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CREAM
CONSTRUCTION RESEARCH INSTITUTE OF MALAYSIA

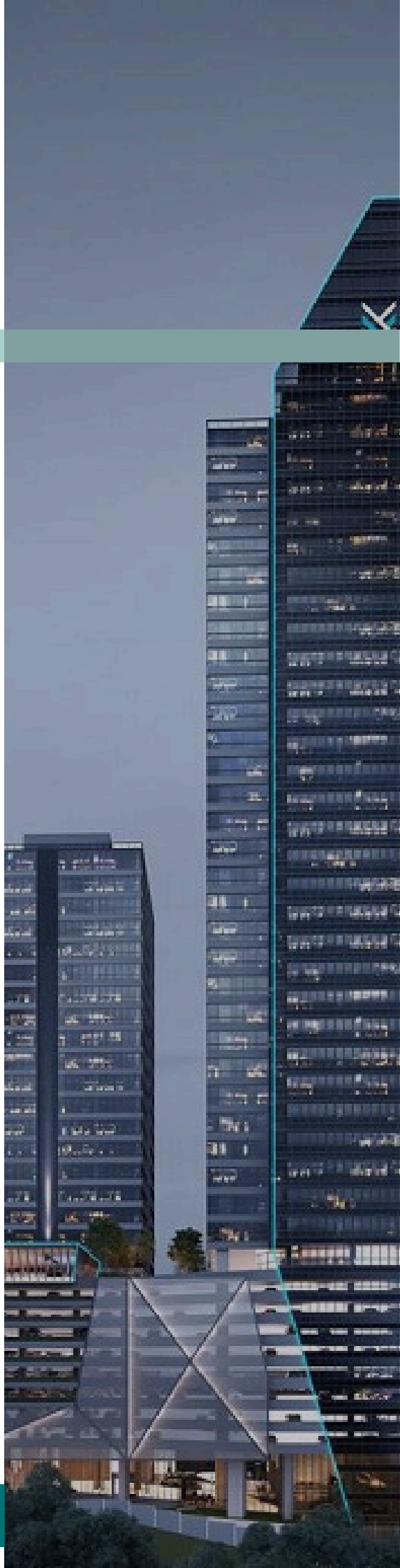
CREAM

e-magazine

COVERAGE

and many more.

editorial team



about us

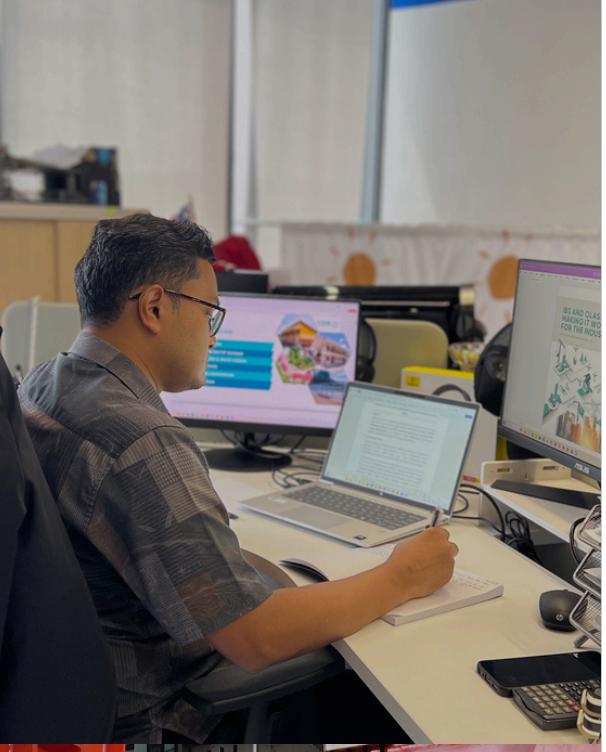
Construction Research Institute of Malaysia (CREAM) was established on 26 March 2004 as a Company Limited by Guarantee (SBMJ) under the Act Company 1965. CREAM became fully operational on January 1, 2006. Establishment of CREAM is to be the research arm of the Construction Industry Development Board (CIDB) Malaysia to encourage, promote and implement activities research and development (R&D) related to the national construction industry with Section 4(c), CIDB Act 1994 (Act 520). With the ability of knowledge and existing expertise, CREAM actively cooperates with parties interested in producing research that will benefit the sector construction. At the same time, CREAM also supports the development of the industry construction in a better direction through the quality and integrity of building materials when also offers testing, evaluation and certification services to industry players. CREAM will continue to be proactive in being active and reinventing the way we in doing something, to keep giving the best to all parties and always responsive to our customers.

vision

To make CREAM globally recognized as the leading institute for Research and Development (R&D) that drives quality, innovation, technology and skills towards achieving sustainability in the construction industry.

mission

To meet the strategic needs of Research and Development in the Malaysian construction industry. CREAM is also committed to build partnerships with the industry's stakeholders and researchers while exploring and encouraging the development of a knowledge-based industries as well as ready to meet current demands and challenging changes.



what we offer

- Research and Development
- Industry Consultancy and Engagement
- Lab Testing
- Product Certification
- Assessments - QLASSIC, SHASSIC, MyCREST and Sustainable Infrastar
- Certificate of Approval
- Inspection and Sampling
- Contractor's Quality Management System (CQMS)
- SustainBuild Mark Certification
- Forensic Investigation
- Technical Opinion
- Journal Publication

contents

MKRM Sarawak Officially Launched During ICW Borneo 2025

Kuching, 13 May 2025 – Makmal Kerja Raya Malaysia (MKRM) Sarawak was officially launched today in conjunction with the International Construction Week (ICW) Borneo 2025, marking a major milestone in Malaysia's commitment to regional infrastructure development and quality assurance.

The ceremony was officiated by the Premier of Sarawak, YAB Datuk Patinggi Tan Sri (Dr) Abang Haji Abdul Rahman Zohari bin Tun Datuk Abang Haji Openg, and was attended by distinguished guests including the Deputy Premier of Sarawak, YB Datuk Amar Haji Awang Tengah Ali Hasan, Minister of Works YB Dato Sri Alexander Nanta Linggi, Deputy Minister of Works YB Datuk Seri Ahmad Maslan, Chairman of CIDB Malaysia YB Ir. Haji Yusuf Abd Wahab, and CIDB Chief Executive Officer Pn Zainora Zainal.

Representing the Construction Research Institute of Malaysia (CREAM) were Chairman YBhg. Dato Ir. Hj. Alhadi bin Ibrahim and Chief Executive Officer Ir. M. Ramuseren.

The Premier symbolically inaugurated MKRM Sarawak by signing a commemorative plaque, now displayed prominently near the lab's main entrance. The launch video was also unveiled during the event.

This newly launched laboratory plays a pivotal role in strengthening quality control for construction materials and infrastructure components in East Malaysia, and aims to support both local and regional industry players with advanced testing and certification capabilities.

ASEAN BCWG Delegation Visits MKRM Sarawak, Showcases Testing Excellence

Kuching, 15 May 2025 – As part of Malaysia's chairmanship of the ASEAN Building & Construction Working Group (BCWG) for 2025, a high-level delegation comprising approximately 50 representatives from ASEAN member countries visited the newly launched MKRM Sarawak.

Held on the second day of the BCWG meeting in Kuching, this technical visit was organised by the Ministry of Works (KKR) Malaysia and the Construction Industry Development Board (CIDB), in collaboration with the Construction Research Institute of Malaysia (CREAM). It marks the first time the BCWG meeting has been hosted outside of Kuala Lumpur.

The visit was led by Pn Hamdiah Ismail, Secretary of the Policy and International Division of KKR, ASEAN BCWG Chair Ms. Krissana Petcharoen, and CIDB's Ts. Nor Hamiza Zahar. CREAM CEO Ir. M. Ramuseren delivered a welcoming address, followed by a corporate video presentation. En Ahmad Hazim Abdul Rahim, Senior Manager of Testing Division at CREAM, presented the testing capabilities across MKRM Sarawak, MKRM Sabah, and MKRM Kuala Lumpur.

Delegates toured the state-of-the-art testing laboratories, witnessing demonstrations of cement, concrete, and steel testing, along with a walkthrough of the newly completed structural testing facility. The tour also featured product demonstrations using contributed samples from leading industry players including SCIB Industrialised Building System Sdn Bhd, BW Scaffold Industries Sdn Bhd, and Plytech Formwork System Industries Sdn Bhd. The visit not only showcased MKRM Sarawak's technical strengths but also opened up regional opportunities for cross-border testing and certification, particularly with ASEAN neighbours such as Brunei, Indonesia, and the Philippines.

Understanding the Differences Between Tensile Strength and Hardness in Metallic Materials



by Ir. Ts. Ahmad Hazim Abdul Rahim,
Rohani Mokhtar & Ts. Syaza Nabilla Mohd Suhaimi

In the field of materials science and engineering, tensile strength and hardness are two fundamental yet essential mechanical properties used to evaluate and compare metallic materials. There is a notable correlation between hardness values and tensile strength. For example, product standards such as MS 1462-4-2, Clause 6.3.1, state that "if tensile tests are not possible (e.g., for smaller elements of cast iron), hardness tests shall be carried out." Pavlina and Van Tyne (2008) also concluded that yield strength and tensile strength exhibit a linear correlation with hardness for steels. This finding is supported by Genculu (2024), who compiled data across various metal types to demonstrate the relationship between tensile strength and hardness.

Although both tensile strength and hardness reflect how a material behaves under force, they serve different purposes in design and manufacturing. Understanding these differences is crucial for selecting the appropriate material for a given application.

