

築夢五十載

香港建造培訓五十周年傳承與歷史
50 Years of Construction Dreams:
Celebrating the Legacy and Achievements of
Hong Kong Construction Industry Training

1975 - 2025



香港建造培訓50周年
★ Hong Kong Construction ★
Industry Training – 50th Anniversary



築夢五十載

香港建造培訓五十周年傳承與歷史

50 Years of Construction Dreams:

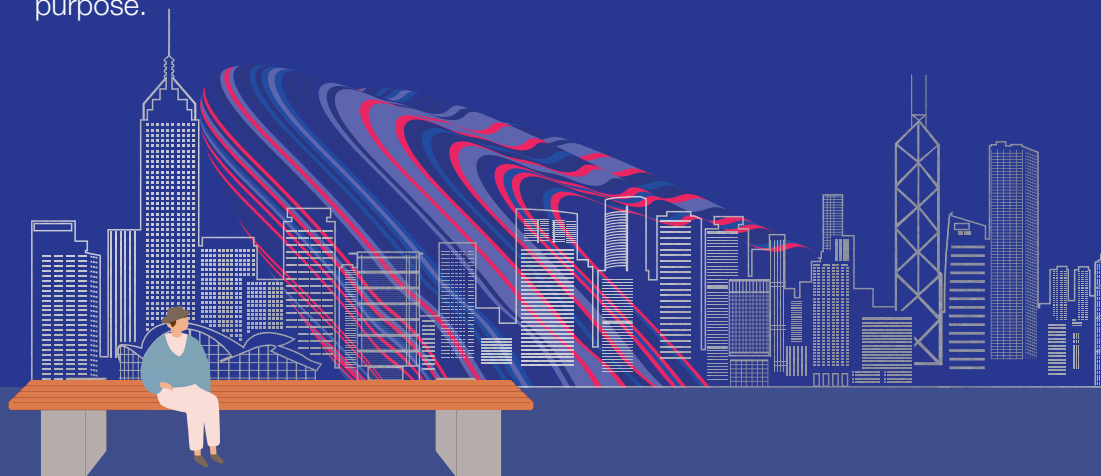
Celebrating the Legacy and Achievements
of Hong Kong Construction Industry Training

五十年來，香港建造學院（前身：建造業訓練局）與這座城市並肩前行，見證彼此的成長與蛻變。從這刻翻開每一章節，將帶領大家踏入時光展覽館—從獅子山下的汗水與夢想，到今天科技與人文交織出城市風貌，每段篇章都記錄著學院與港人共同走過的足跡。

讓我們懷著初心與信念，一同邁向建造新紀元的旅程。

For fifty years, the Hong Kong Institute of Construction formerly the Construction Industry Training Authority has grown alongside the city, witnessing its transformation. As you turn each page, you will journey through time — from the spirit beneath Lion Rock to today's blend of technology and humanity.

Together, let us stride into a new era of construction with passion and purpose.



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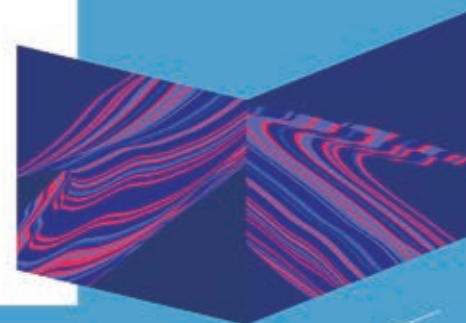
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立於方園 志於全球

Rooted Locally,
Aspiring Globally



「立於方圓，是厚土的積澱與傳統的延續；志於全球，則是廣闊視野和勇於創新的姿態。新世代建造業已不只是技術的傳承，而是機械化、數碼化與嶄新思維相結合下，為香港塑造智慧城市的未來。每項工程、每位建造者都是篇章中的主角。」

『立於方圓 志於全球』，因此成為承先啟後、與時並進的世代航標。」

To be rooted in tradition is to honour our heritage; to aspire globally is to embrace innovation with vision. The new generation of construction industry is no longer bound by technical inheritance alone — through the fusion of mechanisation, digitalisation, and creative thinking, it is shaping the future of Hong Kong as a smart city. Every project and every builder plays a leading role in this unfolding story.

“Rooted Locally, Aspiring Globally” has become a generational beacon — inheriting the past and advancing with the times.



發展局局長感言

Message from the Secretary for Development

“

建業築夢五十載 創新培育新世代

教育是社會進步的基石，而建造業則是城市發展的支柱。適逢香港建造業培訓五十周年，我們回顧過去、展望未來，不僅見證行業技術的飛躍，更堅信「以人為本」是建造業成功的核心。

”



發展局局長甯漢豪，JP
Ms. Bernadette LINN Hon-ho, JP
Secretary for Development

在科技日新月異的今天，自動化、機械人、人工智能等創新技術正逐步改變建造業的面貌。然而，無論科技如何進步，行業的成功有賴每一位「建築人」合力打造—從設計到施工，從管理到實踐，每一個環節都需要人才認真投入。同時，現代的建造業培訓要孕育可駕馭並善用創新技術的「建築人」。

人才是行業的根基，培訓自然成為重中之重。從五十年前的基礎工藝培訓，到今天涵蓋建築信息模擬(BIM)、組裝合成建築法(MiC)、機電裝備合成法(MiMEP)、綠色建築等多元範疇的課程，香港建造學院(學院)一直緊貼行業發展，滿足不同階層從業員的培訓需要。學院為初入行者提供專業的工藝培訓，亦為不同資歷的在職從業員開設技術提升、「一專多能」、科技應用與管理培訓等進修課程，實現終身學習的目標。

同時，學院推崇魯班精神與工匠文化，致力為學生培育穩健的技術根基，講究規矩準繩，啟發創新思維。學院的課程理論與實踐並重，強調「一行保護一行」的行業倫理，鼓勵學生追求卓越、堅守專業。這種精神不僅是技術的傳承，更是職業道德的培育，讓學生成為具備使命感與責任感的建造業生力軍。





為應對建造業發展的不同挑戰，近年學院積極擴展培訓規模及涵蓋更多培訓內容，包括將培訓學額由每年6,000個增加至12,000個，為行業注入新血；學院除了在現有培訓課程內增加科技元素，包括在培訓中引入虛擬實境(VR)、擴增實境(AR)等科技教學工具，亦新增一系列涵蓋不同範疇的科技應用課程，包括機械人操作、BIM、MiC及MiMEP課程等，讓學生掌握最新科技應用技術，為未來智慧建造做好準備。此外，學院亦加強與中國內地單位的合作，推展「一試多證」安排，學生可藉著參與灣區標準的考試，同時獲得由粵港澳三地機構所發出的職業技能證書，加強在培養人才方面的合作，為大灣區建造人才培訓作出貢獻。

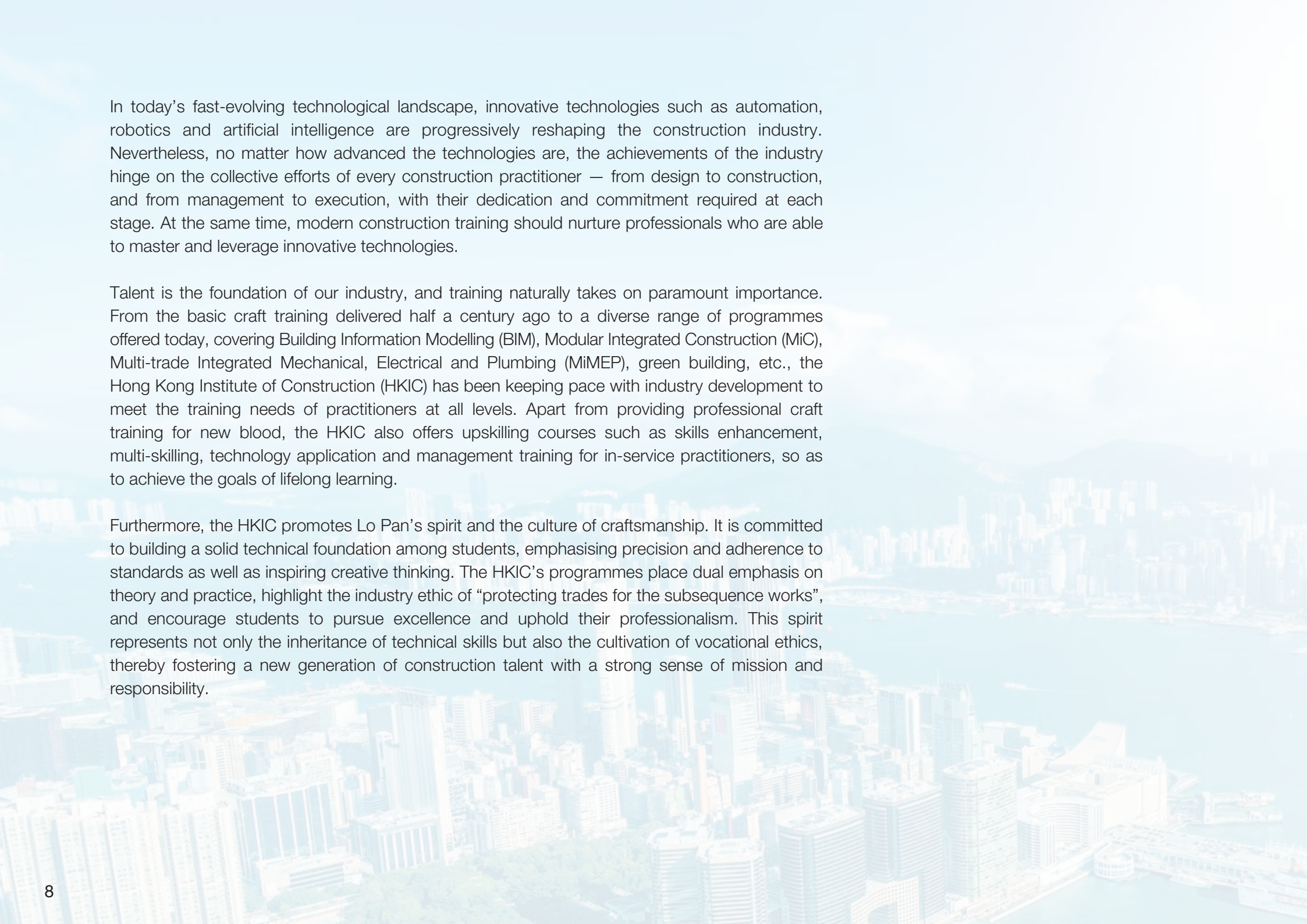
我衷心感謝學院為建造業的大家庭培育了一代又一代優秀的接班人，成就了香港建造業由過去到現在的發展。展望未來，我深信學院將繼續堅守「以人為本」的理念，傳承魯班精神，協助行業邁向更高效、更專業、更可持續的發展之路。我期望學院繼續與政府、建造業界攜手並肩，共同建業築夢，創造更美好的明天。

Building Dreams over Five Decades, Nurturing a New Generation of Construction Professionals through Innovation

Ms Bernadette LINN Hon-ho, JP, Secretary for Development

Education is the cornerstone of social progress, while the construction industry stands as a pillar of urban development. To mark the 50th anniversary of construction training in Hong Kong, we reflect on our past and look ahead to the future — not only witnessing remarkable technological advancements in the industry, but also reaffirming our belief that the “people-oriented” approach is the key to the industry’s success.



An aerial photograph of a city skyline, likely Hong Kong, with numerous skyscrapers and buildings. In the background, there are green mountains under a clear sky. The water of a harbor is visible in the lower right. The image is used as a background for the text.

In today's fast-evolving technological landscape, innovative technologies such as automation, robotics and artificial intelligence are progressively reshaping the construction industry. Nevertheless, no matter how advanced the technologies are, the achievements of the industry hinge on the collective efforts of every construction practitioner — from design to construction, and from management to execution, with their dedication and commitment required at each stage. At the same time, modern construction training should nurture professionals who are able to master and leverage innovative technologies.

Talent is the foundation of our industry, and training naturally takes on paramount importance. From the basic craft training delivered half a century ago to a diverse range of programmes offered today, covering Building Information Modelling (BIM), Modular Integrated Construction (MiC), Multi-trade Integrated Mechanical, Electrical and Plumbing (MiMEP), green building, etc., the Hong Kong Institute of Construction (HKIC) has been keeping pace with industry development to meet the training needs of practitioners at all levels. Apart from providing professional craft training for new blood, the HKIC also offers upskilling courses such as skills enhancement, multi-skilling, technology application and management training for in-service practitioners, so as to achieve the goals of lifelong learning.

Furthermore, the HKIC promotes Lo Pan's spirit and the culture of craftsmanship. It is committed to building a solid technical foundation among students, emphasising precision and adherence to standards as well as inspiring creative thinking. The HKIC's programmes place dual emphasis on theory and practice, highlight the industry ethic of "protecting trades for the subsequence works", and encourage students to pursue excellence and uphold their professionalism. This spirit represents not only the inheritance of technical skills but also the cultivation of vocational ethics, thereby fostering a new generation of construction talent with a strong sense of mission and responsibility.

To address different challenges facing the construction industry development, the HKIC has recently expanded both the scale and scope of its training, including increasing the number of training places from 6,000 to 12,000 annually to bring new blood into the industry. Aside from enriching existing training programmes with technological elements, such as the introduction of digital teaching tools such as virtual reality (VR), augmented reality (AR), etc., the HKIC has launched a new series of technology application programmes covering various areas including robotic operation, BIM, MiC and MiMEP, etc. to equip students with the up-to-date skills and prepare for smart construction in the future. In addition, the HKIC has strengthened collaboration with its partners in the Chinese Mainland to take forward the “One Examination, Multiple Certification” arrangement, allowing students who sit for the examinations adopting the Greater Bay Area (GBA) Standards to concurrently obtain vocational skill certificates issued by the relevant institutions in Guangdong, Hong Kong and Macao. This initiative enhances co-operation among the three places in talent development and contributes to the training of construction professionals for the GBA.

I extend my heartfelt gratitude to the HKIC for nurturing outstanding successors generation after generation for the construction industry, thereby contributing to Hong Kong’s development over the years. Looking ahead, I am confident that the HKIC will continue to uphold its “people oriented” vision, carry forward Lo Pan’s spirit, and support the industry in advancing towards greater efficiency, professionalism and sustainability. I look forward to the HKIC continuing to work hand in hand with the Government and the construction sector to realise our shared aspirations on construction, and build a brighter future.



創造未來智慧城市根基

Creating the Foundations for the Future Smart City

“

作為建造業議會(議會)主席，我經常走進校園、工地與創新實驗場景，與不同背景的青年及業界朋友交流。

尤其每逢香港中學文憑考試放榜，眼看每年數以萬計的青年正走到人生第一個重要岔口，面對抉擇，也難免迷惘。選擇道路從來是取決於一個人願意走多遠、願意肩負多大責任，以及能在未來找到屬於自己的價值。

”



何安誠教授工程師
建造業議會主席
Ir Prof. Thomas HO On-sing
Chairman
Construction Industry Council

以身見證 創意與創新的勇氣

建造業早已不再是印象中的「體力勞動藍領行業」，是結合創科、工程、設計、管理與綠色技術的大型產業鏈，涵蓋從規劃、設計、建造到營運維護，每個環節都與STEAM、人工智能、數碼技術與可持續發展理念緊密相連。只要具備熱誠與勇氣，每一位青年都可以在當中找到舞台。

當我親眼見證「ST01連接路」工程團隊運用「全跨度橋樑吊裝方法」，成功完成連接落馬洲路與新田公路的關鍵結構；中九龍幹線工程牽涉拆卸樓宇及臨時填海等工程，必須利用新技術協助克服困難——這就是香港建造業的力量：既敢創新活用創意，亦能確保安全與品質，並一步一步將藍圖變成現實。

改變世界 攜手塑造新城市

香港建造學院(學院)的「未來建造中心」展示出一整套屬於未來工地的運作模式：中央智能管理平台、人工智能警報系統、安全智慧工地系統(4S)、智能安全帽、穿戴式感測器、即時人臉影像系統、沉浸式模擬實境、建築機械人、數碼分身……這些技術讓工地變得更安全、更高效，也讓工友的工作變得更有尊嚴。

業界領袖與管理層勇於成為變革的領航者，試用新科技擇優而取，讓工友用得安心方便。只有當技術與前線結合，我們才能創造更多嶄新的應用場景與商業模式，並真正實踐「安全是生產力」這句話。

建造業是一條真正可以「技術在手，終身不愁」的專業道路。無論你想成為程式開發員、工程師、專業工匠或項目管理人員，未來的香港需要「懂得建造」與「懂得改變世界」的人，而學院的大門永遠打開，等待著熱血、好奇、願意親手塑造城市的你。



“

As the Chairman of the Construction Industry Council (CIC), I have frequently visited campuses, construction sites, and innovation hubs to engage with young people and industry colleagues.

Each year, when Hong Kong Diploma of Secondary Education Examination (HKDSE) results are released, tens of thousands of young people reach the first major crossroads of their lives. Facing such choices, uncertainty is inevitable. The path one takes depends on how far one is willing to go, the responsibility one is ready to shoulder, and whether one can discover one's own value in the future.

”



Bearing Witness to the Courage of Creativity and Innovation

The construction industry is no longer a “labour-intensive trade,” but a comprehensive industry chain integrating innovation, engineering, design, management and green solutions. Every link — from planning to operations and maintenance — connects to STEAM, artificial intelligence (AI), digitalisation and sustainability. Young people with passion and courage can find their stage here.

I personally witnessed the ST01 Connecting Road Team utilising full-span bridge lifting to complete the key structure linking Lok Ma Chau Road and San Tin Highway. The Central Kowloon Route Project, involving demolition and temporary reclamation, utilised new technologies to overcome difficulties. This is Hong Kong’s construction industry: daring to innovate whilst ensuring safety and quality, turning blueprints into reality step by step.

Transforming the World, Shaping a New City Together

The Centre for Future Construction at the Hong Kong Institute of Construction (HKIC) showcases tomorrow’s construction sites: intelligent management platform, AI alerts, Smart Site Safety System (4S), smart helmets, wearable sensors, facial recognition, virtual reality, construction robots and Digital Twin. These innovations make sites safer and more efficient whilst enhancing workers’ dignity.

Industry leaders pioneer transformation, trailing technologies and selecting the best for workers to use confidently. When technology integrates with operations, we create innovative scenarios and practise “Safety is Productivity.”

The construction industry offers “skill ensures lifelong security.” Whether aspiring to become a developer, engineer, craftsman or project manager, Hong Kong needs people who understand construction and want to change the world. The HKIC’s doors are open, waiting for passionate individuals ready to shape the city.



孵化智能建造新血

Nurturing a New Generation for Smart Construction

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自2017年加入建造業議會(議會)以來，有幸親身參與建造業議會訓練學院轉型為香港建造學院(學院)的整個歷程。這並非只是一項行政工作，而是一場深具使命感的旅程。我堅信建造業的堅固，不單靠鋼筋與混凝土，更有賴承載於人心之中的熱誠、技術與價值。

”



鄭定寧工程師
建造業議會執行總監
Ir Albert CHENG Ting-ning
Executive Director
Construction Industry Council

銜接學位 備受社會認可

建造業當前正面對「留才」與「育才」的雙重挑戰，而2025/26年度《財政預算案》對建造業的重視，令我深感鼓舞。在發展局支持下，議會推出的「建造業專業學位課程畢業生在職培訓津貼計劃」，讓有志者能獲得更多機會取得專業資格，推動產業升級。

仍記得當年議會撥款港幣4.5億元改善學院設施，我們全面從課程、配套到師資逐步改革。在學院成立至今的八年間，高等文憑課程已可銜接學士學位，象徵建造專才真正獲得社會認可。

提升設備 承載更廣闊未來

建造業正踏入智能化與數碼化的新階段。學院的「未來建造中心」正是承載願景的核心基地。從人工智能安全管理平台到建築機械人、數碼分身、擴增實境及虛擬實境沉浸式訓練，每一項技術都充滿創造力、智慧與專業。

我們在上水院校打造訓練基地，以備戰世界技能大賽，只為讓選手在國際舞台上專注發揮，看見更好的自己。我見證選手在反覆練習與失敗中成長，那份專注與毅力，足以令我忘卻所有疲倦。

以往我靠完成建築物獲得滿足感，現在，每當我走進校園，看見學生認真學習、臉上掛著笑容，見證一個個學生由迷惘到自信而感到驕傲。

建造業界的「A Whole New World」

未來的建造業，理應擁有更開放、更智慧、更具人文底蘊的樣貌。我希望社會能以充滿發展潛力、富有成就感的專業選擇的全新角度，來理解建造業，共同推動技術改革與人才升級，築起一個真正屬於我們的「A Whole New World」。



“

Since joining the Construction Industry Council (CIC) in 2017, I have participated in transforming the Construction Industry Council Training Academy into the Hong Kong Institute of Construction (HKIC). This was not merely administrative work, but a mission-driven journey. I believe the construction industry's strength is built not only on steel and concrete, but also on people's passion, skills and values.

”



Pathways to Degrees, Recognised by Society

The construction industry faces a dual challenge — retaining and nurturing talent. I am deeply encouraged by the emphasis on the industry in the 2025/26 Budget. With the support of the Development Bureau, the CIC has launched “The Construction Industry Professional Degree Graduate On-the-Job Training Subsidy Scheme”, which provides aspiring professionals with opportunities — a key step in industry upgrading.

I recall when the CIC allocated HK\$450 million to improve the HKIC’s facilities, beginning comprehensive reform from curriculum and infrastructure to teaching staff. Over the eight years since the HKIC’s establishment, Advanced Diploma programmes now articulate to bachelor’s degrees, marking true societal recognition of construction professionals.

Enhancing Facilities, Building a Broader Future

The construction industry is entering an era of smartification and digitalisation. The Centre for Future Construction at the HKIC is the core base embodying this vision. From artificial intelligence (AI) safety management platforms to construction robots, Digital Twin, augmented reality (AR) and virtual reality (VR) immersive training, each innovation reflects creativity, intelligence and professionalism.

At the Sheung Shui Campus, we built a full-scale training base to prepare for the WorldSkills Competition, enabling competitors to excel and showcase their talents on the global stage and discover better versions of themselves. I have witnessed competitors grow through repeated practice and setbacks — their focus and perseverance make me forget all exhaustion.

Previously, my fulfilment came from completing buildings. Now, walking onto campus and seeing students learning with dedication and smiles — witnessing them transform from uncertainty to confidence — brings me even greater pride.

“A Whole New World” for the Construction Industry

The future construction industry should be more open, smart and humanistic. I hope the society will see the industry as a profession full of potential and fulfilment, and join us in driving technological reform and talent development, to build a truly “Whole New World” of our own.





用心啟迪 共築色彩歷史

Inspiring with Heart,
Co-creating a
Colourful Legacy



每個人的生命，都與他身處的城市緊密相連。城市的輪廓，不只是冰冷的鋼筋水泥，更是我們記憶的座標、情感的容器。對於香港人而言，這份感受或許尤其深刻。從七十年代的經濟騰飛，到今天規劃中的未來都會，這座城市的建築與基建，如同一首偉大的交響樂。

Our lives are closely connected to the city we inhabit. Its contours are not merely cold steel and concrete, but coordinates of our memory and vessels of emotion. For the people of Hong Kong, this connection is especially profound. From the economic take-off of the 1970s to today's planned metropolis, the city's architecture and infrastructure compose a grand symphony.





承古啟新： 建造業的 傳承與發展

Inheriting Tradition,
Forging Innovation:
The Legacy and Evolution of
the Construction Industry

香港建造學院(前身：建造業訓練局)在1975年成立後，為本地業界築起無數人的故事，像是一個個跳動的音符。回望這五十年的變遷，磚瓦起落之間，訴說著香港建造學院(學院)與我們這一代人，如何在時代的洪流中，尋找各自的機遇、安居樂業。

Since 1975, the Hong Kong Institute of Construction (formerly the Construction Industry Training Authority) has woven countless stories into the fabric of the local industry — vibrant notes in the symphony. Over the past 50 years, the rise and fall of bricks and tiles has told how the Hong Kong Institute of Construction (HKIC) and our generation have navigated changing times, seeking opportunities and building lives.

八十年代的拔地而起

獅子山下的安居夢

回顧七十年代，香港首座摩天大廈、紅磡海底隧道與港鐵觀塘線相繼落成和啟用。八十年代方正的公共屋邨遍佈各區，「獅子山下」精神成為社會主旋律。現職測量師的李德康(Dick)於1986年從建造業訓練局泥水粉飾科畢業，由泥水工做起，見證業界的週期起伏：「八十年代末經濟開始下滑，我離開了業界；數年後經濟復甦，我轉職到海洋公園當物業部管工。」

這個年代有無數家庭從木屋、板間房遷入現代化公共屋邨，承載一代人「上樓」的夢想，印證時代起飛。Dick在海洋公園見證熊貓館、鯊魚館等誕生，與此同時，維港天際線被重新定義。由八五年建成的滙豐總行、八九年建成的中銀大廈到九八年建成的赤鱗角機場，均為城市不可磨滅的符號。

Rising in the 1980s

The Lion Rock Era and the Dream of a Home

In the 1970s, Hong Kong completed its first skyscraper, opened the Hung Hom Cross-Harbour Tunnel, and launched the MTR Kwun Tong Line. By the 1980s, rectangular public housing spread across the city, and the “Lion Rock Spirit” became society’s defining ethos. Sr Dick LI Tak-hong, now a surveyor, who graduated from the Construction Industry Training Authority (CITA) at Bricklaying, Plastering and Tiling in 1986, witnessing the industry’s rise and decline: “In the late 1980s, the economy declined and I left the industry. When it recovered years later, I joined Ocean Park as a property foreman.”

Countless families moved from wooden huts and subdivided flats into modern public housing, carrying a generation’s dream of owning a home, it stands as a testament to an era taking flight. At Ocean Park, Dick witnessed the birth of the Panda House and Shark Mystique. Meanwhile, Victoria Harbour’s skyline was transformed. From the HSBC Main Building built in 1985 and the Bank of China Tower built in 1989, to Chek Lap Kok Airport completed in 1998, these landmarks became indelible symbols of the city.



跨越與連結 新舊機場的交接

香港對外連繫的重要基建項目—「機場核心計劃」不僅是興建新機場，更是重塑香港骨架，將城市推向新世紀。青馬大橋橫跨海港，連接都市與大嶼山；機場快線載著我們對未來的憧憬；而赤鱗角香港國際機場以開闊明亮的設計，成為無數離別與重逢的舞台。

對許多香港人來說，回顧基建項目是實質的「跨越」—跨越地理阻隔，更跨越時代變遷。這些龐大工程展示著香港的韌性與生命力。基建的意義不僅關乎經濟效益與民生福祉，更是城市長遠發展與建造業昇華的里程碑。



Transition and Connection: The Handover Between Old and New Airports

The Airport Core Programme — Hong Kong's critical connectivity infrastructure — comprehensively reshaped the city's transport framework. Tsing Ma Bridge, part of the Lantau Link, spans the harbour from the city to Lantau Island; the Airport Express carried the city's aspirations for the future, whilst Hong Kong International Airport at Chek Lap Kok, with its expansive design, became the stage for countless reunions and farewells.

For many Hong Kong people, this era's infrastructure represented a profound “crossing” — bridging not only physical distance but also historical transition. These monumental projects showcased Hong Kong's resilience and vitality. The significance of infrastructure goes beyond economic impact and public well-being; it also stands as a milestone in the city's long-term development and the advancement of the construction industry.



