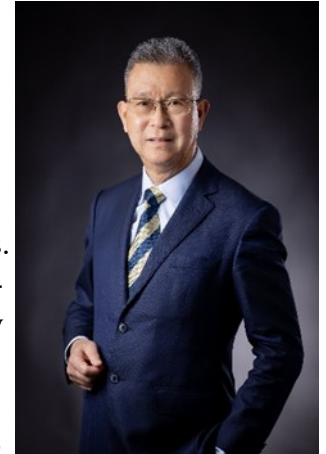


主席寄語 / Chairman's Message



The rapid development of artificial intelligence AI has brought about disruptive changes. The recent issues on AI information security has escalated from the early privacy leaks to the autonomous loss of control and collective attacks. These crises have entangled on AI future development and application. Corporates rethink on the necessity of establishment of specific information security measures which include formulating clear policies, implementing technical protections, and strengthening personnel training. These measures look familiar with our knowledge on basic quality management. Things seem are back to square one. AI tends to automate repetitive or routine tasks. These advantages effectively reduce human errors caused by carelessness and fatigueness. In applying business model, AI has impact on general QC and QA process. The core of QC on errors and defects can be improved by AI automated and highly accurate detection. Full inspection replaces sampling by utilizing the extremely fast detection. AI can perform predictive quality management by monitoring sensor data from production line, can issue early warnings before defective products and correct the process in real time. AI can handle a large amount of repetitive works, decision-making and strategic thinking of which are the main and critical elements in quality management. However, the preconditions of real collaboration and relationship between human and AI are trust, control and regulation. These all needs cooperation between businesses-to-businesses and countries-to-countries.

We have good topics in this issue of Newsletter. we have a section of interview with Dr. Alex Lee, our Vice-chairman, sharing his view of AI application in quality improvement in quality pain points in the market right now. Also, there is an article topic from our Execo member Ir. Victor Ho on 'The Road to Registered Professional Quality Engineer (Construction)'. Some activities organized in the past few months in 2026 were also highlighted.

In 2026, we focus on AI training and quality management. New ISO standards version will be issued in 2026. We will seek more professional registration, mutual recognition and cooperation with local and GBA Quality Associations.

I thank you all the participants who contributed to this issue of Newsletter especially Editor, Interviewee, and all articles' providers.

I hope all members and readers enjoy this issue.

Dr. Frankie Lam

Chairman,

Hong Kong Quality Management Association

編者的話 / Editor's Note — Mr. Wood Cheung



Dear Readers,

Welcome to this August 2026 Issue. We have invited two quality experts from different backgrounds to share how Hong Kong and the Greater Bay Area can respond to the next phase of quality transformation.

In an exclusive interview, Dr. Alex Lee discusses how AI will revolutionize quality development in the Greater Bay Area over the next decade. He predicts a shift from reactive quality control to a data-driven "Predictive Quality Management System" (Predictive QMS), combining Hong Kong's compliance expertise with the region's manufacturing prowess.

Dr. Lee highlights that AI solves urgent market pain points, including complex cross-border ESG compliance, hidden material defects, and delivery instabilities caused by frequent supply chain changes. However, he warns against common industry misconceptions, emphasizing that AI is not mere automation and relies heavily on standardized, high-quality data to avoid the "garbage in, garbage out" trap. For SMEs, standardizing quality processes and data definitions is the most critical step before adopting AI systems.

In the Featured Article of this issue, Ir. Victor K.H. Ho emphasizes that the HKQMA Registered Professional Quality Engineer (Construction) qualification is a crucial milestone for validating expertise in construction quality assurance. Following recent quality supervision incidents and the HKSAR Government's mandate for the Digital Works Supervision System (DWSS), the demand for competent quality professionals has surged. However, Hong Kong's tertiary education sector currently lacks dedicated Construction Quality Management programs, creating a significant skills gap. The HKQMA RPQE accreditation bridges this shortfall by establishing a recognized professional benchmark. Ultimately, it ensures practitioners are fully equipped to deliver safe, compliant projects for Hong Kong's long-term infrastructure developments, including the Northern Metropolis Development Strategy.

We hope the dialogue equips you with a clearer direction—and inspires concrete steps toward quality improvements.