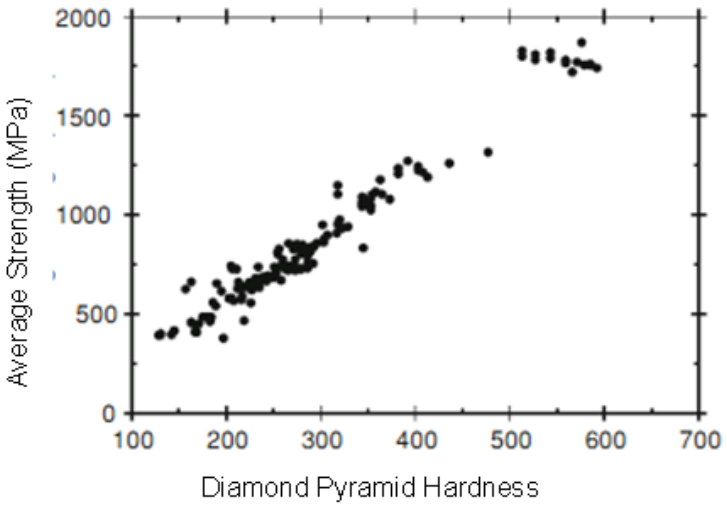


Figure 1: Plot of the average strength of various steels as a function of hardness (Vickers)
(Pavlina and Van Tyne, 2008)

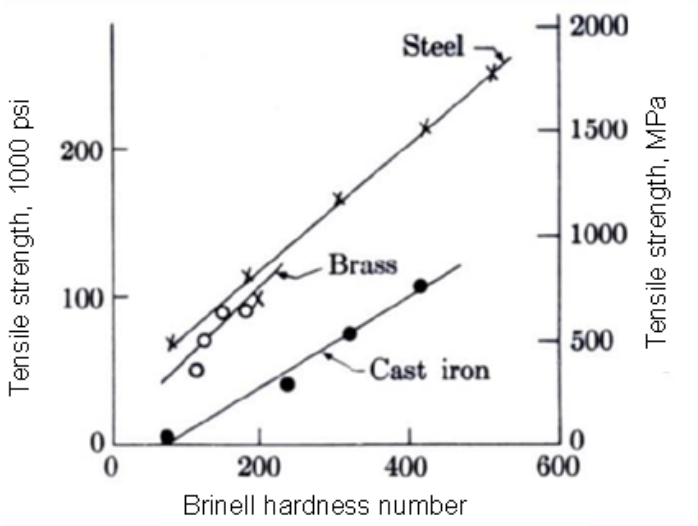


Figure 2: Brinell hardness versus tensile strength for steel, brass and cast iron
(Genculu, 2024)

What is Tensile Strength?

Tensile strength is the maximum amount of tensile (pulling or stretching) stress a material can withstand before breaking. It is typically measured in units of force per area, such as megapascals (MPa) or newtons per square millimetre (N/mm²). Tensile strength is determined through a tensile test, where a specimen is stretched until it fractures.

An example of a material designed with high tensile strength is the steel cable used in bridges and elevators, which must support large loads without snapping.

Properties of Tensile Strength

Yield Strength	Ultimate Tensile Strength
The stress at which a material begins to deform plastically	The maximum stress a material can withstand

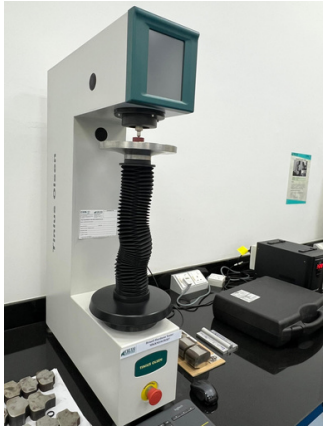
Fracture Strength	Elongation at Break
The stress at which the material ultimately breaks	The amount a material stretches before it breaks

What is Hardness?

Hardness refers to a material's resistance to indentation, scratching, or wear. It is measured using several methods, including the Brinell, Rockwell, and Vickers hardness tests. Each method involves pressing a hard object into the surface of the material and measuring the size or depth of the resulting indentation.

An example is cutting tools made from hardened steel or carbide, which require high hardness to maintain sharp edges and resist abrasion.

Rockwell Hardness



Brinell Hardness

Vickers Hardness

Properties of Hardness

Hardness Value	Indentation Size
Indicates a material’s resistance to indentation, scratching, or abrasion; varies depending on the test method (e.g., Rockwell, Brinell, or Vickers)	The size or depth of the indentation formed during testing reflects the material’s hardness

Differences Between Tensile Strength and Hardness

Tensile Strength	Tensile Strength	Hardness
Measures	Resistance to pulling force	Resistance to surface indentation
Units	MPa, N/mm^2	Dimensionless (e.g., HRB, HRC)
Test Method	Tensile test (stretch until break)	Indentation or scratch test
Indicates	Structural load capacity	Wear and abrasion resistance
Related to	Ductility, strength	Surface toughness, wear resistance
Failure Mode	Fracture or necking	Surface wear, scratching

When to Prioritize Tensile Strength vs. Hardness

Applications Where Tensile Strength is Crucial	Applications Where Hardness Is More Important
• Structural Components: Beams, columns, cables • Automotive Parts: Axles, drive shafts • Pressure Vessels: Gas cylinders, pipelines These components must carry heavy loads or withstand internal pressures. Failure by fracture in such applications can lead to catastrophic consequences, making high tensile strength essential.	• Cutting and Machining Tools: Drills, saw blades • Bearings and Gears: Components subjected to high contact pressure and friction • Surface Coatings: Anti-wear layers, decorative or protective plating In these applications, resistance to surface damage—such as scratching, abrasion, and wear—is key to ensuring long-term durability and optimal performance.

Makmal Kerja Raya Malaysia (MKRM): Your Trusted Partner for Tensile Strength and Hardness Testing

At Makmal Kerja Raya Malaysia (MKRM), we specialize in providing comprehensive testing services for both tensile strength and hardness to ensure your materials meet the highest standards of quality and durability.

UTM 2000kN

For tensile strength testing, our laboratory in Kuala Lumpur is equipped with Universal Testing Machines (UTMs) — also known as tensile testing machines — with loading capacities ranging from 100 kN to 2000 kN. Meanwhile, our branches in Sabah and Sarawak are equipped with 1000 kN capacity UTM machines. These machines are capable of testing mechanical properties of materials and components under tension, compression, bending, and other forces. UTMs are essential in determining key mechanical properties such as tensile strength, yield strength, and elongation, and they can be used on a wide variety of materials, including metals, plastics, and composites.

In addition, MKRM's materials laboratory features three different types of hardness testing machines to accommodate various product requirements. We are equipped with Vickers, Brinell, and Rockwell hardness testers — all readily available for any hardness test request. With advanced equipment and a team of experienced professionals, MKRM is committed to delivering precise and reliable results every time.

Whether you're working with metals, alloys, or composite materials, our testing services ensure your products comply with both local and international standards. This is critical for:

- Ensuring product safety and performance in structural or mechanical applications.
- Verifying material specifications for industrial manufacturing.
- Optimizing production processes to enhance efficiency and extend product lifespan.

By choosing MKRM, manufacturers and engineers gain the confidence to make informed decisions on material selection and treatment — reducing the risk of failure and ensuring reliable, long-lasting performance.

Conclusion

Tensile strength and hardness are fundamental yet distinct properties that define how metals behave under different types of mechanical stress. Evaluating both properties is essential to ensure materials perform reliably in their intended applications — whether it's supporting massive structures or maintaining precision in cutting tools.

To ensure your products meet the required standards of tensile strength and hardness, trust MKRM to deliver accurate and professional testing services. Our commitment to quality and precision will help you uphold the highest standards in your manufacturing and engineering processes.

References:

1. *MS 1462-4-2. Metal Scaffolding - Part 4: Temporary Works Equipment - Section 2: Information on Materials. 2013.*
2. *E.J. Pavlina and C.J. Van Tyne, Correlation of Yield Strength and Tensile Strength with Hardness for Steels, Journal of Materials Engineering and Performance, 892—Volume 17(6). 2008.*
3. *Semih Genculu, P.E. Correlation of Hardness Values to Tensile Strength. CAB Worldwide. 2024*

Safety Induction Construction Worker (SICW): Improving Construction Personnel's Commitment to Health and Safety Practices


by Dr. Norashikin Rahmat & Maria Zura Mohd. Zain

The construction sector plays a crucial role in driving infrastructure development and fuelling economic growth. Its impact is essential in building a stronger and more resilient future. However, due to the inherent hazards, risks, and challenges associated with this industry, safety on construction sites is of paramount importance.

To address these hazards and ensure that workers are equipped with the necessary knowledge and skills to maintain a safe working environment, the Construction Industry Development Board (CIDB) Malaysia has made the Safety Induction for Construction Workers (SICW) course mandatory for all construction personnel. The SICW is a safety induction training course specifically designed for individuals working in the Malaysian construction industry. It aims to provide essential information about construction site safety, ensuring that workers understand potential hazards and are familiar with best practices to prevent accidents.

The SICW course is conducted by CIDB-accredited training centres (PLB), including Akademi Binaan Malaysia. It is compulsory for all construction personnel, particularly those working at construction sites. The course is delivered effectively through a combination of face-to-face sessions with instructors and online learning. Launched under CIDB regulations, the SICW course is a prerequisite for all construction workers, supervisors, and site personnel before they commence work on-site. This initiative is part of CIDB's effort to foster a safer and healthier working environment within Malaysia's growing construction sector.

Four key objectives of the SICW safety induction:

- To reduce workplace accidents and injuries.
- To ensure compliance with legal safety requirements.
- To cultivate a safety-conscious work culture.
- To prepare workers to respond effectively in emergencies.

Completing the SICW course is a prerequisite for applying for the CIDB Construction Personnel Registration Card, commonly known as the Green Card. The course spans six (6) hours in one (1) day, excluding breaks for meals and refreshments. Personnel required to attend this course include general construction workers, semi-skilled and skilled workers, site supervisors, project managers, and other individuals specified by CIDB who are involved in the construction industry.

The SICW course consists of five main modules focusing on safety and health at construction sites, alongside introductory and closing modules. Upon completion, participants undergo an assessment to evaluate their understanding of the course material.

At the end of 2024, CIDB Malaysia, in collaboration with CREAM, enhanced the SICW module through a specialised workshop held at Hotel Tenera, Bandar Baru Bangi, from 11 to 13 December 2024. The workshop brought together trainers from CIDB-accredited training centres, representatives from CIDB and the National Institute of Occupational Safety and Health (NIOSH), as well as occupational safety and health (OSH) officers. The objective was to strengthen the safety and health components of the SICW module by incorporating the latest OSH regulations, policies, and best practices, ensuring alignment with current industry standards.

