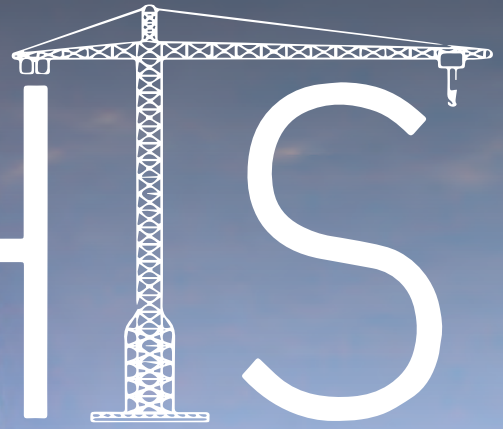


# HEIGHTS



CONSTRUCTION FROM A NEW ANGLE

ISSUE 1 • JAN - MAR 2020

## A PROMISING OUTLOOK FOR 2020

**Exchange 106**  
A Stellar Achievement

**Data is the New Oil**  
Construction Costs  
No Longer A Secret

**MRCB's Modular  
Building System**  
A Revolutionary  
Breakthrough

**Keeping  
Companies Green**  
Life of an  
Environmental  
Consultant

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construction worker?

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a competent certification  
for you construction  
worker or yourself?

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PERMANENT RESIDENT)**

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Section 33A (6) Any person who engages a construction site supervisor or skilled construction worker who is not accredited and certified by the Lembaga to carry out any construction work shall be guilty of an offence and shall, on conviction, be liable to a fine not exceeding five thousand ringgit

Source:

Act 520 - Construction Industry Development Board 1994  
[www.cidb.gov.my](http://www.cidb.gov.my)



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## Making Construction Technology Work For You

Welcome to the first issue of CIDB HEIGHTS for 2020. We are well underway in our first quarter of 2020 with the construction industry on an upward trajectory, as explained in detail in the Cover Story.

This issue focuses on how construction technology can help spur our industry further. The first article talks about MRCB's revolutionary modular construction technology, which delivers completed projects at shorter times than even IBS. The second *In Focus* article is about CIDB's very own Building Cost Information Services Malaysia, which provides the much-needed accurate cost information for construction materials and services. We also talked about the importance of the younger generation embracing the latest construction technology with the re-opening of G1 contractors' registration.

Our legal contributor explains how the Construction Industry Payment and Adjudication Act 2012 (CIPAA) applies when seeking resolutions to payment disputes. And speaking of legal matters, our Worksite Safety article talked about two errant contractors who were brought to justice in two separate incidents resulting in the deaths of workers on-site. We view the safety of construction sites very seriously and hope that these examples of swift justice will result in better worksite safety practices moving forward.

Lastly, be sure to feast your eyes on this month's construction Showcase, which is Exchange 106, Southeast Asia's tallest skyscraper; and to save the date for International Construction Week 2020 happening in June.

As always, my heartfelt thanks to our readers, supporters and contributors. I hope you enjoy the read and do let us know what you'd like to see us feature in our upcoming issues.

**Datuk Ir. Ahmad 'Asri Abdul Hamid**  
*Chief Executive, CIDB Malaysia*

### SEND US YOUR NEWS

Do you have something to share on HEIGHTS magazine? Do share it with us by emailing [cidbmagazine@gmail.com](mailto:cidbmagazine@gmail.com)

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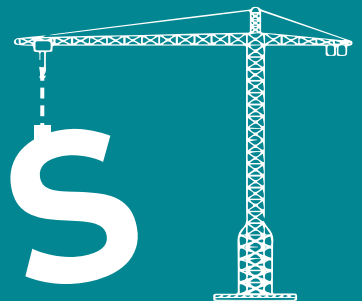
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Gamuda's Electrified Double Track Project (EDTP)

## Gamuda Acquires A 50% Stake In Australian Railway Infrastructure Company

Gamuda Berhad, one of the nation's largest engineering, property and infrastructure companies, has acquired a 50% stake in Martinus Rail, a new railway infrastructure company based in New South Wales.

The agreement enables Gamuda and Martinus Rail to jointly bid for construction projects in Australia's AUD100 billion-plus (RM288 billion-plus) infrastructure pipeline, offering more choice for the government's procurement of major infrastructure projects. Gamuda Australia started operations in August 2019 as part of Gamuda's strategy to diversify its construction business regionally. Gamuda Australia expects to be tendering more than AUD20 billion (RM57.6 billion) of works.

Datuk Ubull Din Om, Managing Director of Gamuda Engineering, stated that the acquisition provides a springboard for Gamuda to contribute to infrastructure development in Australia, especially in the railway industry, in addition to upcoming metro tunnels and tolled road projects.

"This is similar to what we have successfully achieved in other nation-building projects which have sustainably

benefited the local supply chain in the economic and social segments."

With 5,000 workers and operations throughout Asia and the Middle East and a current projects including Malaysia's largest public infrastructure project in Malaysia, the RM28.8 billion Mass Rapid Transit (MRT) Line 2, Gamuda has much to offer to its Australian railway counterpart.

Treaven Martinus, Managing Director of Martinus Rail, emphasised that the strengths of both companies complement each other when it comes to infrastructure construction. Martinus Rail, a privately-owned Australian company, specialises in the design, supply, construction and maintenance of railway assets.

"We are excited by the prospect of bringing innovation and technology from a world-class rail infrastructure company like Gamuda to the Australian rail industry, and combining it with our extensive local experience to become Australia's leading rail contractor," he said.

Sources: [www.austrade.gov.au](http://www.austrade.gov.au) and [gamuda.com.my](http://gamuda.com.my)



# Construction Robot Dog Starts Work At San Francisco's Airport Project

Famed for creating Spot, the robot dog, Boston Dynamics has collaborated with three other tech companies to put Spot to work in construction sites, starting with San Francisco's airport project.

The partnership will give Spot access to construction software packages Revit, Trimble Connect and BIM360. The first of the three partner companies is Holo-Builder, whose SpotWalk app will allow the dog to be trained to navigate individual construction sites to capture and collect 360° images of them. Singaporean imaging company Faro Technologies provides the automation of laser scans technology while Californian software company Trimble's reality capture devices enable Spot to provide consistent output, deliver improved efficiency on repeatable tasks and enable up-to-date as-built data analysis.

"Time and accuracy are two things that are very important to a job site. Traditionally, you would have to sacrifice time out of a busy day to harvest jobsite pictures and organize them," says Andrew Cameron, Project Manager at Hensel Phelps in Boston's press release. "This partnership between HoloBuilder and Boston Dynamics removes a time-consuming step while providing accurate construction photos with a high degree of fidelity."

Thanks to this strategic partnership, Spot's newly built-in capabilities will enable the robot to by-pass obstacles and maintain its defined path to support routine tasks such as daily site scans, progress monitoring, asset management, and remote support.

Hensel Phelps had conducted pilot tests of the SpotWalk app at the US\$1.2 billion (RM5 billion) Harvey Milk Terminal 1 project at San Francisco International Airport. The pilot was a success, according to HoloBuilder, as it proved that the project team could get SpotWalk to function with just some minimal training on-site.

Michael Perry, Boston's vice president of business development, said, "Our efforts have been to create a highly mobile robotics platform that can easily navigate unstructured or unknown environments. HoloBuilder's SpotWalk app takes this a step further by creating an easy-to-use interface that fits seamlessly into construction workflows. We're excited to see this integration start rolling out to early customers soon."

The SpotWalk app is now available through an early adopter programme, where customers will receive two Spot robots, the HoloBuilder technology suite and on-site training.

Source: [www.globalconstructionreview.com](http://www.globalconstructionreview.com)

*HoloBuilder's demonstration of Spot in action*





*Building the Kallang-Payar Lebar Expressway over Circuit Road in Singapore, 2008*

## Singapore To Try Building Roads With Waste Ash Instead Of Sand

In an attempt to extend the life of its rapidly-filling landfill sites, Singapore will explore the use of treated incineration bottom ash as the base material for road construction.

Three companies, namely, Inashco B.V., REMEX Mineral Singapore and Zerowaste Asia, were selected to perform field trials using 3,000 tons of ash obtained from waste-to-energy plants. Branded as "NEWSand", the treated ash will be used on a section of the Tanah Merah Coast Road around the middle of this year. Data from the trials will inform potential new environmental standards in regulating the use of NEWSand.

Environment and Water Resources Minister Masagos Zulkifli said NEWSand is a result of Singapore's efforts to build a critical waste resource.

He added that NEWSand would allow Singapore to close its waste loop and increase Semakau Island's lifespan,

which is the country's landfill. Singapore wants to cut the amount of waste sent to landfill by 30% a day, in line with its Zero Waste Master Plan. By using NEWSand, it aims to extend the lifespan of landfills beyond the projected 2035 deadline.

NEWSand has already been used to construct a temporary concrete footpath of 105 meters in Singapore, and a 3D-printed concrete bench, the National Environment Agency (NEA) reported. There are also plans to build a second 24-meter footpath outside the Environment Building early this year.

NEA Chief Executive Tan Meng Dui said that NEWSand represents a step forward in Singapore's aim to become a zero-waste country.

*Source: [www.opengovasia.com](http://www.opengovasia.com)*



# Whinstone US Begins Construction On World's Largest Bitcoin Mine

Texas-based data centre developer, Whinstone US, has begun construction on what is said to be the "world's largest bitcoin mine" in Rockdale.

The initial phase will see the construction of a 180,000 square feet data centre facility at the cost of US\$150 million, which will involve about 75 workers. Three additional phases are expected to expand the site to a million square feet with 200 jobs on the offer. Its first phase may use 300 megawatts of power, leading up to 1,000 megawatts late this year.

This is just the beginning, declared Dr John M. Weed, president of the Rockdale Municipal Development District Board, at the ground-breaking ceremony. "We are going to see more and more development."

Whinstone US already owns a bitcoin mine in Louisiana and has been building in the Netherlands and Sweden. The Rockdale project is in partnership with GMO Internet,

Japan's version of GoDaddy. GMO Internet also runs other companies, including online advertising and media, internet financial services, mobile entertainment and cryptocurrency.

Source: [www.finance.yahoo.com](http://www.finance.yahoo.com)

**“** Three additional phases are expected to expand the site to a million square feet with 200 jobs on the offer. Its first phase may use 300 megawatts of power, leading up to 1,000 megawatts late this year. **”**

The Whinstone US data centre's ground breaking ceremony



# THE ROADMAP FOR 2020 AND BEYOND

The future certainly looks optimistic for the Malaysian construction industry in 2020, as far as CIDB Malaysia Chief Executive Datuk Ir. Ahmad 'Asri Abdul Hamid is concerned. "With the advent of several public projects, including mega projects, the construction sector has shown some signs of recovery." He cites projects such as the Penang Transport Masterplan, Sarawak Walkabout Project, Bandar Malaysia, Bukit Bintang City Centre and the revival of the ECRL project being the catalysts of the growth. "New packages for the Pan Borneo project will be tendered out this year now that the project delivery partner (PDP) issues are resolved. The Kuala Lumpur-Singapore High Speed Rail Project (HSR) will also be revived, albeit at a lesser but still substantial amount."


"As such, I expect the construction industry's growth will take off after the second quarter of this year and achieve a full recovery of 5 to 6% in 2021, which is a strong figure in our industry," says the 32-year veteran of the industry.

**As one of the major economic drivers in Malaysia, the construction industry is poised for steady growth over the next few years. With strategic government initiatives and a slew of mega projects in the pipeline, 2020 is definitely the year to look out for.**







 Dato' Ir Ahmad 'Asri Abdul Hamid,  
Chief Executive of CIDB

## Technology: The Key Driver Of Transformation

With 2020 being the final year of Construction Industry Transformation Programme 2016-2020 (CITP), CIDB continues to focus on achieving what has been set out in the national agenda. At the same time, the team is hard at work in preparing a strategic plan for initiatives beyond 2020. This plan will focus on Industrial Revolution 4.0 (IR 4.0) in construction, emphasising the use of technology, particularly on Industrialised Building System (IBS) and Building Information Modelling (BIM).

Datuk 'Asri is pleased with the progress of IBS in recent times, with 81% of government projects using this technology and the private sector not lagging too far behind. The secret sauce behind this significant success, he emphasised, is none other than enforcement. "IBS has been around for the past 20 years, but it is only when the government mandated that all public projects costing RM10mil and above must use IBS that its adoption rate dramatically rose."

However, when it comes to BIM, he admits that it still has a long way to go. It is common knowledge that BIM offers great benefits to those who

**“** IBS has been around for the past 20 years, but it is only when the government mandated that all public projects costing RM10mil and above must use IBS that its adoption rate dramatically rose. **”**

choose to use it, such as cost savings, productivity growth, increase in end-product quality and reduction of wastage. Yet the BIM adoption rate is only 17% as compared to 71% in the US, 60% in South Korea and 54% in the UK. "We have put forth many initiatives to promote BIM including comprehensive training and such, but the progress has been very incremental," he laments. "To truly effect change and transform the construction industry, we need to come up with new ways of doing things, i.e., using BIM instead of the traditional methods."





A peek inside MYBIM Centre at Sunway Putra

## Championing And Driving Change

The CITP has outlined all the necessary steps in its eight focus areas to encourage the construction industry to embrace and implement change. He explained that these focus areas include enforcement, which is balanced with incentives and supported by promotional activities as well as capability building. In the case of BIM, there are on-going roadshows and promotional campaigns for it. In terms of enforcement, CIDB is working with statutory bodies and major city halls to make it a requirement for applications to be submitted using BIM shortly. "Then we will see a much higher take-up rate for BIM," he surmises.