HKQMA Past Newsletters



協會副主席訪問 / Interview With Vice Chairman of HKQMA

李廣志博士 (Dr Lee Kwong Chi, Alex)

- Vice Chairman (External Affairs & IT), Hong Kong Quality Management Association (HKQMA)



Dr Alex Lee holds a Master of Science (MSc) and a Bachelor of Engineering with Honours (BEng (Hons)), and maintains key professional certifications including Six Sigma Black Belt, Scrum Master Certified (SMC), and PRINCE 2 Practitioner, who is a Senior Consultant and technical leader with over 15 years of experience specializing in the design, development, testing, and management of complex business solutions across IT, engineering, and operations sectors. His career, spanning SMEs and multinational corporations in the UK, US, he employs a results-oriented approach, leveraging deep technical expertise complemented by Lean Six Sigma methodologies and Robotic Process Automation (RPA) to diagnose client needs and architect solutions with measurable ROI.

問：您如何用一句話概括：未來 10 年 AI 對香港與大灣區的「質量發展」將帶來的最大改變是什麼？

答：AI 將推動大灣區從「製造業的品質控制（QC）」全面轉型為「數據驅動的預測性全面質量生態（Predictive QMS）」。

香港的國際合規與頂尖科研能力，結合大灣區完善的智造產業鏈，將使質量管理從「事後把關」變為「事前防範」，實現跨境供應鏈的實時信任與極致良率。

問：您覺得目前市場最急迫的質量痛點是哪三個？（例如可追溯、良率、風險、合規、交付穩定性等）

答：目前市場最急迫的三大質量痛點：

跨境合規與追溯困難：大灣區供應鏈複雜，面對歐美極其嚴格的 ESG 及碳追溯法規，傳統人工記錄無法做到跨邊境、全生命周期的即時追溯。

隱性缺陷與良率瓶頸：傳統機器視覺只能檢測表面傷痕，無法解決由多工藝參數耦合導致的材料內部隱性缺陷與高階製程良率瓶頸。

變更管理引發的交付不穩定：供應鏈上下游頻繁變更（如更換原材料、產線微調），缺乏動態風險評估，導致批量質量事故頻發。

協會副主席訪問 / Interview With Vice Chairman of HKQMA

李廣志博士 (Dr Lee Kwong Chi, Alex)

問：在不同行業中，質量團隊常見的誤區是什麼？

答：不同行業質量團隊常見的三大誤區：

誤區一：以為 AI = 自動化（Automation）。自動化只是機械性執行規則，而 AI 的核心在於從未知數據中學習並做出決策與預測。

誤區二：忽略「垃圾進，垃圾出（GIGO）」。過於關注算法模型的先進性，卻忽略了底層點檢表、儀器數據的混亂、缺失與不一致性。

誤區三：忽略「變更管理」與模型漂移。誤以為 AI 模型一次上線終身受用，忽略了現場工況改變（如季節溫度變化）會導致 AI 精準度下降。

問：AI 在貴公司的方案中，最先改變的質量環節是什麼？

答：AI 最先改變的質量環節：

最先改變的是「檢測（Inspection）」與「審核（Audit）」環節。

檢測：利用計算機視覺（CV）進行秒級的複雜外觀多缺陷分類。

審核：利用大語言模型（LLM）自動解讀數千頁的國際標準、供應商報告，實現秒級的合規性初審。

企業導入 AI 的成功定義（KPI）：

財務指標：不良質量成本（COPQ）降低 20% 以上，以及產線打樣（NPI）周期縮短。

效率指標：異常原因定位時間（Root Cause Analysis）從數天縮短至數分鐘。

風險指標：重大合規漏洞與客戶投訴率趨近於零。

協會副主席訪問 / Interview With Vice Chairman of HKQMA

李廣志博士 (Dr Lee Kwong Chi, Alex)

問：企業導入 AI 時，通常怎樣定義成功？

答：企業導入 AI 的成功定義（KPI）：

財務指標：不良質量成本（COPQ）降低 20% 以上，以及產線打樣（NPI）周期縮短。

效率指標：異常原因定位時間（Root Cause Analysis）從數天縮短至數分鐘。

風險指標：重大合規漏洞與客戶投訴率趨近於零。

問：對中小企而言，導入 AI 的門檻常在資料、流程與人才。您認為哪一項最關鍵、也最容易被忽略？

答：「流程與數據標準化」最為關鍵，也最容易被忽略。

中小企常以為缺少人才或資金，但實際上最致命的是內部缺乏標準化的質量流程。如果底層的作業程序（SOP）和數據定義不統一，外購再強大的 AI 系統也無法訓練出有價值的模型。

