eventually, commence repair works to ensure the safety of residents.

TRAINING A NEW CLASS OF BUILDING INSPECTORS

BCA's recently-launched façade inspection course gives building owners a leg-up in ensuring that their building exteriors are safe and well maintained.

Background

A building façade is more than just a “pretty face” – it’s an important element of a building that also involves building performance and the safety of its environment. Some of Singapore’s building façades are starting to exhibit signs of deterioration as the city ages. Such wear and tear can lead to accidents such as falling cladding panels, windows or concrete features, endangering the safety of people around the building. It is thus increasingly crucial for building owners to carry out regular inspection and maintenance of their building façades. As shared by Mr Desmond Lee, Second Minister for National Development at the 2018 MND Committee of Supply, BCA will be introducing façade inspection requirements to help ensure that Singapore’s infrastructure continues to be safe and functional.

Challenge

Previously, there was no structured training for industry professionals to conduct façade inspection – inspectors generally learned on the job. With the rapid increase of types of façade systems installed on buildings in Singapore, it became evident that inspectors need more knowledge on inspection methodologies, as well as skills to identify façade defects.



A close-up look of a mock-up to demonstrate the essential layers of a good plastering system.



Solution

To strengthen competencies in façade inspection, BCA worked with local and international industry experts to develop Singapore’s first Certificate in Façade Inspection course. This training programme is designed for industry professionals such as professional engineers, registered architects and resident engineers. It aims to enrich participants’ knowledge and competencies in façade inspection. Some key learning points are best practices in planning and executing façade inspections, understanding the causes of past façade failures, and identifying and documenting common façade defects. First launched in July 2017, the 3.5-day course will be in its sixth run in November 2018.

Benefits

Heightened competencies in façade inspection enable higher standards of building inspection and maintenance, further enhancing façade safety in Singapore. In the long run, this could reduce the need for frequent façade maintenance. Building owners can also minimise instances of issues arising from building defects, and potentially enjoy cost and time savings.



At the façade inspection training at BCAA, basic principles of various façade systems will be shared with case studies on commonly observed defects. Participants will learn how to be more proactive in reviewing the condition of the façade instead of only being reactive when a problem occurs. Through this process, managers will be better able to allocate the necessary funding for building façade maintenance.

Mr Kabi Subramaniam

*Façade Consultant
Arup Singapore Pte Ltd
Trainer of the facade inspection course*



One of the core competencies developed through the PFI course is the visual inspection of façades. This teaches participants to look for and recognise early signs of deterioration of the building envelope, thereby enabling the maintenance team to address issues before they lead to greater consequences in terms of cost or safety. Timely detection and prevention are keys to minimising the need for maintenance and associated costs.

Mr Mathieu Meur

*Director, DP Façade Pte Ltd
Trainer of the facade inspection course*



The course provides good exposure of the various type of building façade systems. Our trainers were able to relate their experiences on façade inspections and support them with robust case studies, bridging gaps between theory and practical.

Er Vincent Lin

*Director, VEngineers
Participant of the facade inspection course*



BCAA EVENTS

SkillsFuture Credit, SkillsFuture Study Awards, Mid-Career Enhanced Subsidy, Workfare Training Support (WTS), SDF, e2i and other subsidies are available for BCAA courses!

November 2018

26 & 27 Nov 2018

Safety Data Analytics to Improve Workplace Safety & Health Performance (NEW)

27 Nov 2018

The Security of Payment Act – Technicalities and Practicalities (7th Run)

29 Nov 2018

CP88 on Temporary Electrical Installations (7th Run)

30 Nov 2018

Code of Practice on Buildability

3 Dec 2018

Workshop for Company CEO/Top Management (bizSAFE Level - 1) (48th Run)

4 Dec 2018

Managing Noise in Construction Sites (2nd Run)

4 & 5 Dec 2018

Behavioural Safety for the Construction Industry (25th Run)

5 Dec 2018, am

Building Control Regulations for Site Supervisors (53rd Run)

7 Dec 2018

Requirements for Environmental Sustainability in Buildings and The Green Mark Scheme (40th Run)

January 2019

7, 8, 14, 15, 21, 22 & 28 Jan 2019 (7 evenings)
CFD Simulation using Open Source Software (NEW)

9 Jan 2019

Refresher Course for Licensed Electrical Workers (Technician/Engineers) (46th Run)

14 Jan 2019

BCA-REDAS Built Environment and Property Prospects Seminar 2019 (NEW)

(Venue: Grand Copthorne Waterfront Hotel)

24 & 25 Jan 2019

Developing a Lifting Plan for Crane Lifting Operations (4th Run)

25 Jan 2019

Application for Temporary Occupation Permit/ Certificate of Statutory Completion (7th Run)

Starting on 7 Jan 2019

Registration closing on 6 Dec 2018
Specialist Diploma Building Cost Management - 2019 Module A

Starting on 7 Jan 2019

Registration closing on 6 Dec 2018
Specialist Diploma in Facility & Energy Management - 2019 Module A

Starting on 7 Jan 2019

Registration closing on 6 Dec 2018
Specialist Diploma Construction Management - 2019 Module A