"For contractors who secured projects with the Department of Works (JKR), we offer incentives in the form of packages worth RM30,000 each consisting of software and training to help them use BIM in their design work," says Datuk 'Asri. "As for capability building, we have established a state-of-the-art BIM training centre in Sunway Putra, as well as myBIM-centres nationwide to cater to any BIM training and development needs. So when all these key factors are in place, it should drive the change that we seek."

CIDB's focus will also be on improving the aspect of service delivery in 2020. "We are going cashless this year per the government's mandate for all of their agencies. Currently, our contractors are able to settle their CIDB-related payments online. By early this year, we will launch our all-new Construction Personnel Registration Card in collaboration with Bayo Pay (M) Sdn Bhd. It comes smart features such as RFID, e-wallet, as well as platforms to facilitate site management, online training, enforcement and communications." Powered by Mastercard, the card will allow construction personnel to experience the ease of worldwide payment acceptance.

## Equipping Local Talents

Datuk 'Asri is a firm believer of equipping young Malaysians with the skills and support they need to be successful in a construction career. "The youth of today are tomorrow's leaders, and we are committed to creating an environment that empowers and supports them beyond their training programmes in CIDB."

"Our 'Jelajah Technical and Vocational Education and Training (TVET) Pembinaan' roadshows in Sarawak, Terengganu and Pahang have garnered a good response from the rural folks, which is where most of the unemployed youths reside," Datuk 'Asri explains. He reveals that most of the rural residents

are unaware of TVET's comprehensive programmes that are available to them for free. "The roadshows are eye-opening and life-changing events for them, which will hopefully curb the unemployment rate while providing the construction industry with much-needed skilled local workers."

He divulges that the Construction Academy of Malaysia (ABM), CIDB's assessment centre and training arm, has been offering high-impact training for the past four years with a focus on making their graduates employable and able to secure high-wage jobs. The private training sector is not interested in conducting these types of training courses, i.e., welding and operating machines, as it involves a steep investment in welding machines, cranes, and the like. "Now, we have moved a step further by way of an apprenticeship programme in collaboration with construction companies. After our trainees have completed their training with us, they will work with these companies for three months and receive their salary from us. At the end of the three months, the company will employ them if they have successfully gained the skills required for their work. Our efforts have resulted in a significant improvement in the employment rate through this programme," he explains.

In 2018, CIDB spearheaded an innovative entrepreneurship training programme under ABM where graduate trainees are given a van as well as all the tools needed to perform air-conditioning repair and maintenance for six months. "We allocate four trainees to each van and mentor them on how to do the business. We will also assist in getting them jobs to service some of the government buildings. After six months, we will return their profits obtained during the programme which will serve as capital to start their

business. Our next batch of trainees will then utilise the van," he says, adding that electrical and renovation skills courses will be incorporated into the programme in the near future. The graduates of this entrepreneurship programme are now contractors, experienced in doing maintenance and installation works. He finds this to be a more effective training method as it reduces the drop-out rates substantially and provides sustainable employment upon completion of the training programme.

## Strengthening Skills Assessment

To address the issue of low quality workmanship caused by the use of unskilled workforce in construction sites, CIDB has taken steps to recognise skilled construction workers who passed the Skills Competency Assessment Exam (PKK). Skilled workers local workers who pass the test will be awarded the CIDB Skills Efficiency Certificate (SKK) while the Foreign Workers Certificate (PKPA) will be given to foreign and permanent residents. "Our goal is that only employees with the SKK are eligible to perform work that requires skills at the construction site. We also aim to strengthen the SKK by developing and raising its standards so that this certification is recognised nationwide.



Graduates of Akademi Binaan Malaysia (ABM) Eastern region, Muhamad Badiuzaman Ya abu Bakar, 33, Mohd Faizal Ismail, 35 and Muhamamd Qamarul Auji Amran, 32, were all smiles upon their success in their chosen fields.

Then it can be a valid career path for future supervisors and project managers," he states.

By 1 Jan 2020, all foreign construction workers must be assessed and accredited by CIDB in their host countries before they can work here. "This is to ensure that the foreign workers working in our construction industry are proficient at performing skilled work on-site. To date, we have accredited 36 assessment centres involving nine host countries. We have been championing this for the longest time as a majority of our contractors employ foreign workers," Datuk 'Asri says.

## A Lasting Legacy

"I see my role and major contributions to be strategising and putting in place the necessary components and game-changers, in collaboration with others, for the transformation of the construction industry," the affable man says. He deems CITP as one of his greatest legacies, having just taken over the helm of CIDB's Chief Executive at the cusp of the strategic plan's implementation in 2016. An advocate for making good things greater, he initiated the review of CITP in 2018, which was midway of its implementation, to make it more effective.

Apart from the aforementioned successful programmes and initiatives, other significant achievements during his tenure as CIDB's Chief Executive include having QCLASSIC gaining wide recognition as a measure of Quality in Construction. The Occupational Safety and Health in Construction Industry (Management) (OSHCIM) will soon be enforced, putting the responsibilities of safety not only to contractors but also to consultants and clients. The Anti-Bribery Management System (ABMS) and other integrity control systems and practices will be a priority for companies with the enforcement of the Corporate Liability Act. "Our rating tools, MyCREST, or the Malaysian Carbon Reduction and Environmental



CIDB offers high-impact training such as welding, which no private training company could offer due to steep costs



Sustainability Tool and the sustainable infrastructure rating tool (INFRASTAR) would also be widely used by the industry as a measure of sustainability."

The SCORE Programme (also known as 'Penilaian Keupayaan dan Kemampuan Kontraktor') rating is now accepted by several agencies, particularly JKR, as a tool to gauge the capability of contractors. He was especially enthused by the considerable interest shown by the government agencies and private sector clients to engage the 4- and 5-star rated SCORE contractors for their critical and mega projects. "This creates an impetus for contractors to improve their star rating so that they can participate in those projects."

### A Series of Stellar Wins

The implementation of the Centralised Information Management System (CIMS) in January 2019, has heralded CIDB as an example to follow in terms of service delivery excellence, productivity and transparency. "With CIMS, all of the contractors and construction personnel can register with us online without having to walk into our offices. We have seen a reduction of registration staff from 115 to a mere 16 people. The registration processing was dramatically reduced from 11 days to 12 minutes, and we can now process 20,000 registrations per month as compared to 8,000 pre-CIMS," Datuk 'Asri beams.

With regards to sustainability, CIDB will be able to provide a more reliable carbon dioxide (CO<sub>2</sub>) reduction target for the construction industry this year. "We shall also be able to implement the policy of large projects to be measured against sustainability requirements through the Ministry of



CIDB's seamless online registration has greatly benefited the construction industry in terms of productivity and transparency

Finance's circulars, i.e., MyCREST for all building projects valued more than RM50m and INFRASTAR for all projects above RM100m. Meanwhile, CIDB will continuously promote and educate the industry on the importance of sustainability in construction projects."

When asked to envision how the Malaysian construction industry would be like in five years, he foresees that it would become a modern industry, where technology is effectively adopted and utilised. "The transformation of the industry in the next five years would be rapid because of the numerous technological advances available. It will look vastly different from what it is today. Furthermore, the adoption of technology by other countries like China would provide the impetus for the Malaysian construction industry to transform."

Under Datuk 'Asri's capable and visionary leadership, CIDB is well-poised to steer the construction industry through the winds of change ahead. "These are exciting times for the construction industry. Those who treat this profession with the respect it deserves and are willing to use technology and be innovative will definitely thrive and reap its manifold benefits. No one can afford to be left behind."

**"** I see my role and major contributions to be strategising and putting in place the necessary components and game-changers, in collaboration with others, for the transformation of the construction industry, **"**



The RFID card

# DATA IS THE NEW OIL

*The launch of BCISM Sdn Bhd in July 2019 heralds a new era of greater efficiency, productivity and transparency for the construction industry in Malaysia.*



Opening its doors in July 2019, BCISM aims to elevate Malaysia's construction industry by offering timely and locally-sourced costing data





*BCISM's opening ceremony was officiated by CIDB Malaysia Chief Executive Datuk Ir. Ahmad 'Asri Abdul Hamid*

Building Cost Information Services Malaysia (BCISM) Sdn Bhd is a collaborative effort between the CIDB Malaysia and the Royal Institution of Surveyors Malaysia (RISM) to operate MyN3C portal, a centralised data bank for construction costs in Malaysia.

"The BCISM model is similar to BCIS UK, which has collected, analysed and interpreted cost information for the past 50 years. Today, BCIS UK makes this information easily accessible through online applications, data licensing and publications; and this is what BCISM aspires to do as well," says Sr Nazir Muhamad Nor, General Manager of BCISM.

"It is a long time coming," states Sr Kwan Hock Hai, Director of BCISM, divulging that the industry does not have anything similar to the annual Spon's price books nor the UK's BCIS subscription for pricing info. "Information is a vital element in making decisions. Thus, having timely and locally-sourced costing data is a great boon to everyone related to the construction industry from contractors, consultants, quantity surveyors, suppliers, insurance and banks."

### **Breaking The Culture Of Data Silos**

Malaysia's construction industry faces a lack of access, accuracy, breadth and depth of industry data; most of which are due to data silos and a reluctance by most parties to share information as they are viewed as trade secrets. "While cost information is available via various organisations in the Malaysian construction industry, most of it is only for the use of that particular organisation and is not easily accessible by third parties," says Sr Wan Aion Zuraiha Khalid, Chairperson of BCISM. "Small contractors with minimal costing data will greatly benefit from this extensive database."

"The cost data in Malaysia is only made available within the consultant's firms. They keep their own data for the internal use and for their own reference," Nazir laments.

Those days will soon be in the past with the inception of BCISM. As the main service provider of centralised building cost information for the industry and its stakeholders, BCISM will provide cost information in a highly accessible online



BCISM is a collaborative effort between the CIDB and RISM to operate MyN3C portal, a centralised data bank for construction costs in Malaysia

channel and thus assisting Malaysian construction industry players in the preparation of early cost estimates, cost planning, benchmarking, whole life costing, Building Information Modelling (BIM), Market Research, Economic Reports, Price Movement Assessments and cost forecasting.

*“Malaysia's construction industry faces a lack of access, accuracy, breadth and depth of industry data; most of which are due to data silos and a reluctance by most parties to share information as they are viewed as trade secrets.”*

Currently, all information within MyN3C ([www.myn3c.cidb.gov.my](http://www.myn3c.cidb.gov.my)) is available free of charge until May 2020 for the first 17,000 existing users. BCISM will introduce new subscription packages in the near future. “CIDB and BCISM are constantly innovating and exploring ways to improve our offerings and contributions to the industry. As such, we are in the process of introducing new features and upcoming developments to MyN3C for the benefit of our subscribers,” explains Nazir.

MyN3C is easily accessible anywhere at any time.





“

*Accurate projections enable us to plan budgets ahead of time, preventing any unwanted surprises such as running over the budget.*

”

#### To date, the MyN3C Portal contains:

- a) Building Materials Prices
- b) Labour Wage Rates
- c) Machinery Hire Rates and Equipment Purchase Prices
- d) Materials Cost Index
- e) Labour Cost Index
- f) Machinery and Equipment Cost Index
- g) Building Cost Index

#### Upcoming features will include:

- a) Construction Cost Benchmark
- b) Tender Price Index
- c) Construction Cost Book
- d) Lifecycle Costing
- e) Online Promotional Platform
- f) Other services, such as bespoke training, cost consultation and Construction Economic Report

#### Source & Frequency of Updates

- a) Building Materials Prices: Monthly
- b) Labour Wage Rates: Half-yearly
- c) Machinery Hire Rates and Equipment Purchase Prices: Half-yearly
- d) Materials Cost Index: Monthly
- e) Labour Cost Index: Monthly
- f) Machinery and Equipment Cost Index: Monthly
- g) Building Cost Index: Monthly

### The Importance Of Accurate Cost Data

"Imagine the Great Pyramid of Giza minus its top or our very own PETRONAS Twin Towers without the connecting bridge. That would be the unfortunate fate of most projects without access to accurate cost data," says Nazir. "Simply put, accurate cost data allow us to avoid risks and pitfalls that are commonly attributed to unreliable, back-of-the-envelope calculations and ballpark figures. Accurate projections enable us to plan budgets ahead of time, preventing any unwanted surprises such as running over the budget."

In the construction world where Pareto's Principle decrees that 20% of the design encompasses 80% of the cost, it makes a lot of sense to bank on BCISM's data to expedite accurate cost planning, claims Kwan.

In a typical scenario of a simple project, the client will appoint a professional architect and engineer to come up with the project design. A professional quantity surveyor (QS) will then provide a Bill of Quantities (BOQ) detailing the work that needs to be done, e.g., building materials, wages and equipment. The work will then be priced. According to Nazir, building materials represent 65 per cent of the total cost of construction. "The information provided by BCISM on building materials prices, workers' wages, machinery rent rates and equipment prices will serve as a guide in preparing estimates

of construction project costs. Insurers will use the cost data to provide competitive quotations for the premiums and building insurance."

RISM is grateful to CIDB for providing invaluable data in collaboration with the relevant associations and suppliers of materials. "Without CIDB's initiative and involvement, we would never have reached this stage of information sharing that is so crucial to move the industry forward," says Nazir.

Wan Ainon is optimistic that the advent of BCISM will enable the QS to accomplish more analytical work resulting in more precise costing. "Rather than view BCISM as a threat to the profession because it is shaving off a bulk of the price sourcing work of a QS, I view it as an advancement to the QS community. It will cut down the amount of time a QS has to spend on chasing after data, increasing their efficiency, and making better use of their talents for analytical thinking so that they can contribute invaluable insights to the project."