問：AI 模型在現場會出現哪些典型品質/可靠性問題？

答：數據漂移（Data Drift）：產線設備磨損或更換批次，導致輸入數據特徵改變，AI 準確率大幅下滑。

黑盒效應（Black-box Issue）：AI 給出不良品判定，但無法給出可解釋的物理原因，導致工程師不敢完全信任。

邊緣案例失效（Edge Cases Failure）：面對極少出現的全新缺陷類型，AI 出現嚴重漏檢。

協會副主席訪問 / Interview With Vice Chairman of HKQMA

李廣志博士 (Dr Lee Kwong Chi, Alex)

問：您如何建立 AI 模型驗證指標與驗收門檻？

答：必須建立雙重驗證矩陣：

統計學指標：精準率（Precision） $\geq 98\%$ ，召回率（Recall/不漏檢） $\geq 99.9\%$ 。

業務穩定性門檻：在測試集與現場盲測中，模型對未知批次的泛化誤差波動不得超過 $\pm 1\%$ 。同時必須具備「可解釋性（XAI）」輸出。

問：請分享一個成功案例：AI 如何帶來可量化的質量提升？

答：背景：某大灣區電子製造服務（EMS）大廠。

痛點：高階多層印刷電路板（PCB）組裝打線工藝，過去依賴人工抽檢，漏檢率高。

AI 方案：導入「邊緣 AI 視覺+工藝參數聯動預測」系統，實時監控焊接電流與外觀。

可量化成果：製程最終良率從 94.2% 提升至 99.1%，人工複檢成本降低 65%，客戶因焊接問題引發的退貨率降為 0。

問：對質量專業人士/中小企：未來 1-2 年最值得投入的 AI 能力有哪些？

答：對質量專業人士：Prompt Engineering（提示詞工程）與低代碼數據分析能力。學會用 AI 工具（如 Python 庫、LLM）快速清洗數據並撰寫 8D 報告。

對中小企業：微調（Fine-tuning）輕量化開源大模型的能力，用自身積累的獨特工藝知識庫，打造企業專屬的質量技術問答系統。

協會副主席訪問 / Interview With Vice Chairman of HKQMA

李廣志博士 (Dr Lee Kwong Chi, Alex)

問：如果讓您給「質量從業者 10 年準備清單」，您會列哪 5 件必做事項？

答：[2026-2029: 數據奠基] ——► [2029-2032: 系統融合] ——► [2032-2036: 生態戰略]

1. 考取統計/數據證照 / 2. 參與數據清洗專案 / 3. 建立 AI 可靠性驗證架 /
4. 掌握低代碼/流程自動化 / 5. 成為合規與倫理領袖

1. 考取「數據科學」或「AI 質量經理」相關認證：除了傳統的六西格瑪（Six Sigma），必須補充機器學習、統計學抽樣模型在數字化時代的應用知識。
2. 親自主持一次「質量數據資產化」專案：在企業內將過去紙質、分散的 Excel 點檢表，徹底標準化並轉為結構化數據庫。
3. 建立一套「AI 模型質量管理（Model QA）」流程：學會如何像檢驗硬體產品一樣，去檢驗、監控、稽核 AI 模型的準確性與漂移風險。
4. 掌握「低代碼（Low-code）與 RPA 流程自動化」工具：具備將日常重複性的質量數據收集、日報生成工作，交由 AI 與自動化腳本執行的能力。
5. 升級為「跨境合規與 AI 倫理戰略專家」：深入研究國際上（如歐盟、美、中）針對 AI 安全性、碳足跡及隱私權的法規，成為引導企業利用 AI 進行高級合規轉型的領袖。