Starting on 7 Jan 2019

Registration closing on 6 Dec 2018
Specialist Diploma in M&E Co-ordination - 2019 Module A

Starting on 7 Jan 2019

Registration closing on 6 Dec 2018
Specialist Diploma in Architectural Technology - 2019 Module A

Starting on 7 Jan 2019

Registration closing on 6 Dec 2018
Specialist Diploma in Virtual Design & Construction (5th Intake)

Starting on 7 Jan 2019

Registration closing on 6 Dec 2018
Specialist Diploma in Interior and Landscape Design - 2019 Module A

Starting on 8 Jan 2019

Registration closing on 7 Dec 2018
Specialist Diploma in Underground Construction - 2019 Module A

Starting on 8 Jan 2019

Registration closing on 7 Dec 2018
Specialist Diploma in Construction Productivity (10th Intake)

Starting on 14 Jan 2019

Registration closing on 13 Dec 2018
Specialist Diploma in Building Information Modelling (21st Intake)

Starting on 28 Jan 2019

Registration closing on 27 Dec 2018
Specialist Diploma in Lean Construction (5th Intake)

Starting in Jan 2019

Registration closing in Dec 2018
Specialist Diploma in MEP Modularisation (2nd Intake)

Starting in Jan 2019

Registration closing in Dec 2018
Specialist Diploma in Computational BIM (Building) (NEW)

February 2019

Starting on 4 Feb 2019

Registration closing on 7 Dec 2018
Specialist Diploma in Design for Manufacturing & Assembly (6th Intake)

CONTACT

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Tel : 6248 9999
Email: bca_academy@bca.gov.sg

(Full-time - 12th Intake) Starting on 25 Feb 2019

Registration closing on 1 Feb 2019

Bachelor of Construction Management (Building)(Honours) FULL TIME (awarded by The University of Newcastle, Australia)

(Part-time - 6th Intake) Starting on 2 Apr 2019

Registration closing on 8 Mar 2019

Bachelor of Construction Management (Building)(Honours) PART TIME (awarded by The University of Newcastle, Australia)

(Full-time - 3rd Intake) (Accelerated Pathway)

Starting on 2 May 2019

Registration closing in 1 Apr 2019

Bachelor of Civil Engineering (Honours) FULL TIME (awarded by The University of Newcastle, Australia)

(Part-time - 2nd Intake) Starting in Aug 2019

Stage 1 application closing: 15 Feb 2019

Master of International Construction Management with major in Construction Productivity (awarded by the University of Florida)

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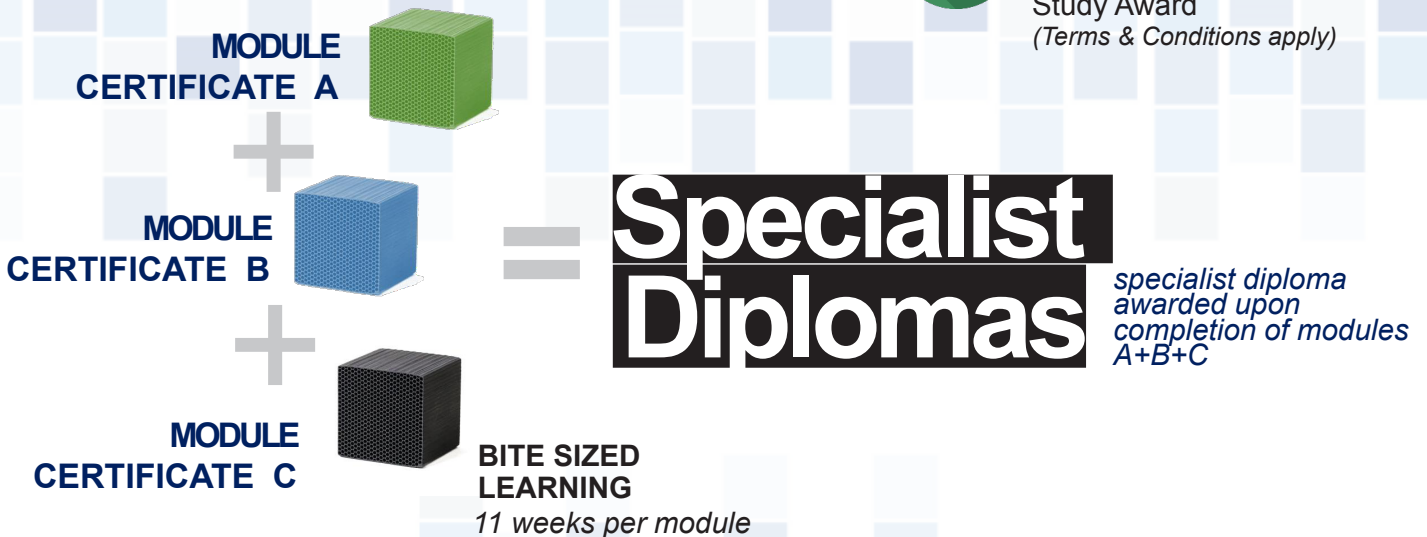
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