# 說 與量師 QUANTITY SURVEYOR

THE HONG KONG INSTITUTE OF SURVEYORS 香港測量師學會

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# 香港測量師學會 The Hong Kong Institute of Surveyors

成立於 1984 年 Established in 1984

#### 代表香港測量專業的唯一本地專業組織

The only local professional organization representing the surveying profession in Hong Kong

#### 制訂專業服務的標準

Setting standards for professional services and performance

#### 制訂專業守則 Establishing codes of ethics

#### 釐訂加入專業測量師行列的要求

Determining requirements for admission as professional surveyors

#### 鼓勵會員透過持續專業進修以增進專業技能

Encouraging members to upgrade their skills through continuing professional development

#### 在政府訂定政策方面擔當重要的諮詢角色,並十分關注對公眾及測量專業有相當影 響的房地產樓宇事官

Playing an important consultative role in government policy making and on issues related to buildings and properties that affect both the public and the profession

#### 曾向政府提供包括樓宇僭建問題、樓宇安全運動、物業管理問題、城市規劃及發展 策略、建築質素和房屋問題的意見

Having advised the Government on issues such as unauthorized building works, building safety campaign, problems of property management, town planning and development strategies, construction guality and housing problems

# **本**會組織架構 **Our Structure**

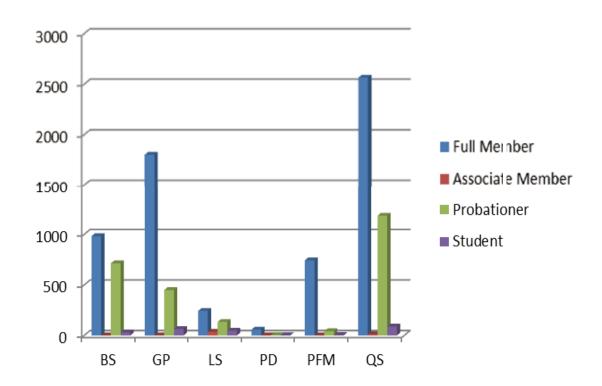
則量組
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發展組
管理組
則量組
青年組
委員會
委員會
委員會



# 會員分類 Grade of Membership

名譽會員級 Honorary Members	-	名譽會員	(Hon. FHKIS)
正式會員級 Full Members	-	資深專業會員	(FHKIS)
	-	專業會員	(MHKIS)
技術會員級 Technical Grade Members	-	副會員	(AMHKIS)
培訓會員級 Training Grade Members	-	見習會員	(Probationer)
	-	學生會員	(Student)

# 會員統計 Member Statistics



- BS Building Surveying Division 建築測量組
- GP General Practice Division 產業測量組
- LS Land Surveying Division 土地測量組
- PD Planning & Development Division 規劃及發展組
- **PFM** Property & Facility Management Division 物業設施管理組
- QS Quantity Surveying Division 工料測量組

#### 香港測量師學會工料測量組 HKIS Quantity Surveying Division (QSD)

於 2013 年 1 月 1 日會員數目 Members as at 1 Jan 13

182	Fellows	資深專業會員
2463	Members	專業會員
23	Associate Members	副會員
	Probationers	見習會員
110	Students	學生會員



# 工料測量師 Quantity Surveyors

工料測量師是什麼? Who are quantity surveyors?

- 建設造價和合同的專家
   Experts in construction costs and contracts
- 受過特別培訓的專業人士 Specially trained professionals

工料測量師的主要功能是什麼? What are quantity surveyors' main functions?

- 預估、監控、審核建設工程費用
   Estimate, monitor, assess construction costs
- 招標、投標、詢標、評標、議標 Invite, submit, enquire, evaluate and negotiate tenders
- 編寫及解釋合同及商務條款
   Draft and interpret contractual and commercial terms

#### 工料測量師要擁有的知識? Knowledge that quantity surveyors should possess?

- 建築技術 Construction technology
- 建設經濟、資源消耗、生產力 Construction economics, resources consumption, productivity
- 計量計價 Measurement and pricing
- 預算和成本控制 Budgeting and cost control
- 合同及法律 Contracts & law
- 管理技巧 / 知識
   Management skill / knowledge



# 什麼工程需要工料測量師?

What types of construction require quantity surveyors?