活動亮點 / Events Highlights — 參觀大埔益力多工廠

本會執委成員秘書馮順才先生及會員事務黃基勇先生帶同會員於 2026 年 5 月 8 日參觀大埔益力多工廠，益力多工廠代表分享本地飲品生產經驗，參訪會員獲益良多。

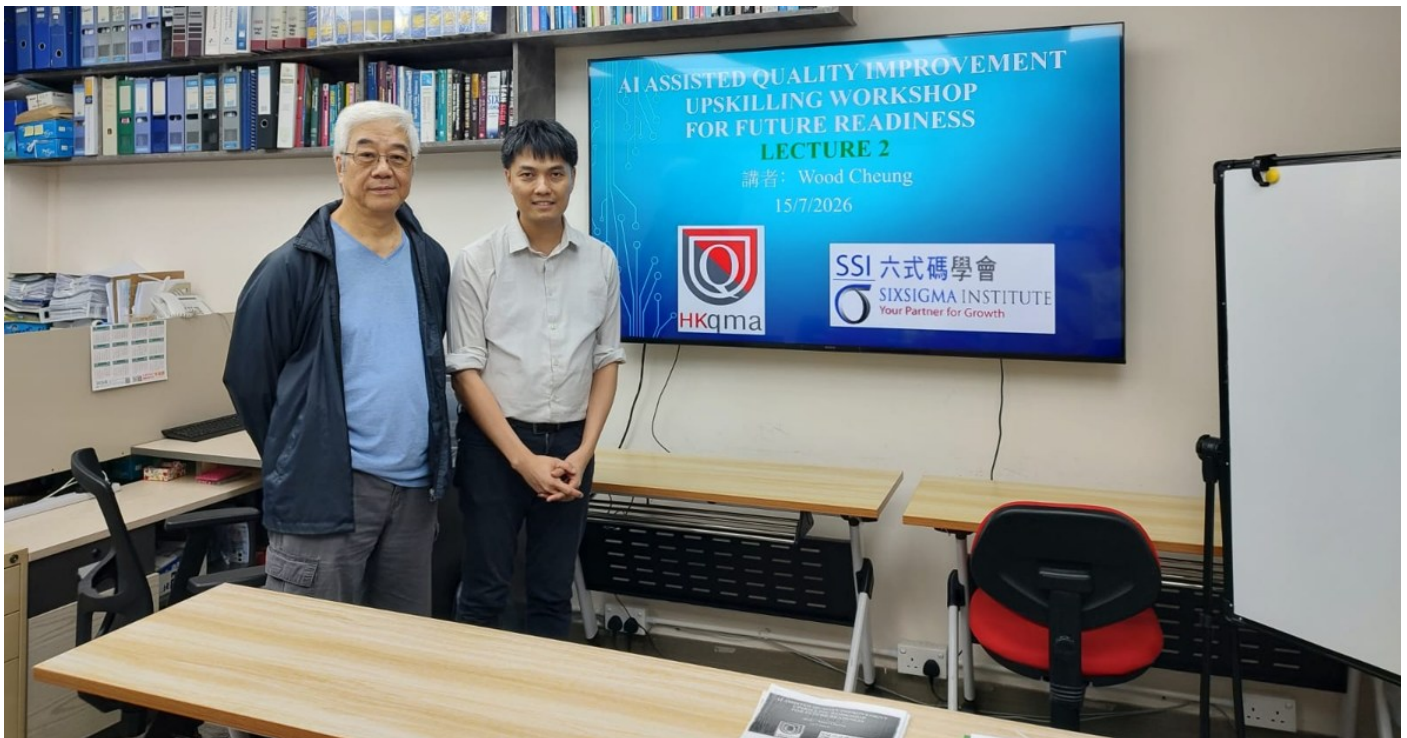


活動亮點 / Events Highlights —

AI Assisted Quality Improvement Upskilling Workshop for Future

Co-organised with Six Sigma Institute, Hong Kong Quality Management Association has organised a 2-day workshop 'AI Assisted Quality Improvement Upskilling Workshop for Future Readiness' on 8/7 and 15/7. The workshop covers fundamentals of GenAI, AI Agents, and Agentic AI. Participants will learn to use free AI tools to:

- Fill in forms accurately (avoiding copy and paste errors)
- Automate business processes
- Perform data analytics
- Use Gemini for creative content generation, project management, and producing research or analytical reports



Executive member, Dr Victor Leung and Mr Wood Cheung shared the AI experiences in data analytics and Gemini in the workshop.