This enhancement aims to better prepare participants to manage potential hazards and risks at construction sites, thereby contributing to a safer work environment. The updated modules also highlight the importance of continuous safety training and the critical role of leadership in promoting a culture of safety across all levels of the workforce.

Furthermore, the revised curriculum places greater emphasis on mental health awareness and well-being, recognising that both physical and psychological safety are essential in preventing workplace incidents. The module also underscores the role of digital transformation under Construction 4.0 (C4.0), leveraging innovative technologies to enhance safety training and support a proactive safety culture within the industry.

These improvements ensure that the SICW course remains relevant and up to date, reflecting the latest safety standards and industry practices. Through continuous enhancements, the SICW course continues to serve as a cornerstone in reducing workplace accidents and fatalities, while fostering a robust safety culture within Malaysia's construction sector.

Key Features of the SICW Course

The construction industry is inherently hazardous, and ensuring worker safety is a top priority. The Safety Induction for Construction Workers (SICW) course, regulated by CIDB Malaysia, plays a pivotal role in equipping construction personnel with essential safety knowledge and practices. Below are the key features of the SICW course:

1. Mandatory Safety Training:

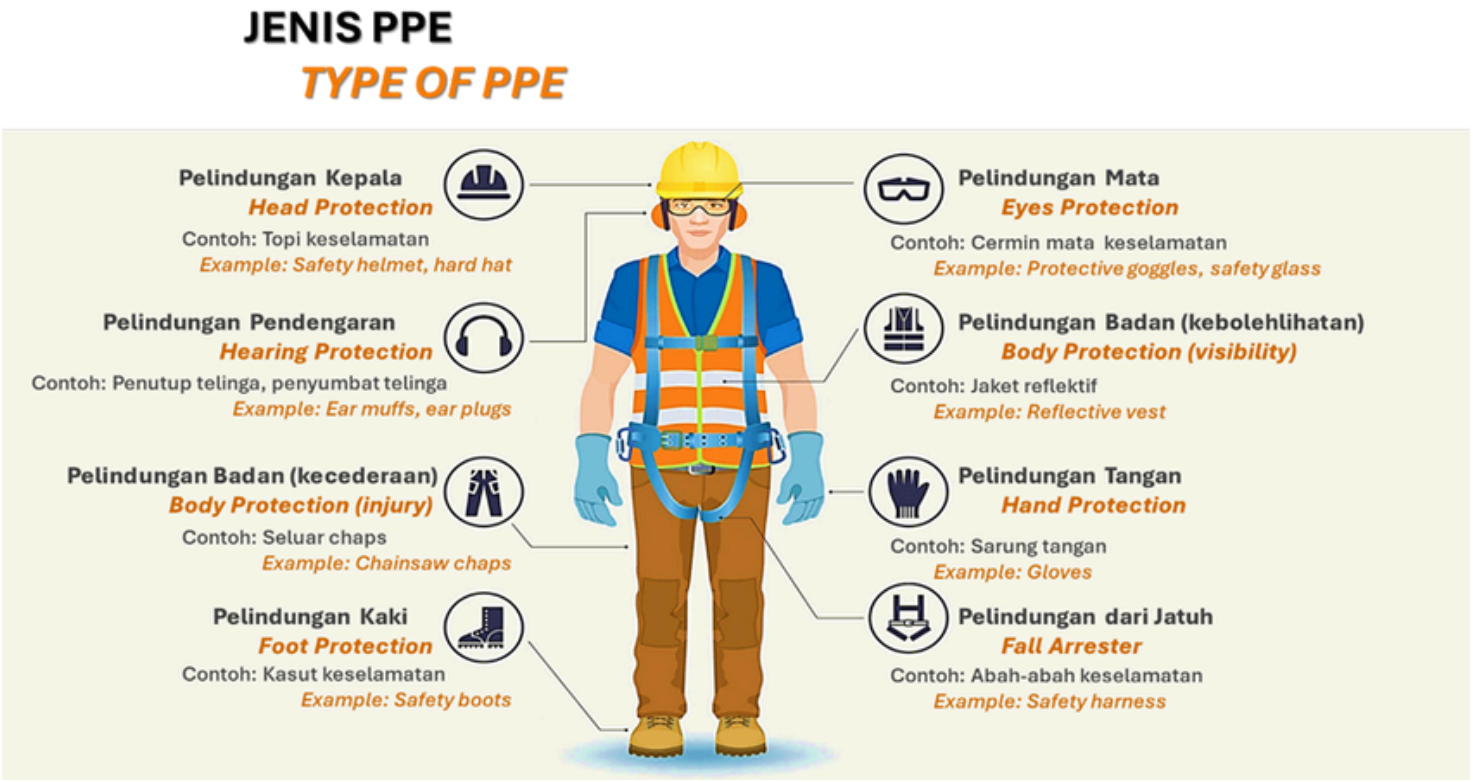
The SICW course is compulsory for all personnel working on construction sites. Without completing this safety induction and obtaining the CIDB Construction Personnel Registration Card, workers are not legally permitted to enter or work at construction sites. This initiative ensures that every worker understands on-site risks and adheres to safety guidelines, thereby promoting a safer work environment.

2. Content of the Training:

The SICW course covers a wide range of topics critical to safe construction practices, including:

- Acts and regulations related to the construction industry
- Identification of potential hazards on construction sites
- Basic first aid and emergency response procedures
- Proper use of personal protective equipment (PPE)
- Health and safety regulations specific to construction sites
- Procedures for reporting accidents or unsafe working conditions
- Benefits of the Takaful protection plan for construction personnel

By mastering these key areas, workers are better prepared to safeguard themselves and their colleagues, helping to significantly reduce workplace accidents.



3. CIDB Construction Personnel Registration Card

Upon successful completion of the SICW course, participants are required to register for the CIDB Construction Personnel Registration Card—commonly known as the Green Card. This card serves as official proof that the worker has undergone safety training and is legally eligible to work on construction sites in Malaysia.

4. e-SICW: Convenient Online Training

Recognising the need for flexibility, CIDB introduced the e-SICW program, enabling workers to complete the course online at their own pace. This is especially beneficial for those in remote areas or with limited access to physical training centres. The e-SICW platform is available in multiple languages, ensuring inclusivity and accessibility for Malaysia's diverse construction workforce.

The Impact of SICW on the Construction Industry

The introduction of the Safety Induction for Construction Workers (SICW) program has significantly improved the safety culture within Malaysia's construction industry. With an increasing focus on reducing workplace accidents and enhancing the well-being of construction personnel, the SICW initiative has become a cornerstone in achieving these objectives. Here's how the program contributes to the industry's progress:

1. Accident Prevention

One of the most notable outcomes of the SICW program is the reduction in construction-related accidents. By equipping workers with essential safety knowledge and practices, the course helps minimise injuries and fatalities at worksites. Informed workers are more likely to identify hazards and respond appropriately, creating a safer work environment for all.

2. Cultivating a Culture of Safety

The SICW program fosters a strong culture of safety across construction sites. With widespread participation, workers become more proactive and conscientious about their personal safety and the well-being of their colleagues. This shift in mindset leads to improved on-site practices, responsible behaviour, and greater overall safety compliance.

3. Ensuring Regulatory Compliance

For construction companies, enrolling workers in the SICW course ensures compliance with CIDB regulations. Having properly trained and registered personnel not only satisfies legal requirements but also protects businesses from costly fines or potential project suspensions due to non-compliance. The SICW framework serves as a standardised approach to maintaining legal and operational safety standards within the industry.

Conclusion

The SICW program by CIDB is more than just a compliance requirement—it is a vital initiative to ensure that construction workers in Malaysia are adequately prepared to maintain safety at the workplace. By enhancing awareness and offering accessible training options, CIDB continues to lead efforts toward creating safer construction environments, one worker at a time.

How to Register for SICW

Registration for the SICW program can be done through CIDB's online platform at https://cims.cidb.gov.my. Once registered, construction personnel can attend the course either in-person at accredited training centres or via the e-SICW platform, which offers a flexible and cost-effective learning experience.

Upon successful completion of the SICW course, participants are eligible to register as CIDB-recognized construction workers and apply for the Construction Personnel Registration Card (commonly known as the Green Card), an essential credential for legally working on construction sites in Malaysia.

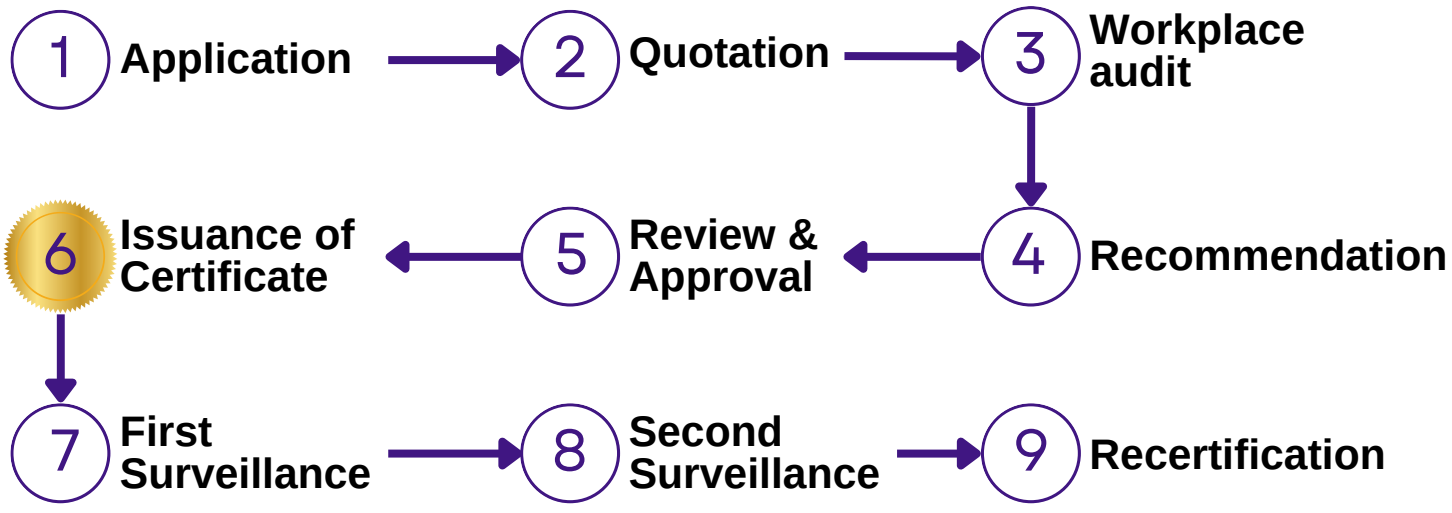
Contractor's Quality Management System (CQMS)

Contractor's Quality Management System (CQMS) CIS 29:2021 is an independent system that evaluates a contractor's quality management implementation based on the Construction Industry Standard (CIS 29). Serving as an affordable alternative to ISO 9001, CQMS is ideal for budget-conscious contractors who prioritize the quality of their work. By choosing CQMS, contractors can maintain quality control, meet client standards, and gain additional benefits for PPK registration in Malaysia. Implementing CQMS also earns contractor's extra points in MCORE/SCORE CIDB assessments for PPK registration.

