SALMAN MAKTAB

HONG KONG
AUSTRALIA
VIETNAM

SPECIALIST ENGINEERING CONSULTANTS

INNOVATIVE
INTEGRATED
ENGINEERED

AUSTRALIA

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WE ARE SPECIALISTS
WE ARE INNOVATORS
WE ARE NOT BOUND BY GEOGRAPHY
WE ARE NOT LIMITED BY TECHNOLOGY

WE ARE **SALMAN MAKTAB**

GLOBAL REACH
LOCAL KNOWLEDGE

ENGINEERS | DESIGNERS | BIM EXPERTS
UNITED TOGETHER TO DELIVER OUTSTANDING PROJECTS
ANY WHERE IN THE WORLD

OUR STORY

Salman Maktab is a dynamic design practice headquartered in Melbourne, with operations in Sydney, Hong Kong and Ho Chi Minh City. We bring an innovative and integrated approach to design and construction where most engineering firms dare not to. We leverage the best of our experience and technology to ensure our clients receive maximum return from their engineering and construction investment.

Salman Maktab is a collective of civil & structural engineers, BIM experts and project managers who are highly experienced in the coordination and design of complex structures, and work closely with contractors to alleviate imposing limitations. This is where our expertise lies. We understand and appreciate the importance of efficient engineering, the cost and availability of materials, constructability as well as the changing market forces that our clients operate in.

With a track record of keen collaboration at all project levels, our designers develop the most suitable and effective outcome for all stakeholders, including consultants and sub-contractors. Program, material, cost, logistics and labour are all taken into consideration during the design process.

PICTURED: Ronald Balbuena led the seismic strengthening design of Eureka Tower while it was inhabited.

OUR DESIGNERS' PROJECTS

CLOCKWISE FROM TOP LEFT: The Stanley - Hong Kong (Luxury Residential); AsiaWorld-Expo Phase 2 Concept Design - Hong Kong (Culture); Salisbury Garden Trellis - Hong Kong (Culture); Noble Park Train Station - Australia (Infrastructure).

SPECIALIST SERVICES

Salman Maktab provides professional structural engineering advice, from the start of the project, to its completion for traditional and specialty constructions.

Using locally sourced materials can often bring greater benefits to both the structure and the local community. Salman Maktab is equipped with the expertise to design structures with **local unconventional material like bamboo, ungraded timber and Mass Timber (CLT, glulam, LVL etc)**.

ABOVE: Zero Carbon Building - Bamboo Pavilion - Hong Kong (Culture)

With our strong ties to precast suppliers and our experience in designing **Precast Concrete structures**, we offer this specialist service to alleviate some of the limitations that traditional construction methods possess, like reducing high labour and material costs. This knowledge and experience extends to **Glass Fibre Reinforced Concrete (GFRC) and Post-Tensioned (PT) Concrete**, among other niche construction methods.

ABOVE: A typical PT Concrete slab of Trade and Industry Tower - Hong Kong (Office & Headquarters)

SPECIALIST SERVICES

As land quickly becomes inevitably scarce, construction material prices continue to rise, and when time is of the essence, the project may benefit from the advantages of **Modular Construction**. Salman Maktab has the experience of designing international standard **custom-built volumetric and flat pack modules**.

ABOVE: Modular design for The Perfume Factory - England (High-Rise Residential)

Buildings constructed prior to the 1960's are likely to have not been designed to withstand critical horizontal forces commonly associated with earthquakes and typhoons. Salman Maktab ensures all new builds are structurally fit to sustain earthquakes and typhoons. We are also able to assess existing structures to advise whether **Seismic Strengthening** is required and provide subsequent design alterations to ensure the structure is compliant with the most current code.