活動亮點 / Events Highlights —

Free Seminar of Environmental Management System ISO 14001:2026



Free seminar of Environmental Management System ISO 14001:2026

Speaker:

Dr. Frankie Lam (Chairman of HKQMA)

Course Overview

Recognize history of International Organization for Standardization ISO

Understand the ISO 14001 family of the standard

Discuss the changes of the ISO 14001:2026 version from the old version

Understand the ISO 14001's principles, process, terms and definitions

Introduce the ISO 14001:2026 Quality Management System Requirements

Benefits

On successfully completing the seminar, students will be able to:

Comprehensively understand the background of ISO and its organization and function

Understand the purposes, benefits and structure of Environmental Management System

Who should attend ISO 14001 Seminar? (Target Participants)

First and second level team leaders and managers.

Environmental protection performance improvement and compliance

Methodology and Content

The seminar is designed in mixture of teach and learn and Q&A

Date: 26 Aug 2026 (WED)

Time: 19:30

Duration: 1 hour (CPD: 1 hour)



最新活動及協會資訊 / Events & News Updates

參觀香港生產力促進局

本會執委成員秘書馮順才先生及會員事務黃基勇先生帶同會員於 2026 年 8 月 27 日參訪香港生產力促進局，以及參加了生產力局的全民 AI 啟動禮。香港生產力促進局代表分享本地推動自動生產及人工智能運用經驗。



最新活動及協會資訊 / Events & News Updates

參觀香港生產力促進局



The Road To Registered Professional Quality Engineer (Construction)

Ir. Victor K.H. Ho , Director of Consultancy, HKQMA

R.P.E., CEng., BEAM Pro., CSMc, CQM, PBI, IRCA, FSOE, FHKQMA,
FHKICA, MHKIE, MIMMM, MHKIEIA

Chief Executive Officer, ExePro Business Consultancy Company



The construction industry has been highly concerned about recent developments relating to construction quality supervision incidents. The Construction Industry Council (CIC) issued the "Quality Alert – Construction Quality Supervision Alert (Ref. Quality Alert 001/19)" and the "Review Report on Quality Site Supervision Practices of the Hong Kong Construction Industry". These publications conveyed a strong message on the importance of quality control throughout all construction activities, emphasizing the need for effective quality assurance systems and the proper execution of construction quality supervision responsibilities by industry practitioners.

Furthermore, the HKSAR Government has mandated the implementation of the Digital Works Supervision System (DWSS) for construction projects. The initiative aims to enhance the standard and efficiency of site supervision while improving construction quality and safety performance. As a result, the demand for competent construction quality professionals and specialized training has increased significantly across the industry.

Despite these growing industry needs, Hong Kong's tertiary education sector currently offers limited dedicated programs focusing specifically on Construction Quality Management. This creates a gap in developing competent Project Quality Engineers equipped with the specialized knowledge required to meet modern construction quality challenges.

Achieving the title of HKQMA Registered Professional Quality Engineer (Construction) represents a significant milestone in my professional development and demonstrates my commitment to advancing quality management practices within the construction industry. This professional recognition validates my knowledge, competence, and practical experience in construction quality assurance, quality control, auditing, process improvement, and compliance with industry standards.

This entitlement of HKQMA RPQE (Construction) qualification helps bridge this gap by establishing a recognized professional benchmark for construction quality practitioners. It supports Hong Kong's long-term infrastructure development, including the Northern Metropolis Development Strategy and the Government's upcoming Hong Kong Five-Year Plan, while promoting professional excellence and strengthening the quality profession within the construction sector. This accreditation recognizes both the expertise and professional contribution of quality practitioners in delivering safe, compliant, and high-quality construction projects.

重點課程 / Key Course — Registered Quality Management (RQM) Program



HKQMA – Registered Quality Management (RQM) Program and

Six Sigma Institute (SSI) co-organize the Registered Quality Manager (2026)

Empowering Tomorrow's Quality Leaders with AI-Driven Excellence

 **Teaching Period: End June – July 2026**

Either Thursday Evenings (from 25 June 26) or Saturday (2 meetings, from 27 June 26)

Venue: SSI office Classroom

 **Quality Improvement with AI**



Learning Objectives

By the end of this certificate program, participants will be able to:

- Lead organizational transformation through **AI-enabled Quality Management**
- Understand and apply **core principles of Total Quality Management (TQM)**
- Interpret and implement **ISO 9001 Quality Management Systems**
- Apply **Six Sigma and Quality Strategy** to real-world improvement projects
- Use **Quality Management tools** effectively in both manufacturing and service sectors
- Conduct **Quality Control and Statistical Analysis** for decision-making
- Integrate **AI technologies** into quality processes for automation, prediction, and optimization
- Build **AI Agents from scratch** to support quality auditing, defect detection, and service quality monitoring

重點課程 / Key Course — Registered Quality Management (RQM) Program

Program Topics (10 Sessions, 3 Hours Each)

How AI Helps Quality Professionals Achieve Results

1. Automating Compliance & Auditing

AI agents can scan documents, detect inconsistencies, and generate audit reports—reducing manual workload and improving accuracy.