CIDB MALAYSIA Construction Industry Development Board Malaysia
LEMBAGA PEMBANGUNAN INDUSTRI PEMBINAAN MALAYSIA
Ibu Pejabat CIDB,
Tingkat 10, Menara Dato' Onn, Pusat Dagangan Dunia
No 45, Jalan Tun Ismail, 50480 Kuala Lumpur, Malaysia
Tel:603-40477000 Faks:603-40477020
https://www.cidb.gov.my

With a certification fee of RM4000, CQMS covers one-day training, documentation for the quality manual, third-party audit, and certification to CIS 29:2021. The audit process is streamlined, taking only one day, and the certification remains valid for three years. Furthermore, CQMS carries equivalent weightage to ISO 9001 for CIDB SCORE/MCORE, making it an attractive and cost-effective choice for contractors in Malaysia, specially designed for their needs.

CQMS Process



Validation

Contractor's Quality Management System (CQMS) is applicable for all G1 - G7 contractors and CQMS Certification is given a validity term of three (3) years from the date of issuance. They can be reviewed as and when necessary subject to the CQMS Assessment Programme.

Benefits of CQMS

- Specialized Evaluation: Tailored assessments based on CIS 29
- Cost-effective: an affordable alternative for contractors, only RM4000, with high-quality standards
- Enhanced Reputation: Maintains rigorous quality control, enhancing credibility
- Smooth PPK Registration: Streamlines registration process for Malaysian contractors
- Extra Points in Assessments: Earns additional points in MCORE/SCORE CIDB assessments
- Streamlined Audit Process: One-day audit minimizes disruptions and saves time
- Long-Term Certification: Valid for three years, ensuring continuous credibility
- Equivalent Recognition: Carries same weightage as ISO 9001 for CIDB SCORE/MCORE

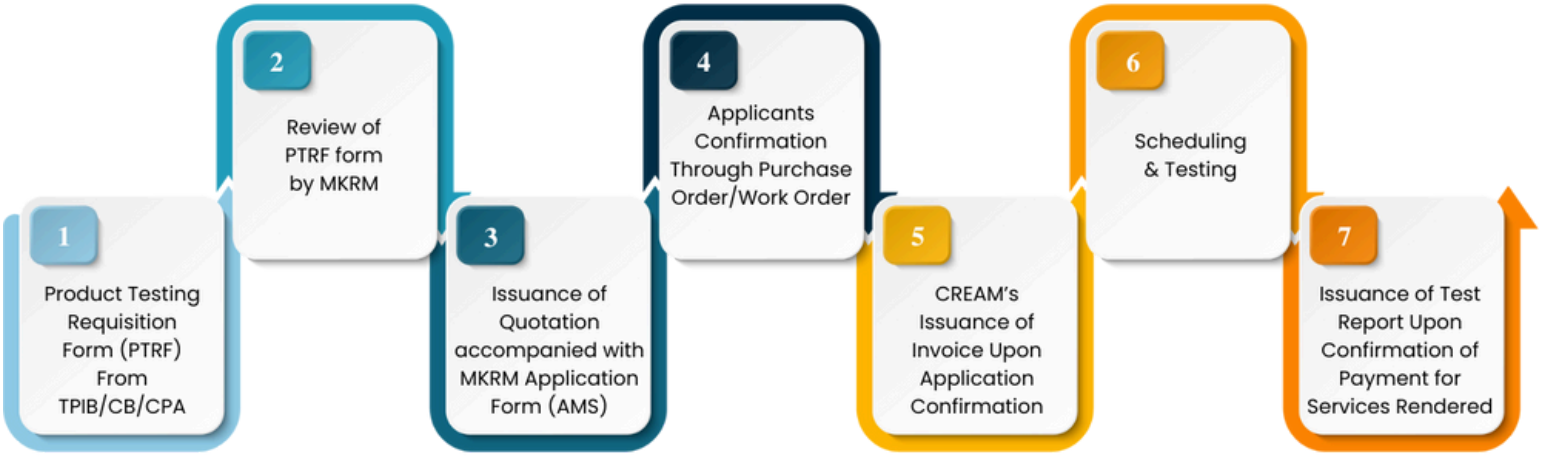
Scan the QR code for CQMS Application Form

Guide for Makmal Kerja Raya Malaysia (MKRM) Testing Application

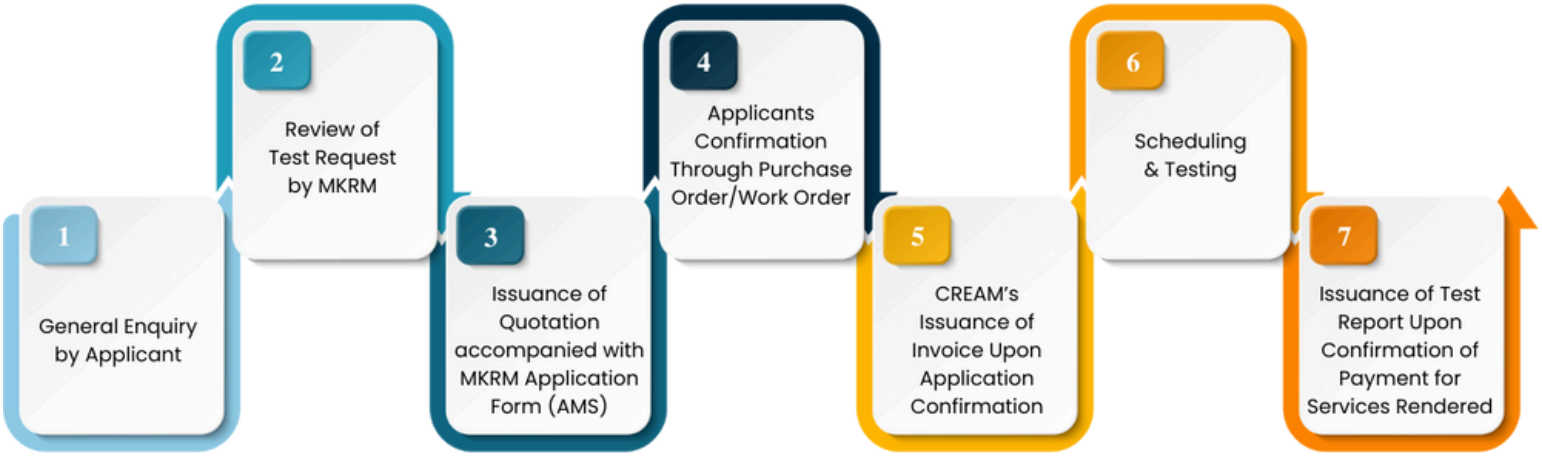

by Ts. Yuzairy Rozaidi Bin Rohaizan and Ts. Syaza Nabilla Mohd Suhaimi

Makmal Kerja Raya Malaysia (MKRM) is an ISO 17025-accredited laboratory serving as the testing division for the Construction Research Institute of Malaysia (CREAM). Equipped with a wide range of facilities for structural and material testing, we cater to the construction industry. For over 17 years, we have supported the sector by conducting tests on local and imported products for local authority approval, QA/QC testing, and research testing for industry and academia. Below is the process flow for MKRM's testing service applications:

1) For authority mandated testing (Third-party Inspection Body, Certification Body, Construction Product Approval etc.):



2) For general testing (QA/QC, In-House developed test method, academia research etc.):



For further details about our testing services, kindly email your queries to mkrm@cream.my or visit our website by scanning the QR code below:

Testing Facilities Available at CREAM -MKRM

We offer over 10 years of experience, providing a broad range of services to clients around the globe.

Our global network of laboratories and testing facilities, staffed by knowledgeable, experienced and competent personnel, help you to reduce risks, shorten time to market and demonstrate the quality and safety of materials, components, or products.

Full scale structure component test is our main forte. We can test actual size structure components such as beam, wall, slab, piles, segmental box girder, scaffolding, railway component, etc. We also offer testing services for wide range of construction material for your product quality determination, regulatory requirement, or any other compliance purposes.

CREAM-MKRM and its branches are accredited to MS ISO/IEC 17025 by Department of Standards Malaysia, thus ensuring the high standard and quality of the report produced.

Some of our facilities are:

1. Reaction floor (15m x 26m)
2. Reaction wall (6m x 6m)
3. Universal testing machine 100 kN- 2000 kN
4. 200 kN-300 kN dynamic testing machne 100 kN- 2000 kN
5. 300 kN dynamic actuator
6. 500 kN - 2000 kN static actuator
7. 500 kN resonance testing machine
8. Hardness tester
9. Spectrometer
10. 3D bar measurement

Scope and Testing Services

include but not limited to

IRON & STEEL

Typical Product : Rebar, Plate, Mesh, Wire, Rod, Tube, Strand, Hook, Anchor, Lifting Clutch etc.