ABOVE: Detailed Seismic Assessment & Design of Westfield St. Luke's - Auckland (Retail & Hospitality)

SECTORS & PROJECTS

Our strength lies in the breadth and depth of our technical expertise which enables us to provide practical solutions to the most complex challenges for our clients in the following sectors:

- Luxury Residential
- Multi-Dwelling Residential
- High-Rise Residential
- Offices and Headquarters
- Resorts and Hotels
- Retail and Hospitality
- Culture
- Heritage Listed
- Education
- Health
- Stadia & Sports
- Civic
- Industrial
- Infrastructure
- Aviation
- Defence

ABOVE: Queen Mary Hospital Vibration Assessment - Hong Kong (Health) BELOW: Hong Kong International School - Hong Kong (Education)

CLOCKWISE FROM TOP: Alora Apartments - Australia (Residential); 108 Flinders Street - Australia (Luxury Residential); Doha Sports Park - Qatar (Stadia & Sports); The Pier-Cathay Pacific Lounge - Hong Kong (Aviation + Retail); Royal Australian Airforce Museum - Australia (Defence)

CLOCKWISE FROM TOP: HKSTP Advanced Manufacturing Centre (Industrial); Hong Kong-Zhuhai-Macau Bridge (Infrastructure); Immigration Headquarters (Government); Government Flying Service-Cheung Chau Forward Base (Aviation); Hotel Jardin (Hotels & Resorts) - All projects in Hong Kong

CLOCKWISE FROM TOP: Private Haikou Apartment - China (Luxury Residential); Burjside Terrace Apartments - Bahrain (High-Rise Residential); Macquarie Park Village - Australia (High-Rise Residential); Trade and Industry Tower - Hong Kong (Offices & Headquarters)

KEY PERSONNEL

TONY SALMAN
MANAGING DIRECTOR

With over 10 years of local and international experience, Tony is poised to make a profound positive impact on any project he is engaged in.

Tony is an expert in post-tensioned concrete, evolutionary structural optimisation, parametric modelling, long-span structures, and modular & precast construction.

Tony thrives on creating innovative designs, whilst ensuring the client's requirements are always fulfilled. His role in the company as Managing Director ensures creativity of engineering is nurtured, whilst keeping concepts feasible and economical.

Tony completed his Bachelor Degree in Australia (RMIT University) a year ahead of his peers. He entered the workforce at Lasting Solutions, moving to Interspan, before departing to Hong Kong to work for Ove Arup & Partners, and then Aurecon. In 2017 he joined Robert Bird Group in London, broadening his experience to the different markets of UK, Europe & Middle East.

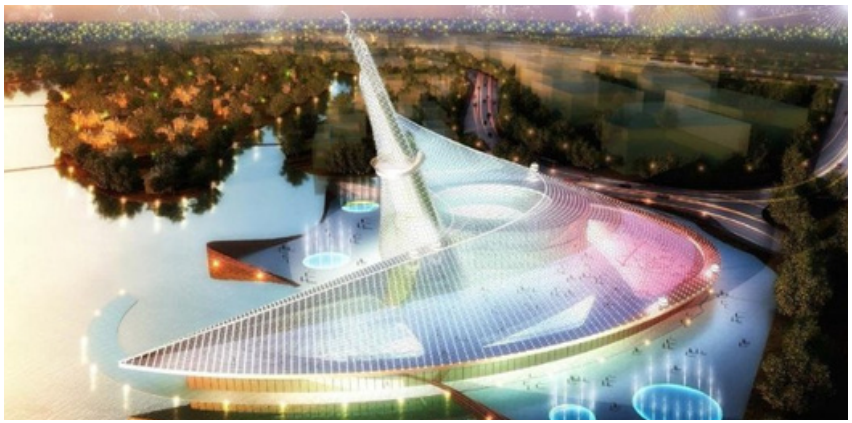
And in early 2018, Tony first registered Salman Maktab in Melbourne, Australia. Salman Maktab now has branched out to meet client demands overseas, through our Ho Chi Minh City & Hong Kong offices.