Sr Loo Ming Chee, Director of BCISM quips that the data from BCISM is best treated as an indication of the overall cost as there will be a substantial builders discount based on the payment terms and relationship between the contractor and supplier. "One will be able to view the cost trends but not the absolute cost per se. The overall

BCISM's office in Petaling Jaya



construction cost is accurate, but in terms of granular details, it would not be too precise as the sample sizes at the moment are not too large." He added that the data is useful when looking at alternatives and making comparisons, such as light brick walls which are structurally lighter versus red brick walls.

### **Towards Better Resource Planning and Longer-term Operational Sustainability**

Currently, construction professionals in Malaysia are still practising the traditional way of preparing the cost estimates, which is by referring to similar past projects. This is all well and good when one is only focused on one or two clients. "But what happens when there is a need to diversify? One would have to scramble to get accurate information on these brand new sectors," says Nazir. "To remain relevant and be able to adapt to the frequent changes in the market, we need a platform like BCISM," says Nazir.

Dato' Sr Sri Kandan, Director of BCISM, envisions BCISM to be further developed as the central source of a full spectrum of information including capital costing, whole life cycle

costing, and maintenance costing. "We are moving towards that aim as we believe that projects should be ultimately designed to cost in order to achieve budget feasibility. Additionally, when purchasing a built asset, we must strive to achieve value for money. This means taking into consideration the whole life cycle cost of that project or life cycle costing, as some would call it. This would then achieve optimum balance in time, quality and cost." He further states that it is common to have maintenance costs be four to five times more than the cost of capital over the course of 20 to 25 years. "So if your project cost is RM100mil, the maintenance cost could be around RM400 to 500mil. By knowing the maintenance costs earlier on, this will prevent situations where the repair costs are higher than anticipated, resulting in poorly-maintained buildings."

"Data is undeniably the new oil in our industry. For timely, on-budget projects, pre-planning with accurate cost data is crucial to mitigate unwelcome surprises. Savvy project managers and industry players will do well to utilise BCISM's services and be a part of the digital transformation trend overtaking the construction industry," says Kwan.



# Embracing The Future of Construction With Modular Building System

*Malaysian Resources Corp Bhd (MRCB)'s proprietary technology is revolutionising the construction industry to design and deliver bespoke, prefabricated buildings at a fraction of the time it would take using conventional methods.*





The Kwasa Sentral prototype project took a mere 33 days with just 1.5 days spent on-site

When MRCB unveiled their ground-breaking volumetric building system at International Construction Week (ICW) 2019, it caused a stir amongst the construction community. Known as MRCB Building System (MBS), this advanced system is a combination of Prefabricated Prefinished Volumetric Construction (PPVC) system and a proprietary jointing system called the Candle-Loc Connection System. The latter is a stainless-steel pin and cast iron lateral tie plate used in between each unit to set and lock the units in place both vertically and horizontally.

According to MRCB Executive Vice President Dato' Sri Ir. Dr. Judin Abdul Karim, the building components will be fabricated completely off-site and delivered to the site where it will be installed using the Candle-Loc Connection System. This proprietary system is a stainless-steel pin and cast iron lateral tie plate used between each module to lock them in place both vertically and horizontally to form a building. "The units can be used for lower, medium and high-end developments like a single storey building, low rise, high rise

developments, schools, hospitals, hotels and offices," he says. "Different modules can be stacked together to form a housing unit and can go up to 40 storeys high. Beyond that, the costs may become too prohibitive."

MBS offers significant advantages over IBS, including having 95% of the building works done off-site as compared to only about 30% of off-site works done under IBS. This leads to a 30% reduction in project delivery time. In addition to fabricating bare walls, MBS also allows the fabrication of the architectural fittings and interior finishes and takes care of the total customisation of the units. As most of the fabrication work is performed in a controlled environment off-site, this makes it a time- and cost-effective solution that utilises minimal physical labour while improving on-site safety.

In December 2018, MRCB built a 5-storey prototype in Kwasa Sentral using MBS. The project involved developing a flexible system of precast concrete PPVC units. The 2D elements were designed to be assembled into 3D units in a transit

**“ MBS offers significant advantages over IBS, including having 95% of the building works done off-site as compared to only about 30% of off-site works done under IBS. This leads to a 30% reduction in project delivery time. ”**

Dato' Sri Ir. Judin







The transit factory in Johor



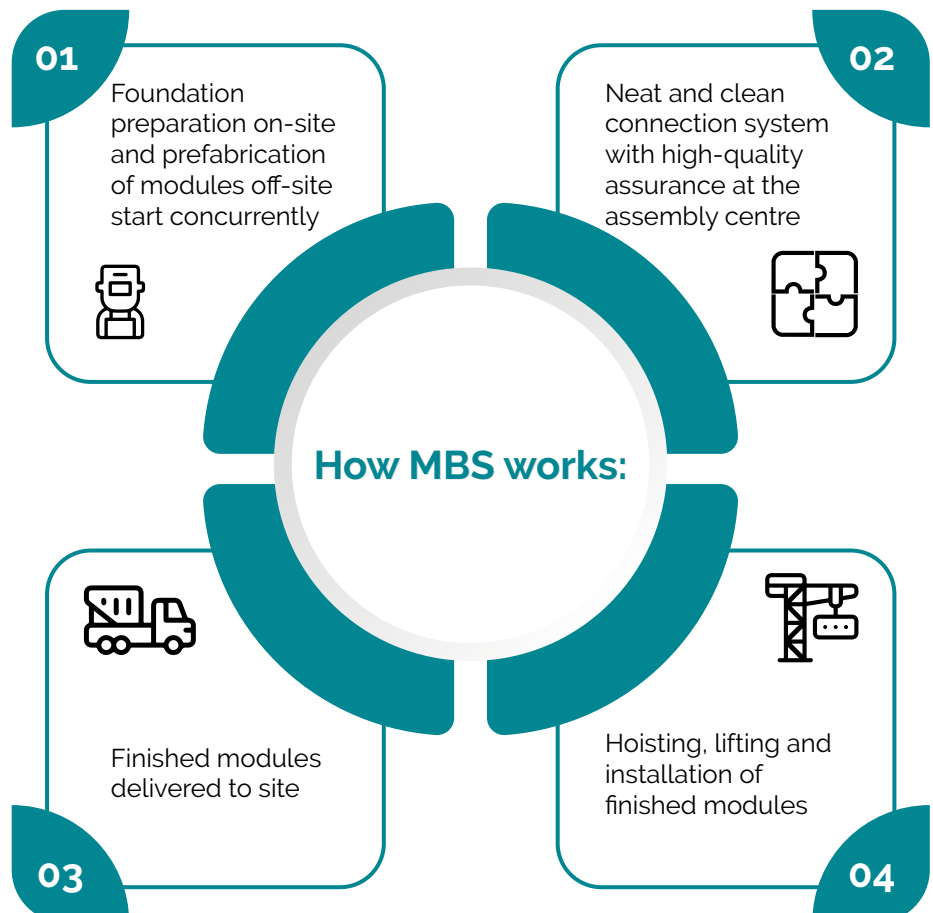
The 3D units are transported and erected on-site in less than a couple of days

factory in Johor and then transported and erected on-site in less than a couple of days. "The whole project took a mere 33 days with just 1.5 days spent on-site," says Dato' Sri Ir. Dr. Judin adding that the success of this concept design will enable MBS to be used on projects across Malaysia and regionally through MRCB's licensees.

Two years ago, MRCB acquired and developed intellectual property rights for a Singapore Building and Construction Authority (BCA)-approved mechanical connection system, now known as MBS. "We acquired the technology and are developing it further, setting a higher standard for our industry," says Dato'

Sri Ir. Dr. Judin. "Off-site fabrication is becoming an important strategy of the global construction industry. By acquiring the technology behind MBS, we aim to improve quality control, reduce the time to build certain structure types and generate a quicker return on investments.

"In fact MRCB has licensed the use of MBS in Singapore and Hong Kong and these licensees have won their tenders because of MBS," he states, adding that modular construction technology has taken off in leaps and bounds in Singapore due to government regulation in promoting the industrialisation of the construction sector. He believes that with a similar impetus from the local government, MBS can transform the landscape of the construction industry. "It is high time that we move away from labour dependency and to spruce up the image of the typical construction site. Technology such as MBS can help us get there."



Source: MRCB



The kitchen



The living area



A peek inside one of the Kwasa Sentral prototype units

“Off-site fabrication is becoming an important strategy of the global construction industry. By acquiring the technology behind MBS, we aim to improve quality control, reduce the time to build certain structure types and generate a quicker return on investments.”





*The 2D elements were designed to be assembled into 3D units in the transit factory*

Listed on Bursa Malaysia's Main Board since 1971, MRCB is focused on three areas, namely, property development & investment; engineering, construction & environment, and facilities management. The urban property and construction company developed the iconic RM18 billion KL Sentral CBD. It pioneered the Transit-Oriented Development (TOD) in Malaysia, with a glowing track record in highways, rail infrastructure, high voltage power transmission projects and the rehabilitation of rivers and coastal areas. It has a 282-acre urban land bank with an estimated GDV of RM31 billion. Recently, it won the Australasian Reporting Awards (ARA) 2019 Gold Award, which represents the highest standard of reporting in terms of transparency and accountability. MRCB's largest shareholder is the Employees Provident Fund, making the company especially aware of its duty towards the people of Malaysia.

"As a developer, it is a painful thing to receive customer complaints due to

quality issues. To reduce these types of complaints, MBS is the only way to go forward. Why leave things to chance when you can utilise a technology that offers better quality control leading to satisfied customers?" he emphasises. Since developers need to pay the penalty if they do not deliver vacant possession within the promised time, they are motivated to complete their projects on time and within budget. With shorter build times and increased site productivity, MBS helps MRCB to keep to the project plan, and even resulting in an early completion, which allows for a quicker realisation of the building's earning potential.


Modules are the vital components in modern-day construction, and they are built to last upwards of 30 to 40 years. "There is, of course, a steep learning curve for contractors who have done things the traditional way of building everything on site. It requires a new business model and skill set, but the rewards alone are worth the investment."



*MBS utilises minimal physical labour while improving on-site safety*

While IBS is an effective technology, Dato' Sri Ir. Dr. Judin states that there will be a need for more advanced systems like MBS to meet the demands of the buyers of tomorrow. "The MBS system offers the latest features of automation and is made to complete construction projects with shorter build times while ensuring better quality control and efficiency, and reduced dependence on manpower. As such, MBS is a major breakthrough and will revolutionise the landscape of the construction industry in Malaysia," he concludes.





# **FEDERAL COURT RULES ON CIPAA'S APPLICABILITY**

Construction Industry Payment and Adjudication Act 2012 (CIPAA) is an Act to facilitate regular and timely payment, to provide a mechanism for speedy dispute resolution through adjudication, to provide remedies for the recovery of payments in the construction industry and to provide for related and incidental issues.

On 16 October 2019, the Federal Court of Malaysia handed down its judgment for the following cases: a.) Jack-In Pile (M) Sdn Bhd v Bauer (Malaysia) Sdn Bhd and b.) Ireka Engineering & Construction Sdn Bhd v PWC Corporation Sdn Bhd (and two other appeals), holding that the Construction Industry Payment and Adjudication Act 2012 (CIPAA) applies only



prospectively. In other words, CIPAA is only applicable to contracts entered into after the adoption of CIPAA, i.e. 15 April 2014.

### **Jack-In Pile (M) Sdn Bhd v Bauer (Malaysia) Sdn Bhd**

#### **Background**

Bauer appointed Jack-In Pile as a subcontractor through a letter of award dated 16 March 2011. The letter of award contains a pay-when-paid clause where all payments to Jack-In Pile shall only be made within seven days from the date Bauer received its related progress payments from the employer. In reliance on that clause, Bauer takes the position that it has no obligation to pay Jack-In Pile until and unless it receives payment from the employer. In return, Jack-in-Pile relied on Section 35 of CIPAA which renders pay-when-paid clauses void.

Jack-In Pile initiated adjudication proceedings against Bauer and obtained an adjudication decision where Bauer was required to pay the sum of RM 906,034.00. Jack-In Pile applied to enforce the adjudication decision. Bauer applied to set aside the adjudication decision on the main ground that Section 35 of CIPAA does not apply retrospectively to the dispute as parties had exercised their contractual rights under the pay-when-paid clause before CIPAA was enacted.

#### **High Court**

The High Court found for Jack-In Pile and held that CIPAA (and Section 35 which voids pay-when-paid clauses) applies retrospectively relying on the High Court decision of UDA Holdings Bhd v Bisraya Construction Sdn Bhd & Anor [2015] 11 MLJ 499 ("UDA Holdings"). Bauer appealed to the Court of Appeal.

#### **Court of Appeal**

The Court of Appeal overturned the High Court's decision and found that CIPAA applies prospectively (only

applicable to contracts entered into after 15 April 2014) given that it affects substantive rights of parties, i.e. rights to payment pursuant to contract. Jack-In Pile appealed to the Federal Court.

#### **Federal Court**

In the appeal to the Federal Court, the following questions were raised for determination:

1. Whether CIPAA applies retrospectively to construction contracts entered into before CIPAA, i.e. 15 April 2014?
2. If CIPAA applies retrospectively, does section 35 also apply retrospectively to all construction contracts entered into before CIPAA, i.e. 15 April 2014?

The Federal Court affirmed the Court of Appeal's decision that CIPAA applies prospectively.