所有類型,包括 All types, including

- 建築工程 Building construction
- 裝修工程 Fitting out
- 機電安裝工程 Mechanical and electrical installations
- 土木工程 Civil engineering
- 物業保養、維修、翻新、活化工程
   Property maintenance, repair and renovation, revitalization
- 拆卸工程 Demolition
- 改建及加建 Alteration and Addition

#### 什麼時候需要工料測量師? When are quantity surveyors required?

- 構想階段 Inception stage
- 設計階段 Design stage
- 招投標階段 Tendering stage
- 施工階段 Construction stage
- 結算階段 Final account stage
- 排解爭議時 When resolving disputes



What are the possible occupational titles?

- 工料測量師、項目工料測量師
   Quantity Surveyor, Project Quantity Surveyor
- 工料測量經理、合約經理、商務經理、項目經理 QS Manager, Contract Manager, Commercial Manager, Project Manager
- 索賠顧問… 等 Claims Consultant... etc.



# 工料測量師如何協助發展商 / 投資者? What can the developers / investors do with the help of quantity surveyors?

- 評估是否投資建設
   Assess whether to invest in a development
- 選擇成本效益的最佳建設方案
   Choose the most cost-effective development scheme
- 訂立投資預算
   Fix the development budget
- 控制設計在投資預算內
   Control the design to be within budget
- 選擇成本效益的最佳設計及用料
   Choose the most cost effective design and materials
- 選擇最佳的招標程序及合同安排 Choose the most appropriate tendering procedure and contractual arrangement
- 選擇及邀請合適的承建商投標
   Select and invite suitable contractors to tender
- 適當地向投標者說明工程要求及工程量
   Describe adequately the construction requirements and work quantities to the tenderers
- 選擇最佳投標中標商 Award the contract to the best tenderer
- 有齊全的合同文件 Have comprehensive contract documents
- 定期知道恰當的應支付工程進度款項 Know regularly the appropriate payable amounts of progress payments
- 定期知道因變更而改變的最新工程費
   Know regularly the updated construction costs varied due to changes
- 預早控制工程費及安排資金 Control the construction costs and arrange for funds
- 把最終的工程費合理結算
   Have the final construction costs properly controlled and valued
- 在合同權利和義務上或工程費有爭議時維護合理權益
   Safeguard reasonable entitlement when disputes over contractual rights and duties or construction costs arise



# 工料測量師如何協助承建商? What can the contractors do with the help of quantity surveyors?

- 投標時計量估價
   Measure quantities and estimate prices when tendering
- 檢查招標文件條款 Review the terms of tender documents
- 編製回標文件及議標
   Prepare tenders and negotiate tenders
- 定期申請工程進度款項
   Apply regularly for the appropriate amounts of progress payments
- 選擇最具成本效益施工方法
   Choose the most cost effective construction methods
- 計算因變更而改變的最新工程費
   Calculate and update construction costs due to changes
- 控制工程支出和收入及資金流量
   Control the construction costs, income and cash flow
- 爭取最佳的最終工程費 Secure the best final construction price
- 在合同權利和義務上或工程費有爭議時維護合理權益
   Safeguard reasonable entitlement when disputes over contractual rights and duties or construction costs arise
- 選擇及管理分包商及供應商
   Select and manage sub-contractors and suppliers





想成為工料測量師? Want to be a Quantity Surveyor?

## <mark>為</mark>什麼? Why<mark>?</mark>

- 一個有價值的專業 A valuable profession
- 專業地位 Excellent professional status
- 一個世界性的專業,可到內地及其他國家工作
   A worldwide profession, may work in mainland China and other countries
- 一個穩定的職業,持續求過於供,許多就業機會
   A stable occupation, demand persistently exceeds supply, plenty of job opportunities
- 有體面的薪金
   Respectable salary
- 工作性質多元化而有趣 Interesting and diversified work
- 辦公室工作 + 戶外視察
   Office-based work + outdoor inspection
- 男女皆可 Suits both men and women