- Dimension
- Mass
- Tensile
- Yield
- Fatigue
- Chemical Element Analysis (XRF, Spectrometer, ONH Analyzer)
- Coating thickness (Magnetic & Gravimetric method)
- Coating mass
- Surface coating
- Shear weld
- Flattening
- Surface geometry (Microscope & 3D high speed camera scan
- Pull out force
- Bend/Rebend
- Elogation
- Relaxation
- Hardness (Brinell, Rockwell & Vickers)
- Rebar bond test
- Mechanical splice test
- Weathering
- Corrosion
- Sample cutting

SCAFFOLDING & FALSEWORK

Typical Product : A-Frame, Modular, Tubular, Vertical & Horizontal Frame, Standard, Ledger, Transom, Cross Brace, U-Head & Jack Base, Sleeve, Coupler, Pin, Steel Prop, Platform, Clamp & Hook, Catwalk, Toe board, Guardrail, Stairway etc

- Dimension
- Mass
- Tensile
- Fatigue
- Chemical Element Analysis (XRF, Spectrometer, ONH Analyzer)
- Coating thickness (Magnetic & Gravimetric method)
- Coating mass
- Surface coating
- Bending /Flexural
- Shear
- Proof load
- Cross cut test
- Corrosion
- Weathering
- Deflection
- Surface geometry (Microscope & 3D high speed camera scan
- Load test on U-Head/Jack base
- Side protection test
- Bending test on platform
- Dynamic test on staircase
- Drop test
- Global test on shoring system
- Full scale test in scaffold, falsework & shoring system
- 1x3, 3x3, high tower, low tower
- Test on sleeve & coupler
- Straightness
- Load test on prop
- Pin test on prop
- Unintentional disengagement on prop Cross brace pi

CONCRETE

Typical Product : Ready Mixed Concrete (RMC), Fresh Concrete, Concrete Coring, Mortar, Aggregates, Cement, Bricks, Blocks

- Sample Preparation
- Dimension & Mass
- Compression test (Cube, Cylinder, Core)
- Flexural Test
- Density
- Water absorption
- Specific Gravity
- NDT Test on Concrete
- Slump test
- Cement chemical properties (XRF)
- Sieve analysis
- Compacting factor
- Cube test with RFID technology
- Concrete coring
- Tensile splitting
- Immersion

NON-DESTRUCTIVE TEST (NDT)

Typical Product : Concrete, Iron & Steel , Cement

- Rebound / Schmidt Hammer
- Ground Penetrating Radar (up to 6 m)
- Ultrasonic Pulse Echo Wireless Imaging System
- Eddy Current Instrument
- Digital Ultra Sonic Flaw Detector
- Handheld XRF
- Digital Microscope
- 3D Bar Scanner for Surface Geometry

FULL SCALE STRUCTURAL TEST

Typical Product : Industrialized Building System (IBS) Component, Precast Concrete, Steel Frame, Timber Frame, Formwork, Blockworks, Innovative Product, Wall Panel, Beam, Slab, Hollow Core Slab, Staircase, Precast Piles, Pipes, Culvert, Non Load Bearing Wall, Bridges, Pier, Segmental Box Girder etc.

- Static load test (Vertical, Horizontal)
- Flexural & Bending test
- Compression test
- Load Combination (Vertical + Horizontal)
- Dynamic Load Test
- Dimension
- Proof Load Test
- Design Conformity Test
- Strength & robustness test of Wall Panel
- Customized structure test

RAILWAY INFRASTRUCTURE

Typical Product : Precast Concrete Railway Sleepers, Composite Sleepers, Bearers, Rail Track

- Bending moment test on sleepers (Negative / Positive)
- Bending moment test on rail seat (Negative / Positive)
- Dynamic load test on rail seat
- Fatigue test on rail seat
- Insert Pull out test
- Bend test on rail track
- Chemical composition test
- Hardness Test
- Dynamic/Fatigue test

MKRM SABAH & MKRM SARAWAK

Typical Product : Concrete, Cement, Aggregate & Iron & Steel

CONCRETE

- Compression
- Flexural
- Water depth of penetration
- Slump
- Density
- Dimension
- Air content
- Degree of Compatibility
- Water absorption

CEMENT

- Compression on mortar
- Soundness
- Setting time
- Fineness (Blaine method)

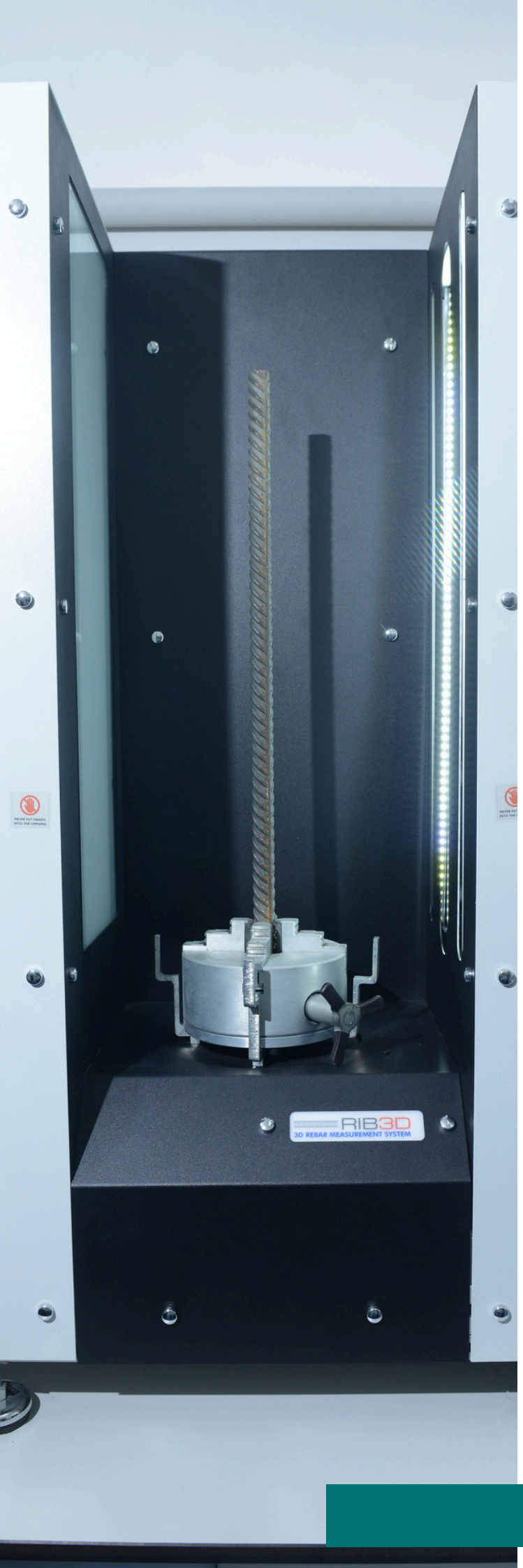
AGGREGATE

- Particle size distribution
- Impact value
- Crushing value
- Flakiness index
- Elongation

IRON & STEEL

- Tensile
- Yield strength
- Elongation
- Dimension

Get our complete list of testing facilities

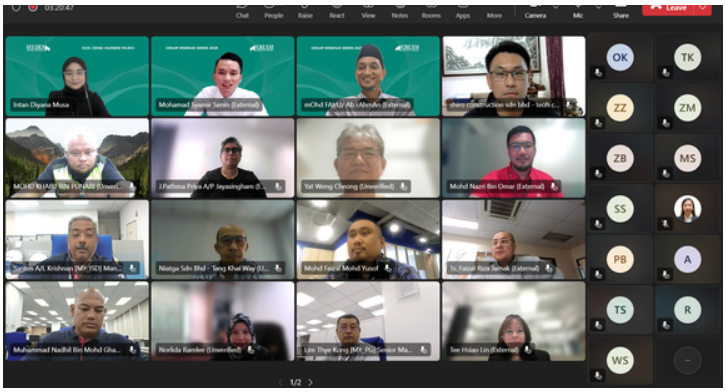


Activities Highlights

CREAM Webinar Series 2025

CREAM Webinar Series 2025 is a monthly program organised by CREAM and it is a part of our efforts to initiate conversations on issues, challenges, opportunities and initiatives for the construction industry and beyond.

The topic for this month's webinar is **"OSHA Amendment and Enforcement of CDM Against Clients, Designers, and Contractors in Malaysia"**



Session 1 : Understanding OSHA 2022 Revisions and & General Principles of Prevention (GPP) in OSHCDM Reg. 2024
Date : 4 Mar 2025

Speakers:

- Ir. Ts.Dr. Hj Mohd Fairuz Ab Rahman
  Deputy Director, Construction Safety Division, Department of Occupational, Safety and Health (DOSH)

- Ir. Dr. Mohamad Syamir Senin
  Senior Lecturer, Faculty of Engineering, Universiti Teknologi Malaysia (UTM)

No of participants : 60 pax

Courtesy Visit to Tan Sri Ir. Dr. Ahmad Tajuddin Ali, FASc
Date : 4 Mar 2025
Venue : MIGHT Cyberjaya

On 4th March 2025, the CEO of CREAM paid a courtesy visit to Tan Sri Ir. Dr. Ahmad Tajuddin Ali FASc former Chairman of the Construction Industry Development Board (CIDB) Malaysia and former Chairman of the Construction Research Institute of Malaysia (CREAM). He currently the Joint-Chairman (Industry) of the Malaysian Industry-Government Group for High Technology (MIGHT).

The meeting centered around discussions on strategic directions for construction research in Malaysia. Key topics included the development of a comprehensive research strategy, the importance of strengthening partnerships across industry and academia, and addressing upcoming challenges in the construction sector. The delegation also explored opportunities to enhance the empowerment of research funding mechanisms and the critical need to embrace advanced technologies in driving innovation and sustainability within the industry.

Tan Sri Ahmad Tajuddin Ali shared his insights and experiences, offering valuable guidance on how to align national research efforts with global trends and industry needs. His continued support and visionary perspective were greatly appreciated as we look ahead to shaping a more resilient and forward-thinking construction ecosystem.