In making its decision, the Federal Court expressly disagreed with the High Court in UDA Holdings' case. It was held that as CIPAA provides an additional avenue for parties to commence legal actions to claim for monies due, it is not a mere change of forum (from court or arbitration to adjudication) and it affects the substantive rights of parties. This is particularly applicable in the case of section 35 of CIPAA as it prohibits

***Bauer takes the position that it has no obligation to pay Jack-In Pile until and unless it receives payment from the employer. In return, Jack-in-Pile relied on Section 35 of CIPAA which renders pay-when-paid clauses void***

parties to rely upon payment arrangements entered into between parties before CIPAA was enacted.

The Federal Court also considered sections 2, 3 and 41 of CIPAA, which set out the applicability and non-applicability of CIPAA. The Federal Court found that the Parliament would have included an express section in CIPAA if it was intended to apply retrospectively.



## Ireka Engineering & Construction Sdn Bhd v PWC Corporation Sdn Bhd

### Background

In the case of Ireka Engineering, Ireka appointed PWC Corporation under three contracts for construction projects in Mont Kiara, Sandakan and KL Sentral respectively, all of which were entered into before CIPAA came into force.

Disputes arose under the three projects, and PWC Corporation initiated adjudication proceedings against Ireka. Ireka's primary defence and cross-claim in the adjudication proceedings was that it had a right to set off any amount claimed by PWC Corporation against any amount due or liable to be paid by PWC across all three projects ("cross contractual set off").

The adjudicator in delivering a decision in favour of PWC Corporation decided that he had no jurisdiction over disputes arising out of the other projects and contracts as they concerned other contracts and the disputes were before two other adjudicators.

*All parties with construction contracts entered into before 15 April 2014 can no longer resort to statutory adjudication under CIPAA. Also, pay-when-paid clauses in construction contracts entered into before 15 April 2014 remains valid and enforceable*

PWC applied to enforce the adjudication decision. Ireka applied to set aside the adjudication decision on the main ground that there was a breach of natural justice when the adjudicator refused to consider the cross contractual set-off.

### High Court & Court of Appeal

The High Court found for PWC Corporation and held that the adjudicator was right in declining jurisdiction over and beyond the project/contract before him given that the other two contracts were before different adjudicators. This was also affirmed by the Court of Appeal. The arguments that CIPAA applies prospectively were raised by Ireka in the Court of Appeal.

Ireka then appealed to the Federal Court.

### Federal Court

The same quorum who heard Jack-In Pile heard the current appeal and decided (on the same grounds) that CIPAA applies prospectively.

### Key Takeaways

The Federal Court's decisions in the above-mentioned cases of Jack-In Pile and Ireka have certainly created an impact in the construction industry. All parties with construction contracts entered into before 15 April 2014 can no longer resort to statutory adjudication under CIPAA. Also, pay-when-paid clauses in construction contracts entered into before 15 April 2014 remains valid and enforceable.







However, the Federal Court's decisions have also created difficulties and uncertainties, particularly concerning the recovery of monies paid out under adjudication decisions, which will now be rendered void.

Further, the remedies available to affected parties faced with the following scenarios remain uncertain:

1. For Adjudication Decisions (now void because contracts were entered into before 15 April 2014) enforced as a judgment in the High Court:
  - a. where a party has paid out monies pursuant to a void adjudication decision, what are the recovery avenues to restore parties back to their original positions?
  - b. where a party has paid out monies pursuant to section 30 of CIPAA which allows the winning party to claim the sum against the principal party (i.e. employer of a construction project), what are the recovery avenues for the party to recover the sum paid out?
2. For Winding up proceedings initiated premised on debts arising out of adjudication decisions (now void because contracts were entered into before 15 April 2014), would a setting aside or termination of the winding-up proceedings be possible if a party has been wound up?

*By: Wong & Partners Partner Janice Tay, Associate Ooi Chih-wen, Associate and Legal Executive Micheal Tong.*

#### **About Wong & Partners**

Wong & Partners, a member firm of Baker McKenzie International, is a Malaysian law firm that uniquely combines its rich local knowledge with broad global capabilities. Since its establishment in 1998, Wong & Partners has grown steadily and now consists of 19 partners and more than 50 associates. The Firm's lawyers are able to deliver comprehensive and integrated advice to clients and are trusted by respected domestic and multinational corporations for their needs in Malaysia and throughout Asia.



# JAPAN CONSTRUCTION AND BUILDING MATERIAL BUSINESS OPPORTUNITIES

According to Global Information Inc., the construction industry in Japan is expected to record marginal growth of 0.5% in 2019 due to slow economic growth and dwindling investor confidence. However, the momentum is expected to pick up steadily later to record an annual average growth of 1.3% within 2020-2023. Over the forecast period (2019-2023), the industry's growth will be driven by the government's efforts to enhance transport, commercial and industrial infrastructure construction.

## **Opportunities in the Residential Construction Industry**

The construction industry is one of the key sectors in Japan that contributes nearly 20% of the country's gross national product (GNP), and approximately about 10% of the workforce.

Data from a major research company reveals that the construction industry in Japan is consequently expected to rise from a value of USD 594.1 billion in 2018 to USD 628.2 billion by 2023.

Residential construction represents the largest segment in Japan's construction industry, accounting for approximately 30% of the industry's total value in 2018.

Daiwa House Industry Co., Ltd (Daiwa) is Japan's largest house-builder based in Osaka. The Group has about 387 subsidiaries involved in various sectors of the industry as well as other businesses.





Below is a snapshot of the company:

|                           |   |
|---------------------------|---|
| Name of Company           | Daiwa House Industry Co., Ltd   |
| Date of Incorporation     | March 4, 1947   |
| Head Office               | 3-3-5, Umeda, Kita-ku, Osaka, 530-8241  |
| Number of Group Companies | 387   |
| Number of Group Employees | 68,500  |
| Group Total Sales         | USD 37.7 billion (No. 1 in industry)  |
| Sales Ratio by Segment    | <ol style="list-style-type: none"> <li>1. Rental housing (housing) 25.5%</li> <li>2. Logistic facilities (business) 24.5%</li> <li>3. Commercial facilities (business) 16.5%</li> <li>4. Single-family houses (housing) 9.2%</li> <li>5. Condominiums (housing) 6.8%</li> <li>6. Rental Housing Management (housing) 2.7%</li> <li>7. Others 14.8%</li> </ol> |
| Website                   | <a href="https://www.daiwahouse.co.jp/English/">https://www.daiwahouse.co.jp/English/</a>   |

Daiwa's procurement department is responsible for the arrangement and supply of materials to their building site and factories throughout their intra-company departments. The total amount handled by the procurement department in 2018 was approximately USD 4 billion.

Wood-related products are in demand and remain as Malaysia's top 5 exports into the market. Daiwa is seriously looking to import interior finishing materials, building materials and furniture from Malaysia. Thus, Malaysian suppliers should explore such business opportunities with the company.

### Conclusion

The residential construction market is expected to account for 29% of the industry's total value in 2023. The market output is expected to grow marginally over the forecast period, due to low private and public sector investments in the residential sector.

Infrastructure construction accounted for 27.8% of the industry's total output in 2018, followed by energy and utility construction at 17.4%, commercial construction at 12.8%, industrial construction at 7.6% and institutional construction at 4.3%.

Malaysian businesses can leverage on the free trade agreements (FTAs) as well as upcoming events such as World Expo 2025 in Osaka. These events can serve as an excellent platform to explore and expand exports of building materials and furniture as Japan continues to upgrade its residential construction industry.

*“Daiwa is seriously looking to import interior finishing materials, building materials and furniture from Malaysia. Thus, Malaysian suppliers should explore such business opportunities with the company”*

Interested parties may contact MATRADE  
Osaka at [osaka@matrade.gov.my](mailto:osaka@matrade.gov.my)

By: **MATRADE'S Insight**

### Disclaimer

While every effort has been taken to ensure that the contents of the article (MATRADE'S Insight) are accurate and current, MATRADE cannot be held responsible for any inclusion, omission or error and is not liable for any loss or dispute arising from the use of the information provided.

# Keeping Companies Ethical & Green

If you want to make a lasting impact yet do not wish to be bound by a routine job, a career as an environmental consultant might be your cup of tea. HEIGHTS talks to Marina Roland Nawe about what's it like to be an Environmental Impact Assessment (EIA) consultant.

We are all too aware of the damage to the environment caused by major development projects and the likes of it. Every construction project that is proposed has the potential to impact the air and water quality, disruption to a community's economy and way of life, and more. These possibilities need to be measured to minimise or make up for the adverse effects through other avenues.

This is where the Environmental Impact Assessment (EIA) comes in. It is essentially a planning tool to prevent environmental issues and costly mistakes in a project due to environmental damages arising during project implementation or because of subsequent workarounds to make the project environmentally acceptable. The resulting EIA report will then be submitted for project approval.

According to the Department of Environment (DOE), EIA is required in Malaysia for activities prescribed under the Environmental Quality

(Prescribed Activities) (Environmental Impact Assessment) Order 1987. There are two types of EIA reports: Preliminary EIA and Detailed EIA.



Marina and her team at a typical site visit



Figure 1: Activities that require the preliminary EIA report

|   |  |
|---|--|
| Agriculture   | Covers 500 hectares or more  |
| Airport   | Airstrip of 2,500 meters or more   |
| Drainage & Irrigation<br>(constructions of dams or man-made lake) | Surface area of 200 hectares or more<br>Irrigation schemes covering 5,000 hectares or more   |
| Housing development   | Covers 50 hectares or more   |
| Industries  | (Chemical)<br>Productions of 100 tonnes per day<br>(Petrochemicals, Aluminium & Copper)<br>Any sizes<br>(Cement)<br>For clinker through put of 30 tonnes or more |
| Infrastructures   | Constructions of expressways, national highways and new townships  |
| Mining  | Mining minerals covers 250 hectares or more<br>Sand dredging covers 50 hectares or more  |
| Railways  | Constructions of new routes or branch lines  |
| Resort & Recreational Development                                 | Development in sensitive area & national parks area  |

Figure 2: Activities that require the detailed EIA report

|  |
|--|
| Iron & Steel Industry  |
| Pulp & Paper Mills   |
| Coal Fired Power Plant                                       |
| Incineration Plant (Schedule Waste & Solid Waste)            |
| Sanitary Landfill  |
| Recreational facilities on islands and national marine parks |
| Lodging covering area of 500 hectares or more                |
| Scheduled Waste recovery or treatment facilities             |
| Land Reclamation   |



Marina briefing stakeholders on a project's EIA findings

**“** Environmental consultants provide clients with expert appraisal and advisory services on issues related to environmental management. We play a vital role in reducing the adverse effects of industrial, commercial and government initiatives on the environment **”**

### Measuring Environmental Impact

The person responsible for preparing the EIA report is none other than the EIA consultant registered with the DOE. “A lot of thought, planning and work go into an EIA report,” says Marina Roland Nawe, Senior Environmental Manager in Chemsain Konsultant Sdn Bhd, Subang Jaya, and a registered EIA Consultant with DOE and Natural Resources Environment Board (NREB) Sarawak. “We need to make site visits to describe the existing environment, identify potential significant and residual impacts, as well as propose mitigation and abatement measures.”

“Environmental consultants provide clients with expert appraisal and advisory services on issues related to environmental management. We play



*Marina's job has brought her to many interesting places including Tanjung Piai, the southern-most tip of Malaysia*

a vital role in reducing the adverse effects of industrial, commercial and government initiatives on the environment," Marina emphasises. The job involves evaluating current environmental policies, management systems and processes through audits, and gauging ecological contamination within and around the client's premises. The assessment process is then followed by assisting the client in designing and implementing systems and processes to minimise current and future environmental damage. "Further, we would need to ensure that these environmental policies and procedures adhere to environmental laws and regulations." A typical timeline of EIA deliverables ranges from two to six months, depending on the type of project and scope of work.

"After having completed numerous EIAs for a variety of industries since 1997, I am still as passionate as ever to be in this field!" states the Kuching-born Marina. She earned her Biology degree in 1996 from University of Missouri-Columbia, USA, started work in environmental consultancy a year later and received her Master of Environment (EIA and Planning) from Universiti Putra Malaysia (UPM) in 1999.

### **A Varied Career**

A typical day for Marina would entail attending meetings with clients, consultants and government agencies as well as her EIA team members. Her office work would generally involve reviewing EIA reports prepared by her team members and attending to administrative tasks. "The job is on a project basis where my team will work

with a specific company for the duration of a project. When the project concludes, we start on a new one with another company. In essence, it is an exciting and varied profession."

Marina gets to work on various projects that give her access to many technologies available in the market from water and indoor air quality testing equipment to water treatment technologies and more. "Every project is unique and interesting as I keep on discovering new working methods, business environments and technologies. Being able to harness the necessary skills and technologies to help our clients go green is what makes this job so interesting to me," she enthuses. To date, she has led her EIA team in various types of development including housing,





*Taman Tugu, Kuala Lumpur (Source - Taman Tugu Project)*



*Marina accompanying then Director of DOE KL, Norlin Jaafar (current Director General of DOE) at the Taman Tugu site visit in 2016*



*Marina and her team briefing Norlin Jaafar during the Taman Tugu site visit in 2016*

resort, commercial, oil and gas projects, manufacturing, road construction, park development and ports.

"One of my most memorable projects is the Taman Tugu development in Kuala Lumpur (KL) as the main scope of the project is to bring the forest to the city. Instead of the typical development where trees are removed to make way for development, Taman Tugu improves the remnants of forest in KL where many trees from various states in Malaysia were brought here," the nature-lover recalls.