# 穩定的職業 A Stable Occupation

- 建設工程永遠都需要 Construction is always required
- 新建項目的市場低迷時,物業保養、維修、翻新、活化工程會增多
   When the market of new construction declines, there will be more maintenance, repair, renovation and revitalization projects
- 整體經濟低迷時,政府通常會推出基建工程刺激經濟
   When the overall economy declines, the Government will drive infrastructure projects to boost the economy
- 同時,排解爭議的任務有可能增加
   At the same time, appointments for dispute resolutions may increase
- 新項目減少時,還有結算工作要做
   When there are fewer new projects, there are still final accounts to settle





# 想成為工料測量師? Want to be a Quantity Surveyor?

#### 你基本需要: You basically need to:

- 具有良好品格
   Possess good characters
- > 喜歡參與創建及維護優良的建設環境
   Like to participate in the creation and preservation of a good built-environment
- 具有良好的語文能力
   Possess good language skills
- 善於處理數據及資料(不須高深數學)
  Be good at handling data and information (advanced mathematics not required)
- 處事細心、有耐性
   Pay attention to details, have patience
- 能理解立體圖像(不須藝術設計能力)
   Perceive 3-dimensional objects (artistic design skills not required)
- 具備良好的人際溝通技巧
   Possess good interpersonal communication skills

# 符合基本需要後,你應:

## If you satisfy these basic requirements, you should:

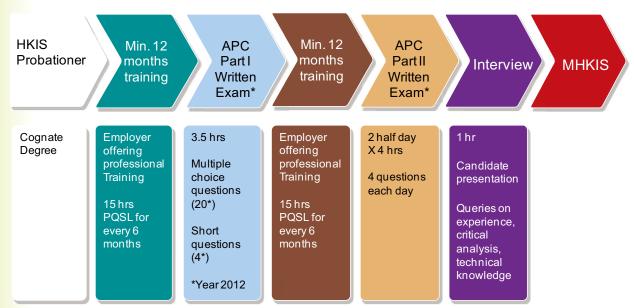
- 修讀有關的課程 \*\*\*
   Study the relevant academic programmes
- 受聘接受在職培訓
   Be employed and receive on-job training

\*\*\* 提供有關課程的院校有: Academic institutions providing relevant programmes are:

- 香港大學 The University of Hong Kong
- 香港理工大學 The Hong Kong Polytechnic University
- 香港城市大學 City University of Hong Kong
- 香港專業教育學院
   The Hong Kong Institute of Vocational Education
- 其他在英國、澳洲、新西蘭、新加坡、加拿大的大學
   Other universities in the United Kingdom, Australia, New Zealand, Singapore and Canada



# 成為專業工料測量師的最快途徑: The quickest path to become a professional quantity surveyor



\* might attempt within same year or separately in any order, not necessary to pass Part I before Part II

## 其他情況: Other cases:

- 有關副學士及高級文憑的持有人需較長的在職培訓及持續學習年期
   Holders of relevant associate degrees or higher diplomas would need longer period of on-job training and continued learning
- 未成為專業工料測量師的在職工料測量從業員屬於技術級;但有經驗的也可晉升到 高級的職位

People engaged in quantity surveying practice but not yet qualified as a professional quantity surveyor belong to the technical grade, but those experienced may reach senior positions



# 其他專業人士看工料測量師 Quantity surveyors in the eyes of other professionals



#### 林雲峰 教授 Professor Bernard V. Lim, JP

中大建築學院教授,2005-06年度香港建築師學會會長

- Professor (Fractional Appointment), School of Architecture , the Chinese University of Hong Kong
- Past President of the Hong Kong Institute of Architects (HKIA) 2005-2006
- Principal, AD+RG Architecture Design and Research Group Ltd.

建築業工料測量師和建築師緊密合作。工料測量師提供了專業知識從 整個項目的早期階段開始到完成工程實施建設成本管理…工料測量師 促進了我們城市的增長和發展,並獲得了社會人士和合作專業人士的 尊敬。

Quantity surveyors and architects work closely in the building industry. The Quantity Surveying profession has provided a range of expertise to manage costs of building projects throughout the early inception stage to implementation.

