

# **Engineering Exposition - From Engineering Career to Life Challenges**

**11 May 2013 2:30 - 10:30 pm**  
**Lower Lobby (Plaza 1-4),**  
**Novotel Century HK Hotel**  
**Wan Chai, Hong Kong**

**Engineering Exposition is  
jointly Organised by HKIE Veneree Club  
and HKIE Young Members Committee**

## Engineering Exposition Programme

- 2:30 – 2:35 pm** **Speech:** President of the HKIE, Ir Prof CHOY Kin Kuen
- 2:35 – 4:30 pm** **First Session**(Speaker presentation and Panel Discussion)
- 4:30 – 4:45 pm** **Coffee Break**
- 4:45 – 6:40 pm** **Second Session**(Speaker presentation and Panel Discussion)
- 6:40 – 6:45 pm** **Speech:** YMC Chairman, Ir Iman LAI Wai Man
- 6:45 – 7:30 pm** **Cocktail Reception**  
(Young & Experienced Engineers Networking)
- 7:30 – 10:25pm** **Dinner Programme**
- CEO Speech (Part 1)**
- Decision in 10 Second** (Individual Competition)
- CEO Speech (Part 2)**
- Colour Cubes Challenge** (Group Project Competition)
- Sharing of Networking Result**
- CEO Speech (Part 3)**
- Sing a Song:** Engineering Exposition OC Members
- 10:25 – 10:30pm** **Speech:** Venerec Club Chairman, Ir John SZE Tak Wei

**HKIE** THE HONG KONG  
INSTITUTION OF ENGINEERS  
香港工程師學會

Young Members Committee  
青年會員委員會

**HKIE** THE HONG KONG  
INSTITUTION OF ENGINEERS  
香港工程師學會

Venerec Club  
尊賢學社

### First Session

#### Speakers:

CHEUNG Shu Wing  
CHOI Yu Leuk  
LAU Ching Kwong  
Gregory LO Chun Hung  
John SZE Tak Wei  
WONG Tak Ko

### Second Session

#### Speakers:

CHAN Fuk Cheung  
CHOW Che King  
Henry LAM Hing Cheung  
Wanbil LEE  
Ian ROBERTSON  
Jolly WONG Chun Kau

### CEO Speakers:

Derrick PANG

TC CHEW (Video)  
Paul POON

CT WAN (Video)  
James CHIU

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## Chairman's Message – Young Members Committee

HKIE-YMC was established in 1985 and its vision throughout these 28 years is to serve the need of young members and nurture young engineers to become future leaders in the engineering industry, the society and the international community. With over 5,500 Registered Young Members (RYMs) from 20 engineering disciplines, HKIE - YMC stands alone as one of the most prominent young engineers' bodies in Hong Kong.



To enhance the technical competence and communication skills of young engineers for their personal development under the theme of this Session "Engineer the Community with Innovation and Exploration", YMC co-organizes the Engineering Exposition – from Engineering Career to Life Challenges – with the HKIE Veneree Club. This exposition will not only allow experienced engineers to share with young engineers their gains and insights over their decades of working through presentation and panel discussion, but also provide opportunities for both experienced and young engineers to work together in small project work. We could also know more about the management ideas and practice during 1922 - 1997 through exhibition boards. It is therefore the first of its kind adopting an innovative approach to share the management thoughts, history, experienced engineers' stories of career and life challenges, and to enhance communication and teamwork skills. When looking backward ten to twenty years later, I hope that the young ones could reflect from the experienced ones' priceless gains and insights, and continue to explore their engineering future to build a better HK.

I would like to thank the generous support of the Veneree Club, honorable speakers and guests, sponsors and the Organizing Committees of this Engineering Exposition.

A handwritten signature in black ink, appearing to read "Iman".

Ir Iman LAI Wai Man  
11 May 2013



## HKIE Young Members Committee Activities

2012/2013 was the 28th year of the HKIE-YMC. We continue to serve members of all grades and disciplines at or below the age of 35. Over 100 events are regularly held each session. From seminars to site visits, from career talks to leadership camps, from community services to sport events, from joint functions with various professional bodies to international engineering conferences, from Mainland Delegations to Overseas Delegation. Our goal is to develop young engineers into well-rounded leaders equipped with not only technical competence, but also communication and management skills.

The HKIE Joint Institutes  
Innovation Competition –  
“Step in City, Head for Novelty”

Regional Cooperation Series  
in Hong Kong, Macau and  
Guangdong Province

Thematic Land Supply Series –  
Land Forming, Cavern Development  
& Reclamation

CAFEO 30  
and YEAFEO 19

Volunteer Programme  
for the Elderly in Need

Business Administration  
Application to  
Young Engineer Series

東北三省工程文化考察團

YMC Overseas Delegation  
2013 to Germany

## Chairman's Message – Veneree Club

Under the HKIE Presidency of Ir Dr FC Chan, the idea of HKIE being a home for engineers for life, to better serve its members, and to reunite retired members, was implemented. Starting from the third quarter of 2011, a number of tea gatherings were organized and subsequently on 18 Jan 2012, the Veneree Club was inaugurated. Veneree is the French word for Venerated Person. The Club's Chinese name is called “睿賢學社”.