Marina also finds the travelling that comes along with the job particularly enjoyable. "Site visits to the project area is compulsory. It will normally require at least a full day to check out the site," she says. During a site visit, the EIA consultant will focus on inspecting the site and its surrounding areas, in particular, the river or drainage system, topography, access road, potential sensitive receptors, e.g., settlements, worship areas, tourism landmarks, water intakes, fisheries and the like.

**“** Whenever I complete a project, the satisfaction of seeing the project develop and at the same time, being able to ensure that the environment is not compromised, is so very rewarding

**”**





*An EIA consultant's job is well-appreciated by organisations who are committed to the country's sustainable development initiatives*

## How To Be An EIA Consultant

To get started on the EIA consultancy path, one would require a bachelor's degree in science or technical academic background. "An EIA consultant must be a quick study as each project is different, and the technology keeps on evolving at a rapid pace. Being able to unlearn is also vital as it makes one more inclined to accept new ideas," Marina says. "Good technical writing skills is a major plus, and analytical thinking is compulsory in this job."

According to Marina, the environment in itself is a vast sector; an environment practitioner can find themselves in the fields of research, consultancy, construction and also government agencies. "An EIA consultant has a more specific job scope, which is mainly to prepare and submit the EIA report for the DOE's approval. Hence, one will normally work in an environmental consultancy firm," she explains. In addition to preparing the EIA, an EIA consultant can be involved in other relevant environmental work in the capacity of an Environmental Auditor or Environmental Officer. Environmental consultants can also

be engaged by major manufacturing and production firms, where environmental management is a critical aspect of their daily operations.

"DOE offers various courses ranging from waste management, pollution control and such, which could add value to one's career enhancement. One could also opt to become a trainer

as an alternative career path, especially for those who have gained much experience," states Marina.

Marina surmises that unlike other fields in the construction industry, the participation from both genders in environmental consultancy is quite balanced. "However, based on my observation, there seems to be more women in this field. It could be because this job appeals to those with a passion for writing and analytical thinking."

As a 23-year expert in the industry, Marina is showing no signs of slowing down. "Nature and development fascinate me, and being an EIA Consultant ensures the balance between these two elements. Whenever I complete a project, the satisfaction of seeing the project develop and at the same time, being able to ensure that the environment is not compromised, is so very rewarding," she states.



*Marina preparing an EIA report together with her team member*



# CIDB ENFORCEMENT IN NUMBERS

OCTOBER 2019 – DECEMBER 2019



## ENFORCEMENT ACTIVITIES

### SITE INSPECTIONS



**3,709**

### INTEGRATED ENFORCEMENT WITH OTHER AGENCIES



**31**

### SPECIAL OPERATIONS



**15**

## ACTIONS TAKEN

### NOTICES ISSUED



**5,920**

### INVESTIGATION PAPERS OPENED



**1,123**

### PENALTIES ISSUED



**52 Cases**

### CONTRACTOR REGISTRATIONS SUSPENDED



**2**

### DISCIPLINARY PROCEEDINGS



**65**

### WARNINGS ISSUED



**11**

### VALUE OF COMPOUNDS ISSUED



**RM8,353,882.55**

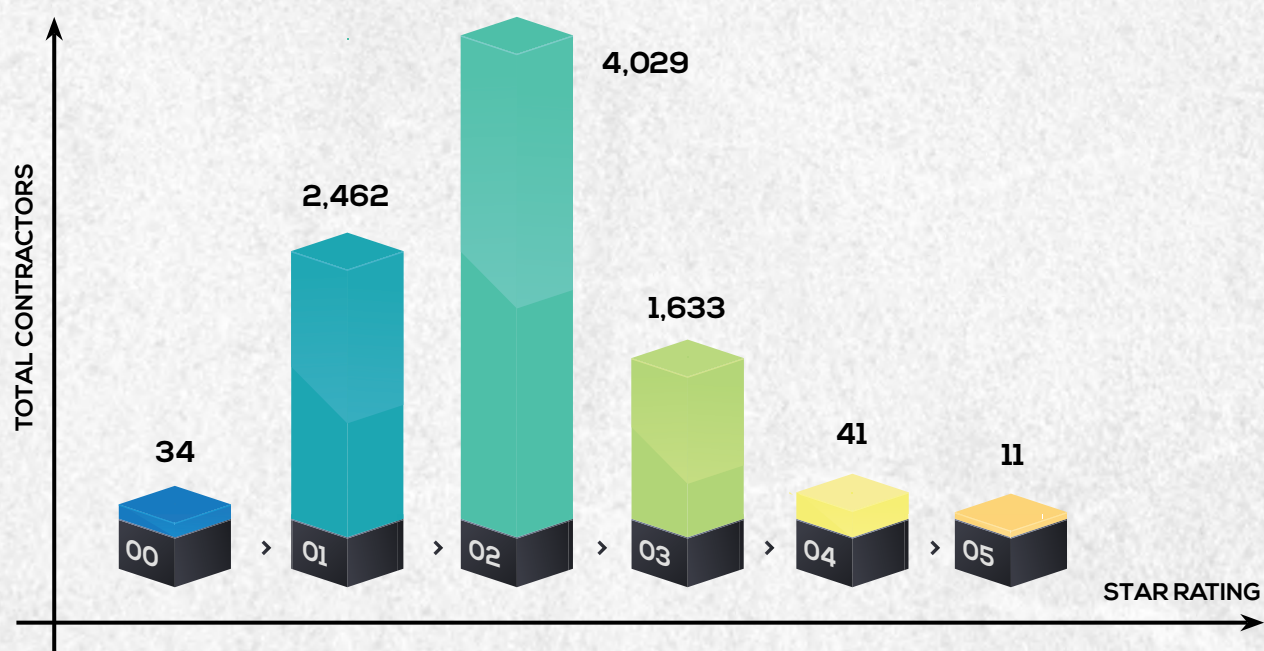
## STATUS OF PROJECTS EXECUTED BY MALAYSIAN CONTRACTORS ABROAD

| STATUS OF PROJECTS | NO. OF PROJECTS |      | PROJECT VALUE |               |
|--------------------|-----------------|------|---------------|---------------|
|                    | 2018            | 2019 | 2018          | 2019          |
| READY              | 20              | 5    | 2,126,384,775 | 409,072,250   |
| IN PROGRESS        | 11              | 42   | 1,994,189,000 | 6,266,260,574 |

## NUMBER AND VALUE OF PROJECTS EXECUTED BY MALAYSIAN CONTRACTORS BY REGION

|                             | NO. OF PROJECTS |      | PROJECT VALUE |               |
|-----------------------------|-----------------|------|---------------|---------------|
|                             | 2018            | 2019 | 2018          | 2019          |
| SOUTH ASIA                  | 1               | 1    | 71.3 MILLION  | 47.4 MILLION  |
| ASEAN                       | 12              | 18   | 428.1 MILLION | 1.3 BILLION   |
| GULF REGION                 | 10              | 11   | 759.9 MILLION | 482 MILLION   |
| INDOCHINA                   | 2               | 2    | 971.2 MILLION | 70.9 MILLION  |
| ASIA                        | 2               | 8    | 24 MILLION    | 4.3 BILLION   |
| MIDDLE EAST & NORTH AFRICA  | 0               | 4    | 0             | 377.7 MILLION |
| AUSTRALIA & OCEANIA         | 3               | 0    | 1.9 BILLION   | 0             |
| AFRICA                      | 0               | 1    | 0             | 19 MILLION    |
| EUROPE                      | 0               | 1    | 0             | 47.4 MILLION  |
| SOUTH AMERICA               | 0               | 1    | 0             | 26.4 MILLION  |
| NORTH AMERICA               | 0               | 0    | 0             | 0             |
| CENTRAL AMERICA & CARIBBEAN | 0               | 0    | 0             | 0             |

## CONTRACTORS' SCORE RATING AS AT 31 DECEMBER 2019





## REGISTERED CONTRACTORS AS AT 31 DECEMBER 2019

|                                  | G1     | G2     | G3     | G4    | G5    | G6    | G7    |
|----------------------------------|--------|--------|--------|-------|-------|-------|-------|
| JOHOR                            | 3,426  | 2,870  | 2,107  | 505   | 533   | 136   | 711   |
| KEDAH                            | 2,675  | 1,284  | 504    | 177   | 162   | 68    | 230   |
| KELANTAN                         | 2,467  | 1,743  | 355    | 148   | 110   | 61    | 158   |
| MELAKA                           | 1,259  | 815    | 524    | 181   | 165   | 60    | 187   |
| NEGERI SEMBILAN                  | 1,927  | 1,353  | 621    | 197   | 221   | 62    | 162   |
| PAHANG                           | 2,387  | 1,481  | 525    | 243   | 190   | 76    | 167   |
| PERAK                            | 3,117  | 1,487  | 809    | 253   | 258   | 100   | 259   |
| PERLIS                           | 855    | 261    | 69     | 25    | 21    | 5     | 30    |
| PULAU PINANG                     | 1,607  | 1,051  | 1,159  | 302   | 375   | 127   | 536   |
| SABAH                            | 8,167  | 3,073  | 1,021  | 280   | 286   | 124   | 647   |
| SARAWAK                          | 5,055  | 1,939  | 1,080  | 226   | 319   | 173   | 695   |
| SELANGOR                         | 4,481  | 4,218  | 4,334  | 1,362 | 1,728 | 510   | 2,330 |
| TERENGGANU                       | 2,913  | 1,315  | 424    | 189   | 193   | 87    | 220   |
| WILAYAH PERSEKUTUAN KUALA LUMPUR | 1,615  | 1,122  | 2,817  | 928   | 1,647 | 533   | 2,398 |
| WILAYAH PERSEKUTUAN LABUAN       | 188    | 118    | 41     | 9     | 10    | 2     | 14    |
| WILAYAH PERSEKUTUAN PUTRAJAYA    | 34     | 18     | 16     | 6     | 2     | 4     | 8     |
| TOTAL                            | 42,173 | 24,148 | 16,406 | 5,031 | 6,220 | 2,128 | 8,752 |

## TOP 10 COUNTRIES WITH HIGHEST MALAYSIAN CONTRACTOR ENGAGEMENT ON A GLOBAL LEVEL

| COUNTRY              | 2018           |
|----------------------|----------------|
| AUSTRALIA            | 1.82 BILLION   |
| CAMBODIA             | 971.22 MILLION |
| UNITED ARAB EMIRATES | 407.24 MILLION |
| QATAR                | 352.68 MILLION |
| BRUNEI               | 219.75 MILLION |
| MYANMAR              | 101.35 MILLION |
| SINGAPORE            | 77.28 MILLION  |
| SRI LANKA            | 71.27 MILLION  |
| PAPUA NEW GUINEA     | 46.31 MILLION  |
| PHILIPPINES          | 29.72 MILLION  |

| COUNTRY              | 2019           |
|----------------------|----------------|
| INDONESIA            | 3.26 BILLION   |
| UZBEKISTAN           | 1.11 BILLION   |
| SINGAPORE            | 1.09 BILLION   |
| IRAQ                 | 341.53 MILLION |
| QATAR                | 250.62 MILLION |
| UNITED ARAB EMIRATES | 183.31 MILLION |
| PHILIPPINES          | 93.73 MILLION  |
| THAILAND             | 75.63 MILLION  |
| VIETNAM              | 70.92 MILLION  |
| BAHRAIN              | 48.06 MILLION  |



SHOWCASE

# EXCHANGE 106 – Changing The KL Skyline





Exchange 106, Kuala Lumpur's newest iconic building, is the centrepiece of the Financial Quarter and the focal point of the 70 -acre Tun Razak Exchange (TRX) master plan. Standing tall at 453.46m with 106 floors, it is at par with the likes of CITIC Tower, Beijing, Shanghai Tower, and Salesforce Tower, San Francisco. As the recipient of an Award of Excellence for 'Best Tall Building 400 meters and above' by the Council on Tall Buildings and Urban Habitat (CTBUH), Exchange 106 is one of the most technically tall buildings in the world.

Located at the edge of a 10-acre park in the centre of TRX, the iconic tower is Indonesia-based Mulia Group's first foray into Malaysia. "When we came to Malaysia, we decided that we were not going to build just another building. There are many beautiful buildings in Malaysia, in particular, the Petronas Twin Towers. Whatever, we did, we were never going to compete with that. So we took it to a different direction," says Ali Moghaddasi, Chief Development Officer, Mulia Group Architects.

By this, he meant looking at all the requirements from the authorities and meeting special qualifications like MSC status, GBI and LEED. "We satisfied those and went a bit further. Whether it was to provide a higher grade marble flooring, high performance insulated glass, turnstile access control or a camera-based car park guidance system, we look for that extra, and we went there. We decided we needed to be extraordinary and set benchmarks that will have occupiers demand the same level of quality from other buildings." He admits that while Mulia



Main Lobby

Group is building for the future, technological advances over the next decade or two will render the hardware 'normal'. "Hence, we also invest heavily in the software. This includes the Building Management systems, security systems, carpark systems or lift controls, and importantly, in the people that add the heart and soul to the building."

"Exchange 106 will never be just another beautiful building. It will be about the Front Desk greeting and assisting visitors, the Auxiliary Police helping a visitor find their way around the car park, the housekeeper smilingly ensuring that the washroom is never less than sparkling, and the technicians working through the night to ensure zero downtime. That will be the singular difference that Mulia Group brings to the commercial office market in KL," concurs Patrick Honan, General Manager, Mulia Property Development Sdn Bhd.