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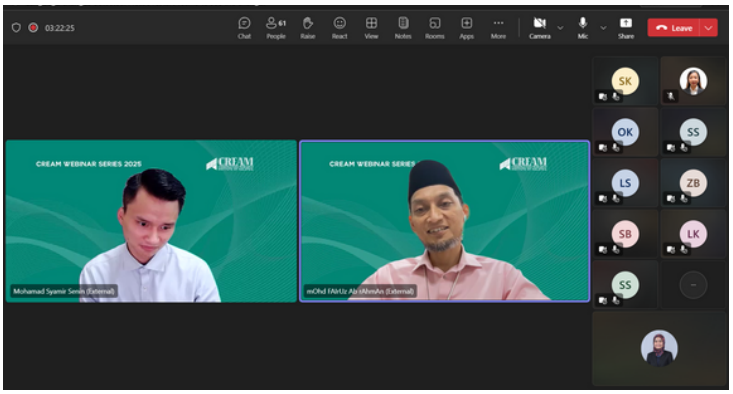
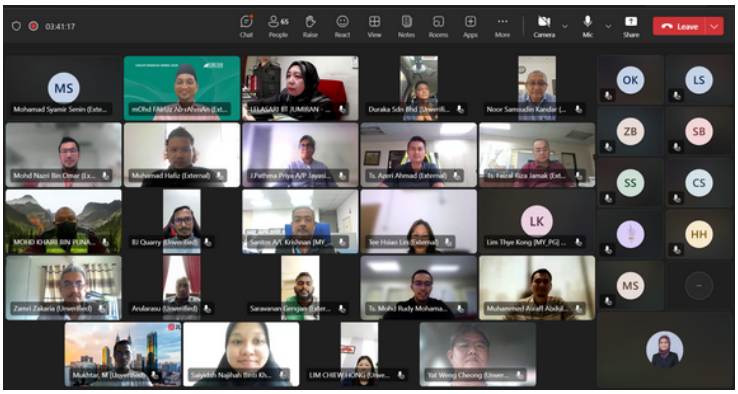




Session 2 : CDM Enforcement in Malaysia : Roles and Responsibilities of Clients, Designers and Contractors
Date : 5 Mar 2025

Speakers:

- **Ir. Ts.Dr. Hj Mohd Fairuz Ab Rahman**
  Deputy Director, Construction Safety Division, Department of Occupational, Safety and Health (DOSH)

- **Ir. Dr. Mohamad Syamir Senin**
  Senior Lecturer, Faculty of Engineering, Universiti Teknologi Malaysia (UTM)

No of participants : 61 pax

Libat Urus & perkongsian mengenai Pekeliling Ketua Setiausaha Kementerian Perumahan Dan Kerajaan Tempatan (KPKT) Bilangan 4 Tahun 2024

Date : 13 Mar 2025

Venue : Menara 3 Dewan Bandar Raya Kuala Lumpur, Kuala Lumpur

The government acknowledges the benefits and potential of the Industrialised Building System (IBS) by incorporating it into national policy as a step towards strengthening Malaysia's construction industry. The Construction Industry Development Board (CIDB) Malaysia, as the national regulatory body for the construction sector, has consistently advocated for the widespread adoption of IBS, particularly in building construction. This approach promotes shorter project completion times, improved productivity, and enhanced work quality.

Effective 10 July 2024, a circular issued by the Secretary General of Ministry of Housing and Local Government (KPKT) Malaysia, Circular No. 4 Year 2024, introduces "Garis Panduan Pemantauan Dan Pelaksanaan IBS Bagi Projek Swasta". The guideline provides guidance to State Authorities (PBN) and Local Authorities (PBT) regarding the application and implementation of IBS for private projects. It mandates a minimum IBS score of 70 as a condition for building plan approval under Manual OSC 3.0 Plus for private projects that meet the following criteria:

i. New building projects valued at RM50 million and above; and
ii. Gross Floor Area (GFA) of 50,000 m^2 and above.

Under this circular, CIDB acts as an External Technical Agency (Agensi Teknikal Luaran – ATL) to monitor the implementation of IBS during the building plan approval stage for private projects. To support this initiative, CIDB has developed a Standard Operating Procedure (SOP) for the Monitoring and Implementation of IBS in Private Projects. This SOP aligns with the Manual OSC 3.0 Plus, an integrated system used by PBT under KPKT for development plan applications. The SOP was successfully completed by CREAM at the end of 2024.

CREAM was invited to a sharing session organised by CIDB and hosted by Dewan Bandaraya Kuala Lumpur (DBKL). The session involved key representatives from DBKL's Jabatan Kawalan Bangunan, CIDB Federal Territory of Kuala Lumpur and CIDB's Technology Development Division. It served as an introduction to clarify CIDB's role as ATL under the new KPKT circular for IBS implementation in private projects.

Additionally, the session included a presentation on the newly developed SOP by CIDB, detailing its integration with Manual OSC 3.0 Plus for development plan submissions. The session concluded successfully, with both CIDB and DBKL exploring future collaboration opportunities for IBS implementation in private sector projects within DBKL's jurisdiction.

Technical Visit from JKR Sarawak to CREAM-MKRM

Date : 21 Mac 2025

Venue : Makmal Kerja Raya Kuching, Sarawak

On 21st March 2025, the Public Works Department of Sarawak (JKR Sarawak) conducted a technical visit to the facilities of CREAM-MKRM Sarawak. The delegations, led by the Director of JKR Sarawak, Ir. Ts. Gs. Br. Dr. Cassidy anak Morris, were introduced to the wide range of services and facilities offered by CREAM in support of the construction industry.

The delegation was warmly welcomed by Chairman of CREAM, Dato' Ir. Alhadi bin Ibrahim along with CEO of CREAM, Ir. M. Ramuseren and Director of CIDB Sarawak, Ts. Br. Rosmen Ag. Hassan. A comprehensive briefing highlighting on the range of services provided by CREAM was presented by Ir. Ts. Ahmad Hazim bin Abdul Rahim, Senior Manager of CREAM. This was followed by an in-depth explanation of the laboratory testing services available particularly for structural tests involving Industrialised Building System (IBS) components, pre-cast concrete and scaffolding in accordance with the guidelines set by CIDB under Act 520.

The visit also includes a guided tour of the laboratory, where delegation can explore the testing facilities available thus gaining a better understanding on the testing provided.

This visit helped to strengthen mutual understanding of CREAM-MKRM Sarawak's function and opened up opportunities for strategic collaboration in areas such as construction quality, material research, technology development, and industry innovation.

Pan Borneo Highway Project Engagement with CREAM - MKRM Sabah

Date : 8 April 2025

Venue : Makmal Kerja Raya Malaysia Kota Kinabalu, Sabah

On 08th April 2025, CREAM MKRM Sabah had the honour of receiving a visit from the project team of the Pan Borneo Highway Sabah, led by Ir. Siti Aleesa from JKR Sabah. She was accompanied by representatives from the project's appointed contractor and consultant firms. This visit was a continuation of an earlier engagement by JKR top management, who had previously toured the MKRM Sabah laboratory. This time, the focus was to ensure that contractors and consultants involved in the project clearly understand the importance of quality in construction and the need to comply with guidelines set by CIDB under Act 520.

MKRM Sabah was represented by Puan Azila and En. Hassanain Hafiz, who welcomed the delegation and provided an overview of the services and functions offered by CREAM. The discussion highlighted how CREAM MKRM Sabah supports the construction industry, particularly through its inspection, certification, and material testing services. These services play an important role in helping industry players meet the requirements of the Perakuan Pematuhan Standard (PPS), especially for construction materials listed under Schedule Four of Act 520, which identifies products that need to undergo inspection or certification to ensure compliance with quality standards.

The team also had the opportunity to tour MKRM Sabah upgraded Structural Laboratory, where they observed the latest improvements and became more aware of the expanded capabilities now available to support structural testing and quality control within the construction industry.

Joining the session virtually, MKRM Senior Manager shared insights on the centre ongoing initiatives and its commitment to supporting stakeholders through reliable technical services and industry collaboration.

The visit concluded on a positive note, with both JKR and MKRM reaffirming their shared commitment to upholding construction quality, safety, and regulatory compliance, especially for large-scale, high-impact projects like the Pan Borneo Highway.

CREAM - MKRM Laboratory Visit

Date : 17 April 2025

Venue : Makmal Kerja Raya Malaysia, Kuala Lumpur

It's a pleasure to have representatives from **Pertubuhan Arkitek Malaysia, Universiti Malaysia Pahang Al-Sultan Abdullah and Saint Gobain Malaysia** to visit our CREAM -MKRM on 17 April 2025.

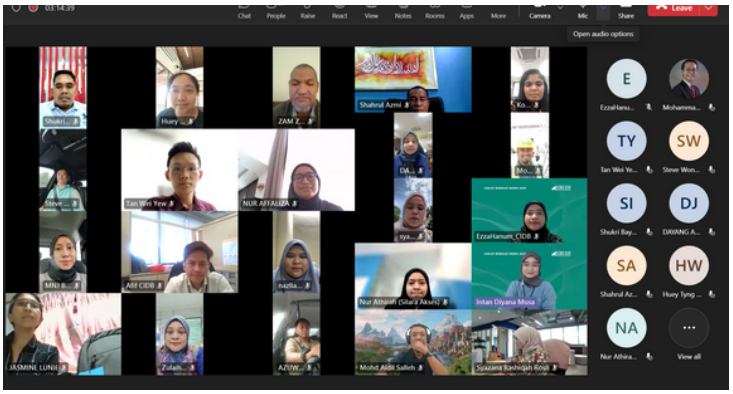
The main objective of the visit is to learn more about our testing facilities and services, and to discuss future collaboration opportunities. The visit was very productive and allowed the visitors to gather valuable information about the latest technology available at CREAM-MKRM.

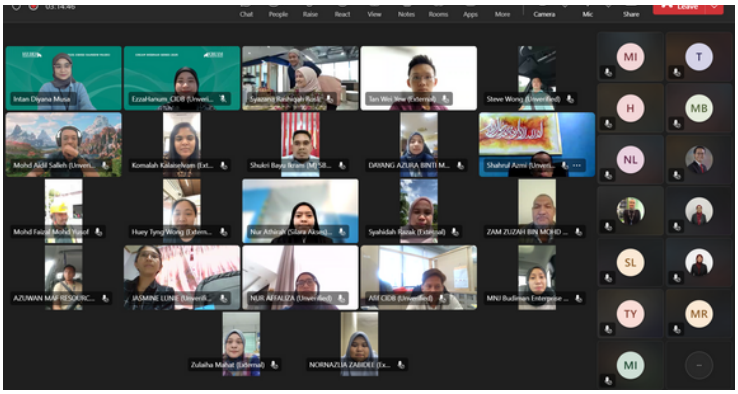
Thank you for joining us and making this visit a success. Our team at CREAM-MKRM is so glad to meet with you in our lab. We hope to cooperate with you soon as your business partner.