走過沙士 基建成社會重生出路

在非典型肺炎(沙士)陰霾中，許多人失去工作，但同時亦有人把握機遇、創造人生新篇章。

現職為測量員的邱健民曾在平面設計行業打滾二十多年，每天坐在冷氣房裡與電腦畫面為伴，從未想過有一天會提著測量儀器，在烈陽與海風陪伴下穿梭工地。沙士的百業蕭條令他毅然選擇到建造業訓練局進修，並透過學徒計劃覓得首份建造業工作，參與的首個項目便是將軍澳跨灣大橋；這不但令他走出第二人生，亦印證了基建對社會復興的重要性。

Post-SARS: Infrastructure as a Path to Renewal

During the SARS outbreak, many people lost their jobs — yet some seized opportunities for new beginnings.

YAU Kin-man, now a surveyor, had worked in the graphic design industry for over 20 years, spending his days in air-conditioned offices with screens for company. He never imagined that one day he would be carrying survey equipment, traversing construction sites under the scorching sun and sea breezes. The economic downturn prompted him to enrol at the CITA. Through the apprenticeship scheme, he secured his first construction job in the Tseung Kwan O Cross Bay Link, opening a new chapter, whilst affirming infrastructure's role in revitalising society.



千禧之後 維港的文化想像

踏入二十一世紀，香港發展從追求速度轉向文化與生活品質探討。從戲曲中心到M+博物館、故宮文化博物館，設計前衛的西九文化區在維港夜景中注入文化靈魂，成為屬於所有香港人的文化客廳，而非僅是遊客打卡景點。

與此同時，大型跨境基建時代拉開序幕。港珠澳大橋將三地緊密相連。建造業議會（議會）執行總監的鄭定寧工程師曾任路政署港珠澳大橋香港工程管理處處長，經歷了一場變革：「考慮到大橋作為交通樞紐，若能將口岸管制站與機場連結，可為香港帶來巨大經濟效益，故提出在人工島興建管制站。」

經多方努力，團隊成功將管制站建於邊境以外12公里處。他強調「要有打破框架的勇氣，才能締造更理想香港。」

基建工程無疑是技術上的奇蹟，為香港的經濟發展帶來了新的可能性。但對普通市民來說，感受卻更為細微。

After the Millennium — Cultural Imagination along Victoria Harbour

Entering the 21st century, Hong Kong shifted from pursuing speed to exploring culture and quality of life. The avant-garde West Kowloon Cultural District — the Xiqu Centre, M+ Museum and Hong Kong Palace Museum — injected cultural depth into the harbour skyline, becoming a shared cultural space for all Hong Kong people rather than merely a tourist destination.

Meanwhile, cross-boundary infrastructure emerged. The Hong Kong–Zhuhai–Macao Bridge connected three regions. The Executive Director of the Construction Industry Council (CIC), Ir Albert CHENG Ting-ning, previously served as the Head of the Project Management Office for the bridge under the Highways Department, recalled: “Considering the bridge’s strategic role, linking boundary facilities with the airport could bring huge economic benefits. We proposed building the control point on an artificial island.”

After sustained effort, the team built control point facilities 12 kilometres beyond the border. As he emphasised, “It takes courage to break the mould to create a better Hong Kong.”

Infrastructure represents not only engineering marvels driving economic growth but also impacts ordinary people in quieter, more personal ways.



打造未來城市 北都的宏大敘事

北部都會區(北都)成為香港未來數十年發展的新藍圖，承載解決房屋短缺、推動創科產業、促進深港融合等多重期望。這片曾被視為鄉郊的土地即將迎來巨變。

學院上水院校盧玉權校長表示，隨著北都、大灣區等大型計劃推進，香港對建築人才的需求將持續增長。香港需要更多本地專業人才，因為他們更瞭解本地法規、文化與市場，這不僅為畢業生提供大量就業機會，也為香港建造業未來發展奠定堅實基礎。

Shaping the City of the Future — The Grand Vision of the Northern Metropolis

The Northern Metropolis has emerged as Hong Kong's development blueprint for the coming decades, carrying multiple expectations: addressing housing shortages, driving innovation and technology, and deepening Hong Kong–Shenzhen integration. This once-rural land now faces dramatic transformation.

Principal Andrew LO Yuk-kuen of the HKIC's Sheung Shui Campus notes that with major initiatives such as the Northern Metropolis and Greater Bay Area advancing, demand for construction talent will continue to rise. Hong Kong needs more local professionals who understand local regulations, culture, and market, creating abundant career opportunities whilst laying the foundations for the industry's future.



建築與基建從來不只是技術產物，它們服務的是人，塑造的是人的生活。從八十年代公屋到未來北都，香港城市發展始終圍繞「家」這個核心——我們渴望的不僅是遮風擋雨的居所，更是具溫度、記憶、歸屬感的社區。

我們看到城市如何在全球化浪潮中不斷自我重塑。天際線的變化都牽動著情感：被拆除的舊樓帶走歲月回憶，拔地而起的新地標激發對未來的想像。磚瓦無言，卻記錄了我們共同的悲與喜、失落與盼望。

在這片不斷變奏的土地上，每個香港人既是城市的建造者，也是城市故事的親歷者。而未來，我城的故事仍將繼續交織、延伸，在時間長河中留下獨特印記。

Architecture and infrastructure exist to serve people and shape lives. From the 1980s public housing to the future Northern Metropolis, Hong Kong's urban development revolves around "home" — we desire not merely shelter, but communities with warmth, memory and belonging.

We witness the city reinventing itself amid globalisation. Every change in the skyline stirs emotion: demolished buildings take memories with them; rising landmarks spark imagination about the future. Bricks and mortar record our shared joys and sorrows, losses and hopes.

On this ever-evolving land, everyone in Hong Kong is both a city builder and a witness to its story. The city's narrative will continue to unfold, leaving its unique imprint across time.





築跡印記 見證發展里程碑

Building the City's Legacy,
Witnessing Milestones of
Development

回顧香港輝煌基建項目

七十至九十年代是香港建造業的黃金時期，大量基建工程上馬，業界人才需求殷切。1975年建造業訓練局成立到變革成香港建造學院(學院)，將建造業從傳統工藝傳承提升至建立教育、安全及技術標準，為香港基建發展奠定重要人才培訓基礎。讓我們回顧重塑香港經濟及民生佈局、引領香港走進輝煌未來的重要基建項目。

A Retrospective on Hong Kong's Iconic Infrastructure Projects

From the 1970s to the 1990s, Hong Kong's construction industry entered a golden era. A surge of major infrastructure projects created immense demand for skilled talent. The establishment of the Construction Industry Training Authority (CITA) in 1975 marked a turning point — elevating the industry from traditional craftsmanship to a system grounded in education, safety standards, and technical excellence. It laid a crucial foundation for training the professionals who would go on to build Hong Kong's future. Here, we look back at iconic infrastructure projects that reshaped the city's economy and quality of life — and led Hong Kong into an era of prosperity and progress.

1. 東江水供水系統(1965年供水)

從昔日「四日一水」的艱苦，到今日水龍頭一開即有清水流出，這背後是東江水系統半世紀以來默默守護的成果。未來，粵港兩地將繼續攜手，確保香港食水供應可持續、安全與穩定，共同建設更美好的明天。

香港不是靠下雨水嗎？為什麼還需要「東江水」？

的確，香港有自己的集水區和水塘，但由於地少人多，雨水無法滿足全港需求。早在1960年，政府已意識到單靠貯存雨水不足以應付急劇增長的食水需求，而向廣東省購買淡水是最便捷的解決方法。1960年11月15日，政府與廣東當局達成協議，每年從深圳水庫輸入2,270萬立方米原水。如今，東江水佔香港整體淡水用量的七至八成，已成為我們生活中不可或缺的水源。

1. Dongjiang Water Supply System (Supplied in 1965)

From the hardship of “four days’ water once” to clean water on tap today, Hong Kong has been safeguarded for over half a century by the Dongjiang Water Supply System. Looking ahead, Guangdong and Hong Kong will continue to co-operate to keep the city’s drinking water sustainable, safe, and stable, joining hands to create a brighter tomorrow.

Doesn't Hong Kong rely on rainwater? Why Dongjiang Water?

Hong Kong has its own catchments and reservoirs, but limited land and a dense population mean rainfall alone cannot meet demand. In 1960, the Government recognised that storage was insufficient for rapidly rising potable water needs, and that purchasing freshwater from Guangdong was the most expedient solution. On 15 November 1960, an agreement was concluded to import 22.7 million cubic metres of raw water annually from Shenzhen Reservoir. Today, Dongjiang water accounts for about 70–80 per cent of Hong Kong’s freshwater consumption and remains indispensable.



這個供水系統有多重要？

非常重要。1965年，東江水正式輸港，為香港的發展打下穩定基礎。由最初每年供應6,820萬立方米水量，提升至現時每年高達8.2億立方米，足以支撐香港七百多萬市民的生活及工商活動。可以說，每一滴自來水背後，都有東江的支撐。

系統這麼久了，有沒有更新或改建？

有的！供水系統在70至90年代進行了三次擴建，2000年代初更進行全面改造。所有設施均由廣東省設計、出資與建造，足見中國內地對保障東江水質與供應的重視與誠意。

科普冷知識：東江水的水質有保障嗎？

Fun Fact: Is Dongjiang Water Quality Assured?

當然有！根據現行供水協議，粵方嚴格監察水質，確保輸港東江水達到國家「地表水環境質量標準」的第II類標準，這是可作飲用用途。從取水、輸送、淨化到抵港，每個環節都經過層層把關，讓市民用得安心。

Yes! Under the current supply agreement, Guangdong rigorously monitors water quality to comply with the national Surface Water Environmental Quality Standard, Class II — one of the highest grades for potable use. From abstraction, transmission and purification to delivery in Hong Kong, every stage is tightly controlled to ensure safety and peace of mind.

How important is this water supply system?

Extremely important. In 1965, Dongjiang water was formally supplied to Hong Kong, underpinning the city's stable development. Annual supply has grown from 68.2 million m³ per year to as much as 820 million m³ today, supporting the daily lives and economic activity of more than seven million residents. In short, every drop at the tap is backed by Dongjiang.

Has the system been updated or renovated?

Yes! Three expansions in the 1970s–90s and a comprehensive modernisation in the early 2000s strengthened resilience. All facilities were designed, funded and constructed by Guangdong Province, reflecting sustained the Chinese Mainland's commitment to reliable supply of Dongjiang water.



2. 紅磡海底隧道(1972年建成)

紅磡海底隧道是香港首條貫通維港兩岸的隧道，連接九龍紅磡與港島銅鑼灣，俗稱「紅隧」。這項劃時代的大型基建工程改變了港九交通格局，為香港現代化交通網絡奠定基礎。

這條打破香港經濟和民生發展格局的海底通道有幾長同幾忙？

「紅隧」是首項採用「建造、營運及移交」模式的運輸工程。1969年9月動工，1972年建成啟用，全長1.86公里。隧道以四線雙程行車，設計每天容納78,000輛車，在2006年，每日平均車流量曾達高峰期12.39萬架次。

為何要選紅磡和銅鑼灣起紅隧？

1960年代，香港人口激增，當時僅靠渡輪載人載車，促使政府提供更有效的跨海交通管道應對不斷增長的交通需求。海底隧道選址紅磡及銅鑼灣，旨在開拓尖沙咀、紅磡以至灣仔及銅鑼灣一帶的經濟發展。



2. Cross-Harbour Tunnel (Completed in 1972)

The Cross-Harbour Tunnel — commonly known as the “Red Tunnel” — was the first tunnel to connect both sides of Victoria Harbour, linking Hung Hom in Kowloon with Causeway Bay on Hong Kong Island. This groundbreaking infrastructure project reshaped the city’s transport landscape and laid the foundation for Hong Kong’s modern transportation network.

How long is the tunnel, and how busy did it become?

The Cross-Harbour Tunnel was Hong Kong’s first transport project to adopt the Build-Operate-Transfer (BOT) model. Construction began in September 1969, and the tunnel opened in 1972. Stretching 1.86 km, it carries four lanes of two-way traffic and was originally designed to accommodate 78,000 vehicles per day. By 2006, its daily traffic peak had reached 123,900 vehicle trips.

Why was the tunnel built between Hung Hom and Causeway Bay?

During the 1960s, Hong Kong’s population surged. At that time, cross-harbour transport relied entirely on ferries for both passengers and vehicles. To meet growing demand, the Government sought a more efficient link. Hung Hom and Causeway Bay were chosen to stimulate economic development in areas such as Tsim Sha Tsui,

Hung Hom, Wan Chai and Causeway Bay — transforming connectivity and driving growth on both sides of the harbour.



當年香港是利用甚麼方法在水底興建隧道？

「紅隧」採用創新的沉管方式建造，由15節重6,000噸的鋼製沉管連接。預製沉管於黃埔船塢製造，以3分厚鋼板鑄成，每平方呎可抵擋7,000磅水力，管外有7呎厚混凝土保護，呈緩斜型深入維港海底，最低處離水面約40呎，整個工程耗資近港幣3.2億元。項目最大挑戰是如何在繁忙的維港海面及人口建築稠密的市區內進行興建。

How was the tunnel built underwater?

The Cross-Harbour Tunnel was constructed using an innovative immersed tube method. It was comprised 15 prefabricated steel tubes, each weighing 6,000 tonnes. These tubes were built at Whampoa Dock using 10mm-thick steel plates capable of withstanding 7,000 pounds of water pressure per square inch. Each tube was encased in 7 feet of protective concrete and laid at a gentle slope beneath the seabed of Victoria Harbour, with the lowest point around 40 feet below the water surface. The entire project cost nearly HK\$320 million. One of the greatest challenges was building it beneath a busy shipping lane and within a densely populated urban area.

建造小故事：以肩膀扛砂漿的年代

Behind the Build: When Mortar Was Carried on the Shoulder

在建造業中打滾多年的薛錦源師傅憶述，昔日從事泥水工作，所有工序幾乎全靠體力與經驗完成，「以前調配砂漿，須以肩膀扛物，再逐袋加水攪拌。」然而今日已大不相同，採用自動噴漿機、電子配水系統等，省卻大量勞動性工作。

Master SEH Kam-yuen, a veteran in the trade, recalls how plastering and masonry once depended entirely on physical strength and experience: “In the past, we mixed mortar by carrying the materials on our shoulders and adding water to each sack by hand.” Today, automated spraying machines and electronic mixing systems have replaced most of that heavy manual work — a clear leap in efficiency across generations.



3. 香港國際機場(赤鱗角)(1998年啟用)

香港赤鱗角機場的興建被視為全球建造業的創舉，亦是香港成為最具競爭力國際城市的轉捩點。至今依然是重要國際航空樞紐，擁有領先的貨運流量，為全球最繁忙貨運機場之一。

香港赤鱗角機場興建成全球最矚目項目？

這項浩瀚工程於1992年啟動，建成面積12.55平方公里的人工島，香港國際機場一號航站樓長1.2公里，面積515萬平方米，造價約港幣101億元，當年被喻為全球單一最大工程。興建所用建築材料之多，幾近納入健力士世界紀錄。



3. Hong Kong International Airport (Chek Lap Kok) (Opened in 1998)

The construction of Hong Kong International Airport at Chek Lap Kok is considered a landmark achievement in global engineering and a turning point that propelled Hong Kong into one of the world's most competitive international cities. To this day, it remains a major international aviation hub with world-leading cargo throughput, ranking among the busiest cargo airports on the planet.

Why was Chek Lap Kok Airport such a global sensation?

This mega project — the largest in Hong Kong's construction history — began in 1992. It involved reclaiming land to create a 12.55 km² artificial island. Terminal 1 measured 1.2 kilometres in length, with a floor area of 5.15 million square metres, and cost approximately HK\$10.1 billion. At the time, it was hailed as the world's largest single construction project. The quantity of building materials used was said to be almost Guinness World Record-worthy.

科普冷知識：當年漏夜搬機場陣容有幾大？

Fun Fact: How massive was the overnight airport relocation?

1998年7月5日午夜前，最後一班離港及抵港航機從啟德機場起飛及降落後，一隊逾1,100輛汽車載著各種設備駛上九龍封鎖的街道，14艘駁船運載流動器材，31架飛機運送後勤物料，準備迎接明早首班降落飛機。翌日早上6時27分，自紐約飛抵的國泰航空CX889班機成為首班降落新機場的商業客機。

Before midnight on 5 July 1998, the final departing and arriving flights took off and landed at Kai Tak Airport. Immediately after, a convoy of over 1,100 vehicles transported equipment along cordoned-off streets in Kowloon. Fourteen barges carried mobile facilities, and 31 aircraft delivered logistical supplies — all in preparation for operations to begin the next morning. At 6:27 a.m., Cathay Pacific Flight CX889 from New York became the first commercial passenger aircraft to land at the new airport.

香港國際機場的第三跑道是如何誕生的？

香港國際機場推出《2030規劃大綱》，第三跑道工程於2016年啟動，2022年落成，同年中跑道關閉以進行重新配置，至2024年11月28日三跑道系統正式投入運作。工程使用建築信息模擬(BIM)理順跑道與客運大樓等設計，協調施工工序；並採用「深層水泥拌合法」的免挖式填海技術，透過混和水泥漿及污泥坑內的軟泥，令軟泥加固成為水泥柱，除了減少對環境的影響，亦節省了超過一年的工期。

What is the story behind the Third Runway at Hong Kong International Airport?

Hong Kong International Airport has implemented the Airport Master Plan 2030, which includes the development of the Three-Runway System. Construction of the Third Runway began in 2016 and was completed in 2022. The Centre Runway was then closed for reconfiguration, and on 28 November 2024, the Three-Runway System officially came into operation. The project used Building Information Modelling (BIM) to coordinate the design of the runways, passenger terminals, and other facilities, and to facilitate construction planning. It also used the Deep Cement Mixing (DCM) technology, a non-dredge method, for reclamation. Cement was injected directly into the contaminated mud to create cement clusters. This not only minimised environmental impact but also shortened construction time by over a year.

建造小故事：見證三跑的誕生

Behind the Build: Witnessing the Birth of the Third Runway

自二十年前從建造業訓練局畢業的張銘森，最初以手工泥水工藝起步，十二年前，他勇敢創業，如今已承接多個大型項目，其中一項就是三跑基建！「過去泥水行業更倚重手藝，如今工具與科技的配合已十分普及，由學院畢業的學生們均懂得運用平水儀、紅外線等現代設備，大幅提升工作效率和精準度。」

CHEUNG Ming-sum, who graduated from the CITA two decades ago, began his career as a plastering and tiling craftsman. Twelve years ago, he took the leap into entrepreneurship and has since undertaken multiple major projects — including the Three-Runway System Project. “In the past, the trade relied heavily on craftsmanship. Today, tools and technology play a much bigger role. The HKIC graduates now know how to use modern equipment like laser levels and infrared devices, which greatly improve accuracy and efficiency.”



4. 淨化海港計劃(2001年分階段啟用)

從滲水、停工，到重啟、成功，「淨化海港計劃」不只是技術工程，更是香港精神的縮影。如今，維港碧波盪漾，映照出城市的美麗，也記錄著一群工程人默默守護的努力。

為什麼以前的維多利亞港水質那麼差？

早年香港人口急增，住宅、商業區及工業活動產生大量污水，但排放設施未能跟上，很多污水未經妥善處理就直接流入維港，導致水質惡化，海面常見垃圾與臭味。為了「救活」維港，政府於80年代尾展開了一項劃時代工程—「策略性污水排放計劃」，後易名為「淨化海港計劃」。此項計劃整體統籌了海港兩岸的污水收集工作，第一期和第二期甲工程已分別於2001年和2015年落成啟用。

這個計劃主要是做什麼的？

「淨化海港計劃」是政府為改善維港水質而進行的大型基建項目。工程包括興建昂船洲污水處理廠，作為集中污水處理設施的樞紐，以及建造全長44公里的深層污水輸送隧道網絡，以收集維港兩岸最繁忙市區的污水，確保污水妥善淨化後才排出海港。

4. Harbour Area Treatment Scheme (Phased Opening in 2001)

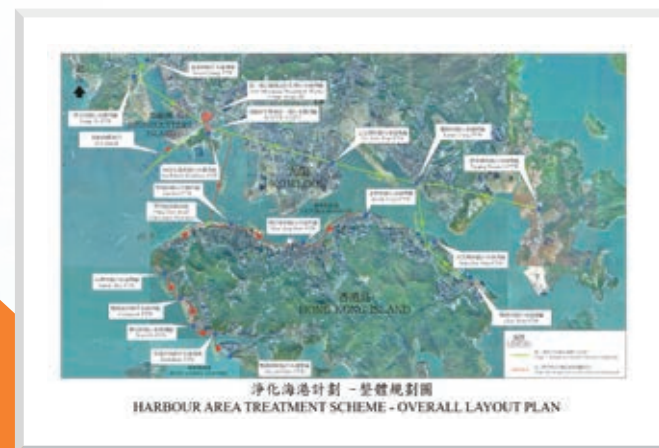
From seepage and work suspension to restart and success, the Harbour Area Treatment Scheme is more than an engineering project; it embodies the Hong Kong spirit. Today, the clear, rippling waters of Victoria Harbour reflect the city's beauty and the quiet dedication of its engineers.

Why was water quality so poor?

Rapid population growth outpaced sewerage infrastructure, resulting in untreated or preliminarily treated discharges that degraded water quality in Victoria Harbour. To address this, the Government launched the Strategic Sewage Disposal Scheme (SSDS) in the late 1980s, later renamed the Harbour Area Treatment Scheme (HATS). The scheme coordinates the overall sewage collection on both sides of the harbour, and was in full operation by the end of 2015.

What does the scheme do?

HATS is a major infrastructure project launched by the Government to improve the water quality of Victoria Harbour. HATS comprised the construction of the Stonecutters Island Sewage Treatment Works (SCISTW) as a hub of centralised sewage treatment facilities, along with a 44km-long deep tunnel conveyance system for collecting sewage from the busiest urban districts in both sides of the harbour, ensuring that only properly treated effluent is discharged into the harbour.



工程順利嗎？

一點也不順利！第一期工程承建商在挖掘時遇上嚴重滲水問題，竟在未充分準備下選擇停工，並提出不合理要求，導致工程停擺半年。政府其後聘請專家與律師團隊談判並上訴，最終勝訴並更換了承建商。重啟工程後，團隊又遇到沉降、鑽挖機損壞、地底斷層等挑戰，但大家憑著專業與毅力，逐一化解難關。

第二期甲隧道工程帶來了新的挑戰，地下水湧入及土層不穩定帶來隧道穩定性問題。然而，團隊克服了這些困難，採用了鑽爆方法進行隧道挖掘工程，並結合了預灌漿和穩固的土層支撐系統成功完成隧道工程，也因而成為隧道工程技術的先驅。

最終結果如何？有改善嗎？

當然！第一期和第二期甲工程分別於2001年和2015年竣工後，合共每日可以處理245萬立方米污水，足以為維港兩岸10個地區最多570萬人口提供污水處理服務。維港水質明顯改善，更在2011年重新舉辦「渡海泳」，象徵海港重拾生機！

Was construction smooth?

The project faced a rocky start. During Stage 1 excavation, the original contractor encountered severe groundwater leakage, halted work without proper preparation, and made unreasonable demands, causing a six-month delay. The Government later sought expert and legal advice, won the case, and replaced the contractor. When work resumed, the team faced further hurdles — ground settlement, tunnel boring machine damage, and underground faults — but overcame each challenge with professionalism and determination.

Stage 2A tunnel works brought unforeseen challenges of water ingress and ground stability issues, in tunnel construction. Yet, the team persevered developing standard procedures for drill and blast excavation, incorporating pre-excavation grouting and robust ground supports. The team has become pioneers in tunnelling technology too.

What was the outcome? Was there any improvement?

Absolutely. After the completion of the Stages 1 and 2A works in 2001 and 2015 respectively, sewage from around 5.7 million people in 10 districts along both sides of Victoria Harbour was properly treated at the SCISTW. The harbour's water quality improved significantly, and in 2011, the Cross Harbour Swimming Race was revived — a powerful symbol of the harbour's renewed vitality.

科普冷知識：深層污水輸送隧道有多「深」？

Fun Fact: How deep are the tunnels?

工程真的「深不可測」！地下隧道全長超過44公里，平均建於地下100米深的石層(最深達168米)，相當於倒轉一幢50層高的大廈那麼深。這項工程難度極高，需要非常專業的地質與工程技術。

The deep underground sewage tunnels extend over 44 kilometres at over 100 metres average depth (168 metres at the deepest), equivalent to the depth of an inverted 50-storey skyscraper. This challenging project required highly specialised geological and engineering expertise.

5. 添馬艦政府總部及立法會綜合大樓 (2011年啟用)

添馬政府總部於2011年正式啟用，是香港特區政府的主要行政辦公地點。它與旁邊的立法會綜合大樓透過添馬公園相連，象徵行政與立法緊密合作，構成香港政務的心臟地帶，是亞洲首個融合政府建築與公共公園的綜體。而立法會綜合大樓是首座為香港立法機關而興建的專用大樓，提供了會議場地，增設多個開放予公眾使用設施，以求加強公眾人士對立法會工作的認識。

「天復藍」與「地常綠」又是什麼意思？

這是極具詩意的設計理念。

「天復藍」代表推動環保、重現香港藍天的決心。為了減少對景觀的影響，特別降低建築物高度，確保山脊線下有至少20%的開放天空，並加入節能設施，使大樓成為最環保的政府建築之一。



至於「地常綠」，則體現對自然的尊重，整個添馬艦用地有一半是休憩空間，包括大片草地、樹木、水池和蓮花池，讓市民在繁忙的商業區中也能親近自然。

5. Tamar Central Government Offices and Legislative Council Complex (Opened in 2011)

Tamar Central Government Offices, officially opened in 2011, serves as the principal administrative office of the Hong Kong Special Administrative Region Government. It is connected to the adjacent Legislative Council Complex via Tamar Park, the first integrated complex in Asia to combine government buildings with public parks. This design symbolises close co-operation between the executive and the legislature, forming the heart of Hong Kong's governance. The Legislative Council Complex is the first purpose-built building for Hong Kong's legislature, providing meeting venues and incorporating facilities open to the public to enhance understanding of the Council's work

What is the meaning of “Sky Will Be Blue” and “Land Always Green”?

This is a poetic design concept.

“Sky Will Be Blue” embodies the commitment to environmental protection and the vision of bringing back Hong Kong's blue skies. To reduce visual impact, the building height was lowered to preserve at least 20% open sky below the ridgeline and equipped with energy-saving features, making it one of the city's greenest government buildings.

“Land Always Green” reflects respect for nature: around half of the Tamar site is designated as recreational open space, including broad lawns, trees, a water feature and a lotus pond, enabling the public to enjoy nature in a busy commercial district.



添馬艦政府總部與立法會綜合大樓除了美觀，還有什麼創新或環保設施？

不少呢！工程採用了多種環保科技，包括：

- 綠化屋頂，降低熱能吸收；
- 海水冷卻系統，節省能源；
- 日光感應照明，隨光線自動調節；及
- 雨水回收系統，有效再用自然資源。

因此，添馬艦是香港首批獲得綠色建築認證的政府項目之一。而立法會綜合大樓則採用了以下設計，包括：

- 自然光應用：會議廳頂部設有採光藻井，減少人造燈光的使用；及
- 通風與隔熱：採用雙層玻璃鍍膜幕牆設計，加強隔熱功能，讓空氣在兩層幕牆間流動，達到通風和降溫效果。

Any innovative and green features adopted?