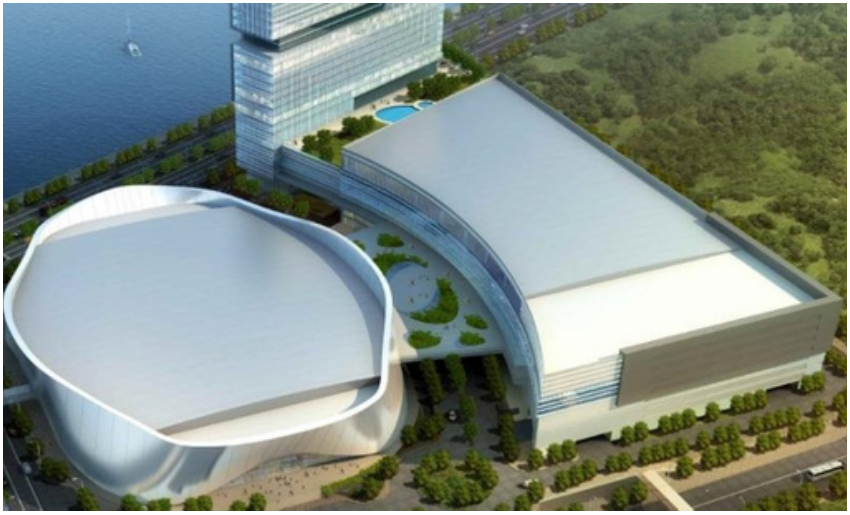
PROFESSIONAL REGISTRATIONS

National Engineers Register (Aust.)
Chartered Professional Engineer
Member of Engineers Australia
Member of Hong Kong Institute of Engineers

TONY'S KEY PROJECTS

CLOCKWISE FROM TOP: Western Sydney Stadium - Australia (Stadia & Sports); Zhejiang Exhibition Centre - China (Culture); Cebu Seaside Arena - The Philippines (Stadia); Refurbishment at Hyatt Place Essendon Fields (Resorts and Hotels); Willow Apartments - Australia (High-rise Residential);





TONY'S KEY PROJECTS

Project: Perfume Factory
Location: England
Description: Perfume Factory is a new 390-apartment residential build-to-rent development, which is part of the efforts of the Greater London Authority to revitalise the North Acton area. Tony led the structural team to produce insitu concrete core & columns, post-tensioned podium slabs, and steel-framed modular superstructure designs. The volumetric steel modules were designed to incorporate all finishes, MEP fittings, and satisfy the differential axial shrinkage of the structure.

Project: ZCB Bamboo Pavilion
Location: Hong Kong
Description: The ZCB Bamboo Pavilion was a temporary public event space. Built from 400+ bamboo poles, the ZCB is both light and long-spanning. Tony contributed to the team-effort design of the preliminary wind loading and foundation design. The lightweight structure rests on three circular concrete footings that function as counterweights, preventing the pavilion from being picked up by the wind.

TONY'S KEY PROJECTS

Project: Project Thnouh
Location: Cambodia
Description: This development consisted of a school and a library, servicing the small community of Thnouh. Tony provided engineering support by designing the timber roof and framework, of which are all built on stilts and as per Australian Standards. Tony also provided the Revit model, to ensure all connection & member designs, as well as clashes, could be reviewed in 3-D. The BIM model also served as a strong aid for the local community, who could visualise their dream and provide feedback during design.

Project: Seascape Residence
Location: Hong Kong
Description: The Seascape Residence is a an existing 4 storey dwelling in the heart of Pok Fu Lam hillside. Tony's input included the analysis and design of concrete structure alterations/penetrations, foundation assessment and underpinning requirements for the purpose to introduce a new sub-floor, retaining wall capacity assessment for the introduction of a new swimming pool and timber decking design.

KEY PERSONNEL

KIM TRAN
ASSOCIATE

Kim joined Salman Maktab in 2018 as an Associate. Before joining Salman Maktab, Kim worked in both the Australia and Asia markets for over 10 years in the BIM space of our industry. Her expertise includes working at critical stages to deliver small to large scale projects in the Residential, Retail, Theatre, Heritage and Infrastructure sectors.

Kim's responsibilities at Salman Maktab include managing the operations of the Melbourne & Ho Chi Minh City offices, client relationship management, and hands-on project management for the documentation of all projects. Kim is infused in every project ensuring innovation and integration is fully considered by utilising the right tools, including, but limited to, BIM, rendering and parametric modelling.

Kim's passion for her job comes from working with truly talented teams and delivering the best possible outcome for our clients. Kim makes a positive impact on each client by providing exceptional services, every time.

Her goal is for every client to be completely satisfied with their project and for Salman Maktab to become the number one design firm in around the world.