The vital role of the Quantity Surveying profession has led to an increasing demand for capable youths pursuing professional surveying degrees. The profession has greatly contributed to our city growth and developments, and gained high respects from the community and collaborative professionals.



#### 勞永樂 醫生

Dr. Lo Wing-lok, Medical doctor

前立法會議員,傳染病科醫生

工料測量師在工程前期及施工期間計算和控制建築成本,協助每個建築項目的各方得到合理的解決方案。香港將有多項大型工程快要展開,本人肯定香港建築界將有大量工料測量專業的需求。在此先感謝工料測量師在社會作出的貢獻。

Quantity surveyors serve the community by ensuring a fair deal for all parties concerned in construction projects through making a fair estimate on the cost before and by keeping expenditure on track during the implementation. Hong Kong will see major construction projects going ahead in the next few years, I am sure that the professional service of quantity surveyors will be very much in demand. I take this opportunity to thank them in advance for their contribution.

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#### 陳祖表 結構工程師 Ir James D.B. Chen, Authorized Person

英國土木工程師學會 (香港分會)前主席 (2007-2008) Registered Civil and Structural Engineer Past Chairman of Institution of Civil Engineers (ICE) Hong Kong (2007/08)

我在工程界的四十年裏,認同工料測量師是不可或決的。工料測量師 不僅協助建築師和工程師的項目管理上的事宜,更是在發展商和承建 商發生爭拗時擔當平衡相方和仲裁的角色。因此工料測量確是其中一 個被受尊重的專業。

In my over forty years of professional practice, I feel that it is most needed a Quantity Surveyor in each project. The Quantity Surveyor can not only assist the project architect and engineer in project management, but also act as lever and arbitrator should there be a dispute between the owner and contractor. Hence, Quantity Surveying is one of the most respectful professions.



#### 陳元敬 園境師 Mr. Paul Chan

香港高等科技教育學院 助理教授 香港園境師學會 副會長(2011/12, 2012/13, 2013/14) 泛亞國際 董事

MCIOB, HKICM, HKIUD, HKILA, Registered Landscape Architect Vice-President of Hong Kong Institute of Landscape Architects (2011/12, 2012/13, 2013/14) Assistant Professor, Technological and Higher Education Institute of Hong Kong (THEi) Director, Earthasia Limited

在我於建築業的職業生涯中,工料測量師始終是實現項目團隊願景的 重要一員。不論是建築項目、基礎設施工程、街道景觀改善,或是其 他種類的項目,工料測量師都孜孜不倦地建言成本控制及風險因素; 亦於合約制定當中致力平衡各方權責及確保合約條款有效地落實。我 對他們多年來的成就與貢獻表示衷心的祝賀,並對他們的專業服務致 以崇高的敬意。

Throughout my professional career in the various roles within the construction industry, Quantity Surveyor has always been a partner in realizing visions of the project team. Whether it is an architectural project, infrastructural works, streetscape enhancement, or open space development, Quantity Surveyor diligently advises on the costing and risk factors; and more importantly safeguard the integrity of contractual operation between parties. I congratulate them for their achievements and contribution to the development of Hong Kong over the years, and give my highest respect to their professional services that they deserve.



# 工料測量師模範 Exemplary Quantity Surveyors



#### 張達棠 測量師 香港測量師學會前會長 2004-2005 Sr Cheung Tat Tong HKIS Past President 2004-2005

In my final year examination at the HKU, the external examiner asked : "Mr. Cheung, can you tell me how measurement affects you before and after you have studied this subject?"

My response was: "before I see a building, now I only see its components."

A successful QS should have a good analytical mind, good memory, leadership ability and an EQ to cope with deadlines. Through our professional training, we are able to visualize the important cost elements of any project and thus play a very important role in the development of a project.

The outlook of the local construction industry will continue to boom in the next decade. QS services are in high demand in building works, infrastructure works and E&M works. I also see very good potentials for QSs to become arbitrators, mediators, adjudicators, construction auditors and expert witnesses. For whatever we are going to do, we need to pay attention to the details.