### Design & Form

Exchange 106 is envisioned to be simple, rational, and timeless. Moghaddasi explains that the plan of the tower is comprised of a square, representing equality, and a circle, representing strength, the very essence of Islamic architecture. The

3-dimensional shape of the tower, gradually tapering to the top, is an extrusion of the designed rational plan, a simple and elegant form complimenting the park setting.

It is also an ideal shape for its function as a financial and commercial centre. The column-free and long spans are designed for flexible layouts and open-plan interior configurations. The planned rotation of the tower will provide ample distance with adjacent towers and 360-degree views for more than 70% of the floors. The tower was designed on an axis that is diagonal to the configuration of the CBD orthogonal grid. "This will emphasise and set the building apart from the rest of the master plan for a unique and special place in the Kuala Lumpur skyline," explains Moghaddasi.

The tower's distinctive-looking crown makes it highly recognisable within KL's city skyline. The crown is made of double-layered laminated low-iron clear and colourless glass panels with satin-finished stainless steel framing in an elegant and cultured diamond pattern. Enhancing the glass is a sophisticated interlayer fabric with metallic coating on the outer face customised for and unique to Exchange 106. Together with the





Crown

**“**  
*In total, it took 835 days and 20 million man hours to complete the superstructure construction portion of the project. The full Certificate of Completion and Compliance (CCC) was issued on 23 December 2019.*  
**”**

triangulated and folded configuration, the crown reflects and becomes a part of the sky. Inside the crown is the Lantern, which provides a constant glow at night, the colours of which change to reflect the Malaysian currency.

First-time visitors will marvel at the triple volume lobbies, book-matched marble cladding wall with polished marble imported from Italy and Turkey, as well as the fantastic 360-degree views.

“However, once they get past that initial awe, they will see that it all makes sense,” he says. From the centre core service corridor where occupants access all common area services without going through narrow passages, the acoustically treated ceiling boards to the wudhu facilities at every shared washroom, all of these

features embody the “going further” philosophy that Mulia implements.

“It is not just the grandeur of the building; it is an intuitive feel that one doesn't just see. The spaces may inspire a sense of wonder, but this soon settles into a comfortable feeling of ‘right’ and ‘belonging’,” Moghaddasi elaborates.

Exchange 106 boasts of a variety of amenities that include two retail and F&B floors, a 5-star hotel drop-off and triple volume main lobby, banking hall, sky lobby at level 57, and 2,200 parking bays over six basement parking levels and two VIP levels. The building will also be linked to the TRX MRT Underground Station and the upcoming Sungai Buloh-Serdang-Putrajaya Line.



## Construction

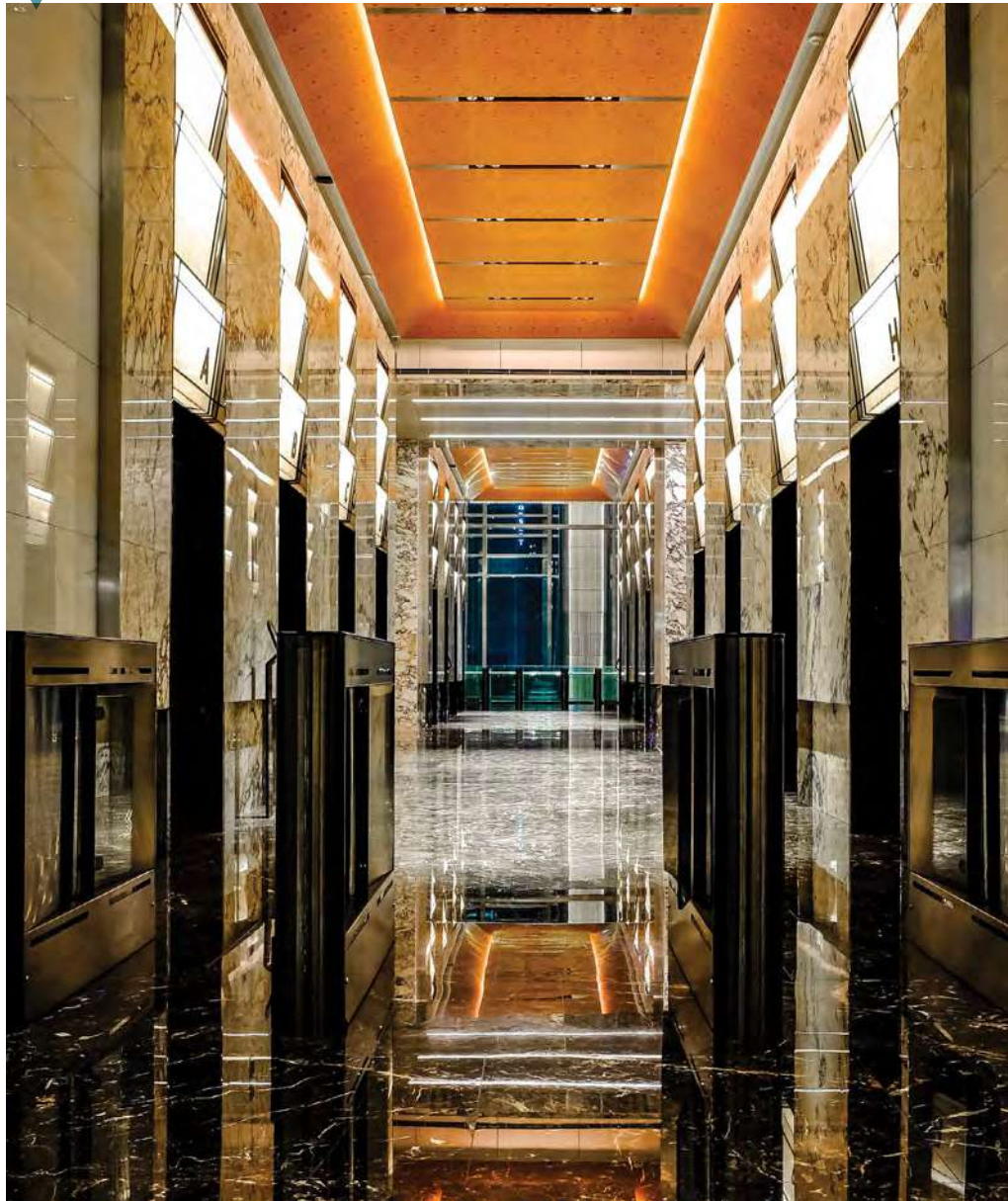
The design work commenced on Q2 2015, and the mat foundation was poured on 1 May 2016. "In total, it took 835 days and 20 million man hours to complete the superstructure construction portion of the project. The full Certificate of Completion and Compliance (CCC) was issued on 23 December 2019," says Roland Suckling, Project Director, Mulia Property Development Sdn Bhd, who managed the entire construction process from procurement to site coordination.

According to Suckling, the critical factors to the project's success were good time management and efficiency. "This was achieved by deploying heavier loading tower cranes, the 60-hour mat foundation pour, managing flying landing platforms, fixed loading hours and such," he explains.

"Our 40-year history ensured that the challenges were few and far between. The Mulia Group operates very uniquely as everything from the inception to operation is done in-house," adds Suckling.

As Honan succinctly says, Exchange 106 is well on its way to carve a lane for itself rather than set a benchmark that can be reset by the next iconic building.

*Lift lobby*



*Light forest installation*

## PROJECT DETAILS:

Project Management: **Mulia Property Development Sdn Bhd**

Client: **Mulia Group**

Architect (Design): **MGA International**

Structural Engineer (Design): **Louie International (USA) & EDP Consulting Group Sdn. Bhd.**

Super Structure Contractor: **China State Construction Engineering Corporation**





# MAKING WORKSITE SAFETY A PRIORITY

The spate of accidents at construction sites, including the tragic incidents in Hulu Langat and Gombak, highlight the need for industry players to put safety as a top priority.







*The site of the tragic  
Gombak building incident.*

Time and again CIDB has reminded contractors to put safety first in their construction projects in light of the number of deaths happening at construction sites nationwide including two incidences in Hulu Langat and Gombak last year. The two incidents resulted in the deaths of three workers as well as three injured workers.

The two contractors involved were recently fined a combined total of RM250,000 for failing to ensure safety on construction worksites, which resulted in the death of workers on-site in Hulu Langat and Gombak, respectively. The two incidents which were found to be in breach of Section 34D(1) of the Construction Industry Development Board Act (Act 520).

### **Serving Swift Justice**

CIDB viewed these incidents seriously and was swift in taking action against the errant contractors. Both incidents were investigated by CIDB Selangor Investigating Officer, En Mohd Shahrir Samad and CIDB's prosecution team was led by Tn Hj Abdul Razak Husin.

"It is the duty of contractors to ensure that construction works are carried out in such a way that does not create a risk of injury to any person. As such, contractors must take responsibility to ensure the building and construction works are safe and structurally sound, whether during or after construction works. These two cases serve as a grave reminder to construction industry players on the urgent need to embrace and adopt a

***“ Contractors must take responsibility to ensure the building and construction works are safe and structurally sound, whether during or after construction works. ”***

safety-first culture in the sector. Furthermore, it is only with a 'first-world' mindset that the Malaysian construction industry can progress and be on par with global industry players," says Datuk Ir. Ahmad 'Asri Bin Abdul Hamid, Chief Executive of CIDB Malaysia.

On 1 November, Landasan Kapital (M) Sdn Bhd, contractor for the Pusat Terminal Pengangkutan Bersepadu Sektor (ITT-T) construction project near the Gombak LRT Terminal was fined RM 200,000 by Judge Puan Syafeera Mohd Said of the Selayang Sessions Court. In an incident which occurred at about 12.45 am on 23 May last year, two Indonesian workers were killed, and three other workers were injured as a result.





*The industry still has a great deal to do to instill a culture of safety in constructions sites.*

Investigations found that the building's falsework was unable to carry the weight of concrete used. The scaffoldings used to support formwork and beam of the structure were unsuitable for the project, causing the collapse of a ramp from the building's fifth level to the lower levels.

In a separate case, Hepta Innovations Sdn Bhd, main contractor for the Projek Pembinaan Kilang Berkembar Atas Pt 60093 & 60094, Jln KBP 4, Kwsn Perindustrian Kampung Baru Balakong, Pekan Cheras Daerah Hulu Langat, was fined RM 50,000 on 30 September by Judge Tuan Mohd Kafli Bin Che Ali of the Kajang Sessions Court. On 28 January 2019, a collapse during construction had resulted in the death of a worker.

Hepta Innovations was found guilty of appointing a sub-contractor that was not registered with CIDB to conduct construction works, and for appointing a site supervisor that had not been certified by the Board of

Engineers Malaysia. Construction work was done without proper supervision and approvals for the project. The cause of the collapse was due to overloading.

"In recent years, the industry has seen a troubling increase in construction deaths despite the targeted reduction in the 2016-2020 Transformation Plan (CITP). It shows that the industry still has a great deal to do to instill a culture of safety in construction sites," said Dato' Ir. Ahmad' Asri.

According to section 34B(1)(c) of the CIDB Act, contractors are responsible for ensuring the safety of the building and construction works, both during and after the construction phase. Meanwhile, Section 34D(1) of the CIDB Act (Act 520), states that any contractor who breaches his duty under paragraph 34B(1)(c), and which breach results in death, shall be guilty of an offence and shall, on conviction, be liable to a fine not exceeding RM500,000 or to imprisonment for a term not exceeding two years or to both.



### CIDB's Commitment To Enforcement

"As part of CIDB's efforts to ensure contractors and site managers fulfil their responsibility to have sufficient safety measures for construction work, CIDB conducts routine Act 520 enforcement inspections across the nation," said Datuk 'Asri.

Previously, Tuck Sin Engineering & Construction Sdn Bhd, a contractor for the KL Eco City Link Bridge project was fined RM250,000 for breaching Section 34D(1) of the CIDB Act. In the incident, a worker died as a result of the collapsed pedestrian bridge. Meanwhile, Justra Sdn Bhd, a contractor for a Mydin hypermarket project in Alor Gajah was fined RM100,000 by the Sessions Court for the offence of failing to ensure safety during construction; causing the death of three foreign workers in June 2014.

In 2018, CIDB had conducted a total of 3,401 construction site/premise inspections, 798 construction material inspections, and opened 1,068 investigation papers. Last year, a total of 1,053 compounds were issued to 298 companies and 755 construction personnel for various offences, totalling RM 2.8 million.

*"With this new set of guidelines, which will be presented to the Parliament this year, the owners, developers, consultants, designers as well as the contractors will be held responsible. So owners will think twice before cutting costs at the expense of quality and safety."*

CIDB conducts routine Act 520 enforcement inspections to ensure construction sites have sufficient safety measures.





Under the OSHCIM Guidelines, the contractor must ensure workplace safety and that workers are trained to safely carry out their duties

### Safety Is Everyone's Responsibility

Datuk 'Asri commended the Department of Occupational Safety and Health (DOSH) for setting the guideline that all parties involved in the construction industry are responsible in the event of an accident at construction sites. "Currently, only a contractor is responsible when accidents occur at the worksite. With this new set of guidelines, which will be presented to the Parliament this year, the owners, developers, consultants, designers as well as the contractors will be held responsible. So owners will think twice before cutting costs at the expense of quality and safety."

"Further, making the Guidelines on Occupational Safety and Health in Construction Industry (Management) or OSHCIM mandatory will go a long way to ensure the safety of workers. It will be a gamechanger indeed," he added.

Datuk' Asri said OSHCIM came about when DOSH made several changes to the UK's Construction (Design and Management) Regulations (CDM) to make them appropriate for use in Malaysia. He said that the CDM Regulations proved effective in reducing construction accidents in England.