PROFESSIONAL REGISTRATIONS

Chartered Professional Engineer
Member of Engineers Australia
Member of Institute of Civil Engineers (UK)
Member of Concrete Institute of Australia

KIM'S KEY PROJECTS

CLOCKWISE FROM RIGHT: Arts Centre Melbourne - Australia (Culture); M-City - Australia (Multi-Dwelling Residential + Hotels & Resorts); Zano Apartments - Australia (Multi-dwelling Residential); Noble Park Train Station - Australia (Infrastructure); Cabrini Hospital - Australia (Health);

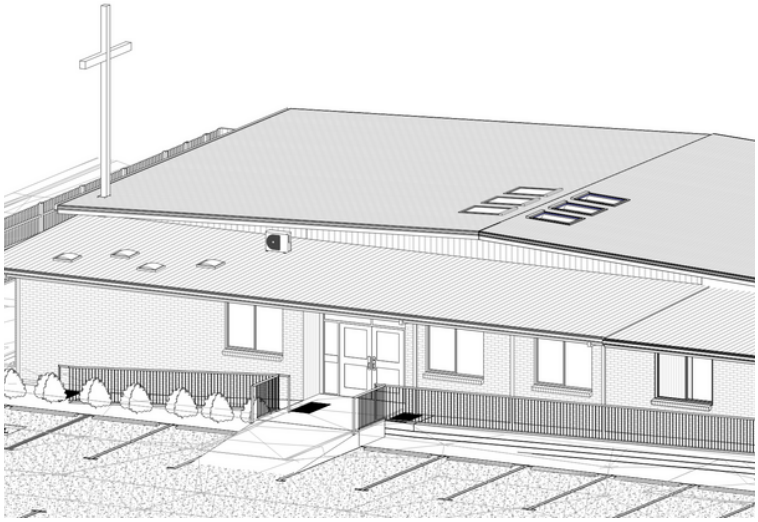
KIM'S KEY PROJECTS

Project: Gladstone Street Residences
Location: Australia
Description: This residential development consists of 3 detached 2-storey houses, on a 9000sqft lot. Kim and her team provided the structural, civil, facade and geotechnical engineering services required from concept to construction. The structural form of the houses consisted of concrete raft footing, timber frame, lightweight cladding, sustainable fire-resistant internal wall finishes and timber trussed roofs. Each house also required the design of an on-site detention system for stormwater drainage.

Project: Pascoe Vale Gardens Village
Location: Australia
Description: This aged-care facility is a new development in inner-Melbourne with 112 residences, and an on-site emergency clinic. Kim and her team provided structural and civil engineering services from concept to construction. The main residential structure consists of timber framing and some steel lintels to support the brickwork. External space structures were also designed in timber, and weather-treated accordingly.

KIM'S KEY PROJECTS

Project: Wesley College
Location: Australia
Description: Wesley College is a private secondary school. The project brief called for an overhaul of the indoor and outdoor learning spaces and a new sports hall. The project involved the re-use of heritage-listed masonry, in union with timber framing and various cladding materials. Kim's involvement revolved around the scheme and detailed design of the structural timber framing and intricate facade connection details at the clerestorey and between varying cladding and fire requirements.



Project: Noble Park Baptist Church (NPBC)
Location: Australia
Description: The existing NPBC is almost all timber - timber rafters, cladding, framing, & flooring, except the roof cladding. It houses a large prayer room (15x15m column free area), offices, study rooms and amenities. Kim led the design & modelling team for the proposed works that included extending the prayer room to 15x25m, new footings, new carparking, and an expansive decking with a pergola for outdoor wedding ceremonies.

KEY PERSONNEL

RONALD BALBUENA
ASSOCIATE

Across his career, Ronald has developed exceptional technical and managerial skills by playing key roles in a multitude of complex international projects.

Ronald's decade long professional experience is unparalleled with a strong ability to employ innovation in design whilst integrating construction limitations. He does this flawlessly for all sectors but more so in the Stadia, High Rise Residential, Offices, Hotels and Telco sectors.

Ronald completed his Bachelor Degree in The Philippines (Eastern Visayas State University). He pressed on working in The Philippines before departing to Qatar and devoting his time to building a better future for its residents and visitors. In 2012, he moved to Hong Kong, working with Aurecon on projects like, Eureka Tower and MGallery Hotel.

Ronald joined Salman Maktab as Associate in the Hong Kong office, in 2018.

Ronald has helped shape Hong Kong and Asia, working in close collaboration with leading contractors, architects & developers on some of the most intricate projects.