Several green technologies were adopted in the project, including:

- Green roofs to reduce heat absorption;
- A seawater cooling system to save energy;
- Daylight-sensing lighting that adjusts with natural light; and
- A rainwater harvesting system to reuse natural resources efficiently.

Accordingly, Tamar is among the Government's greener developments, and the Legislative Council Complex incorporates specific measures including:

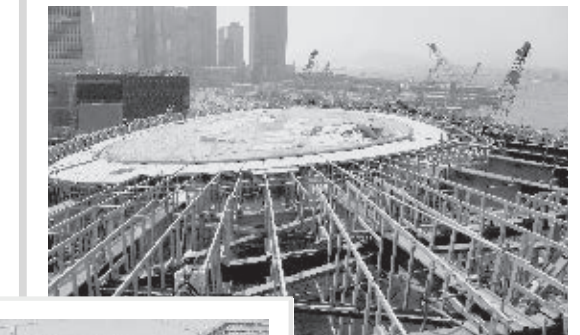
- Use of natural light: a skylight oculus above the Chamber to reduce reliance on artificial lighting; and
- Ventilation and insulation: a double-glazed, coated curtain wall that enhances thermal performance and allows air movement between the two layers for ventilation and cooling.

科普冷知識：立法會綜合大樓也是「組裝合成」建築法 (MiC) ？

Fun Fact: does the LegCo Complex also use Modular Integrated Construction (MiC)?

沒錯！為了推動建造業採用先進建築技術，政府以身作則，在立法會綜合大樓擴建工程的主體中，應用了MiC進行，是香港首個在原有公共建築上採用此法的工程，於高層頂部加建出12,000平方米建築面積，提供了符合現代辦公需求的全新工作空間及配套設施。

Yes! To encourage the adoption of advanced building technologies, the Government applied MiC to the main works of the Legislative Council Complex expansion project, the first application of this method to an existing public building in Hong Kong. The expansion added about 12,000 square metres at the upper levels to provide modern workspaces and ancillary facilities.



6. 廣深港高速鐵路香港段(2018年啟用)

廣深港高速鐵路(高鐵)香港段是為香港帶來重大經濟和社會效益的大型跨境交通基建工程，將香港與中國內地宏大的高速鐵路網絡無縫連接。

高鐵香港段有何重大效益？

高鐵香港段全長26公里，連接香港西九龍站至中國內地現時四萬八千公里的高鐵網絡，是聯繫兩地的重要橋樑。自2018年9月23日正式通車以來，連接香港西九龍站的中國內地直達站點已由44個倍增至現時96個站點，大大縮短了香港與深圳、廣州等大灣區城市的往來時間，並直達北京、上海和杭州等多個城市，促進香港與中國內地更多不同省市的經貿合作和民間交流。



6. Hong Kong Section of the Guangzhou-Shenzhen-Hong Kong Express Rail Link (Opened in 2018)

The Hong Kong section of the Guangzhou-Shenzhen-Hong Kong Express Rail Link (XRL) is a major cross-boundary transport infrastructure project that has brought profound economic and social benefits to Hong Kong. It connects the city seamlessly to the vast high-speed rail network of the Chinese Mainland.

What are the major benefits of the XRL Hong Kong Section?

The XRL Hong Kong Section is approximately 26 kilometres long, connecting Hong Kong West Kowloon Station with the Chinese Mainland high-speed rail network, which currently spans 48,000 kilometres. It serves as a vital cross-boundary link between Hong Kong and the Chinese Mainland. Since its commissioning on 23 September 2018, the number of destinations in the Chinese Mainland directly connected to Hong Kong West Kowloon Station has more than doubled from 44 to 96, significantly shortening the journey time between Hong Kong and cities in the Guangdong-Hong Kong-Macao Greater Bay Area, such as Shenzhen and Guangzhou. The XRL Hong Kong Section is also directly connected to multiple cities including Beijing, Shanghai, and Hangzhou, enhancing the economic and trade cooperation as well as people-to-people exchanges between Hong Kong and a wider range of provinces and cities in the Chinese Mainland.



高鐵香港段建造工程為香港建造業帶來甚麼價值？

高鐵香港段建造工程採用先進隧道構造技術穿越密集市區，催生專門技術工種及培訓機會，為建造業注入新活力。車站及配套基建達國際一流水平，推動建築工藝與科技升級。

What value has the construction of the XRL Hong Kong Section brought to the Hong Kong's construction industry?

Using advanced tunnelling to cross dense urban areas, the construction of the XRL Hong Kong section has created specialist roles and training opportunities, revitalising the construction sector. The station and the associated infrastructure are of world-class standard, accelerating craft and technology upgrades.

科普冷知識：香港西九龍站和中國內地其他高鐵站有甚麼不同？

Fun Fact: What are the differences between Hong Kong West Kowloon Station and other high-speed rail stations in the Chinese Mainland?

香港西九龍站是全國唯一設有口岸的高鐵車站。香港西九龍站實施「一地兩檢」，讓乘客在站內一次過完成香港和中國內地通關程序，然後直接前往中國內地的不同站點，充分發揮高鐵方便、快捷、高效的優點，進一步便利兩地人員往來。

Hong Kong West Kowloon Station is the only high-speed rail station in the Chinese Mainland with a control point. The co-location arrangement at Hong Kong West Kowloon Station enables passengers to complete clearance procedures of both Hong Kong and the Chinese Mainland in one go before directly travelling to different destinations in the Chinese Mainland. This brings the strengths of the XRL in providing convenient, fast and efficient services into full play and further facilitates the flow of people between the two places.



7. 港珠澳大橋(2018年通車)

港珠澳大橋是一項令人震撼的現代工程壯舉，這項龐大的橋隧系統全長約55公里，是世界上最長的橋隧結合工程之一。

全球最長跨海大橋有幾長壽命？

項目於2009年12月15日動工，2018年5月23日竣工，同年10月24日正式通車。主橋長29.6公里，橫跨珠江口，由三座斜拉橋、6.7公里海底隧道和四個連接橋隧的人工島組成。大橋設計壽命約120年，展現先進工程技術與耐久建設標準。總建設成本約人民幣1,269億元，由粵港澳三地政府共同承擔。



7. Hong Kong-Zhuhai-Macao Bridge (Opened in 2018)

Hong Kong-Zhuhai-Macao Bridge is a breathtaking feat of modern engineering. This colossal bridge-tunnel system span about 55 kilometres and ranks among the world's longest combined bridges and tunnels.

How long is its service life?

Work commenced on 15 December 2009 and was completed on 23 May 2018, with the bridge opening to the public on 24 October the same year. The Main Bridge stretches 29.6 kilometres across the Pearl River Estuary and comprises three cable-stayed bridges, a 6.7-kilometre subsea immersed tunnel, and four artificial islands connecting the bridge and tunnel sections. The bridge was designed for a service life of approximately 120 years, demonstrating advanced engineering techniques and durable construction standards. The total construction cost was approximately RMB\$126.9 billion, jointly borne by the Governments of Guangdong, Hong Kong and Macau.



大橋背後有幾多智能科技支撐？

建設過程中採用了創新的方法，例如使用的海上混凝土攪拌船，提高了混凝土質量並減少物流困難。香港連接路段長約12公里，採用了深水高架和箱涵頂推技術，工程複雜且在機場快線鐵路下方施工時維持了鐵路服務不中斷。項目亦引進了多項先進的智能建築技術，如可視化智慧工地管理模式，投資多種智慧設備，如採用數碼分身技術進行健康監測和資產管理，集成了傳感器、人工智能、BIM及有限元分析，打造出大橋的虛擬複製體。這個數字模型能實現實時數據收集、結構健康監測、疲勞評估及損傷預測。此座橋可抵禦8級地震烈度和最高達198公里/小時的颱風強風。

這道橋為甚麼打通三地不只是交通？

大橋實現香港至澳門約30分鐘快速通行，促進大灣區一體化發展。雙向六車道的港珠澳大橋是大灣區重大基建核心，有效促進區內貿易、旅遊及文化交流，成為區域可持續發展的象徵。自2023年起，舉辦了兩屆港珠澳大橋香港段半馬拉松，吸引全球著名跑手來港參與。

What intelligent technologies support the bridge?

Construction employed innovative methods, including Hong Kong's first offshore concrete mixing vessel, which improved quality and logistics. The 12-kilometre road section used deep-water viaducts and box culvert jacking beneath the Airport Express without disrupting service. Advanced technologies included Digital Twin systems integrating sensors, artificial intelligence, BIM, and finite element analysis, creating a virtual bridge replica for real-time structural health monitoring, fatigue assessment, and damage prediction. The bridge is engineered to withstand intensity 8 earthquakes and typhoon winds up to 198 km/h.

Why does this bridge represent more than transport connectivity?

The bridge enables approximately 30-minute transit from Hong Kong to Macau, promoting integration within the Greater Bay Area. The dual six-lane bridge serves as a core regional infrastructure, facilitating trade, tourism and cultural exchange and has become a symbol of sustainable regional development. Since 2023, two editions of Hong Kong-Zhuhai-Macao Bridge (Hong Kong Section) Half Marathon have been held, attracting renowned runners from around the world.

建造小故事：由2D轉為BIM等機械化系統

Behind the Build: from 2D to BIM and mechanised systems

港珠澳大橋使用了嶄新的BIM系統，而學院講師曾文強則親身見證從2D圖則轉向BIM系統、從傳統施工邁向機械化的過程。「以前蓋樓就如逐件穿衣服，如今不少工序可預製組裝，更有AI協助分析數據與風險；另外油漆機械人等能減低很多人力物力，相信未來會更優化。」他特別強調安全意識的提升：「工地意外大幅減少，這正是科技帶來的最大進步。」

The project applied an advanced BIM system, and Lecturer TSANG Man-keung of the HKIC personally witnessed the transition from 2D drawings to BIM and from traditional construction methods to mechanisation. "In the past, building was like putting on garments piece by piece, but now many procedures can be prefabricated and assembled, with AI assisting data and risk analysis; painting robots and other automation cut substantial labour and resources." He particularly emphasised the improvement in safety awareness: "Site accidents have dropped dramatically, which is the greatest progress that technology has brought."

8. 將軍澳跨灣大橋(2022年通車)

將軍澳跨灣大橋是近年香港建築技術及建造工程技術革新的典範，在設計及建造技術上創出多項香港第一。

這條以香港技術建造的大橋刷出多少項紀錄？

連接路全長1.8公里，其中約1公里為海上高架橋，核心是長200米、重約1萬公噸的雙拱形鋼橋。這是全港首條附設單車徑、行人路及觀景台的海上「多功能」高架橋，亦是香港跨度最大、最重的鋼拱橋，率先採用高強度結構鋼材，配合嶄新的「浮托法」—以半潛躉船運送至將軍澳灣，在高水位時將鋼橋移進橋墩之間，對準位置後半潛躉船逐步泵入海水壓載，船身相應逐漸下沉，令鋼橋座落在橋墩上，是首次用於香港的建橋技術。



8. Tseung Kwan O Cross Bay Link (Opened in 2022)

The Tseung Kwan O Cross Bay Link is a recent exemplar of innovation in Hong Kong's architectural and construction engineering technologies, achieving multiple local firsts in both design and construction methods.

How many records did this Hong Kong-engineered bridge establish?

The link is 1.8 kilometres long, of which approximately 1 kilometre comprises a marine viaduct. Its centrepiece is a twin-arch steel bridge measuring 200 metres in length and weighing about 10,000 metric tons. It is Hong Kong's first sea-crossing "multi-purpose" viaduct, featuring a cycle track, footpath and viewing platforms and is pioneering the use of high-strength structural steel in conjunction with the innovative "float-over" method. This technique entails transporting the steel bridge sections to Junk Bay using a semi-submersible barge. During high tide, the steel bridge is floated between the bridge piers, aligned into position, and gradually ballasted by pumping seawater into the ship. This process correspondingly lowers the barge, allowing the steel bridge to touch down onto the piers. This marks the first application of this bridge construction technology in Hong Kong.



為何大橋不只是基建更是一項藝術品？

建設過程採用裝配式設計(DfMA)技術，提高施工效率與質素，克服海上施工挑戰及疫情影響，令工程按期完成且符合高標準的安全及環境要求。

項目於2009年舉辦設計概念徵集活動，繼而進行技術研究及公眾喜好調查，大橋設計最終選定最受公眾歡迎的「活力無限」(Eternity Arch)方案，兩個向外傾斜的橋拱與橋墩構成象徵無限(∞)的數學符號，寓意大橋推動多模式交通發展，鼓勵綠色出行，提升區內居民生活質素，成為將軍澳新地標，為香港持續不息地推進創新及高質素的基建發展，可說是香港基建界的藝術結晶。

Why is the bridge both infrastructure and art?

The construction process adopted Design for Manufacture and Assembly (DfMA) technology to enhance efficiency and quality, overcoming offshore construction challenges and pandemic impacts to complete the project on schedule whilst meeting high safety and environmental standards.

Preliminary investigation and design began in 2009, with the main arch design later confirmed and named the “Eternity Arch”—two outward-leaning arches combined with gradually narrowing V-shaped bridge piers to create the infinity symbol (∞). This design signifies the bridge’s role in promoting multi-modal transport development, encouraging green travel, and enhancing residents’ quality of life. It has become a new Tseung Kwan O landmark, symbolising Hong Kong’s determination to advance innovative, sustainable and high-quality infrastructure development — an artistic crystallisation of Hong Kong’s infrastructure development.

建造小故事：大橋上看海的日子

Behind the Build: Days watching the sea on the bridge

興建將軍澳跨灣大橋時，校友邱健民正好參與其中。他憶述道每日清晨都要趕上固定班次的小艇，才能抵達橋身上班；中間時段想離開也沒有辦法，因此每日都要過著看海的日子；但慢慢地卻發現，原來靜下心時，這裡的日落海天一色，也不失浪漫恬靜。大家有機會的話，不妨一起細賞其中！

During construction of the Tseung Kwan O Cross Bay Link, alumnus YAU Kin-man participated in the project and recalled that each dawn he had to catch a fixed-schedule launch to reach the bridge for work, with no possibility of leaving mid-shift. Each day meant long hours watching the sea, yet over time he discovered that in quieter moments, the sunsets here where sea and sky merge are serene and romantic, well worth appreciating together if the opportunity arises.

【安全誠行】DfMA打造世紀工程
將軍澳跨灣連接路為民解憂

[Safety Walk with Thomas] TKO CBL Demonstrates World-Class
Level DfMA Brings Liveability and Accessibility



9. 西九文化區(持續發展中)

西九文化區(西九)是香港特別行政區政府的一項策略性投資，以配合長遠發展香港文化藝術所需的基礎設施，並引領文化及創意產業的自然發展。作為最具規模、最富雄心的文化樞紐之一，西九致力為香港創造一個多姿多彩的文化地帶，促進本地、中國內地和國際藝術界互動、發展與合作，鞏固香港作為中外文化藝術交流中心的定位。

作為全球大型文化藝術綜合區，究竟包含了甚麼？

西九文化區延伸40公頃的填海土地，匯集了精彩的文化藝術和教育活動，廣闊的公共空間，酒店、辦公室和住宅發展項目及零售、餐飲和消閒設施。所有工程竣工後將提供約23公頃的公共空間，以及長達兩公里的海濱長廊，並設有眾多的文化藝術設施，以舉辦世界級展覽、表演節目和文化藝術活動。

目前，區內主要文化設施，包括世界級博物館M+和香港故宮文化博物館、設計匠心獨運的戲曲中心和自由空間等表演藝術場地，及佔地11公頃的藝術公園和海濱長廊經已開放，而正在興建的西九演藝中心(前稱演藝綜合劇場)預計於2026年落成。



West Kowloon Cultural District (Ongoing Development)

The West Kowloon Cultural District (WestK or the District) is a strategic investment by the Hong Kong Special Administrative Region Government to meet the long-term infrastructure and development needs of Hong Kong's arts and culture. As one of the largest and most ambitious cultural projects in the world, its goal is to create a vibrant cultural quarter where the local, the Chinese Mainland, and international arts scenes can interact, develop, and collaborate, strengthening Hong Kong's strategic role as an East-meets-West centre for international cultural exchange.

What's included?

Spanning 40 hectares of reclaimed land, WestK integrates arts and culture, education, open spaces, hotel, office and residential (HOR) developments, and retail, dining and entertainment (RDE) facilities. Upon completion, it will offer about 23 hectares of public open space, a two-kilometre harbourfront promenade, and a variety of arts and cultural facilities hosting world-class exhibitions, performances and events.

Core arts and cultural facilities in WestK that are currently open to the public include world-class museums M+ and the Hong Kong Palace Museum (the HKPM), intricately designed performing arts venues the Xiqu Centre and Freespace, and the 11-hectare Art Park with a waterfront promenade. WestK Performing Arts Centre (previous working title: Lyric Theatre Complex) is under construction and scheduled for completion in 2026.



究竟在哪裡體現西九文化區的綠色文化？

西九文化區採用Foster + Partners「城市中的公園」設計概念，致力推動綠色、自由、宜居、便行、可持續發展，致力採用實際可行和具經濟效益的環保措施，締造城市中的綠洲，令訪客可以享受藝術的同時親近大自然。

西九管理局貫徹三大原則，包括減少能源消耗、減少碳排放、減低維修保養成本，並推出多項環保措施。例如，管理局的建築採用自然採光，配合高效能照明系統、天然通風以及節能系統和設備，均有助減低整體能源消耗。

管理局致力實踐環境局制定的《香港氣候行動藍圖2030+》。於2024/25年度，西九的總能源消耗量以及溫室氣體排放量均為三年內最低，反映西九可持續發展策略的成功。管理局將會繼續提高營運效率，以降低各項設施的能源消耗以及碳排放。

科普冷知識：除了藝術，原來西九有最美的日落？

Hidden gem: Hong Kong's finest sunset

西九文化區提供世界級的文化基建設施及節目和優質的公共空間供公眾享用。文化區內的藝術公園擁有寬闊的海濱長廊、一覽無遺的維港景緻及綠意盎然的草坪，獨特的海濱長廊更被攝影愛好者評為欣賞香港日落的最美位置。

West Kowloon Cultural District offers world-class cultural infrastructure and programmes, as well as quality public open space for public enjoyment. Throughout the District, Art Park features a sprawling promenade with stunning views of Victoria Harbour, open lawn areas, and a network of footpaths for visitors to explore and relax. The distinctive waterfront promenade is widely regarded by photographers as Hong Kong's most beautiful sunset viewing location.

How does green design manifest here?

WestK adopts Foster + Partners' "City Park" Design Concept, emphasising green, free, liveable, walkable, and sustainable development. The District features practical and affordable green initiatives while creating an urban oasis that simultaneously brings people closer to nature and culture.

Three lows: low-energy consumption, low-carbon emissions and low-cost maintenance are the key to the WKCDA's strategies for environmental sustainability. For example, daylighting supplemented by energy-efficient lighting and well-controlled low-energy systems and equipment, including natural ventilation, will help reduce site-wide building energy consumption.

WKCDA remains dedicated to aligning with the Environment Bureau's Hong Kong Climate Action Plan 2030+. In 2024/25, both overall energy consumption and greenhouse gas emissions reached their lowest levels over the past three years, evidencing the effectiveness of WKCDA's sustainability initiatives. WKCDA is committed to further enhancing operational efficiency to continue reducing energy use and carbon emissions across the facilities.

【安全誠行】西九演藝綜合劇場工地以科技體現安全第一
[Safety Walk with Thomas] "Safety First" Supported by Technology
at Lyric Theatre Complex Site



10. 啟德發展計劃(分階段建設中)

啟德發展計劃是香港一項宏大且極具複雜性的城市重建項目，將原啟德機場用地及鄰近海面重新發展，規模較西九龍填海區更大。

啟德發展計劃為何如此重要？

總規劃面積達328公頃，涉及九龍前啟德機場及毗連的土瓜灣、新蒲崗、九龍灣和觀塘等邊區，糅合社區、房屋、商業、旅遊及基建用途，把九龍東轉變為充滿活力且可持續發展的新市區。項目提供約57,000個住宅單位，其中約一半為公共房屋，提升九龍東競爭力，吸引投資及發掘商機。

香港將如何成為亞太區重點體育園？

耗資約港幣300億港元興建的啟德體育園，是啟德發展計劃的核心，也是香港史上最大型體育基建，主要設施包括一個設有5萬個座位，並配備開合式上蓋的全天候啟德主場館；一個可靈活配置座位、容納1萬名觀眾的啟德體藝館；一個設有5千個座位的啟德青年運動場，以及大量戶外空間、餐飲零售設施和美食海灣，令香港成為亞太區舉辦大型國際體育賽事及文娛活動的重點城市，有助帶動數億港元旅遊消費，做好香港酒店、零售及娛樂業務，創造數以千計就業機會。



10. Kai Tak Development (Phased Construction)

The Kai Tak Development is a vast and highly complex urban regeneration project that redevelops the former Kai Tak Airport site and adjoining waters, on a scale larger than the West Kowloon reclamation area.

Why is the Kai Tak Development so important?

The total planned area spans 328 hectares, covering the former Kai Tak Airport in Kowloon and adjoining fringe districts including To Kwa Wan, San Po Kong, Kowloon Bay and Kwun Tong. This transformative project integrates community, housing, commerce, tourism, and infrastructure to turn Kowloon East into a vibrant, sustainably developed urban district. It will provide approximately 57,000 housing units, about half of which will be public housing, enhancing Kowloon East's competitiveness and attracting investment and commercial opportunities.

How will Hong Kong become a major Asia-Pacific sports hub?

Kai Tak Sports Park, a HK\$30 billion investment, stands as Hong Kong's largest sports infrastructure project and its centrepiece. It includes a 50,000-seat Kai Tak Stadium, which has a retractable roof; the Kai Tak Arena, an indoor sports centre with the flexibility to host community sports and events for up to 10,000 seats; and the Kai Tak Youth Sports Ground, an outdoor track and field facility with a capacity of 5,000 seats. These venues are complemented with extensive open spaces for events and leisure, together with dedicated retail and harbourfront dining spaces. As a new landmark for hosting international sports and entertainment events in the Asia-Pacific region, the project is expected to spur billions in tourism spending, boost hotel, retail, and entertainment industries, and create thousands of jobs.



工程規模之大項目採用了那些減排措施以減低對環境影響？

啟德發展計劃包括大規模填海和土地整備、道路建設、排水系統、公共設施和交通聯繫。項目融入先進建築技術與可持續城市設計理念，建設區域冷卻系統，降低能耗與碳排放。項目採用綠色建築設計和豐富綠化，保護海濱生態並部署高效節能設施。區域冷卻系統年減碳排放近十萬公噸，配合環境影響評估及緩解措施，平衡都市發展與生態保護。

What emission-reduction measures does the project employ to minimise environmental impact?

The Kai Tak Development encompasses large-scale reclamation and land formation, road construction, drainage systems, public facilities and transport links, all integrating advanced building methods and sustainable urban design principles. A district cooling system reduces energy consumption and carbon emissions, with green building design and extensive greening that protect waterfront ecology, alongside high-efficiency energy facilities. The district cooling system reduces carbon emissions by nearly 100,000 tonnes annually, complemented by environmental impact assessments and mitigation measures to balance urban growth with ecological protection.

【安全誠行】啟德體育園實現數碼化工地
打造國際體育康樂設施

[Safety Walk with Thomas] The World-Class Kai Tak Sports Park
Embraces Construction Digitalisation



建造小故事：技術與耐力的雙重考驗

Behind the Build: a dual test of technique and endurance

同屬於啟德發展計劃一部分的啟德郵輪碼頭，陳建霖師傅亦有參與其中的鋼筋屈紮工程。回想當年，陳師傅謂：「郵輪碼頭的大廳需保持空曠，因此主力柱的鋼筋密度特別高，每層鋼筋分布都需精算。石矢收水時，溫度若過高，必須立即淋水降溫，否則膨脹裂開的危險隨時存在。這是對技術與耐力的雙重考驗！」

Master CHAN Kin-lam, who participated in rebar fixing and bending works at the Kai Tak Cruise Terminal — part of the Kai Tak Development — recalls that the cruise terminal's main hall had to remain column-free, requiring exceptionally high rebar density with each layer's distribution precisely calculated. During concrete curing, if temperatures rose too high, water had to be applied immediately for cooling; otherwise, expansion cracking risks are ever-present — a relentless test of both technique and physical endurance.



11.「組裝合成」建築法(MiC)項目 — 香港中醫醫院(2025年啟用)

香港中醫醫院是香港首個大規模採用MiC及「機電裝備合成法」(MiMEP)的多層式醫院項目。位於將軍澳百勝角、樓高9層的醫院，由超過1,000個「組裝合成」單元組件及大量MiMEP組件組成，於2025年竣工。

香港中醫醫院採用「組裝合成」建造，規模有多大？

工程項目大量應用MiC，涵蓋包括病房、診症房、洗手間等八類房間，應用面積比例超過20%。大部分室內裝修在工廠完成，包括地磚、廚櫃、水喉等一併安裝，牆上已髹油漆或鋪瓷磚，在工地只需做好組件連接、穿線及安裝電燈等工序。項目亦大量應用MiMEP，包括豎井立管模組、走廊天花模組、病房模組等，令現場工序大大減少。

醫院項目與一般住宅或酒店工程有何不同？

有別於一般住宅或酒店，香港中醫醫院工程項目的房間尺寸不一且分佈於大樓的不同位置，房間重複性遠較住宅低，醫院淨空高度(Headroom)的要求亦高於一般住宅，令MiC設計及安裝難度大增。

11. Hong Kong Chinese Medicine Hospital — Modular Integrated Construction (MiC) Project (Opened in 2025)

The Chinese Medicine Hospital of Hong Kong (CMHHK) is the city's first large-scale multi-storey hospital project to adopt MiC and Multi-trade Integrated Mechanical, Electrical and Plumbing (MiMEP) methods. Located at Pak Shing Kok, Tseung Kwan O, the nine-storey hospital completed in 2025 comprises over 1,000 MiC modules and numerous MiMEP components.

How big is the MiC push?

The project extensively employs MiC across eight room types, including wards, consultation rooms, and toilets, covering over 20% of the area. Most interior fit-out, such as floor tiling, kitchen cabinets, and plumbing, is completed in the factory. Walls are pre-painted or tiled, leaving only module connections, wiring, and lighting for on-site work. MiMEP, including vertical shaft, corridor ceilings, and ward modules, is also widely applied, significantly reducing on-site construction time.

Why a hospital isn't just box-stacking?

Unlike typical residential or hotel projects, the CMHHK has varied room sizes with less repetition and higher headroom requirements, making the design and installation of MiC significantly more challenging.



工程團隊如何應對挑戰？

1. 因應樓高及運輸限制作出相應的MiC設計。工程早期便開始深化機電設計，以確保方案的可行性；
2. 大量應用MiMEP，大大提升效率；
3. 設計顧及醫院未來發展可能需要的小範圍靈活改建，MiC箱體支柱與主結構分離，方便日後改裝；
4. 場外試裝，於粉嶺設示範模組作「總綵排」，預演最具挑戰性的安裝工序，及早拆解問題；及
5. 智慧工地，採用C-SMART平台及高科技裝置，實時監測工地安全與進度。



How does the team tackle challenges?