#### 郭婉琪 測量師 Sr Joanna Kwok

Joanna 以前是承建商的工料測量師,她更是每星期都下工地工作。 Joanna 喜歡到工地,因為她覺得,每個建築工程都不同,她可以跟不同的建築專業人士學習。

「圖則只是構想,到工地才可真正了解每項工序怎樣進行,例如工人怎樣扎鐵,整棟樓宇怎樣建成。 這對我們怎樣計預算很有幫助。」Joanna 認為,工料測量師的工作有動有靜,女生可以因應自己喜 好選擇工作範圍:「其實現在很多工地都很整齊,大家也很重視安全,女生在工地工作也不成問題。」

Joanna was a contractor quantity surveyor. She works on site every week. She likes going to site because every construction project is unique and she can learn from different construction professionals.

"Drawings are only conceptual. Only by going to site can I understand how each construction sequence is carried out, such as how reinforcement bars are bended and how the whole building is built. This is helpful for us as quantity surveyors in estimating the construction cost." Joanna believes that the work of quantity surveyors can be varied and girls can choose their interested area to develop. "In fact, many sites are neat and tidy. Now that construction safety is of high priority and girls working on site is not a problem."



李欣倩 測量師 港大測量學 2010 畢業生

香港測量師學會專業會員,目前在一間工料測量顧問公司工作 Sr Gerberta Lee Yan Sin, HKU Surveying Graduate 2010, currently a qualified quantity surveyor working in a QS consultant firm

Three years ago, I applied to be a QS assistant in a consultancy firm once graduated from the University of Hong Kong. With the guidance of all friendly experienced peers, now I am a qualified member of HKIS. To me, quantity surveyor is not merely a job title but a life-long commitment and contribution to the entire construction industry.

Many people have been under the impression that the job nature of a quantity surveyor is very boring, which mainly focus on bulky paper work. But I can tell you the fact is I am facing challenging tasks and cooperate with different construction professionals day-to-day! It is not easy to strive a balance of conflicting interests between all the related parties. Being a competent surveyor, we have to devote our best to make it happen by offering neutral professional judgment.

Undoubtedly, quantity surveying is an essential profession in the construction industry which can never be easily replaced by others. With increasing infrastructure and housing demand in both private and public sector in Hong Kong and Mainland China, it is believed that the demand for quantity surveyor will be keep on increasing and hence, giving the profession a bright, valuable and promising future.



# 學生看工料測量師 Words from Surveying Students



#### 戴震沖 Tai Chun Chung, Travis

香港理工大學地產及建設測量學二年級生 (2013-2014) Hong Kong Polytechnic University Surveying Year 2 Student (2013-2014)

I choose surveying because of the following reasons. First, because of the establishment of the 10-mega projects, construction is always required as the demand persistently exceeds supply. Second, there is a variety of job choices, for example, consultant, developer and contractor. Besides, it is a stable and professional occupation with respectable salary. The job nature of quantity surveyors is diversified, also, comprehensive training is provided. Being a quantity surveyor is absolutely a good choice for people who are keen on having a wide range of work.



#### Chung Hon Sun Nathaniel

港大測量學系一年級生 (2012-2013)(四年制) HKU Surveying Year 1 Student (2012-2013)(4-year curriculum)

#### What do you think about Quantity Surveyor?

- A Surveyor with absolute accuracy, even little error cannot be made
- Alertness to numbers

#### How do you know about Quantity Surveyor?

- From various career talks and firm visits
- From sharing of alumni

#### Would you consider to be QS?

Not yet decided but I would further investigate on it with my interest on its career opportunities and its appropriate salaries.