PROFESSIONAL REGISTRATIONS

Licensed Civil Engineer - Professional Regulation Commission
Member of Int'l Assoc. for Bridge & Structural Engineering
Chartered Professional Engineer
Member of American Society of Civil Engineer

RONALD'S KEY PROJECTS

CLOCKWISE FROM TOP: Westfield St. Lukes - New Zealand (Retail and Hospitality); Various Telecommunication Towers - Australia (Infrastructure); Hilton Saigon - Vietnam (Resorts and Hotels); SM Megamall Tower - Philippines (Offices and Headquarters); Swanston Square - Australia (High-Rise Residential);

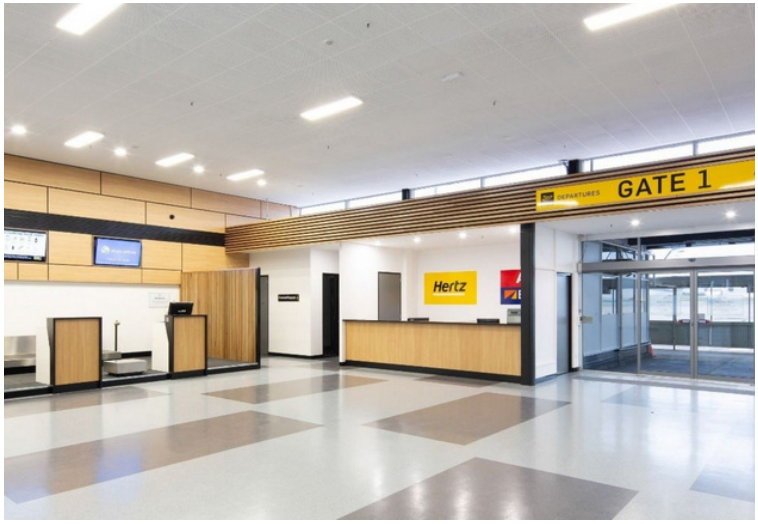
RONALD'S KEY PROJECTS

Project: Kwai Chung Hospital
Location: Hong Kong
Description: The Kwai Chung Hospital Redevelopment includes eight floors dedicated to the psychological rehabilitation of children. Due to the use of the floors, ASD had imposed a limit of vibrations that would be acceptable for the guests and patients. Ronald conducted a detailed vibration analysis of the proposed structure, and subsequently provided recommendations for improvements to the damping and velocity/acceleration of the concrete structure.

Project: Willow Apartments
Location: Australia
Description: Willow Apartments is a new residential development in Melbourne employing the advantages of modular, precast & prefabricated steel construction. It is a true representation of modern, quality & fast construction delivery - 7.5 months from demolition to handover. Ronald played an instrumental role in the design phase and construction phase, coordinating with the steel fabricators and precast suppliers.

RONALD'S KEY PROJECTS

Project: Grampians Welcome Centre
Location: Australia
Description: The Grampians Welcome Centre provides visitors and tourists with a cultural hub in Victoria's rugged outback. The building's dominant feature is its column-free internal space that revolves around the main atrium (compression ring beam). Ronald's team worked alongside the appointed fabricator to develop an effective construction methodology that dealt with tight tolerances, many of the connecting interfaces and modularised components, all whilst protecting the exposed timber.



Project: Essendon Airport Terminal Building
Location: Australia
Description: The Client's project brief required extensive structural refurbishment and expansion of the former International Terminal Building while maintaining “business-as-usual” operations. Due to the lack of drawings, thorough structural investigations was required. To ensure a sustainable form of construction & operation of the Terminal Building 'engineered-timber' in lieu of steel and concrete was chosen.

KEY PERSONNEL

MUT KEUNG WONG
PRINCIPAL (HONG KONG OFFICE)

Mut Keung is a passionate structural engineer with almost 3 decades of local and international experience.

His passion stems from his motto: improve our lives through great engineering. And he started pursuing this in the early 90's working on the Ap Lei Chau Redevelopment (while working at Harris & Sutherland at that time). This same passion has unlocked his creative skills.

His creative engineering skills come in handy when working on, the some times tricky, Alterations & Additions (A&A) works. In addition to this, his long standing reputation at the Buildings Department, Lands Department, Architectural Services Department and many other government bodies of a great engineer gives his clients assurance of safe, innovative and cost-effective engineered solutions, no matter the project size, nature or complexity.