1. MiC designs were adapted to building height and transport constraints, with early-stage Electrical & Mechanical (E&M) design development to ensure feasibility;
2. Extensive use of MiMEP greatly improved efficiency;
3. Designs allow for small-scale, flexible modifications to accommodate future hospital needs, with MiC module columns separated from the main structure for easier alterations;
4. Off-site trial assembly was conducted at a Fanling demonstration site to rehearse the most challenging installation procedures and resolve issues early; and
5. A smart construction approach was adopted, using the C-SMART platform and high-tech devices for real-time monitoring of site safety and progress.

【安全誠行】首個採用 MiC 的多層式醫院項目
突破固有創造更多第一

[Safety Walk with Thomas] The first multi-storey hospital project adopting MiC
Breaking boundaries to create more “firsts”



科普冷知識：先試後建醫院要「總綵排」？

Fun Fact: Is there also a ‘full rehearsal’ before building the hospital?

沒錯！為了確保複雜工程萬無一失，團隊特別在粉嶺進行了「總綵排」，挑選了最具代表性及安裝難度最高的房型，搭建1:1的示範模組來預演運輸到安裝整個流程，目的是提早發現並解決潛在問題。

Yes! To ensure a flawless execution, the team conducted a full-scale rehearsal in Fanling, using 1:1 demonstration modules of the most challenging room types to test design, production, transport and installation processes, and to address potential issues early.

12. 中九龍繞道(油麻地段)(2025年通車)

想像一下，駕車從油麻地出發，短短幾分鐘就直達啟德；沿途上方是綠樹成蔭的行人步道，腳下是智能監控的隧道系統，這就是中九龍繞道(油麻地段)——一條結合科技、效率與美學的未來之路！

為什麼中九龍繞道(油麻地段)這麼重要？

中九龍繞道(油麻地段)是一條全新的快速替代道路，橫跨整個九龍中部！全長約4.7公里，採用雙程三線分隔車道設計，連接西九龍油麻地交匯處和東九龍啟德發展區及九龍灣道路網。

簡單來說，它就像一條「九龍高速捷徑」，大大減輕中九龍主要東西向道路的塞車情況。

目前橫跨中九龍的主要幹道，在繁忙時間都幾乎「爆滿」。

中九龍繞道(油麻地段)通車後，在繁忙時段，由油麻地駕車至九龍灣的行車時間將由30分鐘縮短至約5分鐘！這對司機和上班族來說，簡直是「時間魔法隧道」！



12. Central Kowloon Bypass (Yau Ma Tei Section) (Opened in 2025)

Imagine driving from Yau Ma Tei to Kai Tak in just a few minutes. Above you, a tree-lined walkway offers a pleasant route for pedestrians; below, an intelligent tunnel system operates with advanced monitoring. This is the Central Kowloon Bypass (Yau Ma Tei Section) — a road of the future that blends technology, efficiency and aesthetics.

Why is the Central Kowloon Bypass (Yau Ma Tei Section) so important?

The Central Kowloon Bypass (Yau Ma Tei Section) is a brand-new express route traversing the heart of Kowloon. Spanning approximately 4.7 kilometres, it consists of a dual three-lane carriageway linking the Yau Ma Tei Interchange in West Kowloon to the Kai Tak Development Area and the Kowloon Bay road network in the east.

Put simply, it serves as a “Kowloon express shortcut,” significantly easing congestion throughout central Kowloon’s main east-west corridors.



Currently, the principal roads crossing central Kowloon are almost gridlocked during peak hours.

Upon opening, the Central Kowloon Bypass (Yau Ma Tei Section) reduces driving time from Yau Ma Tei to Kowloon Bay to around five minutes — down from thirty minutes! For drivers and commuters, it’s truly a “time-saving tunnel”.

這項工程這麼大，難度應該不小吧？

沒錯。中九龍繞道(油麻地段)工程於2017年獲財委會批准撥款，預算約港幣420億元。工程團隊不僅建道路，更引入多項創新建造技術，成為建造業的「智慧工地先驅」！

當中包括：

- 智慧工地管理平台 — 即時監察工地情況；
- 綜合數碼工程監督系統 — 把工程資料整合在同一平台；
- 超高車輛偵測系統 — 防止大型車輛誤闖隧道；
- BIM — 用3D模型預測施工狀況；及
- 滑動式支架系統、大雨／潮汐預警系統 — 提高安全與應變能力。

【大師建談】
中九龍幹線
Master Talk Central Kowloon Route



It's a Massive Project: Is the Difficulty Equally Immense?

Yes! The Central Kowloon Bypass (Yau Ma Tei Section) project was approved for funding by the Finance Committee in 2017, with a budget of around HK\$42 billion. The project team did more than just build a road — they introduced multiple innovative construction technologies, becoming a pioneer of “smart construction sites” in the industry.

These include:

- Smart Site Safety management platforms providing real-time visibility of workforce, plant and site conditions;
- An integrated digital works supervision system consolidating drawings, records, and inspections on a single platform;
- An overheight vehicle detection system protecting tunnel portals by intercepting over-dimension vehicles before entry;
- BIM using 3D models to predict construction conditions; and
- Skidding Mega Trusses and heavy-rain and tidal early-warning systems strengthening resilience for works near waterfront and low-lying areas.

建造小故事

Behind the Build

為配合中九龍繞道(油麻地段)的發展，曾經是影視界熱門拍攝地點油麻地警署要暫時關閉，並已於2016年遷往友翔道新警署大樓，話雖如此，舊油麻地警署搖身一變成為網紅新打卡熱點。

歷史悠久的油麻地公共圖書館已停用及清拆，並於2020年遷往位於甘肅街的新油麻地公共圖書館；而旅遊熱點油麻地玉器小販市場亦已遷移至附近的臨時玉器小販市場。

To make way for the Central Kowloon Bypass (Yau Ma Tei Section), the Yau Ma Tei Police Station — once a popular filming location — was temporarily closed and relocated to a new building on Yau Cheung Road in 2016. But don't shed a tear for the old station: after its “transfer,” it reinvented itself as a social media sensation and one of Kowloon's hottest new check-in spots!

The historic Yau Ma Tei Public Library has been decommissioned and demolished. In 2020, it was relocated to the new Yau Ma Tei Public Library on Kansu Street. Meanwhile, the popular tourist spot the Yau Ma Tei Jade Hawker Bazaar has also been moved to a nearby temporary jade hawker bazaar.

13. 北部都會區(分階段建設中)

北部都會區是香港近年最具規模的發展藍圖。

它橫跨元朗區和北區，包括天水圍、元朗、粉嶺及上水等已發展的新市鎮，和多個新發展區，面積約三萬公頃，佔全港總面積的三分之一。

這個龐大的計劃不僅是建屋，更是打造香港發展新引擎，結合產業、社區與大自然的全新模式。

政府怎樣發展這個「超級新區」？

北部都會區會提供超過3,000公頃的新發展土地。目前已有四個新發展區正式動工，包括：

1. 古洞北／粉嶺北；
2. 洪水橋／廈村；
3. 元朗南；及
4. 新田科技城(包括河套區港深創新及科技園)。

而另外五個新發展區 — 牛潭尾、新界北新市鎮、流浮山／尖鼻咀／白泥、馬草壟及凹頭正處於不同的規劃階段。



13. The Northern Metropolis (Phased Construction)

The Northern Metropolis is a development plan of Hong Kong with the largest scale in recent years.

Spanning the Yuen Long and North Districts, it covers mature new towns such as Tin Shui Wai, Yuen Long, Fanling and Sheung Shui, and several New Development Areas (NDAs). It has a geographical coverage of about 30,000 hectares — roughly one-third of Hong Kong's total land area.

This vast project goes beyond housing development; it aims to create Hong Kong's new growth engine, and introduce a new urban model that integrates industries, community, and the nature.

How is the Government developing this “super new area”?

The Northern Metropolis will provide over 3,000 hectares of new development land. Currently, four NDAs have already commenced construction works, including:

1. Kwu Tung North / Fanling North;
2. Hung Shui Kiu / Ha Tsuen;
3. Yuen Long South; and
4. San Tin Technopole (including the Hong Kong–Shenzhen Innovation and Technology Park at the Loop).



Meanwhile, five other NDAs — Ngau Tam Mei, New Territories North New Town, Lau Fau Shan / Tsim Bei Tsui / Pak Nai, Ma Tso Lung and Au Tau are under different planning stages.

那保育會不會被犧牲？

不會！北部都會區發展強調「發展與保育並行」。整個地區擁有豐富多樣的自然生境，政府會透過修復與保育，打造城市與自然共生的模式。重點保育項目包括：

- 塋原自然生態公園；
- 三寶樹濕地保育公園；及
- 后海灣沿岸的海岸保護公園。

在城市規劃方面，北部都會區還有什麼特別之處？

北部都會區會結合「智慧、環保與抗禦力」三大元素，目標是打造宜居、宜業、宜遊的可持續社區，當中包括：

- 採用「15分鐘生活圈」規劃理念—讓居民能在15分鐘步行範圍內到達車站、商店、公園等生活設施；
- 配合鐵路和公共交通佈局，改善出行效率；
- 鼓勵建築物高空綠化、增加休憩空間，讓社區更清新宜人；及
- 根據盛行風設計通風走廊，改善城市空氣流通。

Will conservation be sacrificed?

Not at all! The Northern Metropolis development emphasises “development alongside conservation”. The area is rich in diverse natural habitats, and the Government would create a model where urban life and nature coexist through restoration and protection. Key conservation projects include:

- Long Valley Nature Park;
- Sam Po Shue Wetland Conservation Park; and
- Coastal Protection Park along the coastlines of Deep Bay.

What makes the Northern Metropolis special in urban planning?

It combines “smart, green and resilient” to create a sustainable community ideal for living, working and travelling:

- 15-minute neighbourhoods for easy access to stations, shops and parks;
- Efficient travelling via railway and public transport networks;
- Rooftop greening and increased open spaces for a fresher environment; and
- Wind corridors to improve air flow in the city.

科普冷知識：這麼多地方一起發展，政府如何確保效率？

Fun Fact: How does the Government ensure efficiency with simultaneous development across multiple areas?

政府會在北部都會區採取多元發展模式。除了傳統賣地和「原址換地」外，還會試行「片區開發」模式，讓大型地段由發展商綜合開發，令整區更快落成，同時，計劃以試點形式推行「分階段開發」，容許先建簡單低密度設施以帶動發展；又會提供靈活租期（最長可達21年）、推行「按實補價」等，讓發展商更有彈性參與北部都會區的建設。

The Government would adopt a diversified development approach for the Northern Metropolis. Beyond traditional land sale and “in-situ land exchanges”, it would pilot “large-scale land disposal”, allowing large plots of land to be developed by developers in a coordinated manner, enabling speedier completion. Concurrently, it plans to implement “phased development” approach on a trial basis, allowing the construction of simple and low-density facilities first to catalyse further growth. The Government would also provide flexible lease terms (up to 21 years) and implement “pay-for-what-you-build”, providing developers with greater flexibility to participate in the Northern Metropolis development.

穿越古今 10個工種的演變

Evolution of 10 Construction Trades

建築技術日新月異，但工藝的傳承與轉變自有其趣。有些建築工藝歷經百年仍影響深遠，是文化與技術智慧的結晶；也有工種因應科技發展而蛻變，與昔日大相逕庭。以下十項工種，帶大家穿越時空，看看它們從過去到現在的精彩演變。

Construction technology advances daily, yet the inheritance and transformation of craftsmanship continue to hold a unique fascination. Some trades have endured for centuries with lasting influence, crystallising cultural and technical wisdom; others have evolved dramatically with technology, bearing little resemblance to their origins. These ten trades take you on a journey through time to witness their remarkable evolution from the past to the present.





師傅有話兒： Master's Words:

「在70年代，放線工作主要依靠經緯儀配合鋼拉尺進行，在圖則理解、時間控制、人手安排及墨線精準度方面都有不少挑戰。隨著科技進步，現今已引入放線機械人進行操作，大幅提升了工作效率與準確性。」

“In the 1970s, line-setting was primarily done using a theodolite paired with a steel measuring tape. Over time, this method evolved into today's use of layout marking robots. The differences are significant — from understanding drawings and time requirements to manpower coordination and the precision of ink lines. By integrating technology into surveying work, overall efficiency has greatly improved.”

🔧 傳統做法

- 測量員需前往香港政府合署(地政總處之大地測量控制站)購買經核實平水基準點資料及測量控制點坐標資料，再根據地形，適當地放出工程軸線或結構物定位。
- 建設木樁、龍門架等設置數據站，用於後期的精準定位工作。

🔧 Traditional Practice

- Land Surveyor visits the Lands Department of the Hong Kong Government Offices to purchase official records from the Geodetic Survey Control Station, including benchmark levels expressed in metres above Principal Datum (mPD) and the coordinate data required for setting out the building lines. They accurately set out the project's axis lines and structural positions.
- Data stations, including wooden frame gantries and surveying stations, are constructed and reserved for use in later stages of positioning.

平水及定線專門行業
優質作業手冊短片
Video of Levelling and
Setting Out Good Practice Manual
(開線機械人示範)
(Layout Marking Robot Demonstration)



放線機械人 Layout Marking Robot

🔧 科普學堂

自動化建築標記取代人工開線，基於BIM或電腦輔助設計(CAD)圖，採用毫米級定位技術進行精度定位，並透過噴墨進行劃線。

👍 優點

- 減少人為錯誤，提高效率；
- 自主導航與定位，達毫米級精度；
- 比人手開線快5-10倍；及
- CAD圖紙包含複雜線條、曲線、字母和數字可直接在地面上標註。

🔧 Popular Science Classroom

Automated line marking replaces manual layout. Base on BIM or Computer-Aided Design (CAD) drawings, mm-level positioning technology is applied for precise positioning and line-marked by inkjet.

👍 Advantages

- Reduces human error and improves efficiency;
- Autonomous navigation and positioning with millimetre-level accuracy;
- 5-10 times faster than manual line marking; and
- CAD drawings, including complex lines, curves, letters, and numbers, can be directly marked on the ground.



雷射機械人
Laser Robot

十字線雷射水平儀 Cross Line Laser Level

🔧 科普學堂

- 自動調平；
- 可投射多條雷射線，例如水平線、垂直線和鉛垂線到地面；及
- 用於安裝石膏板、天花板、電線管和地基等。

👍 優點

- 快速有效率地進行開線工作；
- 10米內精度高達 $\pm 2-3$ 毫米；及
- 免持操作，所有操作員均可清楚看到雷射線。

UAV 航拍機 Unmanned Aerial Vehicle (UAV)/Drone

🔧 科普學堂

結合高解析度攝影、雷射掃描、全球定位系統／全球導航衛星系統(GPS／GNSS)和人工智能(AI)處理技術，提供高效、精確的數據收集方式。

👍 優點

- 比人工測量快數十倍，成本降低約70%；及
- 數據即時上傳雲端，支援遠程管理。

🔧 Popular Science Classroom

- Self-Levelling;
- Project multiple illuminated laser lines (horizontal, vertical, and plumb line) onto surfaces; and
- Used for installing drywall, drop ceilings, electrical conduits, and setting foundations etc.

👍 Advantages

- Speed and efficiency for layout work;
- High accuracy $\pm 2-3$ mm in 10m; and
- Hands-free operation; laser lines are clearly visible to all operators.

🔧 Popular Science Classroom

Combines high-resolution photography, laser scanning, Global Positioning System/Global Navigation Satellite System (GPS/GNSS), and artificial intelligence (AI) processing for efficient, accurate data collection.

👍 Advantages

- Tens of times faster than manual setting out lines with approximately 70% cost reduction; and
- Real-time cloud data upload supports remote management.

放線機械人
Layout Marking
Robot



航拍機
Drone

香港建造學院－
建造平水測量簡介
HKIC－
Introduction to Surveying & Setting Out



紮鐵 REBAR FIXING

過去 Past



師傅有話兒：
Master's Words:

「傳統紮鐵需用簡單手動工具綁紮鋼筋，耗時且勞動力強，鋼材種類單一；現時可利用自動綁紮機械、數控彎曲機及手提屈剪機等，速度快、效率高、質量穩定，減少人手負荷、工作環境與安全顯著改善。」

“Traditional rebar fixing relies on basic manual tools to tie up steel bar with iron wires, which is time-consuming, labour-intensive, and limited in material variety. Modern practices leverage automated tying machines, numerically controlled bending machines, and portable cutting and bending tools, delivering faster operations, higher efficiency, consistent quality, and reduced manual handling risks. These advancements significantly enhance workplace safety and improve overall working condition.”

❁ 傳統做法

50至70年代以簡單手動工具為主，施工效率較低；80年代則引入手動彎曲機、切斷機等，提升部分工序效率，在元朗等新市鎮基建廣泛應用。

❁ Traditional Practice

From the 1950s to 1970s, simple manual tools were mainly used, resulting in lower construction efficiency; in the 1980s, manual bending machines and cutting machines were introduced, improving the efficiency of certain processes and becoming widely applied in infrastructure projects in new towns such as Yuen Long.

現在 Present



紮鐵機(鋼筋捆紮機) Rebar Tying Machine

🔧 科普學堂

可自動綁紮鋼筋，使用電子手帳即可操控工具，方便不同工作情況。

🔧 Popular Science Classroom

Automatically ties rebar and uses an electronic notebook to control the tool, making it convenient for various working situations.



紮鐵機械人 Rebar Tying Robot

🔧 科普學堂

具自動綁紮、自動換列及自動避障等功能，精準識別複雜鋼筋網中的綁紮節點，可自適應不同鋼筋直徑(適用範圍6-32mm)，單機作業效率超過500個節點/小時。

🔧 Popular Science Classroom

Features automatic tying, automatic row switching, and automatic obstacle avoidance; precisely identifies fixing points in complex rebar meshes, self-adapts to different rebar diameters (applicable range 6-32mm), and achieves a single-machine efficiency of over 500 nodes/hour.

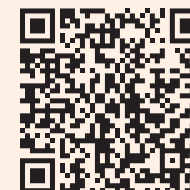
👍 優點

- 綁紮穩固，紮絲頭朝下，符合行業驗收標準；
- 省時安全，減輕工友體力勞動；
- 綁紮成功率高達99.6%，較傳統人工操作減少60% 工序返工率；
- 載多感應器融合系統，可實時探測1米範圍內的障礙物；
- 無需預先建圖或設定參數，即可動態識別鋼筋間距；
- BIM與數碼施工技術亦逐步應用於網筋工程，提升效率；及
- 配備遠程監控及風險預警裝置，令管理便捷又安全。

👍 Advantages

- Secure fixed with wire ends facing downward, meeting industry acceptance standards;
- Time-saving and safe, reducing physical labour for workers;
- Fixing success rate up to 99.6%, reducing rework rate by 60% compared to traditional manual methods;
- Equipped with multi-sensor fusion system for real-time obstacle detection within 1-metre range;
- Requires no pre-mapping or parameter setting; dynamically identifies rebar spacing;
- BIM and digital construction technology gradually applied to mesh engineering, improving efficiency; and
- Equipped with remote monitoring and risk warning devices for convenient and safe management.

建造業之精湛與傳承—
鋼筋屈紮工藝全篇
Excellence and Heritage in the
Construction Industry —
A Comprehensive Guide to
Rebar Bending and Fixing Craft





師傅有話兒： Master's Words:

「70年代樓宇結構施工依圖則順序進行釘板、紮鐵及落石矢；90年代私人房屋建築方法趨於成熟，以鋼筋混凝土結構為主，並開始引入預製技術及更嚴格的建築規範。千禧年開始，政府積極推動預製技術，至現時已提升至採用MiC及MiMEP等，以提升效率。」

“In the 1970s, building structural construction followed drawing sequences for formwork, reinforcement, and concrete pouring. By the 1990s, private housing construction methods had become more mature, with reinforced concrete structures as the main approach, and the introduction of prefabrication technology and stricter building regulations. From the millennium onwards, the Government actively promoted advanced prefabrication technology, which has now upgraded to MiC and MiMEP to further enhance efficiency.”

- 在工地現場釘板、紮鐵、落石矢

⚙️ 傳統做法

7、80年代從底層完成後再逐層施工直至頂層、演變成「4天一層」的循環速度，工地散料充斥，產生安全風險。至90年代則以高強度鋼筋混凝土結構為主，並開始引入預製技術及更嚴格的建築規範。

- Nailing formwork, fixing rebar, and placing concrete on the construction site

⚙️ Traditional Practice

On-site formwork, reinforcement, and concrete pouring. In the 1970s-80s, construction proceeded layer by layer from bottom to top, evolving into a “4 days per floor” cycle. Sites were cluttered with loose materials, creating safety risks. By the 1990s, high-strength reinforced concrete structures after predominated, introducing prefabrication technology and stricter building regulations.

✔️ 香港抗震設計

- 2012年政府曾就引入抗震設計標準進行公眾諮詢
- 大型基礎設施(橋樑、鐵路、隧道)設計時已考慮抗震因素
- 全港暫時無強制標準，但超高層建築如(ICC、IFC)經已：
 - 參考國際標準 IBC 2006
 - 主動加入抗震設計措施

✔️ Seismic Design in Hong Kong

- In 2012, the Government conducted a public consultation on introducing seismic design standards
- Major infrastructure projects (bridges, railways, tunnels) already include seismic considerations in their design
- There is no mandatory standard in Hong Kong, but super high-rise buildings (ICC, IFC):
 - Refer to international standard IBC 2006
 - Proactively adopt seismic design measures



「組裝合成」建築法 (MiC) Modular Integrated Construction (MiC)

🔧 科普學堂

- 先裝後嵌：將大部分建築工序由工地轉移至受控工廠環境進行預製，完成後再運送至工地組裝。
- 模組化設計：按功能劃分建築模組，達到標準化與高效施工。
- 工業化預製：在工廠內進行高標準的結構、裝飾和機械、電氣及管道系統預製。

🔧 Popular Science Classroom

- Factory assembly followed by on-site installation: Transfers most construction processes from the site to a controlled factory environment for prefabrication, then transports to site for assembly.
- Modular Design: Divides building into functional modules, achieving standardisation and efficient construction.
- Industrial Prefabrication: Conducts high-standard structural, decorative, and MEP system prefabrication in factories.



👍 優點

- 降低上蓋工程工期32–50%;
- 勞工成本下降43–71%;
- 減少高處工作50–80%;
- 減少工地車輛行駛量25–62%，降低施工期對周邊及環境影響；
- 降低工作產生的建築廢料46–87%及污水處理70–75%;
- 工地用電量及水量下降60–70%；及
- 透過設計減少現場施工工序，提高安全。

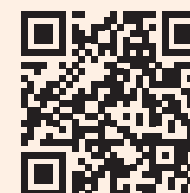
👍 Advantages

- Reduces superstructure construction time by 32–50%;
- Cuts labour costs by 43–71%;
- Reduces working at height by 50–80%;
- Reduces site vehicle movements by 25–62%, minimising environmental and community impact;
- Reduces construction waste by 46–87% and wastewater treatment by 70–75%;
- Reduces site electricity and water consumption by 60–70%; and
- Improves safety through design by reducing on-site processes.

「建造 x STEM」：
鋼筋屈紮與樓宇結構
[Construction x STEM]
Rebar Bending and
Fixing, and Building
Structures



【安全誠行】
港大宿舍「組裝合成」新設計
[Safety Walk with Thomas]
HKU Hostel MiC Design





師傅有話兒： Master's Words:

「直至上世紀初，金屬的接合靠加熱與鐵鎚打，技術原始。到50年代，輕型的焊接機出現，在金屬焊接上產生重大變化；現代焊接運用電弧、雷射、自動化機械及智能監測，速度快、精準度高，能應付複雜材料與大型工程，廣泛應用於建築、航天及製造業，是非常專業的技藝呢！」

“Until the early 20th century, metal joining (primarily ferrous) relied on heating and hammer-forging — a primitive technique. By the 1950s, lightweight welding machines emerged, bringing major changes to metal welding. Modern welding employs arc welding, laser technology, automated machinery, and intelligent monitoring — delivering high speed, precision, and the ability to handle complex materials and large-scale projects. Today, welding is widely applied in construction, aerospace, and manufacturing, making it a highly professional craft!”

- 收螺栓／打鉚釘
- 人手焊接

✿ 傳統做法

上世紀初，金屬構件的接駁，除加熱錘打外，亦會利用打鉚釘和收螺栓方法接駁，確保建築組件穩固連接。

50年代中，輕便式焊機的出現，焊工使用焊槍、焊條等工具，以手工方式將金屬材料（如鋼筋、鋼板）進行熔接，以達到連接、加固或固定物件的目的。

傳統施工優秀例子可參考50年代建造，如1957年通車的武漢長江跨海大橋便是一例。

- Bolting/Riveting
- Manual Welding

✿ Traditional Practice

Early in the last century, metal component connections used heating and hammering, as well as bolting and riveting methods, to ensure secure structural joints.

By the mid-1950s, portable welding machines enabled welders to use welding guns, electrodes, etc. to manually fuse metal materials (such as rebar and steel plates) for connection, reinforcement, or fixing purposes.

An excellent example of traditional construction can be seen in projects from the 1950s, such as the Wuhan Yangtze River Bridge, which opened to traffic in 1957.

自動化焊接 Automated Welding

✿ 科普學堂

自動化焊接在個別工序已推行了數十年，如喉管焊接及車身接合等，焊接過程中減少了煙霧作業，工友亦減少在高溫、強光下工作從而保障工友的健康。

✿ Popular Science Classroom

Automated welding has been implemented for decades in specific processes such as pipe welding and car body assembly. It reduces fume exposure, minimises worker contact with high temperatures and intense light, and advances productivity whilst safeguarding worker health.

建造業之精湛與傳承—
燒焊工藝全篇
The Excellence and
Heritage of the
Construction Industry —
A Comprehensive Guide to
Welding Craft





焊接機械人 Welding Robots

✿ 科普學堂

目前市場上的焊接設備仍以人手操作為主。雖然已有製造商推出焊接機械人，但現階段僅能應用於特定編程的工序，尚未能完全取代人手，去完成全流程焊接。要實現全自動化焊接，仍需業界持續投入技術研發與創新。

現時的焊接工作因不同的焊接機產生(如半自動、全自動焊接機)、惰性氣體焊接機更支援不鏽鋼、鋁及鐵等各種金屬焊接，使焊接工藝更上一層樓。

✿ Popular Science Classroom

Currently, welding equipment in the market still relies primarily on manual operation. Although some manufacturers have introduced welding robots, their application is currently limited to tasks that can be specifically programmed, and they are not yet capable of fully replacing human labour for complete welding processes. Achieving fully automated welding will require continued investment in technological research and innovation within the industry.

Modern welding employs various machines (semi-automatic and fully automatic) along with inert gas welding systems that support stainless steel, aluminium, and iron, further elevating welding craftsmanship.

✿ 優點

- 提高了生產效率及焊接期間的穩定；
- 保護工作人員免受燒傷及毒性危害等傷害；及
- VR焊接大大降低訓練成本，縮短訓練時間及減少材料的消耗。學生亦可以更容易理解及掌握焊接的關鍵。

✿ Advantages

- Improves production efficiency and welding stability;
- Protects personnel from burns and toxic hazards; and
- VR welding substantially reduces training costs, shortens training time, and reduces material consumption. Students grasp welding fundamentals more easily.