Aimed at ensuring proper consideration of health and safety issues during the implementation of a project, the OSHCIM Guidelines will lead to reducing the risk of harm to construction workers.

*“Aimed at ensuring proper consideration of health and safety issues during the implementation of a project, the OSHCIM Guidelines will lead to reducing the risk of harm to construction workers.”*

"Under the OSHCIM Guidelines, the developer must guarantee that the right and qualified designers are hired. The developer must also allocate sufficient funding for safe construction works. Additionally, the designer must take into account the safe construction of a building or project during the design phase. As for the contractor, the onus is on them to ensure that the workplace is safe, and that the workers are properly trained to safely carry out their tasks. At all times, workers must put on their personal protective equipment," Datuk 'Asri stated.



# CIDB AMP 2019: IN APPRECIATION OF LOCAL MEDIA PRACTITIONERS

Thirty six local media practitioners nationwide bagged a total of RM90,000 in cash prizes in conjunction with CIDB's Construction Media Awards 2019 (AMP 2019).

Held for the fifth year, the event was a collaboration between CIDB and the Ministry of Works to recognise the significant role played by the media industry to raise awareness of the Malaysian Government initiatives through the Construction Industry Transformation Program (CITP).

The AMP CIDB 2019 recognises the best construction articles published between 31 July 2018 to June 30, 2019 based on the four strategic cores of the CITP 2016-2020, which are Quality, Safety and Professionalism, Environmental Sustainability, Productivity and Internationalisation.

CIDB received hundreds of entries of high-quality reporting from media companies nationwide in three categories — Print Media; Electronic Media and Online Broadcasting and Photography.

The three awards ceremonies, held in November and December last year, were presented by the Minister of Works, YB Tuan Baru Bian, in conjunction with the Ministry of Works' Media Appreciation Night. Also gracing these events was CIDB Chief Executive, Datuk Ir. Ahmad 'Asri Bin Abdul Hamid who said, "The media has indeed played a vital role in supporting the Government's initiatives to drive the country's construction sector to the next level globally. The consistent media reporting and coverage over time has raised awareness among Malaysians on the construction development front."

He opined that the media is not just a one-stop information center on national and global development, but also a medium for Malaysians to voice their opinions and feedback. "As such, we appreciate their hard work and efforts to consistently provide relevant reports on the construction industry as we move towards the final phase of the CITP," he added.

## THE AWARD WINNERS

### PENINSULA MALAYSIA

#### PRINT & NEWS PORTAL CATEGORY:

##### FIRST (RM5,000)

**Wan Noor Hayati Binti Wan Alias**  
*Berita Harian*  
Isu Keselamatan Tapak Binaan

##### SECOND (RM3,000)

**Laupa Bin Junus**  
*Utusan Malaysia*  
Kawal Suhu Rumah Dengan Aplikasi

##### THIRD (RM2,000)

**Sheila Sri Priya A/P Raman Chetty**  
*The Star*  
Urban Challenge

#### BROADCAST (TV & ONLINE VIDEO) CATEGORY:

##### FIRST (RM5,000)

**Mohd Noor Iqram Bin Rosli, Mohd Azmirul Fariz Bin Mohd Azmi & Muhamad Bin Salim**  
*BERNAMA News Channel*

1. Pengumpulan Data Baru  
Kenalpasti Cerun Berisiko Siap Oktober Tahun Ini.
2. 596 Cerun Runtuh Akan Dapat Dilakukan Pembaikan Menjelang 2020.

##### SECOND (RM3,000)

**Wan Zairul Azri Bin Wan Mohammad Sudin & Norliza Binti Mohd Salleh**  
*TV3*  
Masih Ada Kompromi

##### THIRD (RM2,000)

**Khairul Rizuan Bin Azizan & Muhammad Solleh Bin Ahmad Kamal**  
*TV3*  
100 Rumah Retak Akibat Projek Pemasangan Paip Pembentukan Langat Dua Di Kajang

#### PHOTOGRAPHY CATEGORY:

##### FIRST (RM5,000)

**Chen Soon Ling**  
*The Star*  
All Hands On Deck In MRT Line 3

##### SECOND (RM3,000)

**Lek Kah Meng**  
*Sin Chew Daily*  
The Fully Equipped Welder

##### THIRD (RM2,000)

**Azlan Bin Bahrum**  
*Utusan Malaysia*  
Drawbridge - Persiapan Percubaan



Larry Ralon of Daily Express won first place in the Print & News Portal Category at AMP 2019 Sabah for his three articles related to drone usage in the construction industry

1. CIDB uses drones for monitoring, investigation
2. Regulate drone usage to avoid abuse
3. Drone use in construction sector becoming a necessity

## SABAH

### PRINT & NEWS PORTAL CATEGORY:

#### FIRST (RM5,000)

**Larry Bin Ralon**

*Daily Express*

1. CIDB uses drones for monitoring, investigation
2. Regulate drone usage to avoid abuse
3. Drone use in construction sector becoming a necessity

#### SECOND (RM3,000)

**Neil Brian Joseph**

*The Borneo Post*

1. RM170 to address NRW
2. Amicable solution to address environmentalists' concerns on proposed Papar Dam
3. Dams have to be built
4. Papar Dam to supply water, power to west coast

#### THIRD (RM2,000)

**Mariah Airiens Doksil**

*The Borneo Post*

Mediation usually suggested in construction disputes

### BROADCAST (TV & ONLINE VIDEO) CATEGORY:

#### FIRST (RM5,000)

**Serina Olivia Chong, Jiliana Bangot, Awg Mohd Zulfahmi Bin Zulkiply, Zuhizam Bin Mohd Salleh**

*RTM Sabah*

ABM Platform

#### SECOND (RM3,000)

**Aritika Binti Mabni @Matbee, Morhalim Bin Mohammed, Zuhizam Bin Mohd Salleh**

*RTM Sabah*

Laporan Khas: Jambatan Simpudu

#### THIRD (RM2,000)

**Iswadiman Bin Dominikus, Saziri Bin Ibin**

*RTM Sabah*

Pembangunan DUN Kuamut

### PHOTOGRAPHY CATEGORY:

#### CONSOLATION (RM1,000)

**Arjasneh Bin Ahmad**

*BERNAMA*

Imigresen Tahan Warga Asing



Serina Olivia Chong, Jiliana Bangot, Awg Mohd Zulfahmi Zulkiply from RTM Sabah emerged as first place winners in the Broadcast (TV & Online Video) Category at AMP 2019 Sabah for their work titled 'ABM Platform'.



Arjasneh Ahmad of BERNAMA news agency won the consolation place in the Photography Category at AMP 2019 Sabah for his work in the article 'Imigresen Tahan Warga Asing'



AMP 2019 Sabah Award Winners



## SARAWAK

### PRINT & NEWS PORTAL CATEGORY:

#### FIRST (RM5,000)

**Yvonne Tuah Merawin**

*Borneo Post*

Clearing The Air For Construction

#### SECOND (RM3,000)

**Haini Binti Darani**

*Utusan Sarawak*

Pekerja Terlatih, Teknologi Tiada

#### THIRD (RM2,000)

**Sharon Kong Yih Hieng**

*Borneo Post*

The Business Of Railway Connectivity

### BROADCAST (TV & ONLINE VIDEO) CATEGORY:

#### FIRST (RM5,000)

**Adib Bin Othman & Farizan Bin Jalal**

*TV3 Sarawak*

Lebuhraya Pan Borneo: Pakej

Pertama Siap Januari Ini

#### SECOND (RM3,000)

**Mohd. Shadiqin Bin Mohd. Bahrin**

*RTM Kuching*

BERSIRI: Jajaran Pan Borneo

#### THIRD (RM2,000)

**Kadir Anak Edison & Farizan Bin Jalal**

*TV3 Sarawak*

Tanggungjawab Sosial: PETRONAS

Bantu Bina Asrama Pelajar

### PHOTOGRAPHY CATEGORY:

#### FIRST (RM5,000)

**Ramidi Bin Subari**

*New Sarawak Tribune*

Brave Or Just Careless

#### SECOND (RM3,000)

**Zulazhar @ June Bin Sheblee**

*The Star*

Canine On The Job

#### THIRD (RM2,000)

**Andre Oliveira Bin Rapa'ee**

*Utusan Sarawak*

Patuh Peraturan Keselamatan



Yvonne Tuah Merawin of The Borneo Post snagged the first place in the Print & News Portal Category at AMP 2019 Sarawak for her work titled 'Clearing The Air For Construction'



Adib Bin Othman, Farizan Bin Jalal of TV3 Sarawak won first place in the Broadcast (TV & Online Video) Category at AMP 2019 Sarawak for his work titled 'Pakej Pertama Siap Januari Ini'



Ramidi Bin Subari of New Sarawak Tribune won first place in the Photography Category at AMP 2019 Sarawak for his work titled 'Brave Or Just Careless'







 Dato' Dr. Syed Omar Sharifuddin bin Syed Ikhsan, Secretary General, Ministry of Works sounding the gong to officiate the event. On his left is CIDB Malaysia's Chief Executive Datuk Ir. Ahmad 'Asri Bin Abdul Hamid.

# G1 CONTRACTORS URGED TO LEVERAGE ON CONSTRUCTION TECHNOLOGY

In conjunction with the G1 (Bumiputera) Registration Relaunch ceremony held in Langkawi, Kedah late last year, CIDB Malaysia encouraged the younger generation G1 contractors to enhance their capacity and capabilities.

The momentous event was organised by CIDB Malaysia in collaboration with the Ministry of Entrepreneur Development (MED), Public Works Department (JKR) and the Ministry of Finance Malaysia (MOF), following the Federal Government's decision to reopen the G1 contractor registration, which has been frozen for 14 years since 2005. The government would also review the maximum amount of contract value of government projects that these contractors can undertake.



## Bumiputera Contractors to Play Significant Role in Construction Industry

"The reopening of this registration can serve as a training platform for existing and newly registered Bumiputera contractors, especially among dynamic and tech-savvy young generation contractors. It will help to increase their capacity and their ability to reach higher grades over time," said Dato' Syed Omar Sharifuddin bin Syed Ikhsan, Chief Secretary to the Ministry of Works.

"I hope this initiative will drive the existing G1 Contractor mostly in the same class over 20 years enhance the ability to become a contractor in higher grades, i.e., grades G2 to G7. At the same time, we want to produce more Bumiputera contractors who are competitive and play a leading role in the country's construction industry," he added.

The event included a briefing on the contractor development programme, as well as a lot drawing for government works by the Langkawi District Office to give opportunities for G1 contractors to be involved in government projects that will be implemented by early this year.

"We are hopeful that the re-registration of the G1 Contractors will encourage the industry players especially Bumiputera contractors, to step up their efforts towards bringing the construction sector to greater heights," said Datuk Ir. Ahmad

'Asri Bin Abdul Hamid, Chief Executive of CIDB Malaysia.

## Equipping Local Contractors With Crucial Skills

"CIDB is implementing various programmes to empower local contractors to produce more competent and competitive contractors in the construction field. To date, programmes that have been successfully implemented include the Young Entrepreneur Program, Contractor4U and E-Learning," Datuk 'Asri said.

In line with the National Entrepreneurship Policy 2030, the Young Entrepreneur Program provides skills and entrepreneurship training within three and a half months. Successful participants in the program can then register as G1 contractors. Contractor4U, a mobile application, has also become a marketing medium for local contractors while reducing the dependency on the foreign and undocumented workforce. The E-Learning Portal is a platform that houses all of the online modules that CIDB has developed.

To date, a total of 39,834 G1 contractors possessed the Contractor Registration Certificate (PPK) while 23,505 G1 contractors have obtained the Government Employment Certificate (SPKK). Currently, there are 4,811 contractors G1 with PPK and 3,443 with SPKK in Kedah.



*This initiative is hoped to drive the existing G1 Contractors to enhance their abilities in becoming higher grade contractors.*

Since the G1 contractor registration was reopened on 1 September 2019, CIDB received 2,028 applications for Sijil Permohonan Kerja Kerajaan (SPKK), of which 1,468 were approved, and 319 are still in the approval process. There were 990 applications for the Sijil Taraf Bumiputera (STB), of which 824 were accepted, and 150 are being processed.

*The VIPs flanked by the jubilant newly-minted G1 contractors.*





*PETRONAS Project Delivery & Technology (PDT) Group Procurement Vice President, Liza Mustapha giving the thumbs up together with the apprentices and apprenticeship programme providers in collaboration with CIDB and the local oil and gas services and equipment (OGSE) contractors.*

# CIDB Collaborates With PETRONAS To Develop Oil & Gas Talent Via Apprenticeship Programme

**CIDB, PETRONAS and participating Oil & Gas Services & Equipment (OGSE) contractors join hands to build young talent through a new apprenticeship programme.**

CIDB continues to drive its capacity building initiatives by collaborating with PETRONAS and participating OGSE contractors through an apprenticeship programme. PETRONAS aims to build a sustainable pipeline of local semi-skilled oil and gas employees to propel the industry further.

Participants of the apprenticeship programme will first be trained at CIDB's training institution—Akademi Binaan Malaysia (ABM) and the apprenticeship will take place at 16 PETRONAS contractors' facilities located in Sabah, Sarawak and Terengganu.

The first phase of the apprenticeship program was marked by the

signing of the Memorandum of Understanding (MoU).

Speaking at the event, PETRONAS Senior Vice President, Project Delivery & Technology Samsudino Miskon said, "This collaboration provides a platform for the training and certification of youths to obtain the required skills for the oil and gas industry. They will then



be funnelled into employment to ensure a sustainable pipeline of skilled talents for the sustenance and continuity of operations."