CREAM Webinar Series 2025

CREAM Webinar Series 2025 is a monthly program organised by CREAM and it is a part of our efforts to initiate conversations on issues, challenges, opportunities and initiatives for the construction industry and beyond.

The theme for April webinar is **"Penguatkuasaan Bahan Binaan : Pindaan Jadual Keempat Akta 520 CIDB"**





Session 1 : Kesedaran Mengenai Cadangan Pindaan Jadual Keempat Akta 520: Kepatuhan dan Tanggungjawab Pemain Industri
Date : 23 April 2025

Speakers:

- **Ts. Nor Hamiza Zahar**
  Senior Manager, Bahagian Pematuhan Kualiti Bahan, CIDB Malaysia

- **Ms. Nur Ezza Hanum Abdullah**
  Assistant Engineer, Unit Regular Bahan Binaan, CIDB Malaysia

No of participants : 45 pax

CREAM Webinar Series 2025

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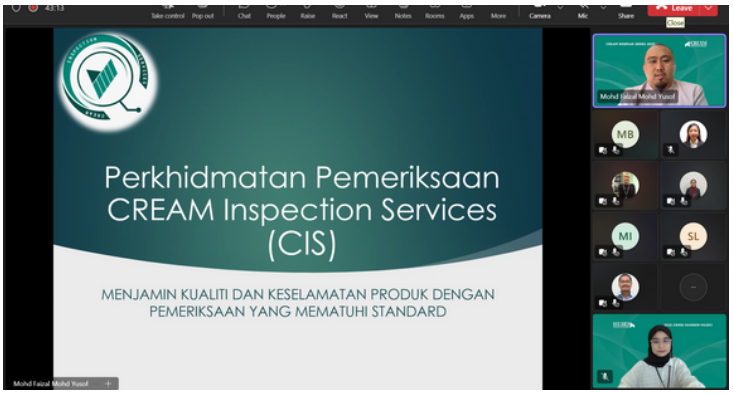
The theme for April webinar is **"Penguatkuasaan Bahan Binaan : Pindaan Jadual Keempat Akta 520 CIDB"**



Session 2 : Elak Risiko, Tingkatkan Kualiti : Kenali Proses Pemeriksaan, Pengujian dan Pensijilan Bahan Binaan
Date: 25 April 2025

Speakers:

- **Mr. Mohd Azwan Baharin**
  Certification Officer, Construction Research Institute of Malaysia (CREAM)

- **Mr. Mohd Faizal bin Mohd Yusof**
  Inspection Assistant, Construction Research Institute of Malaysia (CREAM)

- **Ts. Syaza Nabilla Mohd Suhaimi**
  Engineer, Construction Research Institute of Malaysia (CREAM)

No of participants : 40 pax

CIDB Delegation Visits SEQUTAS Offshore Safety with Sabah Oil & Gas Industry

Date : 5 May 2025

Venue : Makmal Kerja Raya Kota Kinabalu, Sabah

On 5 May 2025, SEQUTAS OFFSHORE SAFETY SDN BHD hosted a visit by the Construction Industry Development Board Malaysia (CIDB). The delegation was led by CIDB Board Member, Datuk Dr. Roland Chia Ming Shen, accompanied by CIDB Sabah Director, Mr. Nazri Zakaria, along with representatives from CIDB's subsidiaries: ABM, CIDB Tech, and CREAM-MKRM Sabah.

CREAM-MKRM Sabah was represented by **Puan Nor Azila.** Representing the oil and gas industry were Datuk Willie Ng, Group Executive Director of SEQUTAS and Honorary Advisor to the Sabah Oil & Gas Services Council (SOGSC), and Mr. Jesselton Jason, Vice President of SOGSC. The visit provided an opportunity to introduce CREAM expertise in research, testing, and certification, while encouraging closer ties between the construction and energy sectors.

The session featured thoughtful exchanges on how both sectors could collaborate more meaningfully, especially in areas such as improving safety practices, boosting technical capabilities, and strengthening the local workforce. A proposed Memorandum of Understanding (MoU) was also brought to the table, reflecting a shared interest in a more structured partnership moving forward.

The delegation was given a closer look at the real-world challenges of offshore work, including a demonstration of the Basic Offshore Safety Induction & Emergency Training (BOSIET). The delegation also gained a deeper understanding of oil extraction processes and the level of expertise required in such high-risk environments.

More than just a formal visit, this engagement marked a step forward in bridging two vital industries. With CREAM facilities and technical knowledge, there is strong potential to support innovation, raise quality benchmarks, and create opportunities for knowledge sharing that benefit both fields.

It is hoped that this spirit of collaboration continues to grow, leading to impactful progress not only for the industries involved but also for the development of local talent and infrastructure in Sabah.

Workshop on Technical and Financial Aspects of Proposed Construction and Demolition Waste Management

Date : 8 May 2025

Venue : Sheraton Hotel Kuching, Sarawak

On 8 May 2025, the Construction Research Institute of Malaysia (CREAM) participated in the Workshop on Technical and Financial Aspects of Proposed Construction and Demolition (C&D) Waste Management, organized by Eco-Ideal Consulting Sdn Bhd. The workshop was held at the Sheraton Hotel in Kuching, Sarawak.

The primary objective of the workshop was to present the key findings of a study conducted by CREAM, aimed at developing a structured plan for effective C&D waste management in Sarawak. The event also served as a vital platform to gather feedback from relevant stakeholders, including government agencies, industry players, and environmental experts, to further refine and enhance the proposed waste management framework.

Through the discussions, the workshop emphasized the need to strengthen existing waste management practices, encourage the adoption of recycled construction materials, and support broader environmental sustainability goals in the state. Participants shared valuable insights on the technical challenges, financial implications, and policy considerations necessary for the successful implementation of C&D waste management initiatives.

CREAM remains committed to driving innovation and sustainability in Malaysia's construction sector, and this workshop marks a significant step forward in addressing environmental challenges while promoting responsible construction practices in Sarawak.

CREAM-MKRM Laboratory Visit

Date : 14 May 2025

Venue : Makmal Kerja Raya Malaysia Kuching, Sarawak

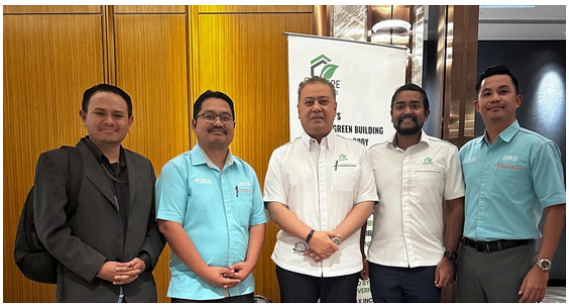
Mr. Wong Chee Chung, Senior Lecturer and Laboratory Coordinator at the University of Technology Sarawak (UTS), visited on 14 May 2025. UTS is a Sarawak state-linked private university wholly owned by Yayasan Sarawak and located in Sibu. Its main campus houses a structural testing laboratory similar to MKRM Sarawak.

Currently, CREAM is identifying potential strategic partners for collaboration, particularly in large-scale structural component testing and building materials product testing in Sarawak. It is noted that UTS has civil and structural engineering laboratory facilities that align with the technical services offered by CREAM. The UTS laboratory is also accredited by the Department of Standards Malaysia under MS ISO/IEC 17025, which is a key criterion for CREAM in seeking collaborative partners.

Therefore, CREAM intends to explore collaboration opportunities with UTS and plans to visit the UTS laboratory for further discussions. However, before the visit takes place, CREAM would like to obtain more information about the laboratory facilities available at UTS, if possible.

GreenRE's 5th Advisory Panel (GREAP) Meeting
Date : 15 May 2025
Venue : One World Hotel Petaling Jaya, Selangor

GREENRE successfully organised the **GREAP Meeting** as part of its ongoing commitment to promote sustainable development and green building practices in Malaysia. The meeting served as a platform to engage key industry players, foster knowledge sharing, and strengthen collaborative efforts toward a more environmentally responsible built environment.



One of key highlight of the meeting was a presentation **by Ts. Syed Hazni Abd Gani, Senior Manager of the Certification Division, CREAM**, who shared insights on Sustainability-Related Policies and Research which focusing on MyCREST and Sustainable INFRASTAR assessment and other initiatives developed by CREAM to support environmental sustainability and transformation.

The meeting featured expert sharing sessions, interactive discussions, and strategic dialogue on advancing ESG principles across the industry. Other highlights of the session included:

1. Energy Efficiency and Conservation Act (EECA) by Suruhanjaya Tenaga
2. Urban Renewal Act and Green Data Centre Planning by PLANMalaysia
3. The Energy Performance Benchmarking (EPB) Tool for landed residential buildings by Universiti Teknologi Malaysia
4. Carbon Credit Aggregation Framework for retrofitted properties by Universiti Teknologi Mara

The **GREAP Meeting** reflects GREENRE's leadership in driving green transformation and its role in supporting Malaysia's sustainability agenda. The session concluded with positive feedback from stakeholders and a shared commitment to further collaboration and capacity building in the green real estate sector.

Technical Visits to Temporary Precast Concrete Casting Yards in Johor and Pahang

Date : 27 & 29 May 2025

Venue : Gelang Patah, Johor and Sungai Panching Kuantan, Pahang

As Malaysia accelerates its commitment to modernising construction practices under the Industrialised Building System (IBS) agenda, the Construction Research Institute of Malaysia (CREAM)—with the support of CIDB—has initiated a series of strategic technical site visits aimed at gathering real-world insights and operational data for the development of the National Guideline for Temporary Precast Concrete Casting Yards.

On **27 May 2025,** the first site visit occurred at **Tapak Pembinaan RMMJ in Gelang Patah, Johor.** The site, located along Jalan Pendas Laut in Kampung Melayu, featured an on-site casting yard supporting the production of precast components for a large-scale housing development (Project P796). The visit brought together representatives from CIDB HQ, CIDB Johor, CREAM, and CIDBIBS Sdn Bhd.