虛擬實境(VR)焊接(培訓用) Virtual Reality (VR) Welding (Training)

✿ 科普學堂

學院年內引進了VR焊接機以進行焊接工藝的培訓，使用者透過沉浸在3D眼鏡中練習，即時修改技術，對每項練習進行3D互動式審查，其先導計劃的培訓方式，增加了學生對基本原則及焊接工藝理論的認識，以及推進了培訓的進度。

✿ Popular Science Classroom

The HKIC has introduced VR welding machines for training. Users practise using immersive 3D goggles, instantly adjusting the skills, while conducting 3D interactive reviews of each exercise. This pilot training method increases students' understanding of fundamental principles, welding theory and accelerates training progress.



打造智慧工地：
焊接機械人的應用
Building Smart
Construction Sites:
Application of
Welding Robots





師傅有話兒： Master's Words:

「以往多用石灰、黏土、淡水沙等天然材料，靠師徒傳承技巧；70至80年代則以人手拌和水泥砂漿為主；90年代則以預拌批盪砂漿為主；至千禧年代，預拌乾粉砂漿、瓷磚膠沙，預制件外觀飾面已在工廠完成；近年則使用環保建材、特殊功能性砂漿等，配合MiC、BIM技術，品質及技術均更嚴格。」

“Traditionally, lime, clay, and river sand were used, with skills passed down through apprenticeship. By the 1970s, hand mix cement sand mortar became common; by the 1990s, premix plaster became common; by the 2000s, premix dry mortar, tile adhesive, and prefabricated finishes took hold. Today, eco-friendly and functional materials, integrated with MiC and BIM technology, ensure higher quality and precision.”

● 傳統人手批盪

⚙️ 傳統做法

主要依賴人手，使用天然材料批盪。

👨 傳統工藝及傳承

透過精湛的批盪技術與天然材料，將設計理念化為現實。每個形狀都體現工藝的真誠與匠心美學，展現永恒的魅力與真實的藝術感。

● Traditional Manual Plastering

⚙️ Traditional Practice

Rely mainly on manual plastering with natural materials.

👨 Inheritance

Design visions are transformed into reality through skillful plastering and natural materials. Every shape reflects the integrity of craftsmanship and the style of artisanal aesthetics that represent timeless attraction and real artistry.

批盪機械人 Plastering Robot

⚙️ 科普學堂

利用激光偵測施工位置，再用人工智能計算距離及推壓力度，指示自動施工，注入原材料以完成牆壁的批盪、打磨，自動化地將批盪砂漿塗於牆壁表面。

👍 優點

比以往快一成，在處理高空工作時更安全輕鬆。

⚙️ Popular Science Classroom

Uses laser detection to identify work positions, then AI calculates distance and compressive force for automatic application. It feeds raw materials to plaster and polish walls, automatically applying mortar to surfaces.

👍 Advantage

Approximately 10% faster; enables safer and easier execution of high-level works.

● 批盪機械人
Plastering Robot



G4/G5 噴漿機 G4/G5 Spraying Machines

🔧 科普學堂

G4及G5噴漿機分別不大，是現時工地常見的噴漿機種，可使用粗料沙漿及幼料沙漿，適用於牆身及天花板等位置。

👍 優點

- 方便快捷；
- 機身容易操作；及
- 能調出細膩沙漿。



● 電動搬運車
The battery-powered
wheelbarrows

🔧 Popular Science Classroom

Minimal difference between G4 and G5; commonly used on sites; suitable for coarse and fine mortars on walls and ceilings.

👍 Advantages

- Convenient and fast;
- Easy-to-operation design; and
- Produces fine mortar.

電動搬運車 Battery-powered Wheelbarrows

🔧 科普學堂

電動搬運車能為重物提供動力，並具備可變速功能、設計堅固耐用，亦能與電池系統兼容。

👍 優點

- 載重能力：最大載重量可達300公斤；
- 多段速度：具備兩段前進速度及一段倒退速度；
- 耐用性高：型號採用鋼製框架，適用於高強度工作環境；
- 電池系統：使用18V LXT可充電電池系統；及
- 安全功能：設有煞車系統及LED前燈，方便在光線不足的環境使用。

🔧 Popular Science Classroom

The battery-powered wheelbarrows feature power assistance for heavy loads, variable speeds, a robust design, and compatibility with the battery system.

👍 Advantages

- Capacities: Up to 300 kg;
- Multiple speeds: Two forward speeds and one reverse speed;
- Durable: Steel frame suitable for demanding work;
- Battery system: Uses the 18V LXT rechargeable battery system; and
- Safety features: Includes brakes and LED headlights for low-light conditions.



建造業之
精湛與傳承—
批盪工藝
The Excellence and Heritage of the
Construction Industry —
Plastering Craft



**師傅有話兒：**
Master's Words:

「從1970年代起，塗料主要以溶劑型油漆為主，氣味濃烈並釋放大量揮發性有機化合物(VOCs)，對人體健康造成不良影響。現今市場以水性漆為主，並發展出粉末噴塗、低甲醛稀釋劑，以及具功能性的塗料，如防霉、抗菌、防風雨、防火及隔熱塗層。這些改進大幅提升了施工安全、健康保障及品質標準。」

"From the 1970s, coatings were primarily solvent-based paints, which had a strong odour and emitted high levels of volatile organic compounds (VOCs), adversely impacting human health. Today, water-based paints dominate the market, and advancements have led to technologies such as powder coating, low-formaldehyde thinners, and functional coatings with properties like mold resistance, antibacterial protection, weatherproof, fire resistance, and thermal insulation. These improvements have significantly enhanced construction safety, health protection, and quality standards."

✿ 傳統做法

過去，油漆施工主要依靠人工刷塗。工友防護不足，存在安全風險；技術水平不一，品質難以保證。

主要工序：

- 移除舊漆
- 清理牆面
- 批灰補平
- 打磨順滑
- 刷塗底漆
- 多層塗裝油漆

此方法耗時、費力，且缺乏統一標準，品質不穩定。

✿ Traditional Practice

Painting was mostly done by hand with brushes. Workers often lacked proper protective gear, and skill levels varied, so quality was not consistent.

Main working procedure included:

- Removing old paint
- Cleaning walls
- Filling gaps
- Sanding smooth
- Applying primer
- Painting multiple layers

This method is time-consuming, labour-intensive, and lacks uniform standards, resulting in inconsistent quality.



油漆機械人 Painting Robot

🔧 科普學堂

引入自動化噴塗設備、靜電噴塗及電泳塗裝等技術，提升效率與品質：

- 機器人噴塗在汽車、家具等工業領域普及；及
- 工地環境必需保持合適溫度及相對濕度、控制塵埃的室內條件，以確保油漆的品質。

🔧 Popular Science Classroom

Automated spraying equipment, electrostatic spraying, and electrophoretic coating technology have been introduced, significantly improving efficiency and quality:

- Robotic spraying is widely used in the automotive and furniture manufacturing sectors; and
- Construction sites must maintain controlled conditions, including constant temperature, relative humidity, and dust-control rooms, to ensure the quality of paint coatings.



👍 優點

- 效率提升50%以上；
- 改善施工品質；
- 可使用CAD與BIM技術進行油漆工程規劃與管理；
- 每台設備可操作三至五年；及
- 加強工地安全，保障工友健康。

👍 Advantages

- Efficiency improved by over 50%;
- Improved construction quality;
- Integration with CAD and BIM technology for painting project planning and management;
- Each piece of equipment has an operational lifespan of 3–5 years; and
- Enhanced site safety and better protection of worker health.

香港建造學院—基礎油漆工藝
HKIC — Essential Painting Techniques



油漆專門行業機械人作業短片
Video of Painting Robots Adoption





師傅有話兒： Master's Words:

「1970年代，供電及給排水的安裝較為簡單，電線和喉管多數明裝於牆身表面。因此，一些小型承包商以『水電』名義承接工程，令外界誤以為水喉與電力工程不分。實際上，水喉工與電工屬不同專業。他們必須遵守水務署及電力公司的技術標準和規例，並通過驗收。隨後二十年間，建築規例逐步完善，工友須取得專業註冊資格，最終形成現今『專工專責』的制度。」

“In the 1970s, power and water installations were relatively simple. Wires and pipes were usually fixed on the surface of walls. As a result, some small contractors took on jobs under the label “water and electricity,” which led to the misunderstanding that plumbing and electrical work were the same. In fact, plumbers and electricians were separate specialists. They had to follow technical standards and regulations set by authorities such as the Water Supplies Department and Electricity Companies, and their work had to pass inspections. Over the next 20 years, building regulations became stricter. Workers were required to obtain professional licenses, leading to today’s practice of “Designated Workers for Designated Skills”.”

現場線槽開料、安裝及穿線 (配電箱安裝)

✿ 傳統做法

電器師傅會根據工程師發放的施工圖紙，先用墨線在電掣房牆身上標示電掣箱的位置，進行安裝剪裁。完成線槽安裝後，再安裝掣箱及相關配件，並進行線路接駁。



現場開料、涉熱工序、燒 焊接駁(水喉)

✿ 傳統做法

水喉匠按圖紙，準備合適的管材和配件，進行接駁工作。

On-site cable tray cutting, installation, and wiring (Electrical Panel Installation)

✿ Traditional Practice

The electrician follows the construction drawings issued by the engineer and setting out lines for the position of the switch box on the wall of switch room by using the ink lines. Then the trucks are cut and installed. Once the tracking installation is completed, the distribution box and related accessories are installed and the circuit connection are carried out.

On-site material cutting, hot work processes, and welding connections (Plumbing)

✿ Traditional Practice

The plumbers, in accordance with the drawings, prepare the appropriate pipes and fittings and proceeds with the connection work.

裝配式設計 (DfMA) Design for Manufacture and Assembly (DfMA)

✿ 科普學堂

屬簡化產品製造和提高組裝效率的設計方法，設計出適合於現場安裝的預製組件，再選用具成本效益的材料與加工程序，於預製工場內預先製造組件。

✿ Popular Science Classroom

A design approach that streamlines product fabrication and enhances assembly efficiency. It involves designing prefabricated elements suitable for on-site installation, and selecting cost-effective materials and manufacturing processes, with the components produced in advance at a prefabrication facility.



機電裝備合成法 (MiMEP) Multi-trade Integrated Mechanical, Electrical and Plumbing (MiMEP)

🔧 科普學堂

將多種機電設備(包括機械、電氣及管道)在工廠預製成單一模塊，再運送到工地進行快速組裝的方法。

🔧 Popular Science Classroom

Prefabricates multiple (Mechanical, Electrical, and Plumbing) equipment into single modules in factories, then transports to the site for rapid assembly.



👍 優點

- 節省施工時間，提高成本效益；
- 提高質量和可持續性；
- 更安全的工作環境；
- 減少勞動力；及
- 不受天氣影響。

👍 Advantages

- Saves construction time and improves cost-effectiveness;
- Improves quality and sustainability;
- Provides a safer working environment;
- Reduces labour; and
- Unaffected by weather.

【安全誠行】
供電製冷升降無所不能Mi∞創新境界
【Safety Walk with Thomas】
From MiC Lift to MiMEP –
Reaching New Levels with Mi∞





師傅有話兒： Master's Words:

「昔日建造業以人力為主，缺乏系統化的安全標準及程序，導致意外頻繁。七十年代開始，政府訂立安全指標、加強立法及引入安全指引，以及對工友進行安全培訓。近年安全智慧工地系統大幅提升預警能力與施工安全，讓工友和家人更放心。」

“Construction once relied heavily on manual labour, lacking systematic safety standards and procedures — resulting in frequent accidents. From the 1970s onwards, the Government introduced safety indicators, strengthened legislation and safety guidelines, and provided guidance and training for workers. In recent years, Smart Site Safety System (4S) has substantially enhanced early warning capabilities and overall construction safety, giving workers and their families greater peace of mind.”

- 人力安全監測
- 2D施工方案

🔧 傳統做法

工友多憑經驗作業，缺乏系統化的安全標準及程序。至80年代，政府首次強制建造業聘請安全主任，協助承建商建立安全制度。

- Manual safety supervision
- 2D construction scheme

🔧 Traditional Practice

Workers relied on experience, with insufficient systematic safety standards and procedures. By the 1980s, the Government mandated safety officers for construction industries to help contractors establish safety systems.

安全智慧工地系統 (4S) Smart Site Safety System (4S)

🔧 科普學堂

- 由三部分組成，包括智能安全設備、通訊網絡以及中央管理平台；
- 結合了多種安全設備和感應器，例如煙霧和火災檢測器、溫度和濕度監測器、危險情況警報系統等；
- 工地管理人員可更了解安全狀況，及時應對潛在的安全風險，提高工地的安全和管理效率；及
- 提供實時監測與數據分析、提升工友的安全意識，讓工友能即時識別與應對潛在危險。



安全智慧工地系統
(4S)展示
Demonstration on
Smart Site Safety System (4S)



⚙️ Popular Science Classroom

- Comprises three components: smart safety devices, a communication network, and a central management platform.
- Integrating various devices and sensors, such as smoke and fire detectors, temperature and humidity monitors, and hazard alert systems.
- Site management personnel can better understand safety conditions, respond promptly to potential risks, and enhance both site safety and management efficiency; and
- Provides real-time monitoring, data analysis, and enhanced workers' safety awareness, enabling immediate hazard identification and response.

◆ 天秤安全監測系統 Tower Crane Safety Monitoring System



👍 優點

- 提升安全表現，減低工業傷亡；
- 提高溝通協作、減少設計錯誤；及
- 優化施工流程，從源頭預防事故。

👍 Advantages

- Improves safety performance and reduces industrial casualties;
- Enhances communication and collaboration, reduces design errors; and
- Optimises construction processes to prevent accidents at the source.

3D 軟件製作施工方案 3D Software Construction Plans

⚙️ 科普學堂

BIM軟體可創建數位化建築模型以整合設計、協調各方、預防衝突及提供專案視覺化，並生成精確施工文件與模擬方案，以助專業人員評估及解決問題。

⚙️ Popular Science Classroom

BIM software creates digital building models that integrate design, coordinate stakeholders, prevent clashes, and provide project visualisation. It generates precise construction documentation and simulation plans to help professionals assess and resolve issues.



師傅有話兒： Master's Words:

「自1970年代起，建築工地通常分工如下：業主／建築師由工程監工代表，總承建商由工程管工代表，次承建商則由工程打理代表。至2000年，隨著管理方法的轉變，監工負責的管理範圍逐漸擴大，並開始將項目相關資料(包括審批後的2D圖紙、BIM模型、物料規格及工程計劃)儲存在平板電腦中。透過巡查現場，監工可即時對比進度與質量，並以圖像化方式記錄，從而實時掌握工程進度，並作出適時管理。」

“From the 1970s, construction sites were typically divided into three roles: the owner or architect, represented by the site supervisor; the main contractor, represented by the foreman; and the subcontractor, represented by the coordinator. From 2000 onwards, with changes in management practices, site supervisor's responsibilities gradually expanded. Project information — such as approved 2D drawings, BIM models, material specifications, and schedules — was stored on tablets. During site inspections, supervisors could compare progress and quality, record visuals, and monitor work in real time for timely decision-making.”

● 手繪紙本2D圖紙

✿ 傳統做法

70年代工料測量師主要用紙本圖則及計算尺，以手工量度，以作工程量計算、投標文件編製及成本預算，需時長、資料傳遞慢，較高機會出錯。

● Manually Drafted 2D Drawings

✿ Traditional Practice

In the 1970s, quantity surveyors relied on paper drawings and manual calculation tools such as slide rules to carry out quantity take-offs, prepare tender documents, and estimate costs. The process was time-consuming, data transfer was slow, and the likelihood of errors was high.

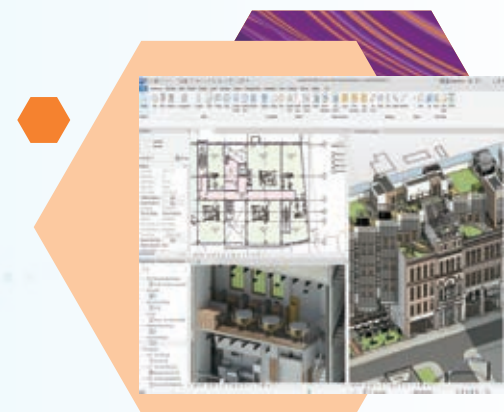
建築信息模擬(BIM) Building Information Modelling (BIM)

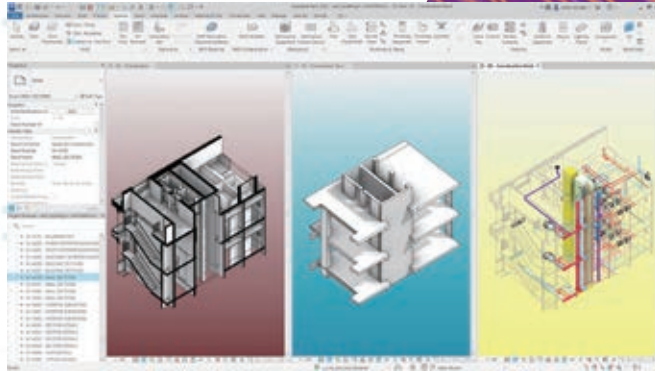
✿ 科普學堂

現代工料測量師如建築經濟顧問，協助整合BIM、AI雲端協作及綠色建築評估；而BIM屬數位化的建築資訊管理技術之一，透過把傳統2D圖紙轉化為3D或更高維度的數位模型，幫助整合建築物的幾何、材料、性能等資訊，應用在建築現場監督中。

✿ Popular Science Classroom

Modern quantity surveyors, acting as construction cost consultants, help integrate BIM, AI cloud-based collaboration, and green building assessment. BIM as a digital building information management technology, transforms traditional 2D drawings into 3D or higher-dimension digital models, integrating building geometry, materials, and performance information. It is widely applied in construction site supervision.





香港建造學院宣傳片—
屋宇建造監工高等文憑
HKIC Promotional Video —
Advanced Diploma in
Building Construction
Supervision



👍 優點

- BIM能支援建築全生命週期(從設計到營運維護)、結構分析、整合建築物幾何、設計、施工流程與管理資訊，提升協調與準確度，效率與分層透明度精準，能即時檢視衝突和進行模擬解決方法，優化安全規劃；
- 擴增實境(AR)工具疊加於實際工地，精準標記位置；
- 直接校對照現場施工作業的材料、結構、管線及設備是否與設計相符；
- 加入時間維度(4D BIM)，模擬施工順序，可監察進度、預測延誤；
- 若發現工程瑕疵或施工計劃變更等，可直接連結到模型中的對應構件，確保所有參與者都在同一頁面上；及
- 竣工後，BIM模型作為資產管理工具，監工可移交給業主，用於未來維修(如設備更換)。

👍 Advantages

- BIM supports the entire building lifecycle (from design to operations and maintenance), including structural analysis, integrating building geometry, design, construction processes, and management information. It improves coordination, accuracy, with precise efficiency and layered transparency, enabling real-time clash inspection and simulation solutions to optimise safety planning;
- Augmented Reality (AR) tools overlay actual site conditions and precisely mark positions;
- Directly verifies on-site construction materials, structures, piping, and equipment against design;
- Adds a time dimension (4D BIM) to simulate construction sequences, enabling progress monitoring and delay prediction;
- If project defects or construction plan changes are discovered, BIM can directly link to corresponding model components, ensuring all participants remain aligned; and
- After project completion, the BIM model serves as an asset management tool, which the supervisor can hand over to the owner for future maintenance (such as equipment replacement).



師傅有話兒： Master's Words:

「70年代，工料測量師的主要工作是為業主提供項目預算，並根據建築師或結構工程師的設計圖則計算工料數量。當時依靠紙本圖則與手工計算，需要大量人力，資料傳遞緩慢，錯誤率也偏高。今天，數碼化與BIM技術讓我們的角色擴展至涵蓋整個建築生命週期的管理，效率與精準度大幅提升！」

“In the 1970s, quantity surveyors mainly provided project cost estimates to clients and measured material quantities based on design drawings from architects and structural engineers. At that time, calculations relied on paper drawings and manual work, which required significant manpower, resulted in slow information transfer, and carried a relatively high error rate. Today, digitalisation and BIM technology have expanded our role to cover full lifecycle management, greatly improving both efficiency and accuracy!”

✿ 傳統做法

- 主要工具：紙本圖則、比例尺、手工量度
- 工作範圍：提供項目預算案，預備工程量表、投標文件和合約文件的編製、審批工程完工量

✿ Traditional Practice

- Tools: Paper drawings, scale ruler, manual measurement
- Scope: Budget estimation advice, quantity take-off, tender and contract documentation preparation, assessment of progress

✿ 科普學堂

現代工料測量師不再只是「算數專家」，而是建築經濟顧問，角色涵蓋：

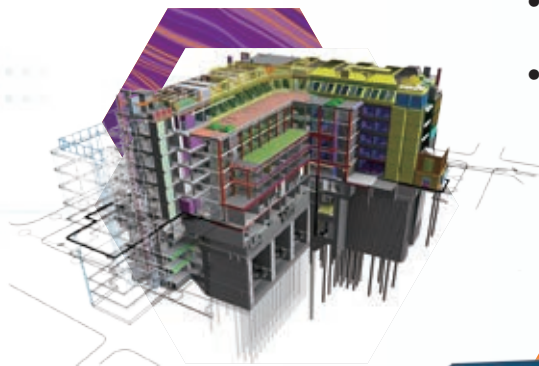
- BIM整合：將工程量與設計模型連結，實現自動化計算；
- AI與大數據：預測成本趨勢、分析風險；
- 綠色建築評估：考慮碳排放與全生命週期成本；及
- 雲端協作：多方即時共享資料，提升決策速度。

✿ Popular Science Classroom

Modern quantity surveyors are no longer just “number experts” but construction economics consultants, covering:

- BIM Integration: Linking quantities with design models for automated calculation;
- AI & Big Data: Predicting cost trends and analysing risks;
- Green Building Assessment: Considering carbon emissions and lifecycle costs; and
- Cloud Collaboration: Real-time data sharing among stakeholders for faster decision-making.





⚙️ 現在做法

- 主要工具：BIM、成本管理軟件、雲端協作平台；
- 除傳統工作範圍外，工作範圍：全生命週期成本管理、風險分析、可持續建築評估。

⚙️ Modern Practice

- Tools: BIM, cost management software, cloud collaboration; and
- Scope: Lifecycle cost management, risk analysis, sustainable building assessment.



🏠 優點

- 數據即時更新，精準度高；
- 可視化模型，提升溝通效率；及
- 支援多方協作，縮短工期。

🏠 Advantages

- Real-time data updates, high accuracy;
- Visual models enhance communication efficiency; and
- Supports multi-party collaboration, shortens project duration.



工藝之魂・心魂技行 — 口述歷史與匠心故事

The Spirit of Craftsmanship, Soul,
Skills and Action — Oral Histories
and Stories of Dedication



在建造工地上，機械的交錯聲，往往比課室更能突顯「人生的重量」。許多建造界的人物，因為遇上願意指導他們立腳抬頭前輩的一句肯定，從膽怯學徒成為師傅；也有人在嚴厲責備後，明白責任大於脾氣。

在此章節，我們邀請了業界不同持份人物，分享他們對建造業的傳承、行業中的經歷、以及每個用生命影響生命的工匠故事。

On construction sites, the clash of steel and swirling dust conveys the “weight of life” more vividly than any classroom. Many in the industry found their footing thanks to seniors who helped them stand firm. Some became masters after a single word of affirmation dispelled their fear as apprentices; others learnt that responsibility outweighs temper after stern correction.

In this chapter, industry contributors share stories of craftsmanship passed down through generations, formative experiences, and how lives influence lives through heart and skill.



築藝傳承 師徒共建未來

Passing on the Craft —
Masters and Apprentices
Building the Future
Together

當遇上一位願意停下手中的工具，指導後輩如何立腳、如何抬頭的前輩，鼓勵與寄望、用心的培育，有時比千言萬語更有力。

在這條沒有捷徑的路上，真正令人堅持下去的，不是薪水，也不是升職機會，而是那份「有人願意教我、我值得被教」的信念。

The most important moments in construction training happen when seniors pause to teach newcomers, helping them build confidence. This kind of mentorship goes far beyond textbooks.

Learning construction takes time and hard work. What keeps apprentices motivated is not money or promotions — it is knowing someone believes in them and sees them as worth investing in.

從結構工程到樹人百年： 盧玉權校長的「軟硬兼修」之道

在香港這座由鋼筋水泥構築的璀璨都市，支撐天際線的不僅是鋼筋與混凝土，更有無數工程師無聲的汗水與心血。香港建造學院(學院)—上水院校盧校長，曾是工地上日夜奔走的工程師，如今以教育者身份引導年輕人塑造城市。這跨界轉換，背後蘊藏深沉的使命感與對下一代的殷切期望。

時代轉捩點 從工地到課堂的抉擇

十多年前，盧校長的生活集中在工作之中，但長期在工程中打拼下，發現建造業最需要的，並不是自己的單打獨鬥，而是培育更多有志之士，壯大整個行業。於是他毅然轉換跑道，決定把自身經驗培育新一代。

From Structural Engineering to Shaping Generations: Principal Andrew LO Yuk-kuen's Path of "Strength and Soul"

In Hong Kong's steel and concrete cityscape, the skyline is supported not only by rebar and cement, but also by the silent dedication of countless engineers. Principal LO of the Hong Kong Institute of Construction (HKIC) — Sheung Shui Campus was once a structural engineer, constantly moving between construction sites. Today, he guides young people who will shape the city's future. His career shift reflects a profound sense of mission and commitment to the next generation.

A Turning Point — From Construction Site to Classroom

More than a decade ago, Principal LO's life revolved entirely around work. Yet after years of striving on construction sites, he realised that what the industry needed most was not individual effort, but the nurturing of passionate and capable talent to strengthen the sector as a whole. With that conviction, he made a resolute career shift, dedicating himself to passing on his experience and cultivating the next generation.



昔日築夢 追趕不息的工程歲月

回顧教育生涯，有一個學生的故事令他印象深刻。這名被視為「問題學生」的青年，曾徘徊於迷茫與叛逆之間。然而，在盧校長悉心引導下，他慢慢找到方向，最終不僅順利完成學業，甚至成功考入大學。盧校長感慨道：「那種成功感與滿足感，比起興建一座IFC（國際金融中心）更大。」這份由教育而生的成就感，遠勝於任何宏偉建築的完成。

建築工藝的傳承 萬變中的不變

談到傳承，盧校長強調，建造業雖正從傳統人手施工到「組裝合成」建築法（MiC）等巨大變革，但核心工序—釘板、紮鐵、落石矢—始終未變，工藝技術仍不可或缺。

他認為，工程師塑造城市「硬件」，教育孕育「軟件」，工匠精神、責任感與專業態度，是任何時代都不可或缺的核心。從築構天際線到培育生命線，他將工程精準精神延伸到教育中，使學生掌握技能，也培養品格。

The Unfinished Race of Building Dreams

Looking back on his education career, one student stands out in Principal LO's memory. This young man, labelled a "problem student," drifted between confusion and rebellion. Through Principal LO's patient guidance, he gradually found his direction, completed his studies and earned admission to university. Principal LO reflects: "The sense of achievement far exceeded building something like IFC." For him, the fulfilment of education surpasses the pride of completing landmark structures.

Passing on the Craft — What Changes and What Endures

Speaking of inheritance, Principal LO emphasises that whilst the industry has undergone major transformations — from traditional manual work to advanced methods like Modular Integrated Construction (MiC) — the core processes of formwork, rebar fixing, and concreting remain unchanged. Skilled hands remain indispensable.