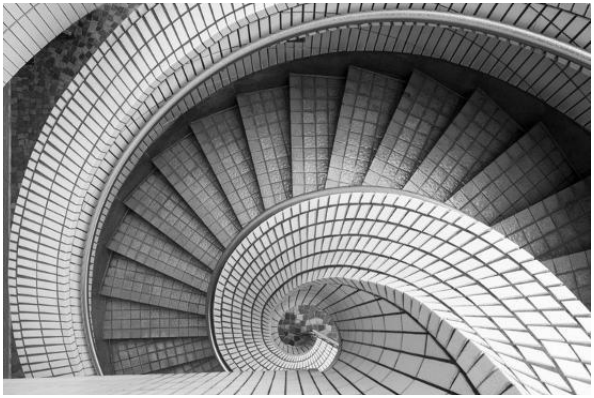
Mut Keung enjoys working on projects relating to stadia, education, and health. He finds that working on these kinds of projects helps him connect and grow his bond within the community.

PROFESSIONAL REGISTRATIONS

Member of Institution of Structural Engineers
Member of Hong Kong Institution of Engineers
Registered Structural Engineer (Hong Kong)
Class 1 Registered Structural Engineer Qualification (China)
Minor Works Class I Contractor Authorized Signatory (All types)
Registered Inspector

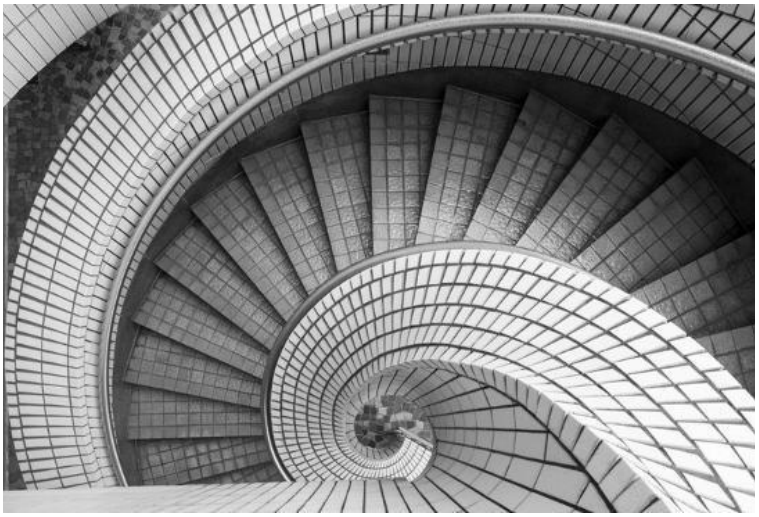
MUT KEUNG'S KEY PROJECTS

CLOCKWISE FROM RIGHT: Harbour Plaza - Hong Kong (Hotels & Resorts); Montigo Resort Villas - Indonesia (Hotels & Resorts); Concrete Spiral Staircase @ Hong Kong Art Museum - Hong Kong (Culture); St Stephen's College Stanley - Hong Kong (Education).