# 工料測量組變學金計劃 QSD Scholarship Scheme

The Quantity Surveying Division (QSD) of the Hong Kong Institute of Surveyors (HKIS) considers that attracting new blood joining the quantity surveying profession should be the only way to make this profession sustainable. The QSD therefore hopes to join hands with the leaders in the construction industry to establish a scholarship scheme in order to foster closer connection between the students and the construction industry, and encourage them joining the quantity surveying profession in future. The first QSD scholarship scheme has been launched since 2011. There will be a maximum of 18 number of awards, 3 max. for each of the degree/ diploma course below:

- (a) The University of Hong Kong Bachelor of Science (Honours) in Surveying
- (b) The Hong Kong Polytechnic University Bachelor of Science (Honours) in Surveying
- (c) The Hong Kong Polytechnic University Higher Diploma in Building Technology and Management
- (d) City University of Hong Kong Bachelor of Science (Honours) in Surveying
- (e) City University of Hong Kong Associate of Science in Surveying (Quantity Surveying)
- (f) Hong Kong Institute of Vocational Education (IVE) (Morrison Hill & Tsing Yi) Higher Diploma in Surveying





# 工料測量師在香港以外地區的就業機會 Career Opportunities of Quantity Surveyors outside Hong Kong

香港工料測量師在內地及海外備受歡迎。

由於內地房地產項目不斷增加,加上發展商開始明白到由工料測量師負責協調招標、安排合約及控制預算的好處甚多,因而內地對工料測量服務的需求將持續上升。

在 CEPA 下,香港測量師學會已和內地的業界協會簽署資格互認協議,讓本港測量師能更容易進入內地市場。 2008 年 12 月,香港測量師學會向 65 名成為註冊造價工程師 (香港地區) 的會員頒發證書及執業印章。他們是在 CEPA 框架下首批註冊成為中華人民共和國造價工程師 (香港地區)的學會會員,可於國內開展業務。

在 2010 年 11 月,第二批共 166 香港測量師學會會員取得中華人民共和國造價工程師執業資格證書。這有利香港測量師學會會員於在中國內地進一步發展。至今,共有 144 名工料測量 組會員成功註冊為內地造價工程師。

Quantity surveyors from Hong Kong are well received in Mainland China and also overseas. As there are growing number of real estate projects, coupled with the recognition of the advantage of hiring Hong Kong quantity surveyors for coordinating the tenders, contract arrangement and cost control for the local developers, the demand for Hong Kong quantity surveyors continued to rise in Mainland China.

Under CEPA, the Hong Kong Institute of Surveyors and China Engineering Cost Association (CECA) of the Mainland has signed a mutual recognition agreement, so that our quantity surveyors can easily enter the Mainland market.

In December 2008, the Hong Kong Institute of Surveyors presented to 65 members the seals and registration certificates of Mainland Registered Cost Engineers. They are the first batch of registered professionals in Mainland successfully arranged under the CEPA arrangement.

In November 2010, a total of 166 HKIS members obtained the Mainland Cost Engineer Qualification Certificate under the 2nd batch of assessment of qualification. This could facilitate further career development of the QSD members in the Mainland. As at today, 144 members of QSD have been successfully registered in Mainland as Registered Cost Engineer [RCE(PRC)].



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# 國際認可 International Recognition

本會已和多國的工料測量專業學會簽署協議,互相認可對方的會員資格;此外,香港測量師 學會也是多個國際知名測量組織的成員。本會與下列海外工料測量組織訂立了資格互認協 議:

The Institute has signed multiple reciprocity agreements with quantity surveying institutes of different countries to mutually recognize each other's professional memberships. In addition, the Hong Kong Institute of Surveyors is also a member of international organizations. The following are some of the professional bodies overseas with which the Quantity Surveying Division has entered into reciprocal agreements.



中國建設工程造價管理協會 China Engineering Cost Association



澳大利亞工料測量師學會 Australian Institute of Quantity Surveyors



加拿大工料測量師學會 Canadian Institute of Quantity Surveyors

<mark>本</mark>會為下列國際組織的成員 The Institute is a member of the following international organisations:



太平洋工料測量師協會 The Pacific Association of Quantity Surveyors (PAQS)



新加坡測量師及估價師學會 Singapore Institute of Surveyors and Valuers



新西蘭工料測量師學會 New Zealand Institute of Quantity Surveyors



日本建築積算協會 Building Surveyors Institute of Japan



Chartered Institution of Civil Engineering Surveyors



國際造價工程聯合會 International Cost Engineering Council (ICEC)

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Disclaimer

This brochure is for general reference only. Users of this brochure should not rely on the information as professional or legal advice of the surveying profession.

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