He believes engineers build the city's "hardware", whilst educators shape its "software". Spirit of craftsmanship, responsibility and professionalism are timeless essentials. From constructing skylines to nurturing lifelines, he has carried engineering precision into education, ensuring students not only master skills but also build character.



塑造未來 軟硬兼修的使命

在上水院校，盧校長目睹無數學生在學習中蛻變。每一次指導、每一場互動，都是他對城市未來的投資。他深信，教育不僅傳授知識，更是引導學生理解世界、理解自我。

他向年輕人呼籲：「無論你選擇工程、建造或教育，都要保持學習的心態，尊重歷史、理解規則，並敢於創新。」軟硬兼修並非抽象理念，而是建造城市與塑造人才的實踐方法。

從結構工程師到教育工作者，盧校長承擔起塑造下一代的使命。城市的高度不僅來自鋼筋水泥，更源於人才培育；而工藝與品格、技術與人文，是城市長青的根本。他以「軟硬兼修」示範了如何在變遷中守護核心價值，並鼓勵每位年輕人勇於追求夢想，成為城市未來的建造者與守護者。

Shaping the Future — The Mission of “Strength and Soul”

At the Sheung Shui Campus, Principal LO has witnessed countless students transform through learning. Every guidance session and interaction is an investment in the city's future. He believes education not only imparts knowledge, but also guides students to understand the world and themselves.

He calls on young people: “Whether you choose engineering, construction or education, maintain a learning mindset, respect history, understand the rules — and dare to innovate.” For him, “strength and soul” is not an abstract concept, but a practical method for building cities and shaping talent.

From structural engineer to educator, Principal LO has taken on the mission of shaping the next generation. A city's height stems not only from steel and concrete, but also from talent cultivation. Craft and character, technology and humanities — these are the foundation of a city's longevity. Through his philosophy of “strength and soul,” he demonstrates how to uphold core values amid change, encouraging young people to boldly pursue their dreams and become the city's future builders and guardians.



共行四十載： 楊民章師傅 鼓勵開拓視野

在喧囂的都市中，從事裝修行業多年的匠人楊師傅，以雙手構築了無數空間，也見證了時代的變遷。他不僅是個人奮鬥的縮影，更是行業進步與人性關懷的生動寫照。

迪士尼的啟發 技術與視野的飛躍

談及職業生涯的高光時刻，楊師傅最為深刻的，是有幸參與迪士尼的專業培訓。「那些塗料不僅能抵禦風吹雨打，甚至比瓦片還耐用」這次經歷不僅刷新了他對材料的認知，也讓他意識到學習的重要性，亦鼓勵新一代，要開拓眼界、參與不同的國際比賽，是開啟本港建造業未來的重要之門。

Walking the Craft for Forty Years: Master YEUNG Man-cheung on Vision and Growth

With decades of experience in interior finishing, Master YEUNG has shaped countless spaces and witnessed the industry transform, reflecting both craftsmanship and care for people.

Disney as a Turning Point

A highlight of his career was receiving specialist training provided by the Hong Kong Disneyland. Advanced coatings that outlast roof tiles opened his eyes to new materials and methods, reinforcing the value of lifelong learning. He urges the next generation to expand their horizons, join international competitions, and embrace new knowledge — essential steps for the future of Hong Kong's construction industry.



從傳統到現代：物料的革命

楊師傅於1980年代正式踏入裝修行業，彼時的香港正處於經濟騰飛期，高樓大廈如雨後春筍般湧現。他回憶道：「那時候，裝修物料以效果為主，注重油漆質感，但氣味刺鼻，對身體傷害不小。」隨著時代進步，環保成為主流，大大降低了對健康的威脅。楊師傅讚嘆：「這是行業進步的結果。」

安全為先：對人的尊重

施工安全的改變更讓他印象深刻。早年，他與工友僅用毛巾代替口罩，攀爬搖晃的木梯進行高空作業，風險無處不在。如今，護目鏡、口罩、手套等防護裝備成為標準，工作台梯取代了簡陋木梯，大幅降低意外風險。

「這些改變，讓新一代可以在更理想的環境下發揮所長！」他說，語氣中透著對行業人性化轉變的欣慰。

From Tradition to Today: A Materials Revolution

Master YEUNG entered interior finishing trade in the 1980s, when Hong Kong's economy was booming and skyscrapers rose rapidly. "Back then, materials focused on appearance. Paints were vivid but gave off harsh fumes that harmed the body," he recalls. As environmental standards advanced, safer, greener products became the norm — a clear sign of industry progress.

Safety First: A Change Rooted in Respect

The transformation in site safety impressed him even more. In the past, he and his co-workers wrapped towels around their heads and climbed unsteady wooden ladders for working at height — danger was everywhere. Today, goggles, masks, gloves and protective gear are standard, and proper work platforms have replaced makeshift ladders, dramatically reducing on-site risk.

"These changes allow the new generation to perform their best in far better conditions," he says with appreciation for the industry's move toward greater humanisation.



從一刀到世界舞台：林志聰師傅 帶領新一代逐夢

走進學院泥水粉飾工場，空氣中瀰漫水泥氣息，耳邊傳來清脆敲鑿聲。一群年輕技能選手正為世界技能大賽（世賽）揮灑汗水，一探這門傳統工藝如何在現代標準下，磨練出世界級精準與匠心。

一刀一磚的初心

林師傅的泥水之路始於年少學徒歲月，那是工具簡陋、靠經驗累積的年代。他回憶道：「那時候，師傅教我用一把磚刀，完成所有工序—斬磚、落坐漿、子口泥及築砌磚牆等，全靠這把鈍刀的巧勁。」他拿起工場裡的磚刀，刀身雖無鋒芒，卻承載無數老師傅的智慧與心血。林師傅語氣中帶著懷舊：「這把刀不只是一件工具，更是工匠精神的象徵。」

三十年磨練，讓林師傅從學徒成長為香港建造業翹楚。作為世賽專家，他肩負將香港年輕一代推向國際舞台的使命。「我希望他們不只是學會技術，更是學會如何用匠心去面對每一個挑戰。」林師傅說，眼中閃爍著對學生的期望。

現代匠藝的融合

在他的工場裡，傳統與現代交織出動人畫卷。為應對世賽對極致精準的要求，引入現代化工具與方法，確保每塊磚誤差控制在毫米之內。「比賽標準極高，牆面不平、角度稍偏都可能讓你與獎牌擦肩而過。」

From a Single Trowel to the World Stage: Master LAM Chichung Leading the Next Generation to Dream Big

In the plastering workshop at the HKIC, the scent of cement fills the air and the sound of chiselling echoes. Young competitors train hard for the WorldSkills Competition, honing traditional craftsmanship to world-class precision.

One Tool, One Beginning

Master LAM began as an apprentice when skill came from experience, not equipment. “My master taught me to use just one brick trowel for everything — cutting, applying slurry and mortar joints, constructing brick walls.” He lifts a worn trowel, its blade blunt yet carrying the wisdom of countless masters. “This trowel isn’t just a tool — it symbolises the craftsmanship spirit.”

Thirty years have transformed him from an apprentice into an outstanding practitioner. As a WorldSkills expert, his mission is clear: “I want them to learn not just technique, but also how to face every challenge with craftsmanship in their hearts.”

Blending Tradition and Modern Craftsmanship

In his workshop, tradition and modernity interweave. To meet the WorldSkills’ extreme precision demands, modern tools and methods are adopted to ensure millimetre-level accuracy. “Competition standards are extremely high — uneven surfaces or slight angle deviations can cost medals.”

然而，他堅持讓學生從基礎學起，親手感受磚刀重量、泥漿質地。「傳統工藝教會我們耐心與專注，現代工具讓我們更精準，但沒有傳統的根基，技術就只是空殼。」在他帶領下，學生們將古老智慧與現代科技融合，打造出既精準又充滿靈魂的作品。

心態的淬煉 壓力下的成長

世賽不僅是技術較量，更是心態考驗。面對全球頂尖對手，選手必須在高壓環境下保持冷靜。他為每位選手量身訂製訓練計劃，因材施教，鼓勵他們勇敢面對失敗。「失敗並不可怕，可怕的是不敢再試。」他樸實卻直擊人心的話語，激勵學生在汗水與挫折中成長。

Yet he insists students to start with basics, feeling the trowel's weight and the mortar's texture by hand. "Traditional craft teaches patience and focus. Modern tools bring precision. But without traditional foundations, technique is just an empty shell." Under his guidance, students integrate ancient wisdom with modern technology, creating works both precise and soulful.

Testing the Mind — Growth Under Pressure

The WorldSkills Competition tests not only technique but also mentality. When facing the world's top competitors, one must remain calm under intense pressure. Master LAM tailors training plans for each student, encouraging them to face failure boldly. "Failure isn't frightening — not trying again is." His plain yet powerful words inspire students to grow through sweat and setbacks.



登上香港工匠的世界舞台

泥水粉飾不僅是技藝，更是精神傳承。他坦言「我只是想把手藝做好，但當我看到學生們在世界舞台上發光，我覺得這一切都值得了。」

這些年輕選手是香港建造業新生代。他們在林師傅指導下，將傳統工藝精髓與現代標準結合，準備在世賽中展現香港力量。「我希望他們不僅是贏得獎牌，更是帶著匠心走向未來，無論是建一幅牆，還是建一個夢想，都要用盡全力。」林師傅說。

離開工場時，敲鑿聲仍在耳邊迴響，林師傅的身影逐漸融入夕陽餘暉中。他用赤誠的心，點燃年輕人的夢想，用一刀一磚，書寫屬於香港的傳奇。

Bringing Hong Kong Craftsmanship to the World Stage

Plastering is more than a craft — it's a spiritual inheritance. "I just wanted to do my craft well, but watching students shine on the world stage makes everything worthwhile."

These young competitors represent the new generation of Hong Kong's construction industry. Under his mentorship, they combine the essence of traditional craftsmanship with modern standards, ready to demonstrate Hong Kong's strength. "I hope they don't just win medals, but carry craftsmanship into the future — whether building a wall or a dream, give it your all," Master LAM says.

Leaving the workshop, the sound of chiselling still echoes. Master LAM's figure fades into sunset. With wholehearted dedication, he ignites young dreams, writing Hong Kong's legend one trowel and one brick at a time.



從手心感受木質溫度：林國良師傅傳遞真言

木工車床旋轉的低鳴，聲音中藏著工匠三十年的守候與堅持。

在林師傅眼中，工藝的精髓在於是否懂得與工具對話，是否知道每一刀應在哪裏落、每一下力應如何發。

堅守「八自真言」

「技術可以進步，但原則不能改變——準確、謹慎、自律。」

他提倡「八自真言」：自律、自學、自信、自省、自強、自立、自愛及自尊。這八個詞語，是他對每位學生的期望。

「通常自己追求的東西，會特別珍惜。」他強調，真正的工匠，從不是被迫學習，而是主動鑽研。「學習，應該是一生的遊戲，而不是考試的任務。」



The Warmth of Wood: Master LAM Kwok-leung's Craft and Philosophy

The gentle hum of the wood lathe fills Master LAM's workshop, a sound that embodies thirty years of dedication and perseverance.

For Master LAM, the essence of craftsmanship lies in the ability to converse with one's tools, knowing precisely where each cut should fall and how each movement should be executed.

Eight Principles for Life

"Technology may advance, but principles must remain unchanged — accuracy, prudence, and self-discipline."

Master LAM's philosophy centres on what he calls his "Eight Principles": self-discipline, self-learning, self-confidence, self-reflection, self-improvement, self-reliance, self-love and self-respect.

"When you choose to pursue something yourself, you value it more deeply," he explains. Genuine craftsmen aren't forced into learning — they're driven by genuine interest and dedication. "Learning should be lifelong, not just something you do for exams."



與其責罵 不如喚醒

談起教學，他語氣格外溫柔。「每個人都需要鼓勵和稱讚。」他從不說「你做得不好」，只會說：「這次不錯，下次可以更好。」他深知傷害比建設更容易，「一句打擊意志的話，足以令學生放棄行業。」因此他寧願慢，也要讓學生企穩。

曾被提拔 明白傳承意義

回憶當年，年僅二十出頭已受前輩提拔，被委以負責整幢大廈的裝修工程重任，帶隊上樓、開會、分工。「那時是辛苦，但學到的東西，是一輩子的。」

工藝的未來 靠的是心

當科技及機械越見精準，大眾以為工匠終將被取代。但他堅信：「機器可以取代雙手，但取代不了態度。」因此對學生有著一份特別的執著，要他們瞭解人和工具之間的默契，學習當中做人的方式。

Building Up, Not Tearing Down

His teaching style is notably gentle. Rather than criticising mistakes, he offers perspective: “Not bad this time — next round will be even better.” He’s acutely aware that harsh words linger. “One discouraging comment can drive someone away from this trade permanently.” He would rather progress slowly if it means helping students develop solid foundations.

Paying Forward Early Trust

Master LAM’s approach stems from his own experience. In his early twenties, a senior entrusted him with remarkable responsibility — overseeing an entire building renovation, managing teams, running site meetings. “It was demanding work, but those lessons shaped my entire career.”

The Future of Craftsmanship Lies in the Heart

As automation advances, many predict the end of traditional trades. Master LAM disagrees: “Machines can replicate hand movements, but they can’t replicate dedication, care, or professional pride.” He teaches his students that understanding the relationship between craftsmen and their tools matters as much as technical skill. Character and attitude define great work, not just precision.





前輩向新秀傳話 以經歷開拓新生

Voices from
Veterans to the
New Generation —
Paving New Paths through
Experience

經驗是最可靠的明燈，作為建造業界的前輩與領航者，他們每邁一步，都是印證道路的方向。從中年覓得第二人生、從低谷踏上成功路，他們的每一個故事，不但把經驗傳承，更用新科技讓新一代看得見行業的未來。

Experience is the most reliable guide. As industry veterans, every step they take charts the path forward. From finding second careers to rising from hardship, their stories pass on experience whilst using technology to show the next generation the industry's future.

培養新世代責任心： 鄭家滿主任導師 同舟共濟精神

從手工繪圖到智慧監控，鄭家滿(Dick)入行三十六年，見證工地測量行業從傳統人工操作到現代科技應用的演變，呈現工匠精神與安全文化的傳承。

教育與傳承 歷史見證人的使命

作為業界資深人士，Dick深知傳承的重要性。他強調，學生不應僅依賴書本知識，更要理解行業的歷史與演變。「不是十年前學了就能走一輩子，每年的法例更新、技術進步，都要求我們不斷學習。」

他認為，教育不只是教授技術，更是培養責任心與專業精神。他鼓勵學生從自身角度出發，理解現場環境與規則，與同事協同作業，「要同舟共濟，駕駛好這條船，把工程安全、品質與效率帶到每個項目。」

給新世代的安心宣言

回顧三十六年職業生涯，Dick見證了工地測量行業的巨變，從簡單的平水尺到十字雷射儀到放線機械人，從纏腰式尼龍安全帶到全身式安全監控，這些變化不只是工具更新，更象徵行業的成熟與進步。科技改變了方法，工匠精神永遠是行業的核心。

Nurturing Responsibility in the Next Generation: Supervising Instructor Dick CHENG Ka-mun and the Spirit of Shared Purpose

With 36 years in site surveying, Dick has witnessed the industry's transformation — from hand-drawn plans to smart monitoring — reflecting a continuity of craftsmanship spirit and safety culture.

A Witness to History's Mission

As a veteran of the industry, Dick has a deep appreciation of the importance of heritage and succession. He emphasises that students must understand the industry's history and evolution, not just rely on textbooks. "What you learned ten years ago won't last — annual regulatory updates and technological advances require constant learning."

For him, education is about means cultivating responsibility and professionalism, not merely teaching skills. He encourages students to understand site environments whilst collaborating: "Work together, steer the ship well, and bring safety, quality and efficiency to every project."

A Safety Pledge to the Next Generation

Over 36 years, Dick has witnessed site surveying transform — from spirit levels to cross line lasers and layout marking robots, from waist ropes to full-body smart safety systems. These changes represent not merely equipment upgrades, but the industry's maturity. Technology may change methods, but craftsmanship and responsibility remain at the core.



在早期的工程現場，安全防護極為簡單。「一條纏腰式安全皮帶、尾繩扣繫於棚架的繩索，是高空作業唯一的保障。若忘記使用掉落風險大，安全監控幾乎完全依賴自身警覺。」他指出，現今的安全帶與監控系統已進化為全身式智能防護設備，若感應器判定可能發生暈倒或意外，會立即透過手機程式通知監工派人支援。對新一代的建造人來說，安全性大幅提升，既保護了工友的生命，也讓工程施工更安心。

科技變革 工具日新月異

隨著科技進步，測量工具與安全裝備改變巨大。如今幾百元的綠光十字雷射平水儀，就能完成過去繁複的人力測量工作，水平線覆蓋範圍寬闊且穩定，無需專業資格即可使用。這些工具不僅提高準確度，也顯著節省時間，且成本並未增加。

他曾參與赤鱗角機場建設，處理頂部弧型架構時，利用雷射測量設備精準定位。「現代工具不只是提高效率，更改變了工作方式，讓工程師與工友可以更安全、更高效地完成複雜任務。」

科技與匠心共舞

他認為，行業的未來是科技與匠心的結合。他呼籲年輕一代：「勇於學習新技術，也不忘傳承工匠精神。這是一份職業，也是一種責任，更是對城市、對社會的承諾。」

Early construction sites offered minimal safety: “A waist belt with a scaffolding rope was our only high-level protection. Fall risks were significant, and safety relied on personal alertness.” Today, systems have evolved into full-body intelligent equipment. Sensors that detect potential fainting or accidents instantly alert supervisors via mobile devices, enabling rapid response and support. For the new generation, safety has improved dramatically, protecting lives whilst making construction more secure.

Technological Change — Tools Evolve with the Times

With technological advances, surveying instruments and safety equipment have transformed dramatically. Today, a green cross-line laser level costing only a few hundred dollars replaces complex manual work. Its projection is wide and stable, requiring no professional certification. These tools improve accuracy and save time without increasing costs.

He recalls working on the Hong Kong International Airport at Chek Lap Kok, using laser measurement equipment to precisely position curved roof structures. “Modern instruments don’t just boost efficiency — they change how we work, enabling engineers and workers to handle complex tasks more safely and effectively.”

When Technology Meets Craftsmanship

He believes the industry’s future lies in integrating technology with craftsmanship. His message to the younger generation: “Embrace new technology, but never abandon the spirit of craftsmanship. This isn’t just a job — it’s a responsibility and a promise to the city and society.”



從水喉管看民生： 李超民師傅的傳承重量

在香港每個家居與建築中，水務系統默默支撐著日常運作。李師傅踏入水喉行業三十多年，投身教學與工藝實踐，以自身歷練見證行業變遷，也將技術與精神傳承給下一代。

師承之道 建立團隊精神

李師傅在教學中最看重的，不僅是技術本身，更是對工匠精神的傳承。他於1985年在建造業訓練局畢業，蔡景瑜師傅退休後，他接下師位，肩負起傳承使命。「我貼身地感受到傳承的重量，一代接一代，這不僅是技術，還有尊師重道與責任感。」

李師傅強調，水喉科的核心是團隊精神，「很多事情只講一句，同事們便會挺身而出，憑團隊力量完成每一個任務。」

態度決定命運

他更謂，水喉行業是一門「軟硬兼修」的技藝。「無論科技如何進步，紮實的基礎、專注的態度以及尊重師承的精神，才是立足行業、持續發展的關鍵。」在他教導下，學生不僅學會操作管道，更學會了責任、專業與團隊合作的價值。

Plumbing as Livelihood: Master Davy LEE Chiu-man's Legacy

Plumbing systems quietly support the daily operation of every building in Hong Kong. With over 30 years in the trade, Master LEE has witnessed its transformation whilst passing on skill and spirit.

The Master-Apprentice Path Building Team Spirit

For Master LEE, the essence of teaching lies not only in imparting technical skills but also in preserving the craftsmanship spirit. Graduating from the Construction Industry Training Authority (CITA) in 1985, Master LEE stepped into the teaching role when Master CHOI King-yu retired. "I felt the weight of inheritance — we pass on not just technique, but also respect for teachers and responsibility across generations.

For him, teamwork is central to the plumbing training team: "Often, with just a single word, everyone rises to the occasion, completing every task through the strength of collective effort."

Attitude Shapes Destiny

Plumbing blends hands-on expertise with values. "No matter how technology evolves, a solid foundation, the right attitude and respect for mentors are what keep you in the industry." His students learn not just pipework but also responsibility, professionalism and collaboration.



那些年 只有冷水的歲月

李師傅回憶，1994年水務署頒佈規例，明文規定一年後全面停用鐵喉作為食水用途，這對全港水喉行業帶來極大影響。「以前的水喉主要是鐵喉，運送冷水為主，只有豪宅才會使用銅喉。」喉管易出現黃水或鏽水，電鍍表面稱為鉛水喉，長期使用存在安全與健康隱患。規例生效後，銅喉成為新標準，技術、材料和施工方式因此發生根本性改變。

他指出，時代轉變不僅改變工藝要求及作業模式，更改寫教學內容。「現在我們在教學中必須將新材料、新規範（如「裝配式設計」（DfMA）及「機電裝備合成法」（MiMEP））融入課程，是一次大規模的教學革新，讓學生明白行業對安全與健康的責任。」

從手工到科技 見證效率與安全的昇華

作為經驗豐富的水喉師傅，李師傅見證工具與技術的歷史性變革。以安裝喉碼為例，早年沒有電鑽，只能以麻根針在牆上輕敲、轉動，慢慢打出孔洞；而現代電動工具與切割設備，不僅提高效率，也保證精準與安全。他曾參與沙田第一城、寶林邨等項目，從寒冷工地到高樓大廈，每個操作都需嚴格遵循安全程序。「技術的變遷讓工作效率提升，但對細節的要求與對品質的追求，始終不變。」

三十多年的行業歷練，李師傅見證了從鐵喉到銅喉、從手工操作到電動工具、從單兵作業到團隊合作的每一次變革。他以深厚的技術底蘊、對學生的耐心與對工藝的尊重，將水喉科的技術精神傳承下去。

When Hong Kong Only Had Cold Water

In 1994, the Water Supplies Department announced regulations banning galvanised iron pipes for potable water within a year, bringing far-reaching implications for Hong Kong's plumbing industry. "In the past, household water pipes were mostly made of iron and supplied only cold water; hot water was rare except in luxury homes, which typically used copper pipes," Master LEE recalls. Iron pipes produced yellow or rusty water, whilst electroplated G.I. Pipes posed health hazards. The adoption of copper pipes as the standard fundamentally changed techniques and materials.

Historic shift transformed site operations and teaching. "By incorporating new materials and standards like Design for Manufacture and Assembly (DfMA) and Multi-trade Integrated Mechanical, Electrical and Plumbing (MiMEP), we are now carrying out a major teaching reform that helps students understand the industry's safety and health responsibilities."

From Hand Tools to Technology: Efficiency and Safety Elevated

Master LEE, an experienced plumber, has witnessed a historic shift in tools and techniques. Installing pipe brackets, once done by tapping a raw plug by hand, is now faster, more precise, and safer with modern power tools. Having worked on projects from Sha Tin City One to Po Lam Estate, he has experience across environments from cold construction sites to high-rise buildings, where every task requires strict adherence to safety procedures. He stresses, "Technology improves efficiency, but the focus on detail and quality remains unchanged."

With over thirty years of industry experience, Master LEE has seen every transformation — from iron to copper pipes, from manual work to power tools, and from solo tasks to team-based operations. Through his solid technical expertise, patience with students, and respect for the craft, he continues to pass on the spirit of plumbing craftsmanship.



追求極致精神：郭志雄師傅 給學生內化的價值

在建造業中，每一個細節都承載著城市的秩序與安全。郭師傅在教學中一直強調態度與精神。「我們教學生最合適的方法，從手工藝到材料、安裝到檢測、甚至到金屬配件接駁的防鏽處理，每一步都不能馬虎。」他的學生從圖則中學習到實踐，每步都體現精準與細心。

技術革新與工藝精神的執著

「我們要求工藝必須準繩，不能有絲毫偏差。」郭師傅表示，技術可以革新，工匠精神卻必須傳承。團隊精神、細節檢驗與安全意識，是他希望每位學生都能內化的價值。

能在這個瞬息萬變的行業中立足，郭師傅認為，關鍵在於對工藝的尊重以及不斷學習新技術的態度：「例如鍍鋅鋼管『絞牙』的位置尤需一絲不苟，任何露出的接駁位，都會因被刮去保護層而生鏽。」即便是小小的電線接駁，他也堅持從開電線皮，以至到接駁方式都不能有電線損傷，完成接駁後亦必須以標準的儀錶和方法，去進行檢測，因為每一個細節都關乎整體安全與使用壽命。這種對完美的追求，正是他多年教學的基礎，也是工匠精神的核心。

The Pursuit of Precision: Master KWOK Chi-hung and the Values Behind the Craft

In construction industry, every detail safeguards the city's order and safety. At the HKIC, Master KWOK teaches, "We teach the most authentic methods — from hand techniques to materials and rustproofing. There's no room for shortcuts." Students progress from drawings to practice, with every step demonstrating precision and care.

Technical Innovation and Unwavering Craftsmanship

"We require craftsmanship to be accurate, without the slightest deviation," Master KWOK states. Whilst techniques evolve, the craftsmanship spirit must be passed on. Team spirit, detail inspection and safety awareness are values he wants every student to internalise.

To stand firm in this rapidly changing industry, he believes the key lies in respecting the craft and continually learning new techniques. "For instance, tile installation positions require meticulous attention — any exposed anti-oxidation film can cause rust." Even for minor electrical repairs, he insists on "complete replacement rather than simple fixes," because every detail affects overall safety and durability. This pursuit of perfection forms the foundation of his teaching and the core of craftsmanship spirit.



見證化繁為簡 安全與效率的革新

隨著模組化預製工藝的興起，施工模式出現革命性變化。「幾十年前，工地上的每一口螺絲、每一段管線，都必須靠人眼和手力來完成。隨著大小型模組的出現，只須在工廠內完成，再於現場安裝，既省時又安全。」他解釋，模組化施工的難題在於分解大型結構、預留洞口與空間，確保安裝順利。目睹啟德體育園及西九文化區等項目，正是印證模組化應用如何將複雜工程化繁為簡。

模組化不僅縮短工地高空作業時間，降低意外風險，也使品質管理更可控。「在工廠內，每一道工序都經過檢驗，高空安裝前已確保準確無誤，百份百檢查已不再是天方夜譚，而是真實可行的操作。」

From Complexity to Simplicity: Innovation in Safety and Efficiency

With modular prefabrication, construction methods have changed dramatically. “Decades ago, every screw and pipe required manual site installation,” he recalls. “Now, modules are factory-completed and only need site installation — saving time and enhancing safety.” The challenge lies in breaking down structures, reserving openings, and ensuring smooth installation. Projects such as the Kai Tak Sports Park and the West Kowloon Cultural District exemplify how modular construction can simplify even the most complex works.

Modularisation reduces the time of work from height and accident risks whilst improving quality control. “In factories, every procedure is inspected before site installation. This is proven, practical operation.”