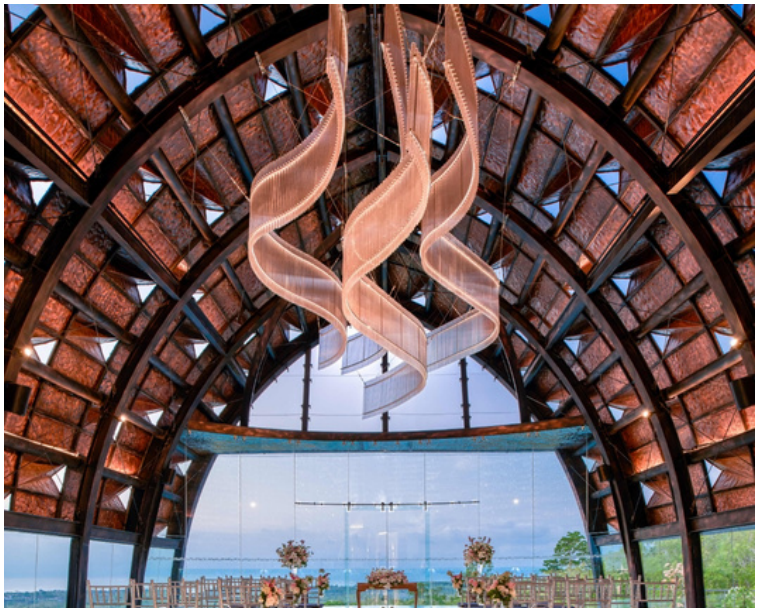
MUT-KEUNG'S KEY PROJECTS

Project: St. Stephen's College
Location: Hong Kong
Description: St. Stephen's College project included A&A works, but also a new school wing (pictured). Acting as the project's RSE, Mut-Keung reviewed all structural engineering analysis and design submissions (for concrete and steelwork) to the Buildings Department. Mut-Keung also contributed to the review of the Main Contractor's construction methodology, which proved to speed the timeline. He also provided mandatory site supervision at critical stages.



Project: Hong Kong Art Museum
Location: Hong Kong
Description: Considered an after-thought, this spiral stairs seamlessly blends in its pre-existing surrounding. Mut-Keung, provided endorsement services, which included critically reviewing and assessing the validity of the design of the concrete spiral stairs. Due to its complex nature, Mut-Keung provided additional presentations and explanations to ASD and LCSD in order to assure the safety of the structure.

MUT KEUNG'S KEY PROJECTS



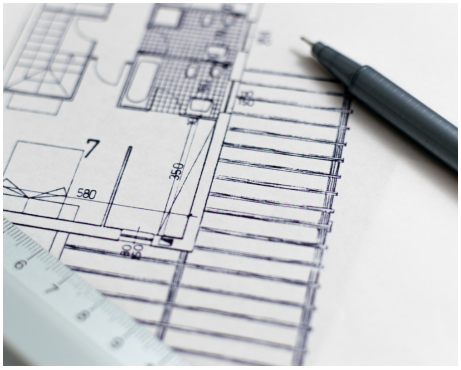
Project: Latitudes Wedding Chapel
Location: Fiji
Description: The Latitudes Wedding Chapel is a timber structure with a barrel-vaulted ceiling. The main structure is a grid of square timber sections bent and formed into curved shapes. Some of the intricacies generally related to the stability of the structure as the position of the Chapel was right on the edge of the coast facing the Pacific Ocean. Mut-Keung provided assistance in the design review of the facade connection details, superstructure elements and foundations.

Project: Central Union Church
Location: Hong Kong
Description: The redevelopment of the Union Church, has provided the freedom to use 'engineered-timber' in a awe-inspiring, yet peaceful manner. The cathedral ceiling of the church evolves from the painted tree-like timber columns. Mut-Keung reviewed and assessed in detail all structural designs prior to endorsing the submission set to the Buildings Department. Unfortunately this was later withdrawn due to budget limits.

OUR FULL RANGE OF SERVICES

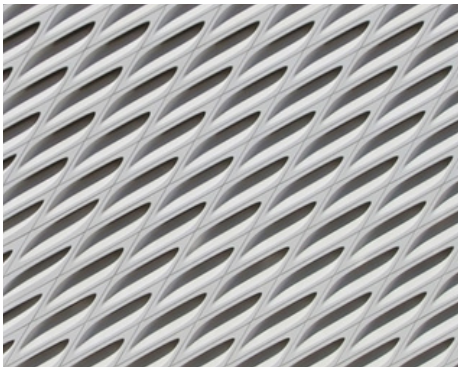
Should a project lend itself to the world of physics, then by this virtue, included in our services. And as our clients' business grows, it is likely that our range of services will grow to cater for their needs. Some of the other services we offer are as follows, but if you don't find it here, please speak to us, we will be able to help.

CIVIL ENGINEERING



VALUE ENGINEERING

SITE INSPECTIONS

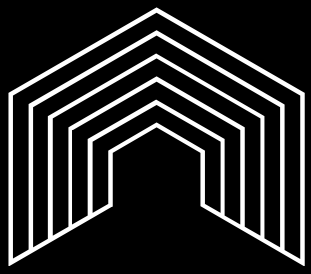


FACADE ENGINEERING

GEOTECHNICAL ENGINEERING

AR & VR MODELLING

TEMPORARY WORKS



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