"PETRONAS provides young people in Sabah, Sarawak and Terengganu an excellent opportunity to participate in the oil and gas industry in their respective states, in the spirit of giving back to the community."

He added that the apprenticeship programme is part of PETRONAS' ongoing effort to shape the sector by developing the human resource capacity and partnering with several ecosystem-builders. Through this, the local OGSE players can strengthen their competitiveness and resilience.

The apprenticeship programme is in line with the objectives of PETRONAS' Lestari programme, which is a mechanism and collaborative platform to strengthen the OGSE ecosystem.

Minister of Operations Secretary-General Dato' Dr. Syed Omar Sharifuddin Syed Ikhsan, the Minister of Operations YB Baru Bian's representative, was present at the MOU exchange.

*"This collaboration provides a platform for the training and certification of youths to obtain the required skills for the oil and gas industry."*

"The Ministry through CIDB supports programmes that help young skilled workers from ABM be readily absorbed into the industry. By working together with PETRONAS, CIDB and other Oil & Gas players, industrial players are given the opportunity to acquire trained and accredited local workers. Importantly, they also play a crucial role in the continued development of their industry competencies, which benefits the organisation's growth as well as meets the workforce needs for projects and the industry in general," he said.

## THE 16 PARTICIPATING CONTRACTORS:

1. Amalgamated Plant Engineering Sdn.Bhd.
2. BWS Engineering Sdn. Bhd.
3. Dayang Enterprise Sdn. Bhd.
4. Deleum Primera Sdn. Bhd.
5. EPIC OG Sdn. Bhd.
6. Evolusi Bersatu Sdn. Bhd.
7. Haluan Cekap Sdn. Bhd.
8. Hyperwave Systems Engineering Sdn. Bhd.
9. Maysville Sdn. Bhd., Petra Resources Sdn. Bhd.
10. Petra Resources Sdn. Bhd.
11. Rahabco Engineering & Construction Sdn. Bhd.
12. Sapura Fabrication Sdn. Bhd.
13. Steel Hawk Engineering Sdn. Bhd.
14. Transfame Sdn. Bhd.
15. Turcomp Engineering Services Sdn. Bhd.
16. UBF Maintenance Sdn. Bhd.



*PETRONAS aims to build a sustainable pipeline of local skilled oil and gas employees to propel the industry further*



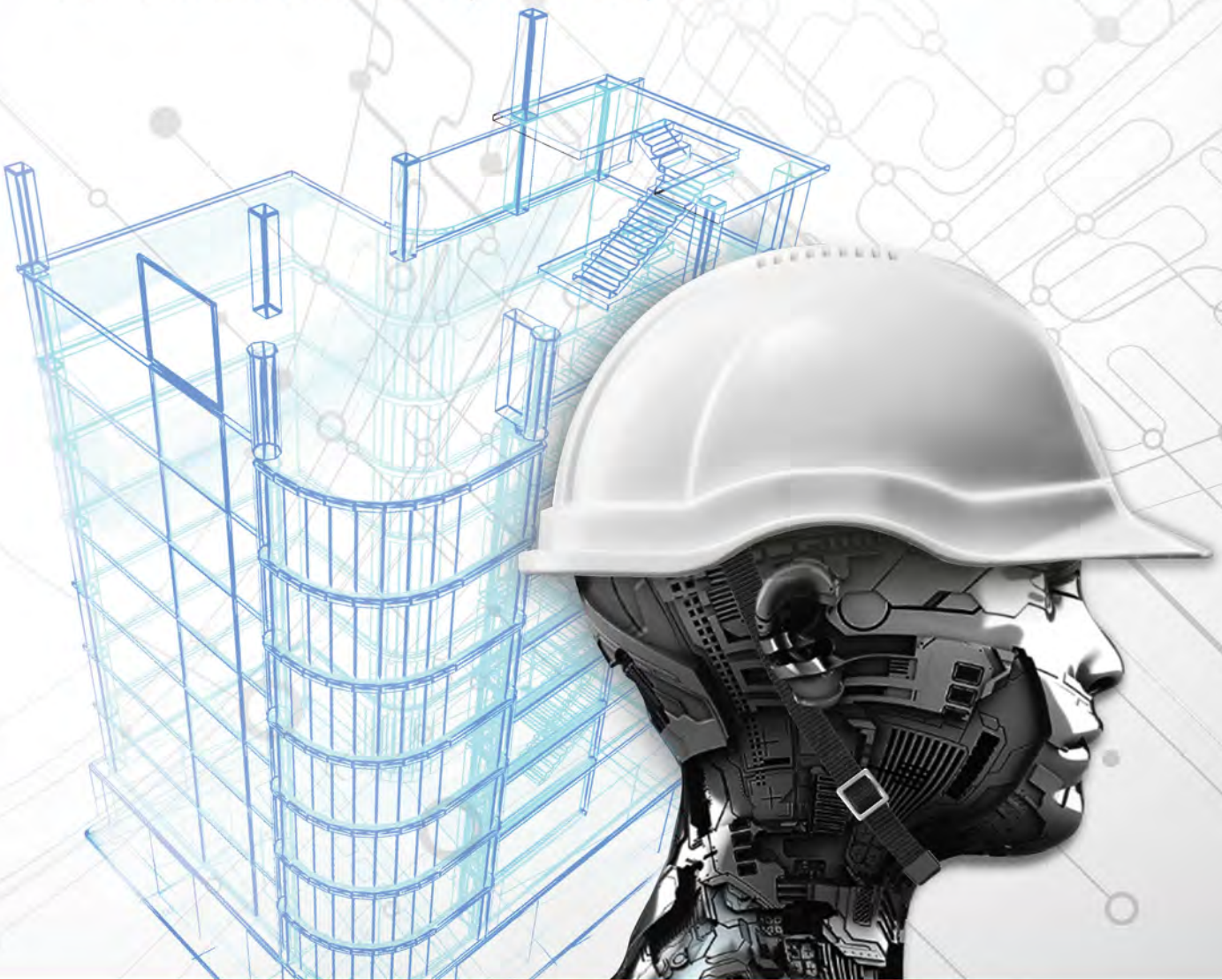
Datuk Ir Ahmad 'Asri Abdul Hamid CIDB's Chief Executive said PETRONAS' attempts to find solutions to address the OGSE talent gap also helped create a channel for students in the construction field to secure employment in the oil and gas industry.

"I applaud PETRONAS for providing the exposure and opportunity for local talents trained in ABM to be apprentices in the Oil and Gas sector. This complements CIDB efforts in providing skills training in high impact trades in the construction industry such as welding, scaffolding and gas pipefitter, among others," he added.



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Zuraihi Abdul Ghani was appointed Chief Executive Officer (CEO) of CIDB IBS Sdn Bhd in October 2019. The 20-year construction industry veteran holds a Degree in Engineering (Honors) in Civil & Structural with a portfolio that includes the development of Perdana Walk Putrajaya and a plethora of projects under Tenaga Nasional Berhad (TNB) in the early 2000s. His project management and asset management skills shone during his tenure at the UEM Group of Companies where he was awarded the Best Employee Award of 2011. Prior to his appointment as CEO CIDB IBS Sdn Bhd, he was the Senior Manager in Safety, Health & Environment Division of CIDB Malaysia where he was awarded the CIDB's Excellent Service Award in 2018. Spearheading CIDB IBS Sdn Bhd with a new vision and mission, Zuraihi and his team of experts are ready to bridge the gap in the IBS industry by collaborating with the relevant industry players and stakeholders.



CIDB IBS Sdn Bhd is a subsidiary of CIDB Malaysia that provides services to support the government and industry players in addressing gaps in the implementation of Industrialised Building System (IBS) initiatives under the Construction Industry Transformation Programme (CITP) 2016-2020. Productivity, as one of the goals for CITP 2016-2020, can be achieved through the implementation of IBS. IBS is a method for achieving better quality and productivity in construction and is now being implemented by many projects. CIDB IBS Sdn Bhd has a vital role in assisting the IBS implementation rate among construction industry players through various initiatives, training programmes and services that we have developed.

#### ADVISORY & TECHNICAL CONSULTANCY ON IBS'S PROGRAMME & PROJECTS

- Offering IBS-related technical consultancy to project owners, professionals, manufacturers and contractors through Programme or Project Management team (PPM).
- IBS Product's design, Building Engineer (IBS) & Design specialist
- Commercialization of new IBS products (either independent or for the IBS Open System) developed by the various R&D centers

#### PROVIDING IBS TRAINING & CAPACITY BUILDING

- Serving general IBS training which is Design Training & Manufacturer Training and offering IBS Manufacturer Programmed (IMP) to train and develop new IBS manufacturers and contractors
- Training for Professional (Design and drafting), Installer, Contractor, Manufacturer

#### ADVISORY ON IMPROVING QUALITY FOR NEW AND EXISTING IBS PRODUCTS

- Ensuring quality of IBS product through IBS Manufacturer & Product Assessment & Certification (IMPACT) to IBS manufacturers product through IBS Manufacturer & Product Assessment & Certification (IMPACT) to IBS manufacturers.

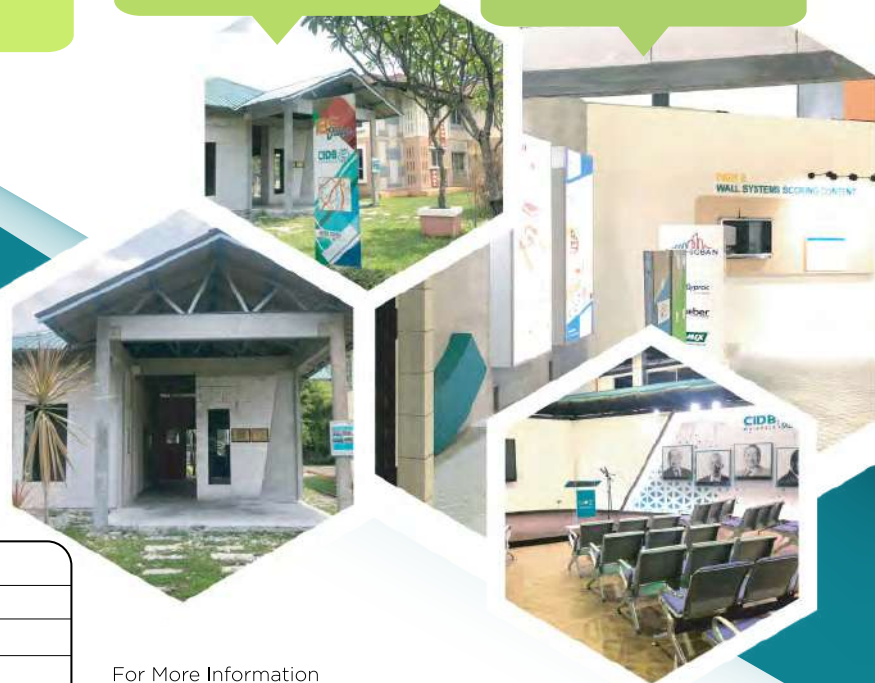
#### COMMERCIALIZATION & SHOWCASES OF IBS OPEN SYSTEM DESIGN, R&D AND PRODUCTS

- Providing IBS Open System (MyIOS), D3 and Delight that caters for the affordable housing and renovation sub-sector and offering commercialization and showcase through IBS Gallery, Sample House, Industry Engagement Programme and IBS Virtual Warehouse.

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IBS TRAINING

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# PRODUCT CERTIFICATION

"Quality Certification for Construction and Structural Integrity"

## VISION

To Be Recognized as The Specialized Malaysia Certification Body That Focuses on Quality Certification for Construction & Structural Integrity in The Malaysian Construction Industry

## ABOUT CREAM CERTIFICATION SERVICES (CCS)

1. CREAM Certification Services (CCS) is established in 2014 and managed by Construction Research Institute of Malaysia (CREAM), a research & development (R&D) arm of Construction Industry Development Board (CIDB).
2. The management and operation of the certification service are based on the International Standard ISO/IEC 17065:2012. The product certification is a Type 5 product certification based on International Standard ISO/IEC 17067.
3. Purpose of CCS establishment is to provide certification services to construction industry mainly on building materials, construction materials, and other products related to construction industry especially product listed in Schedule 4 Act 520 CIDB (Amendment 2011) in fulfilling Certificate of Approval (COA) and Perakuan Pematuhan Standard (PPS) requirements by CIDB.



## WHAT ARE THE BENEFITS OF PRODUCT CERTIFICATION?

- Confirms that a product meets the national and international quality standards.
- Winning consumer confidence.
- Product is presented with a better image in both national and international markets.
- Comply with Construction Industry Standard and Schedule 4 Act 520 CIDB (Amendment 2011).

## WHY CHOOSE CREAM CERTIFICATION SERVICES (CCS)

- Highly trained technical staff with a wealth of industry knowledge.
- Improved speed to market of certification.
- Get positive result fast.
- We ensure that we deliver a reliable, independent and trusted service, only using qualified and competent auditors.
- CCS guarantees 'all of the above' along with transparency and a friendly face. You can rest assured we will always have your company's best interests at heart.

## OUR EXPERTISE

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- Scaffolding
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5. Product Sampling and Testing
6. Recommendation
7. Review and Approval
8. Issuance of Certificate
9. Surveillance Audit
10. Recertification Audit, Additional Scope, Suspension Withdrawal and Termination

\*For enquiry, potential clients, may contact directly or send email to [ccs@cream.my](mailto:ccs@cream.my)  
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