焊接火花：胡健基師傅 燃燒匠心熱情

胡師傅自二十七年前加入教育行列以來，一直堅持「技術與安全並重」的教學理念。他強調，教學必須分層次進行，由看圖紙、理解工序開始，再到操作焊接設備，最後掌握半自動或機械人輔助技術。「學生不僅要懂焊接，更要明白安全保護、與管理人員的協作以及工序背後的邏輯。」

從手工焊接到機械輔助

回溯三、四十年前，當時的焊接師傅使用焊接、燒銅或不鏽鋼，工具簡陋而技術要求極高。每一次焊接都需要精準的手勢與經驗累積，稍有差池便可能影響結構安全。

「以前換焊條時，觸電意外時有發生。」胡師傅回憶道。當時的交流焊機安全裝置有限，煙霧處理也多靠自然通風。儘管如此，他們仍需完成高空、大型結構的焊接任務，既充滿挑戰，也凝聚了耐心與專注的工匠精神。



學生正在接受專業虛擬實境(VR)焊接培訓。
Student is attending professional Virtual Reality (VR) Welding training session.

Sparks of the Trade: Master WO Kin-kee and the Fire of Craftsmanship

For 27 years, Master WO has upheld one conviction — skill and safety go hand in hand. Training progresses from drawings and procedures to equipment operation, then to semi-automatic or robotic welding. “Students must understand not only techniques but also safety, teamwork, and the reasoning behind every step.”

From Manual to Automation

Three to four decades ago, welders relied on oxy-fuel welding for copper and stainless steel, using relatively simple equipment but requiring a very high level of skill. Every weld required precision; even small errors could compromise structural safety.

“Electric shocks during electrode changes were common,” he recalls. Early AC welders lacked proper safety features, and fume extraction relied on basic ventilation. Despite these challenges, welders completed high-altitude and large-structure projects — work that demanded focus, resilience and craftsmanship spirit.



胡師傅向學生示範VR焊接模擬儀器的正確方法。
Master WO demonstrates the use of VR welding simulator to student.

科技改變 安全與效率同步提升

隨著科技進步，焊接行業發生了革命性的變化。半自動焊機與焊接設備的普及，使焊接速度提升，精準度提高，能完成結構性強度要求高的焊接任務，大幅降低現場作業風險，而成本卻更為親民。

現今工場或工地的焊接工作，都配備通風系統、煙霧監測儀、直流焊機及防電擊裝置；焊接操作時，個人防護裝備如口罩、纖維面罩或電子自動化面罩均已成為標準。胡師傅指出，這些設備不僅保護焊接人員，也使焊接品質更穩定。

「我們會嚴格量度每一個焊縫，使用專用儀器分析焊接效果，而不再僅靠眼力判斷。」他說，這種科學化的檢測方式，讓學生能夠在可量化的標準下提升技術，既確保品質，也培養精準意識。



焊接工場特設管理整體空氣的監察儀，讓學生能在安全空氣環境下學習。

The welding workshop is equipped with an integrated air monitoring system, allowing students to learn in a safe air environment.

Technology Brings Change, Enhancing Safety and Efficiency

Advancements in welding technology have transformed safety and efficiency. Semi-automatic welding machines have boosted speed and precision, enabling high-strength structural welding with lower on-site risks — at more affordable costs.

Today's workshops and construction sites are equipped with ventilation systems, fume detectors, DC welders and anti-shock devices. Personal protective equipment — masks, fibre visors and automated welding helmets — is now standard. Master WO notes these upgrades not only protect workers but also enhance consistency of welding performance.

“We now measure every weld with specialised instruments instead of relying on eyesight,” he explains. This scientific approach allows students to improve under quantifiable standards — ensuring quality whilst cultivating precision.



為了維持安全學習環境，焊接工場安裝了強力的滑輪抽氣扇，以吸走廢氣，保持空氣清新。

To maintain a safe learning environment, powerful exhaust fans with pulley systems have been installed to remove fumes and keep the air fresh and clean.

古今交匯的泥水匠行： 薛錦源師傅 與學生以手藝回饋社會

在香港建造業眾多工種之中，泥水技藝向來予人樸實、低調之感，而能同時橫跨古蹟復修與現代工地的工匠，更屬鳳毛麟角。薛師傅便是其中之一。他畢業於建造業訓練局，投身行業晉升為判頭，後來更回到母校任教，以自己多年累積的手藝與見識，承先啟後，傳承給下一代。

於教學中承傳 於服務中實踐

自投身教育以來，薛師傅並不只教授技術，更重視學生的品格與態度。他亦經常帶領學生參與社區義工項目，例如到梅子林協助鋪設碎瓦地台、修建行人通道，讓他們明白「手藝不僅能夠謀生，亦可以回饋社會」，藉此可以把復修手藝傳承到學生身上。

工藝不僅存在於建築物的牆面，也存在於人與人之間的傳承。薛師傅身上，同時承載著昔日師徒制度的堅毅與信義，以及現代教育者的耐性與胸襟。

Bridging Tradition and Modern Craft: Master SEH Kam-yuen — Contributing to the Society with Students

Among the many trades in Hong Kong's construction industry, plastering has long been seen as a humble and low-profile craft. Few craftsmen move between heritage restoration and modern construction like Master SEH. A CITA graduate, he became a subcontractor before returning to teach, sharing decades of hands-on experience.

Heritage Through Teaching, Fulfillment Through Service

Master SEH values attitude as much as technique. He brings students to community projects — tiling walkways and restoring footpaths in Mui Tsz Lam — showing them craftsmanship is not only livelihood but also a way to give back. Through this, he passes on restoration skills and a sense of responsibility.

For him, craft is carried not only in buildings but also between people — combining the grit of traditional master-apprentice values with the patience of modern teaching.



走進古蹟 以匠技守護歷史

泥水技藝並不限於樓宇建造，薛師傅亦向後輩放話，參與古物修復能學習文化保存與藝術創作：「復修分為『修舊如舊』、『以舊還舊』與『以新還舊』三種方式，例如有些牆身須用蠔殼或石春去呈現昔日風貌，其實更接近藝術創作。」

他強調，修復並非單純「修補」，而是「重現當年的光景」。正因如此，工匠不僅要懂技術，還須具備對歷史的敬畏。

現代泥水工作已由傳統勞動，逐漸演變為「半技術、半藝術」—薛師傅相信，科技協助提升效率，而師傅的手藝則負責把最後一筆修飾得完美無瑕，所以仍然緊守對新一代的工藝傳承的堅持。

Stepping Into Heritage — Preserving History Through Craft

Plastering extends beyond building construction. Master SEH encourages students to explore heritage restoration, learning cultural conservation and artistic expression: “There are three approaches — restoring the old to its original state, restoring with old materials, or recreating the old with new ones. Some traditional walls require oyster shells or lime mortar to reflect their original appearance. It’s closer to art than repair work.”

He stresses that restoration is not simply “fixing,” but “recreating the past as it once was.” Craftsmen must possess not only technical ability but also historical respect and sensitivity.

Today, plastering has evolved from purely manual labour into a blend of technical skill and artistry. Master SEH believes technology improves efficiency, but only a craftsman’s hand can deliver the final flawless finish. That is why he remains committed to passing on the craft to the next generation.



大手牽小手 獻出細膩關懷

工料測量講師黃廣安

在香港建造業裡，許多人因為熱愛動手實幹而踏進這個世界。學院九龍灣院校的工料測量講師黃廣安，就是其中一位。中五會考後直接報讀建造課程，完成後投身業界，先後參與多個大型項目，包括嶺南學院、亞洲空運中心等，經驗廣泛而扎實。直至十五年前，毅然轉換跑道，展開了他的教學旅程。

教學是挑戰也是傳承

從手繪圖紙到電腦繪圖，從傳統計量到建築信息模擬 (BIM) 科技，他親身走過建造業數碼化的轉變。當年完成澳門公共房屋工程後，他決定回港，將實戰經驗帶入學院。對他而言，教育是一場挑戰，更是一份傳承。他相信，教書不只是把知識「教出去」，而是自己也要持續學習，才能真正把「新時代」的技能交到學生手中。



Holding Hands with Care: Passing On Craft and Character

Quantity Surveying Lecturer — WONG Kwong-on

In Hong Kong's construction industry, many enter the field because they enjoy working with their hands. WONG, a Quantity Surveying lecturer at the Kowloon Bay Campus, is one of them. After completing the Hong Kong Certificate of Education Examination, he enrolled directly in a construction programme. Upon graduation, he joined the construction industry and contributed to major projects, such as Lingnan College and Asia Airfreight Terminal. With solid experience, he laid a strong foundation for his career. Fifteen years ago, he made a pivotal decision — to turn from practitioner to educator.

Teaching as Challenge, Teaching as Legacy

From hand-drawn plans to digital drafting, from traditional measurement to Building Information Modelling (BIM) technologies, WONG has personally experienced the industry's transformation. After completing a public housing project in Macau, he returned to Hong Kong to share his practical knowledge at the HKIC. For him, teaching is not simply about “delivering information”; it is a responsibility to pass on a legacy. To teach

new-generation skills, he believes educators must also keep learning, requiring continuous self-learning.



每次開班，他都會遇上不同性格、不同目標的學生。他選擇與學生同行：陪伴他們進行課程、活動、義工服務，從中理解學生的心態與天賦。他會提醒學生面試時要「微笑、誠實、有禮貌」是勝過成績的「必殺技」。

學懂處世更重要

問到為何選擇工料測量，他表示：「工料測量是與人溝通、處理問題和累積經驗的行業，整個建造過程由設計至建造階段都需要工料測量。因此行業需求大、前景穩定，晉升機會更比其他工種多。」他相信，真正讓人成功的不單是學歷，經驗歷練、待人接物的方式、好奇心與學習意願也同樣重要，要雙線並行，才能在建造業走得更遠。

Each year brings a different class, each student with a unique mindset and goal. WONG chooses to walk alongside them — participating in activities, service projects and training. Through this journey, he discovers their strengths and helps them find direction. He coaches students for interviews, reminding them that “a smile, honesty and courtesy” are far more powerful than grades alone.

Learning How to Navigate Life Matters More

When asked why he chose Quantity Surveying, WONG replied: “Quantity Surveying is about communication, solving problems and gaining experience. It is needed at every stage of a project, from design to completion. That is why its demand and opportunities are far greater than many other trades.” He believes success is not determined by qualifications alone. Experience, interpersonal skills, curiosity and a willingness to learn are equally important. In his view, students must walk two paths at once — gaining practical experience while continuing to learn. Only then can they thrive and build a future in an ever-evolving construction industry.



鋼筋之魂： 陳建霖師傅 為學生築起安全網

隨著行業待遇提高、工作環境的改變，越來越多其他行業的人士轉行入讀學院的紮鐵課程。對陳師傅而言，每一位新人都是行業的未來。他用親身經歷提醒學生：安全、敬業、進取和擔當，是建造業不可或缺的核心價值。

每個決定 都以安全為先

陳師傅自加入學院後，將18年的經驗化作教學資源。他希望學生能理解，建造業不僅是勤奮，更是技術、創新與專注的結合。「我希望他們明白，每一根鋼筋、每一次落石矢，都承載著整個建築物的安全。」

在現場，安全規範已遠超過往。入工地需佩戴安全帽、穿戴安全鞋，持有三寶（身份證、工人註冊證、平安卡）及按紮鐵專門行業優質作業手冊之規定來執行。數碼化技術的引入，也讓鋼筋工作更為高效與安全。過往需要手工計算的鋼筋尺寸，如今可透過AutoCAD、BIM模擬整個工地運作，減少人力物力，並提高施工精準度。

The Soul of Rebar: Master CHAN Kin-lam — Building a Safety Net for His Students

With rising wages and advancing technology, more people from other sectors are enrolling in the HKIC's bar-bending programmes. To Master CHAN, every newcomer represents the industry's future. Drawing from his own experience, he reminds students that safety, professionalism, proactiveness and a sense of responsibility are non-negotiable core values of the construction industry.

Every Decision Begins With Safety

Since joining the HKIC, Master CHAN has turned 18 years of frontline experience into teaching material. He wants students to understand that construction industry demands not only diligence, but also technique, innovation and patience. "I want them to know that every piece of rebar and every concrete pour carries an entire building's safety."

Site safety standards today are much higher than in the past. Workers must now be equipped with safety helmets and boots, and carry their "winning cards" (Hong Kong Identity Card, Valid Worker Registration Card, and Green Card) and applying the Good Practice Manual on Reinforcement Bar Fixing Specialist Trade. Digital tools have improved precision — bar measurements once calculated manually can now be simulated through AutoCAD and BIM, reducing waste whilst enhancing accuracy.

香港建造學院九龍灣院校-天月路訓練場

校訓
專業 精益求精



從工地到教室的熱血歲月

回望過去，參與了無數標誌性建築的陳師傅謂「起樓必定有釘板紮鐵落石矢」簡單的一句話，道出建築工程背後的辛勤。「每一條鋼筋都需按圖則精準屈紮，每一次落石矢都伴隨高溫與壓力。」

他舉例，傳統建造一個兩房一廳的單位，需要封板、紮鐵、落石矢，層層施工方可成形。而現今的MiC，則可在工廠預製一整間房屋，內部鋼筋可直接連接，層與層之間設有承托，僅需吊裝即可完成。這種技術不僅節省時間，也大幅提升安全與精準度，然而背後仍離不開紮鐵師傅精準的手工操作；因此將畢生技藝傳授給新一代，承擔行業傳承的重任，也是他現時的使命。

致敬每一位建造者

從郵輪碼頭的巨樑到公屋的廚房廁所，從手工紮鐵到模組化施工，陳師傅18年來見證著香港地產發展，他印證了香港建築技術的進步，並將這份精準與專業繼續傳遞下去。

From Site to Classroom — A Career Built with Passion

Looking back on countless landmark projects, Master CHAN often says: “Every building begins with formwork, bar-bending and fixing and concrete casting.” One simple sentence captures the labour behind every structure: “Every steel bar must be bent and tied exactly to drawings, and every concrete pour comes with heat and pressure.”

He explains that traditional construction of a two-bedroom flat required step-by-step work — shuttering, bar-bending and fixing, then concrete casting, layer by layer. Today, with MiC, entire units can be prefabricated in factories. Reinforcing bars connect directly, with structural support between levels, requiring only lifting and installation. Whilst faster, safer and more precise, it still relies on skilled bar benders — which is why passing on his craft has become his mission.

A Tribute to Every Builder

From the Cruise Terminal's massive beams to public housing kitchens and bathrooms, from hand-tied rebar to modular construction, Master CHAN has witnessed 18 years of Hong Kong's property development, continuing to pass on the precision and professionalism that built the city.

科普小知識：拆則是什麼？

Know Your Trade: What Is “Rebar Detailing”?

由經驗豐富的資深紮鐵師傅，把註冊結構工程師所簽發的結構圖，以高度細心、有立體的空間想像力，將各項結構組件按鋼筋排列方式，拆解為可供實際施工使用的詳細「紮樣」及「開料紙」，並準確地掌握例如鋼筋形狀、搭接接頭及錨固長度、所需鋼筋數量及鋼筋箍筋等配置，再將資料分派至開鐵工場及紮鐵工友，以供施工使用。

Rebar detailing bridges the gap between design and construction. Experienced rebar foremen translate structural drawings into precise, buildable instructions through careful calculation and spatial insight. They prepare detailed bar-bending schedules that specify bar shapes, splices, and quantities, ensuring every bend and tie aligns perfectly with the registered structural engineer's intent — turning design into tangible structure.

匠心留痕 與學院續夢前緣

Craftsmanship and
Legacy:
Continuing the Dream

有人因為人生轉換跑道而入讀、也有人因為入讀而改變人生。這一系列的起承轉合，憑藉當日的一個決定而緣起。在香港建造培訓五十周年的日子裡，即使離校多年，他們與學院的緣份依然，往後繼續承載彼此的故事。

Some came to the HKIC because life took a new turn; others had their lives changed because they joined. Every story began with a single decision — a moment that set everything in motion. Now, on the Hong Kong Construction Industry Training — 50th Anniversary, even after many years away, their bond with the HKIC endures. The connection lives on, carrying both their stories forward into the years ahead.

承建城市的未來： 孟家榮營造師 與建造業的青春承諾

從事建造業已逾三十載的孟家榮(Terence)，是香港建造學院的傑出校友外，更曾擔任香港營造師學會會長及建造業議會青年事務委員會(建青委)主席。年少時，他對這個行業一無所知，只因一股好奇與對未來的探索而入讀。他坦言：「建造業孕育了我的成長，給予我機會，讓我成就今天的自己。」

從青澀學生到青年事務引領者

擔任建青委主席對Terence而言，不僅是榮譽，更是一份責任。他目睹社會對建造業仍然維持在「工地環境艱苦」、「行業不夠光鮮亮麗」的刻板印象。然而，他堅信行業已不同往昔，「我們需要告訴年輕人，這是一個充滿專業、創新機會和選擇的行業。」

他與建青委成員設立平台，作為青年及建造業之間的橋樑以作交流，並認為建造業內至少有三十多個工種，光是專業技術的多樣性就足以讓青年人找到自己的定位。



Building the City's Future: Cr Terence MANG Ka-wing and a Youthful Commitment to the Industry

With over 30 years in construction, Terence is a distinguished alumnus of the HKIC, Past President of the Hong Kong Institute of Construction Managers, and the Former Chairperson of the Construction Industry Council Youth Affairs Committee (YAC). He entered the industry as a curious teenager with no prior knowledge. "Construction nurtured me and gave me the chance to become who I am today," he said.

From Student to Youth Advocate

For Terence, leading the YAC is both an honour and a duty. He recognises that many still view construction as tough, unglamorous work, but stresses the industry has evolved: "We need young people to see that this is a field of professionalism, innovation and choice."

He works with the YAC members to build platforms that connect youth and the industry, highlighting that the industry offers more than 30 trades — providing ample opportunities for young people to find their direction.



為行業建造未來 由青年開始

Terence將青年教育視為行業可持續發展的關鍵。建青委先後帶領數百位學生到中國內地交流，「很多業界中的年輕從業員，願意犧牲個人時間，陪伴這些青年往返中國內地，是行業內罕見的投入，也是我看到未來希望的火花。」他強調，建造業的工匠精神，不僅是專業技能的傳承，更包含操守、創新及對安全的承擔。

改變印象 傳承使命

此外，建青委多次舉辦公開講座及義工活動，讓公眾瞭解現代建造業的多元化及專業性。「很多人只知道建築師，其實工程師、測量師與工地專業人員同樣重要。我們希望青年能看到更多選擇。」

他的目標是在承傳工匠精神的同時，讓行業更專業、更安全，也更吸引年輕一代投身其中。「行業需要跟隨青年人的創新意見走，也需要讓他們看到無限可能。」

Building the Industry's Future Starts with Youth

Terence sees youth education as vital to sustainable development. The YAC has led hundreds of students on the exchange to the Chinese Mainland and he is encouraged by young practitioners who volunteer their time. "Their commitment is rare and gives me hope," he says. To him, craftsmanship spirit encompasses not only technical skills but also ethics, innovation and safety responsibility.

Changing Perceptions, Passing the Torch

The YAC organises public talks and volunteer programmes to showcase the industry's diversity and professionalism. "People only know architects, but engineers, surveyors and site professionals are equally vital. We want youth to see more options."

His goal is to preserve craftsmanship spirit whilst making the industry more professional, safer, and more appealing to younger generations. "We must listen to youth and show them infinite possibilities."



匠心無齡： 何永熙師傅 啟發新秀靜待成果

在水喉行業深耕多年，何師傅踏遍無數工地，見證香港建造業的變遷。然而真正令他視野改變的契機，是前輩的提議：「既然你對行業充滿熱誠，又喜歡進修，不妨考慮走進教育機構，把技術和經驗傳承下去。」

參與育苗的福氣

一句看似簡單的建議，卻成為他轉向培訓工作的起點。何師傅坦言，在走進課室的第一天，便深深感受到教育的力量。「原來，教學不是離開工地，而是以另一種方式參與建造業。」

他感激學院提供的平台，讓具經驗的前線師傅得以全程投入教育工作。「能夠在具制度與願景的機構中專注教學，是一份殊不簡單的福氣。」在他眼中，學院不但是人才培育基地，更是技術傳承的橋樑。「五十周年實屬難得，我期待學院繼續為行業播種，收成無數專業工匠。」

Timeless Craftmanship: Master HO Wing-hei — Inspiring New Talent with Patience

After decades in the plumbing trade and witnessing the industry's transformation, Master HO's path shifted when a senior encouraged him to share his experience through education. "You're passionate about the trade and dedicated to learning," the senior said. "Why not join a training institution and pass on your experience to the younger generation?"

A Fortunate Shift into Training

That simple suggestion became the starting point of his journey into training. On his very first day in the classroom, Master HO was deeply moved by the power of education. "Teaching isn't about leaving the construction site," he reflected. "It's another way of contributing to the industry."

He is grateful to the HKIC for creating a platform where experienced practitioners can focus on training. To him, the HKIC is both a talent hub and a bridge for craftsmanship. "To celebrating the Hong Kong Construction Industry Training — 50th anniversary, I hope it continues sowing seeds for the industry and cultivating generations of skilled professionals."



與學生同行 「教育不只是指導，而是同行」

在教學現場，何師傅一改傳統「師傅說、徒弟聽」的方式，而是選擇與學生「站在同一條船上」。他堅信，教學重點不在於命令，而在於理解—「老師不是掌舵者，而是同行者。我要讓學生明白，我不是要求你聽從，而是陪你到達目的地。」

他經常以航海作比喻：「我們同坐一艘船，若要走得順暢，就必須同舟共濟。」因此，每當學生遇到樽頸位，他並不急於糾正，而是先瞭解其思路，再引導其自行破題。「真正的學習不是被迫執行，而是認知到『我可以做到』。」

最深刻的一課「六十歲學生的堅持」

談到教學生涯中最難忘的學生，何師傅語氣中流露出敬佩。一位接近六十歲的學生，初入課堂時身形瘦弱，他坦言當時心中亦有疑慮：「我擔心他會否中途放棄。」

Walking with Students: “Education is companionship, not instruction”

Master HO rejects the conventional top-down teaching model approach. Instead, he walks alongside his students. “I’m a fellow traveller, not a commander,” he says. “My role is to journey with you, not bark orders.”

He compares teaching to sailing: “We’re in the same boat. To reach our destination, we row together.” When students struggle, he explores their thinking before pointing them toward answers. “Learning clicks when they tell themselves, ‘I can do this’.”

The sixty-year-old who proved age means nothing

When speaking of the most unforgettable students in his teaching career, Master HO’s tone is tinged with genuine admiration — a frail man approaching sixty. “Honestly, I doubted he would last,” he admits.



然而，這位年長學生卻以堅毅回應所有質疑。他從不怠惰，最終突然「開竅」，技巧貫通，進步飛快，甚至反超不少年輕人，最終更獲得「最佳學生獎」。

更令人驚嘆，他在短短一年後便考取「大工」資格—對一般水喉工來說，需時三至四年方能達成。「他證明技術的高度不由年齡界定，而是由決心決定。」

如今，這位學生與朋友合夥成立工程隊伍，甚至聘請新一批學生培育，「這就是教育的真正成果 — 不只培育技工，更培育願意承傳的工匠。」

建造業的未來並不僅靠大型機械與智能科技，更需無數具熱誠與信念的師傅，將薪火延續。



But the man's grit silenced every worry. He worked relentlessly, broke through barriers, and soon outpaced younger trainees to win the Best Student Award.

Even more impressively, he earned his "Skilled Worker" qualification in just one year — a milestone that usually takes three to four years to achieve. "He proved that mastery isn't defined by age, but by determination," says Master HO.

Today, the once-young trainee has partnered with friends to establish his own engineering team and even hired a new generation of the HKIC students to join them. Master HO reflects, "That is the true result of education — not only nurturing skilled workers, but also cultivating craftsmen who are willing to pass on their knowledge."

The future of the construction industry depends not only on advanced machinery and smart technology, but also on passionate masters who keep the flame burning — mentors whose dedication inspires others to carry the craft forward.

萬能校友： 文永俊的自我修煉

現年四十多歲的文永俊，十多歲時以會考一分成績，選擇報讀學院課程，發現對行業產生興趣，在他工作數年後，毅然決定繼續深造。他以「求人不如求己」為座右銘，先後考取十項專業資格，包括工程、工地測量、建築工程、水喉牌、消防牌等，並創辦兩間建築工程公司、一間消防工程公司及一間顧問公司，自僱十五年，以從事樓宇翻新的工作，為事業奠下康莊大道。

把每項工程單位視為自己的家

回望成長歷程，文永俊認為：「做每一單工程，都要當作自己的事業，這樣才能成功。」他談起一位前輩的教導，對每層樓的細節了然於心，如看待自己的家一般；這份專注與責任感，至今仍影響他每一個工程決策。即便手頭同時有五十單工程，他亦能清楚掌握每單進度與細節，從泥水、消防到冷氣管線，每一環都兼顧，確保質素。

The Versatile Alumnus: MAN Wing-chun's Path of Self-Mastery

Now in his forties, MAN began construction training as a teenager with a low HKCEE score. Driven by passion, he spent years on site before deciding to advance his studies through the HKIC programmes. Believing firmly that “relying on yourself beats relying on others,” he earned ten professional qualifications across engineering, site surveying, constructions projects, plumbing and fire services. He went on to found four companies in construction, fire safety, and consultancy, and has worked independently for over 15 years, focusing on building renovation.

Treating Every Project as His Own Home

MAN succeeds by treating every project as his own enterprise. A mentor once impressed upon him the importance of knowing every detail of a building as intimately as one knows their own home. This lesson continues to guide him today. Even when managing as many as 50 projects at once, he maintains sharp oversight over progress and specifics — from plastering to fire safety and air conditioning — to consistently uphold quality standards.



與學院共同進步

作為第二屆學院傑出校友，文永俊與學院保持密切聯繫，就課程發展提出意見，並向學生講解行業發展與入行機會。他見證學院的進步：從過往用喉打平水，到現今採用雷射及充電式工具，施工方式更精準便利；室內飾面種類日增、環保物料普及，使翻新工程更具價值與效率。

別具意義的翻新工程

談到印象最深刻的工程，文永俊立時洋溢出滿滿的感情道：「九龍灣院校外牆翻新工程對我而言意義非凡，這個曾是我讀書的地方，現成為自己承接的工程項目，這份特別的情感讓我格外上心。」他運用無人機進行堪察，結合多年累積的專業，將每一單工程做到精準與安全。他堅信，只有對工作全心投入，對每一環節負責，才能真正掌握行業、創造自我價值。



Growing with the HKIC

As a second cohort of the HKIC Outstanding Alumni Award, MAN remains closely involved with the HKIC by offering advice on curriculum development and helping students navigate industry pathways. He witnessed the transformation of the HKIC — from water-tube levelling to laser and cordless tools, expanding material choices, that have made refurbishment work more precise and valuable.

A Renovation of Deep Significance

One project stands out above all others for MAN: renovating the Kowloon Bay Campus façade. “Working on the building where I trained meant everything to me,” he reflects. He used drones to survey the site and brought his accumulated know-how to ensure every detail met exacting standards for precision and safety. His philosophy is simple: Real mastery comes from caring deeply about every step of the work — that’s what allows you to truly understand the trade and build something of lasting worth.