2. Enhancing Defect Detection

Computer vision models identify defects faster and more accurately than human inspectors, improving product quality and reducing rework.

3. Predictive Quality Control

Machine learning forecasts potential failures and process deviations before they occur, enabling proactive intervention.

4. Real-Time Quality Monitoring

AI agents track KPIs, analyze sensor data, and alert teams instantly when quality thresholds are breached.

5. Improving Customer Experience

AI-powered sentiment analysis and chatbots help organizations understand customer needs and improve service quality.

6. Building AI Agents for Quality Tasks

Participants will learn to build AI agents that:

- Analyze defects
- Monitor compliance
- Process customer feedback
- Support decision-making

Who Should Attend

- Quality Managers & Engineers
- Operations and Production Supervisors
- ISO Auditors and Consultants
- Professionals seeking AI integration skills
- Anyone pursuing a career in Quality Management

REGISTERED PROFESSIONAL QUALITY ENGINEER (CONSTRUCTION)



OPEN FOR APPLICATIONS

COURSE DESCRIPTION

RPQE Program is one of the professional courses to provide a comprehensive and clear understanding of quality management in construction industry. Graduates learned practical quality key trends and knowledge for their day-to-day working after this training. This program is now delivered by face-to-face, i.e. trainer can directly share their quality management experience and case studies to participants.

Program Structure

This program consists 12 modules. Each module requires participant spending approx. 3 hours in attending the class and preparing for the written examination.

After successfully completed the course, participant (for HKQMA members only) may consider to apply professional assessment as Designatory lettering RPQE after professional registration.

RPQE REGISTRATION FEE

HK \$12,000 (including Exam fee)

HK \$10,800 (for early bird)

VENUE & DATE

Venue: TBC

Date: TBC

APPLICATION

Please submit the completed application form and all necessary supporting documents by email to enquiry@hkqma.org

For enquiries, please contact
Ir. Victor Ho or Ms. Can Fung
at 25812210

<http://www.hkqma.org>

Executive Committee 2026

Dr. Lam Kin Sun Frankie (FL) – Chairman

Mr. Cheung King Wu, Wood (WC) – Vice Chairman (Internal Affairs & Publication)

Dr. Lee Kwong Chi, Alex (AL) – Vice Chairman (External Affairs & IT)

Mr. Cheng Man Chi, Frankie (FC) – Hon. Treasurer

Mr. Fung Shun Choi, George (GF) – Hon. Secretary

Dr. Leung Wai Keung, Victor (VL) – Director of Academic

Dr. Chau Ka Yin, Gavin, (GC) – Director of Functions & Coordination

Mr. Ho Kam Hong, Victor (VH) – Director of Consultancy

Ms. Chow Pui Kei, Perky (PC) – Director of Promotion

Mr. Wong Kei Yung, Timothy (TW) – Director of Membership

Mr. Lee Yiu Chung, Kelvin (KL) – Director of Training



About HKQMA

Established in 1983, the Hong Kong Quality Management Association (HKQMA) has been actively promoting a better understanding of quality management methods in Hong Kong. Over 40 years of development, HKQMA has extended its service to offer a wide range of professional services including quality

management training, focus group seminar, consultancy service, company visit and organizational experience sharing activities to its members. HKQMA also maintains good relationship with various sectors such as government departments and semi-official organizations, universities and education institutions, renowned companies across manufacturing, service, engineering, construction and public services etc.



www.hkqma.org



enquiry@hkqma.org



5933 1375



+852 2581 2210



香港品質管理協會HKQMA



[@hkqma.org](https://twitter.com/hkqma.org)



ROOM 130, 1 FLOOR, LIVEN HOUSE, 61-63 KING YIP STREET, KWUN TONG, KOWLOON, HONG KONG
香港九龍觀塘敬業街61-63號利維大廈1樓130室