Continuing the momentum, a second technical visit was conducted on **29 May 2025** at a **high-rise IBS construction site in Panching, Kuantan, Pahang.** This project also utilised a temporary precast concrete casting yard, showcasing its relevance even in vertically scaled developments.

The layout of the Panching site illustrated the need for strategic coordination between yard operations and tight on-site logistics.

During the visit, participants observed the production of large-scale precast components and the site's approach to navigating space constraints and labour efficiency. Regulatory compliance, health and safety protocols, and seamless scheduling were among the focal points of discussion with the project management team.

Both visits emphasised the growing need for **adaptable, practical, and standardised** guidelines that support the effective use of temporary casting yards across diverse project scales and geographical contexts, particularly where the construction of permanent precast factories is not feasible.

The field insights from Johor and Pahang will form a critical foundation for the forthcoming national guideline, enabling Malaysia to scale IBS adoption more strategically while improving safety, productivity, and sustainability within the construction sector.

Surveillance Audit, ISO/IEC 17065:2012 (Certification Body) by the Department of Standards Malaysia

Date : 10 & 11 June 2025

Venue : Makmal Kerja Raya Malaysia, Kuala Lumpur

On 10 and 11 June 2025, the Construction Research Institute of Malaysia (CREAM) underwent a Surveillance Audit for the scope of Certification Body under the ISO/IEC 17065:2012 standard. The audit was conducted by the Department of Standards Malaysia (JSM), the official national accreditation body.

The purpose of this audit was to assess CREAM's compliance with internationally recognized certification system requirements and to ensure that the management of the quality system continues to be maintained effectively and with integrity.

CREAM extends its highest appreciation to the audit team from JSM, led by Tuan Haji Basori bin Selamat and assisted by Puan Seri Banun Sujangi, for the professional execution of the audit and their continued support in strengthening good governance practices and a high-quality certification system.

Technical Workshop on Developing teh Guideline for Temporary Precast Concrete Casting Yards

Date : 11 - 13 June 2025

Venue : Pulse Grande Hotel, Putrajaya

To proactively address gaps and promote best practices in setting up and managing temporary precast concrete casting yards, the Construction Research Institute of Malaysia (CREAM), together with CIDB, organised a technical workshop from June 11 to 13, 2025, at Pulse Grande Hotel in Putrajaya.

The three-day workshop gathered key industry players, technical experts, and policy representatives under the Technical Committee for the Guideline for Temporary Precast Concrete Casting Yards in Malaysia. The main goal was to review the proposed draft framework and critically improve its content before the final publication. The guideline is intended to serve as a national reference to ensure temporary casting yards are safe, well-organised, and compliant with current regulations.

Workshop sessions were highly interactive, with participants analysing key chapters of the draft—from planning and authority approvals, yard setup and production workflows, to demobilisation procedures and quality control. Discussions also highlighted certification requirements (PC, CIS 24, PPS), approval procedures for government and private projects, and common industry challenges such as space constraints, certification continuity, and contractor capabilities.

The workshop concluded with a clear path forward, emphasising technical clarity and the importance of raising awareness among developers, local authorities, and relevant ministries. This initiative marks a significant milestone in enhancing IBS implementation across Malaysia, particularly for projects in areas where permanent factory setups are not feasible. The refined guideline is expected to become a cornerstone reference in future construction developments nationwide.

Technical Visit to Kinarut and Alamesra for Strategic Insights and Casting Yard Guideline Development

Date : 17 June 2025

Venue : Kota Kinabalu, Sabah

In line with its commitment to facilitate the nationwide adoption of the Industrialised Building System (IBS), the Construction Industry Development Board (CIDB), through the Construction Research Institute of Malaysia (CREAM), conducted a two-site technical visit in Sabah on 17 June 2025. This initiative forms part of two concurrent CIDB-funded studies:

- **the Development of Guidelines for Temporary Precast Concrete Casting Yards, and**
- **the Strategic Approach to Strengthen IBS Implementation in Sabah.**

The first visit took place at KTI's IBS project site in **Taman La Gloxinia, Kinarut.** Delegates had the chance to explore the setup and operation of the temporary casting yard supporting residential buildings in the suburban zone. The visit included direct interaction with site staff on layout planning, logistics efficiency, casting activities, and site safety compliance. The practical insights provided a clearer understanding of the challenges faced by IBS implementers, especially in remote parts of Sabah.

Later that afternoon, the second site visit occurred at the **Ayuria Place** development in **Alamesra**, a more urbanised setting within Kota Kinabalu. This contrasting environment enabled the delegation to evaluate the scalability and flexibility of temporary casting yards in a dense development corridor. Of particular interest were the strategies used for site access, component handling, and synchronisation between precast production and on-site assembly.

The dual-site visit not only highlighted the operational realities of IBS construction in Sabah but also promoted meaningful discussion between CIDB, CREAM, and local stakeholders on how policy, infrastructure, and technical support could be strengthened to boost future adoption. These findings will be crucial in shaping customised guidelines and strategic actions aligned with Sabah's unique construction landscape.

Bengkel Libat Urus Kajian Pembangunan Pendekatan Strategik bagi Memperkasakan Pelaksanaan IBS di Sabah

Date : 18-20 June 2025

Venue : Promenade Hotel Kota Kinabalu, Sabah

The use of Industrialised Building System (IBS) has been mandatory for government construction projects since 2008 projects worth RM10 million and above with a minimum IBS score of 70 through Malaysia Treasury Circular PK 1.10. which is effective from 15 January 2020 for this matter. Meanwhile for private project, a circular by the Secretary General of Ministry of Housing and Local Government (KPKT) Malaysia (Circular No. 4 Year 2024) mandates a minimum IBS score of 70 for IBS implementation for private projects that are worth RM50 million and above, and have a Gross Floor Area (GFA) of 50,000 square meters and above as a condition for building plan approval under Manual OSC 3.0 Plus.

CIDB together with CREAM actively engaged with representatives from ministries, implementing agencies, and industry players to discuss the implementation of the Industrialised Building System (IBS), particularly in remote areas identified in East Malaysia (Sarawak and Sabah). A follow-up study was initiated to examine in greater detail the issues and challenges associated with IBS implementation, with the initial focus on Sarawak. This Study was completed in 2024 by CREAM.

In February 2025, CREAM was appointed by CIDB to conduct a study entitled Kajian Pembangunan Pendekatan Strategik bagi Memperkasakan Pelaksanaan IBS Di Sabah. The comprehensive study aims to thoroughly identify and analyse the issues and challenges related to IBS implementation in Sabah and subsequently develop a strategic approach to strengthen the implementation across the state.

An engagement workshop was conducted between 18-20 Jun 2025 with IBS player in Sabah including Suppliers, Manufacturers, Contractors, Developer and Government Agency in Sabah to obtain initial input with the aims of developing a strategic approach to strengthen the implementation of IBS in Sabah. The purpose of this workshop is to:

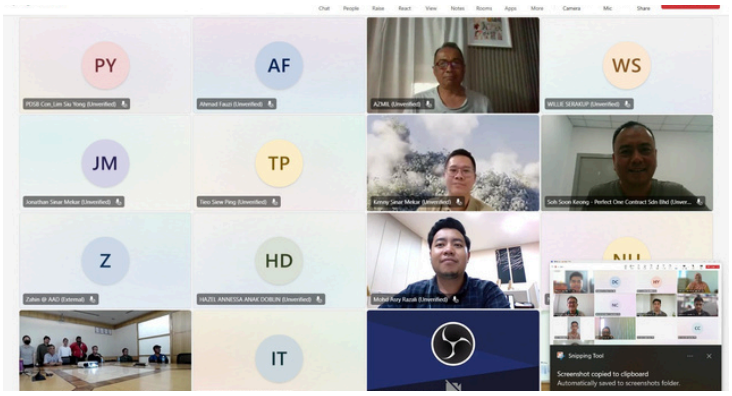
- To identify the capacity and capabilities of manufacturers, contractors, and suppliers involved in IBS projects in Sabah;
- To gather issues encountered during the implementation of IBS in Sabah, taking into account geographical factors (remote areas, highlands, and river crossings), especially for projects located in the rural area and those granted IBS exemptions; and
- To obtain strategic approach recommendations aimed at strengthening the implementation of IBS in Sabah

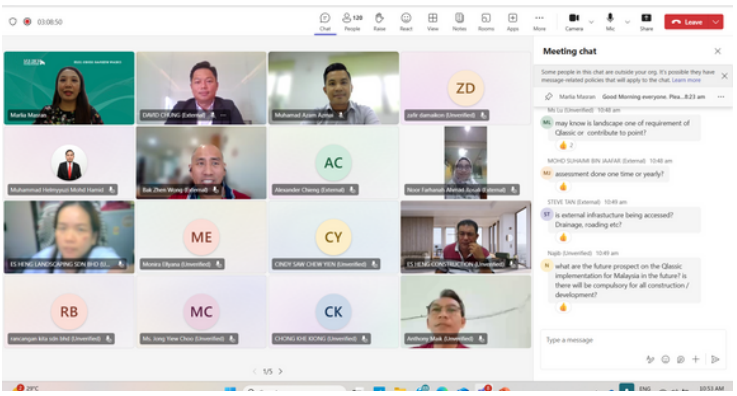
It can be concluded that the workshop successfully gathered the initial information required, with all key issues and challenges clearly highlighted. All IBS industry players demonstrated strong and unwavering commitment towards the successful implementation of IBS projects in Sabah.

CREAM Webinar Series 2025

CREAM Webinar Series 2025 is a monthly program organised by CREAM and it is a part of our efforts to initiate conversations on issues, challenges, opportunities and initiatives for the construction industry and beyond.

The title for June webinar is **"QLASSIC for Developers: Improving Quality, Reducing Defects."**





QLASSIC for Developers: Improving Quality, Reducing Defects.

Date: 24 June 2025

Speakers:

- **Ts. Syed Hazni Abd Gani**
  Senior Manager, Construction Research Institute of Malaysia (CREAM)

- **Ts. David Chung**
  Assistant General Manager, SkyWorld Development Bhd

No of participants : 123 pax

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Construction Research Institute of Malaysia