匠心築路 香港建造學院歷程回顧

Forging the Path with
Craftsmanship —
The Evolution of the Hong Kong
Institute of Construction



「工匠之路，不止於回望，更在於前行。在『建造業2.0』浪潮下，我們為傳統『工藝之魂』注入創新血液。當魯班先師的專業精神與建築信息模擬(BIM)、「組裝合成」建築法(MiC)等先進科技相遇，我們培育的是具備理論、安全意識與熱誠的未來專才。這就是我們對工匠精神最當代的詮釋。」

“The path of craftsmanship is not merely about honouring tradition, but forging ahead. Amid the “Construction 2.0” transformation, we are infusing fresh innovation into the spirit of traditional craftsmanship. When the time-honoured professional spirit of Master Lo Pan converges with advanced technologies such as Building Information Modelling (BIM) and Modular Integrated Construction (MiC), we are cultivating future specialists equipped with theoretical knowledge, safety awareness and passion. This is our most contemporary interpretation of craftsmanship spirit.”



匠心傳承 築夢半世紀

Crafting the
Future with Heart,
A Half-Century of
Craftsmanship and
Dreams

香港建造業的輝煌，背後是無數工匠以汗水與智慧凝聚的「工匠精神」。這份追求極致、精益求精的精神，是行業根基，更需系統性地傳承與弘揚。

逾半世紀以來，從建造業訓練局到2018年成立的香港建造學院(學院)，我們肩負的使命始終如一：為香港建造業培育未來人才。

承先啟後，學院銳意革新，積極回應政府「建造業2.0」政策—以創新、專業化、年輕化為目標，超越傳統技藝傳授。我們致力培育兼具專業技術、理論基礎、安全意識、創新意念與工作熱誠的人才，同時擁抱科技，融入BIM、MiC嶄新技術，與時代並進。

The brilliance of Hong Kong's construction industry is underpinned by the "Craftsmanship Spirit" — forged through the skill, wisdom and dedication of countless builders. This unwavering pursuit of excellence and precision forms the bedrock of our industry, and it must be systematically preserved and championed for future generations.

For over half a century, from the Construction Industry Training Authority (CITA) to the establishment of the Hong Kong Institute of Construction (HKIC) in 2018, our mission has remained steadfast: to cultivate future talent for Hong Kong's construction industry.

Building on this legacy while embracing innovation, the HKIC has transformed its approach in alignment with the Government's "Construction 2.0" initiative — advancing innovation, professionalism and youth development as goals beyond conventional skills training. Our aim is to nurture an accomplished construction workforce with sound professional skills, theoretical knowledge, safety awareness, innovative ideas, passion and pride for the construction industry. Simultaneously, we are integrating cutting-edge technologies such as BIM and MiC to ensure our industry remains at the forefront of progress.

「發展歷程 — 與時並進的英才培育之路」

A Journey of Development — Cultivating Elite Talent in Steps with the Times

筚路藍縷，工藝薪傳

Pioneering Through Challenges, Transmitting the Craft Across Generations (1970s–1980s)

香港經濟於70年代起飛，為應對建造業大量人才需求的挑戰，政府於1975年根據《工業訓練(建造業)條例》成立建造業訓練局(建訓局)，為本港建造業專業化培訓奠定第一塊基石。

其後，建訓局於九龍灣及葵涌等地設立訓練中心，開辦一系列課程，將傳統工藝精髓系統化地傳承下去，奠定了香港建造業「工藝之魂」的深厚根基。

As Hong Kong's economy soared in the 1970s, the Government established the CITA in 1975 under the Industrial Training (Construction Industry) Ordinance to address the burgeoning manpower demands of the construction sector. This marked the first cornerstone in professionalising training for Hong Kong's construction industry.

The CITA subsequently set up training centres in Kowloon Bay and Kwai Chung, launching comprehensive programmes that systematically preserve and transmit the essence of traditional craftsmanship. These efforts have laid a solid foundation for the “spirit of craftsmanship” that defines Hong Kong's construction industry.



紮根擴展，奠定專業

Taking Root and Expanding, Establishing Professionalism

(1990s–2000s)

隨著香港回歸祖國，大型工程如新機場、青馬大橋等相繼推展，建訓局因應時勢，角色愈見多元。九十年代起，建訓局逐步將電腦輔助設計(CAD)、安全督導員訓練等納入課程，並開辦更多與工藝測試相關的證書課程，推動技術員走向專業化。

踏入千禧年，建訓局持續革新，引入更多機械操作訓練，並大力強化安全意識培養，確立「安全第一」為所有培訓的核心價值。

建造業議會(議會)於2007年成立，並於2008年以建造業議會訓練學院的名稱，繼續提供培訓及工藝測試等服務。

After Hong Kong's return to the Motherland, major infrastructure projects such as the new airport and the Tsing Ma Bridge drove the CITA to evolve with the times and take on a broader role. From the 1990s onward, programmes began to incorporate Computer-Aided Design (CAD), safety supervisor training, and provide more certificate programmes related to trade tests — paving the way for a more professionalised technical workforce.

Entering the 2000s, the CITA continued to modernise by expanding training in machinery operations, and strengthening safety culture. “Safety First” became a core value embedded across all training programmes.

The Construction Industry Council (CIC) was established in 2007, and in 2008 continued to provide training and trade testing services under the name of the CIC Training Academy.



新紀元開啟

A New Era Begins

(2018)

2018年，學院正式成立，標誌著建造業培訓邁向新紀元。學院啟動課程改革，首推資歷架構認證，致力與香港教育制度全面接軌，並成立「STEM聯盟」，吸引年輕人透過科學與科技認識。2018年6月，「建造文憑(油漆及裝飾)」課程成功通過評審，成為學院首項獲頒資歷架構第三級別認可的課程。

Established in 2018, the HKIC marked a new era in construction training. It reformed its curriculum, introduced Qualifications Framework accreditation, and launched the STEM Alliance to engage young people through science and technology. The same year, the Diploma in Construction (Painting and Decoration) programme became the first Level 3 accredited programme.



新紀元開啟(續)

A New Era Begins (continued)

(2019)

2019年，葵涌院校設立業界首個「安全體驗訓練中心」，透過虛擬實境(VR)及模擬事故情境，將感官體驗注入安全訓練。同年，學院並推行認可技術專才培訓計劃，提供有系統的學徒訓練。

In 2019, Kwai Chung Campus established the industry's first Safety Experience Training Centre, integrating virtual reality (VR) and simulated accident scenarios into safety training. The same year, the HKIC introduced the CIC Approved Technical Talents Training Programme to provide structured vocational training.



新紀元開啟(續)

A New Era Begins (continued)

(2020)

2020年，學院將轄下「管理及安全訓練中心」及「專業發展中心」正式改名為「建造專業進修院校 (SPDC)」。同年，學院首度推出MiC相關課程。當中包括「組裝合成建築管工證書」及「組裝合成建築工程管理及監督人員專業證書」，學習組件的運輸、收貨、存放、吊運及裝嵌等知識，加強工程管理及監督人員對MiC的認識，以應對未來需求。

In 2020, the Management & Safety Training Centre and Centre for Professional Development were restructured as the School of Professional Development in Construction (SPDC). The same year, the HKIC launched its first MiC-related programmes. The programmes include the “Certificate in Modular Integrated Construction (MiC) for Foreman”, and “Professional Certificate in MiC for Project Managers and Clerks of Works”. The curriculum covers transportation, receipt, storage, lifting and assembly of components, enabling construction management and supervisory personnel to strengthen their understanding of MiC and better meet future industry needs.



學習基地升級 培育知識型技術人員

Upgraded Learning Hub for Developing Skilled, Knowledge-based Talent

(2021)

2021年，學院三所院校 — 九龍灣、葵涌及上水的優化工程順利竣工，具備現代化的學習資源中心、專業的工場與學習空間，為學生提供了媲美業界實戰環境的優質培訓基地。

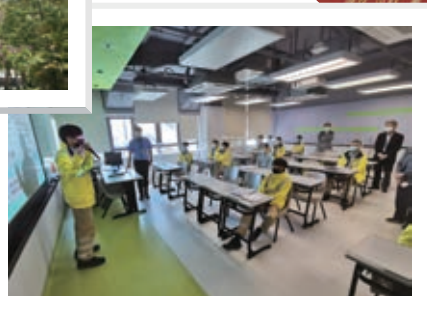
同年，首批認可技術專才培訓計劃的學徒完成計劃，成為高級技工，為建造業注入新力量，標誌著學院在「專業發展」道路上的重要里程碑。這項計劃透過在職培訓、技術提升及評核、軟實力及安全訓練以至創新及科技教育的全面發展方案，有效培訓學院的畢業生成為知識型技術人員。

學院同時與香港都會大學、香港珠海學院及香港高等教育科技學院簽訂合作意向備忘錄，為畢業生打通了從技術培訓到專業學位的進修階梯。

In 2021, the enhancement project of the HKIC three campuses — Kowloon Bay, Kwai Chung and Sheung Shui — were completed. The upgraded campuses now feature modern learning resource centres, professional workshops, and learning space, providing students with high-quality training bases that closely simulate real industry practice environments.

The first cohort of the CIC Approved Technical Talents Training Programmes (ATP) successfully completed their training and transitioned into skilled workers, bringing new energy into the construction industry. This achievement marked a significant milestone in the HKIC's commitment to professional development. The ATP offers a comprehensive training framework that integrates on-the-job experience, technical enhancement and assessment, soft skills and safety training, along with innovation and technology education, which empowers the HKIC graduates to become knowledge-based technical talent.

The HKIC also signed memoranda of understanding with Hong Kong Metropolitan University, Hong Kong Chu Hai College and Technological and Higher Education Institute of Hong Kong, creating a clear pathway from technical training to professional degrees.



實踐數位化現代科技 成就國際級人才

Harnessing Digital Technologies to Cultivate World-class Talent

(2022)

2022年，學院於國際舞台、專業認證及人才培育方面取得突破性成就。學院全面推出獲資歷架構第四級別認可的「高等文憑」課程及兼讀制「建造專門行業專業文憑」課程，讓學生有清晰晉升出路。

學院深化課程中之「新技術及現代建築方法」，將BIM技術融入全日制工藝課程的教學活動中，確保學生能掌握這項必備的數位化工具。

學院畢業生林文進前往美國參加第46屆世界技能大賽焊接項目，分數高踞第四名，奪得優異獎章，證明香港建造工藝達到世界級水平。

The HKIC achieved breakthroughs in international recognition, accreditation, and talent cultivation. The HKIC launched QF Level 4 Advanced Diploma programmes and part-time Professional Diploma in Construction programmes in 2022, further strengthening pathways for professional development.

The HKIC further strengthened component of the “New Technologies and Modern Methods of Construction” within the curriculum, which allows BIM technology to be fully integrated into all full-time skill training programmes, ensuring students master this essential digital tool.

The HKIC graduate, LAM Man-chun travelled to the United States to participate in the Welding competition at the 46th WorldSkills Competition. He ranked the fourth and received a Medallion for Excellence, demonstrating that Hong Kong's construction craftsmanship has reached world-class standards.



改革行業新形象

Revolutionising the Industry's Image

(2023)

面對智慧建造的時代浪潮，學院將培訓與前沿科技深度融合。為回應政府工務工程項目全面採用「安全智慧工地系統」(4S)的要求，學院分別於9月及11月首辦「安全智慧工地系統規劃及執行證書」及「安全智慧工地系統安全監督證書」課程，將建造安全提升至智慧化管理新層次。

學院深知革新行業形象的重要。2023年，學院著力建立「年輕、活力、專業」的新形象。透過與深受年輕人喜愛的關鍵意見領袖(KOL)合作，製作瀏覽量逾160萬的宣傳影片，成功將建造業數位化、高科技的一面廣泛傳播，改變了大眾對行業的刻板印象。此外，學院將「STEM聯盟」轉型為「STEAM聯盟」，成員學校超過80間，從中學階段起播下未來人才的種子。

學院啟動首屆「建造業青年大灣區交流計劃」，組織學生及青年從業員前往中國內地參觀學習，親身體驗大灣區建造業的規模與創新科技，為融入國家發展大局、共謀區域合作做好準備。

Responding to the rise of smart construction, the HKIC has deepened the integration of training with cutting-edge technologies. In line with the Government's requirement for Smart Site Safety System (4S) adoption, the HKIC launched the "Certificate in Smart Site Safety System Planning and Implementation" in September and the "Certificate in Safety Supervision with Smart Site Safety System" in November, elevating construction safety to intelligent management.

Recognising the importance of revolutionising the industry's image, the HKIC in 2023 built a "young, dynamic and professional" identity by partnering with Key Opinion Leader (KOL) to produce promotional videos that garnered over 1.6 million views, successfully showcasing the digitalised, high-tech side of construction and transforming public stereotypes. The HKIC also transformed the STEM Alliance into the STEAM Alliance, expanding its reach to more than 80 schools, nurturing future talent from secondary school onwards.

The HKIC launched the Construction Youth Exchange Programme in Greater Bay Area, organising students and young practitioners to visit the Chinese Mainland. Participants gained first-hand experience of the scale and innovative technologies of the Greater Bay Area's construction industry, preparing them for national development integration and regional collaboration.



實踐數位化現代科技 成就國際級人才

Harnessing Digital Technologies to Cultivate World-class Talent

(2024)

學院首次開辦焊接機械人訓練，應對行業自動化趨勢。同時，在焊接培訓中廣泛應用模擬焊接器，學生透過VR技術，在無風險的環境下反復練習，大幅提升操作熟練度與安全意識。

2024年8月，議會推出學院首個機械人課程，名為「焊接機械人應用專業證書」，以滿足建造行業對機械人技術專才日益增長的需求，及為學生開拓高科技事業的機會。首屆共有九名學生畢業，學生通過實踐訓練掌握先進焊接機械人技術，提升操作自動化工具的能力和信心。

學院更前瞻性地於電力裝置及水喉科課程中，首度融入「機電裝備合成法」(MiMEP)與「裝配式設計」(DfMA)概念，讓學生深入理解先裝後嵌的現代化建造模式，踐行「新技術、現代建築方法、現代工程管理及可持續性」這一核心支柱。



The HKIC has incorporated robotic welding training and construction robotics workshops to address automation trends. Additionally, simulated welding equipment allows students to practise repeatedly through VR, enhancing proficiency and safety awareness.

In August 2024, the CIC introduced the HKIC's first robotics programme, the "Professional Certificate in Robotic Welding Application", to meet the construction industry's growing demand for robotics specialists and to pioneer high-tech career pathways for students. The inaugural cohort comprised nine graduates, who acquired advanced robotic welding techniques through hands-on training, strengthening their capability and confidence in operating automated tools.

The HKIC has also integrated Multi-trade Integrated Mechanical, Electrical and Plumbing (MiMEP) and Design for Manufacture and Assembly (DfMA) into Electrical Installation and Plumbing programmes, enabling students to gain a deep

understanding of the modern workflow — from factory assembly followed by on-site prefabrication — and to practise the pillar of "Technology, Modern Methods of Construction, and Construction Management and Sustainability".



開拓國際與未來視野

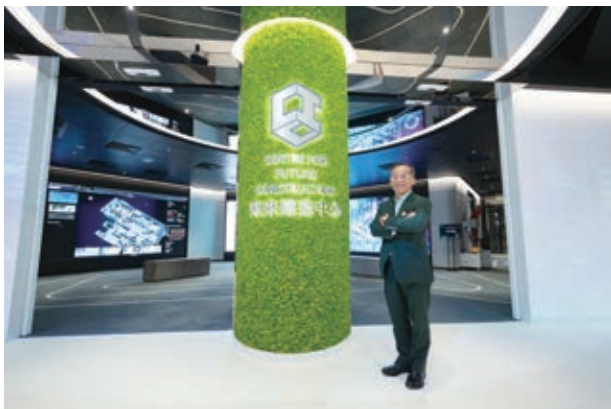
Expanding Global and Future Perspectives

(2025)

2025年，議會「未來建造中心」正式於九龍灣院校開幕，設有五大專區，包括數碼分身、安全智慧工地系統、人工智能、機械人及沉浸式模擬實景專區，展示不同先進建造技術，推動行業數碼轉型，為建造業創建更高效及安全的未來。

學院亦推出未來建造英才課程(FCE)，到英國、北京等地交流，參與業界先驅專屬交流活動，培育未來建造業領袖。

學院的資歷架構發展踏入另一里程碑，成功取得學科範圍評審資歷，可於「建造及建造業管理」的「學科範圍」內自主開辦不高於資歷級別第三級的課程，而毋須事先通過香港學術及職業資歷評審局(評審局)的課程評審。



In 2025, the CIC's Centre for Future Construction officially opened in Kowloon Bay campus, featuring five zones: Digital Twin Hub, Smart Site Safety System Hub, AI Hub, Robotic Hub, and Immersive Hub — showcasing advanced technologies to drive digital transformation and create a safer, more efficient construction industry in future.

The HKIC also launched the Future Construction Excellence Programme (FCE), providing exchange opportunities in the UK and Beijing, along with exclusive networking sessions with industry pioneers to nurture future leaders of the construction industry.

The HKIC has achieved a significant milestone in its participation in the Qualifications Framework. It has been awarded Programme Area Accreditation (PAA) status by the Hong Kong Council for Accreditation of Academic and Vocational Qualifications (HKCAAVQ). This accreditation empowers the HKIC to develop and offers programmes at QF Level 3 or below within the programme area of “Construction and Construction Management” without the need for individual Learning Programme Accreditation.

展望未來—「培育未來人才，共築發展藍圖」

Looking Ahead — “Nurturing Future Talent, Building the Blueprint Together”

(2025)

回望五十載歷程，從建造業訓練局到香港建造學院，變革的是名稱與方法，不變的是傳承「工匠精神」的初心與使命。這段光輝歷程，正是實踐與體現「四大支柱」。

展望未來，學院將繼續緊握「創新、專業化、年青化」的方向，與業界並肩前行，為香港建造業迎接智慧建造、碳中和等新挑戰，培育出新一代引以為豪的「世一專才」，共築更輝煌的下一個五十年。

Over the past 50 years, from the CITA to the HKIC, the name and methods have evolved — but the mission to preserve the “Craftsmanship Spirit” remains steadfast. This remarkable journey embodies the HKIC’s Four Pillars.

Looking ahead, the HKIC will continue to pursue “innovation, professionalisation and youthfulness”, working with industry to meet challenges such as smart construction and carbon neutrality. The HKIC is committed to cultivating world-leading professionals and building a glorious next 50 years.



感恩有你： 合作培訓計劃

Thankful for you:
Collaborative
Training
Scheme

在香港這片充滿活力的城市，建造業一直是推動社會發展的重要基石。而在過程中，學院扮演著不可或缺的角色。多年來，學院因應業界需要，與不同持份者攜手合作，為特定崗位開辦度身訂造課程。此外，學院還與不同政府部門合作開展多樣化的課程，包括與渠務署合作的原位內搪喉管修復課程，以及土木工程拓展署和漁農自然護理署合作的手作步道課程，靈活應對業界需求。我們感謝合作夥伴的信賴，讓學生得以在實踐中學習，共同推動行業向前發展。

In Hong Kong — a city full of vitality — the construction industry has always been a key pillar driving social development. Throughout this journey, the HKIC has played an indispensable role. Over the years, the HKIC has responded to industry needs by working closely with various stakeholders to develop tailor-made programmes for specific roles. It has also partnered with Government departments to launch a range of specialised training, including the cured-in-place pipe course with the Drainage Services Department and the handcrafted trail course with the Civil Engineering and Development Department and the Agriculture, Fisheries and Conservation Department. These collaborations ensure a flexible response to industry demands. We are grateful for the trust and partnerships that enable our students to learn through practice and continue progressing together with the industry.

學院與商會、工會及非政府機構保持緊密聯繫，多年合作無間，從提升中級技工技能到協助普通工友取得專業資格，到近年為註冊中工或大工推出「一專多能」課程，幫助他們學習掌握多一門手藝，以適應市場需求。此外，為了幫助需要照顧家庭的工友，學院推出靈活的料理家務者班，以彈性和靈活調整上課時間及相關安排，以支持他們重返職場。每項課程都讓工友「學以致用」，不僅是技術的提升，更是生命的變奏，協助了無數家庭。

學院除了積極鼓勵業界聘用學院畢業生外，亦與商會、承造商和分包商合作開展中級技工合作培訓計劃和認可技術專才培訓計劃，並舉辦大大小小的招聘活動，以「先招聘後培訓」模式，不僅讓學生獲得專業知識與技術，還能在行業中穩步發展，推動建造業的可持續發展。

此外，自2022/23學年起，學院新增多個培訓夥伴，擴大培訓規模，並協助發展英語教材，聯手為少數族裔提供合適的課程。學院與非政府機構合作，轉介少數族裔人士參與計劃，幫助他們投身行業，發揮所長。

至今，學院已通過各類合作計劃培育逾兩萬名畢業生，當中95%畢業生於提升技能後繼續在業界作出貢獻。業界深切感受到不論是學院培訓的學生或是合作計劃的學生，均擁有專業態度與優秀表現，許多畢業生更榮獲傑出學徒的殊榮，證明了培育優秀技術人才的成果，也為年輕工匠帶來了莫大的鼓舞。這些努力不僅是單一機構的成就，更是香港建造業共同努力的結果。

一直以來，學院作為橋樑，把政府、商會、工會、僱主和非政府機構連繫起來。這份堅毅與熱誠，必將繼續支持學院和業界共同前行，為社會締造更光明的未來。

The HKIC maintains strong ties with chambers, trade unions, and Non-Governmental Organisations (NGOs). Through years of seamless collaboration — from enhancing the skills of intermediate tradesmen to supporting general workers in attaining professional qualifications, and more recently launching the “Multi-Skilled” training programmes for registered semi-skilled and skilled workers — we help practitioners acquire additional competencies to stay aligned with market needs. To support workers with family caregiving responsibilities, the HKIC has also introduced a flexible “Home Makers” training course, adjusting schedules and arrangements so they can return to the workforce. Each programme enables workers to “apply what they learn”—not only improving their technical ability but also transforming their lives and supporting countless families.

Beyond encouraging the industry to employ the HKIC’s graduates, we also work with chambers, contractors, and subcontractors to implement the Intermediate Tradesman Collaborative Training Scheme and the Approved Technical Talents Training Programme. Through recruitment activities of various scales, we adopt a “first-hire-then-train” model that equips students with professional knowledge and practical skills while helping them build steady careers, thereby promoting the sustainable development of the construction industry.

Since the 2022/23 academic year, the HKIC has expanded its network of training partners, scaled up training capacity, and collaborated on the development of English learning materials to offer suitable programmes for ethnic minority groups. By partnering with NGOs to refer participants, the HKIC support ethnic minorities in entering the industry and realising their potential.

To date, the HKIC has nurtured more than 20,000 graduates through collaborative programmes, with 95% continuing to contribute to the industry after upskilling. Employers consistently recognise that both students trained by the HKIC and collaborative-programme trainees demonstrate professionalism and strong performance. Many graduates have earned the title of Outstanding Apprentice — proof of our success in cultivating high-calibre technical talent and a major source of motivation for young craftsmen. These achievements belong not to any single institution, but to the united efforts of Hong Kong’s construction community.

Throughout the years, the HKIC has served as a bridge — connecting the Government, chambers, trade unions, employers, and NGOs. This spirit of dedication and resilience will continue to support the shared progress of the HKIC and the industry as we work together to build a brighter future for society.

用心承傳 以智開啟

Nurturing Heritage,
Enlightening Tomorrow



在香港建造學院(學院)走過半世紀的足印中，每一頁歷史由無數工匠、教育者與青年共同刻劃。這不僅是學院發展紀錄，工藝的靈魂因教育而昇華，更是關於承傳與革新的城市故事。

踏入新里程，學院以四大支柱，肩負引領本地建造業走向未來的使命。我們深信，每位學生都是未來城市的築夢者與發光者。

Over half a century, the history of the Hong Kong Institute of Construction (HKIC) has been shaped by craftsmen, educators and youth — a story of heritage and innovation where craftsmanship is elevated through education.

Entering a new era, the HKIC stands on its “four key pillars” to lead Hong Kong’s construction industry forward, believing every student will build and illuminate the city of tomorrow.



一所教育機構屹立於城市中五十載，這份堅持與傳承殊不容易，是學院及其前身每位持份者共同努力的成果。

學院不忘初衷，明確實踐全人教育宗旨。透過建造業議會(議會)主席何安誠教授工程師及執行總監鄭定寧工程師的感言，我們看到建造業未來的藍圖；經過時任議會主席陳家駒先生與建造業訓練委員會主席陳修杰工程師及林健榮測量師等人的協調合作，中級技工成為技術全面的高級技工；通過前院長黃君華博士工程師推動課程改革，引入更多文憑及證書課程，引領學生踏上清晰的事業階梯，為建造業界培育專才。

For fifty years, this educational institution has stood firm — a testament to the collective efforts of HKIC's stakeholders and its predecessors.

Remaining true to its mission of whole-person education, the HKIC's future blueprint is shaped by the vision of our Construction Industry Council (CIC) Chairman, Ir Prof. Thomas HO On-sing, and our Executive Director, Ir Albert CHENG Ting-ning. Former CIC Chairman Mr. CHAN Ka-kui and former Construction Industry Training Board (CITB) Chairperson Ir CHAN Sau-kit, and Sr Eddie LAM Kin-wing worked together to develop semi-skilled workers into fully skilled workers, whilst former HKIC Director Ir Dr. Francis WONG Kwan-wah championed curriculum reform, introducing diplomas and certificates for clear career pathways and support the industry in nurturing professional talent.



學院珍藏著不同時代的歷史圖片及文獻，這一點一滴的故事、師傅們珍視的師徒關係、飲水思源的宗旨，藉著學院專業培訓，把「工藝之魂•心魂技行」的精神以教育形式承傳下去。

在科技日新月異下，學院緊貼時代步伐，以創新、專業化和年輕化為目標，推行技術與理論的系統培訓，吸引知識型年輕新血加入。學院肩負推動建造科技的先導角色，確立「四大支柱」的培訓方向，落實STEAM（科學、科技、工程、藝術、數學）教育普及化。同時協助從業員不斷自我提升及持續進修，透過建造專業進修院校提供不同建築範疇的專才教育及專業技術培訓課程，如未來建造英才課程、建築信息模擬(BIM)、建造管理、建造技術及品質、以及大師班培訓課程等，以鼓勵持續進修，為建造業培育充滿自信的新一代專業人才。

我們期待學院孕育的每位學生，都能在本港建造業領域中展現耀眼光芒，帶領學院昂首邁進亞洲區建造業職業專才教育領導地位。

The HKIC preserves historical photographs and documents, ensuring that stories, master-apprentice relationships and gratitude ethos are transmitted through professional training, passing down “the Spirit of Craftsmanship, Soul, Skills and Action” through education.

As technology advances rapidly, the HKIC keeps pace with the times, striving for innovation, professionalisation and rejuvenation. It promotes systematic technical and theoretical training to attract a new generation of knowledge-based talent. The HKIC spearheads the development of construction technology and has established its training direction around four key pillars. It promotes STEAM (Science, Technology, Engineering, Arts, and Mathematics) education to make it widely accessible, while helping industry practitioners upgrade their technical skills. The School of Professional Development in Construction (SPDC) provides professional education and specialised technical training across various construction domains, including the Future Construction Excellence Programme, Building Information Modelling (BIM), construction management, construction technology and quality, and Master Classes. These efforts aim to cultivate well-rounded professional talent for the industry.

We look forward to every student nurtured by the HKIC shining brightly in Hong Kong's construction industry and leading the HKIC towards a leadership position in Asia's construction vocational and professional education training.





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NEXT 50 YEARS





香港建造培訓50周年
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