Since the establishment of Veneree Club, two roles were fulfilled. Each month, regular meetings were organized with light and interesting talks where retired engineers could expand their knowledge as well as meet both new and old friends. Through these gatherings, we are able to motivate some 100 retired engineers to actively participate. As a result, some of these retired engineers subsequently served as school engineers, acted as school ambassadors, and gave professional lectures in their own field. According to HKIE's record, there are more than 500 retired engineers. I believe our Veneree Club can organize more meaningful activities for our retired members to enjoy and contribute.

On 11 May 2013, the HKIE Veneree Club and HKIE Young Members Committee will jointly organize an event “Engineering Exposition - from Engineering Career to Life Challenges”. This event allows experienced engineers to share their career knowledge and related engineering history with young engineers. An Organizing Committee for The Engineering Exposition was formed from committee members of both Veneree Club and Young Members Committee. It is definitely a remarkable co-operation.

I would like to express our appreciations to our sponsors who provided the required financial support, without which the event could not be organized in such an appropriate setting. We are also grateful to 5 CEO speakers sharing their engineering management skills with the young engineers, of which two of them are out of town but provided pre-recorded video. Of course, I must also thank our 12 experienced engineers for giving their valuable career insights in terms of motto, career target, case recall and advice, and all our organizing committee members of the event for their hard working during the past few months of preparation.

Finally, thank you for all the Engineering Exposition participants and I wish you all have a successful and fulfilling career.

A handwritten signature in black ink, which appears to read "Sze Tak Wei".

Ir John SZE Tak Wei  
11 May 2013



## HKIE Veneree Club Activities

2012/2013 was the second year of the establishment of the Veneree Club. Retired members celebrated their Anniversary of the Veneree Club in the Tea Gathering held on 16 Jan 2013. In each Tea Gathering which normally held on the third Wednesday morning of each month, presentation by profound speakers was of wide varieties as illustrated by the following list.

### Hiking/Visit

- 23 Feb 2012 Wu Kau Tang
- 28 Mar 2012 Tung Chung to Tai O
- 24 Apr 2012 Catiline Kindergarten
- 6 Jun 2012 Kat O, Ap Chau and Lai Chi Wo
- 27 Feb 2013 Hong Kong Geopark

### Health Talks

- 19 Oct 2011 Qigong
- 18 Jan 2012 Hiking
- 18 Apr 2012 Improving Memory
- 17 Oct 2012 Tai Chi
- 16 Jan 2013 Self-stretch
- 20 Mar 2013 Heart Disease
- 24 Apr 2013 Da Yan Qi Gong

### Other Talks

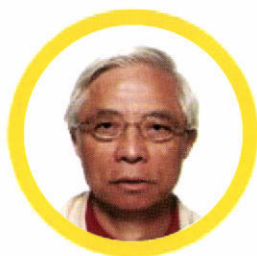
- 14 Sep 2011 First tea gathering
- 16 Nov 2011 Cantonese Opera.
- 14 Dec 2011 Mind mapping
- 22 Feb 2012 Six Hats Thinking
- 21 Mar 2012 From Technology to Culture
- 16 May 2012 Understanding Culture
- 18 July 2012 Climate Change
- 15 Aug 2012 Cantonese language
- 12 Sep 2012 Speciation on Galapagos
- 14 Nov 2012 Telecom History in HK
- 12 Dec 2012 Chinese Poems and Lyrics
- 20 Feb 2013 Investment





# Ir CHEUNG Shu Wing 張樹榮

BSc.(Eng.)Hons., DipM.S., CEng; FHKIE  
Disciplines: Electronics, Information Technology



Ir Cheung has extensive experience in semiconductor industry, specializing VLSI design and manufacturing. Throughout his 2.5 years at Philips Semiconductors and 26.5 years at Motorola Semiconductors, he worked on various areas including design, manufacturing, marketing and business management. During his last 10 years career at Taiwan and Hong Kong Science Parks, he contributed to high technology start-ups and lab infrastructure set-up in Hong Kong and China. As an angel investor over the past 14 years, Ir Cheung invested in 10 high technology start-ups with two successful return-on-investments of 38 times and 18 times respectively. Currently, there are still 6 companies active with 2 of them set up within the last 6 months.

## Motto

Personal belief --- uncompromising integrity, be trustworthy and honest

Personal values --- family, health, honesty, respect and diversity

Job behavior --- commit, communicate and change

## Targets

Early: Learn all aspects of the semiconductor industry, seize every opportunity to acquire whatever new knowledge required.

Later: Help to incubate high technology start-ups by sharing personal experiences as advisor.

## Case 1

I joined Philips Semiconductors in June 1970 after graduation from HKU, learning the fundamental of new series of transistors for radio applications. In Jan 1973, I joined Motorola Semiconductors and gained the know-how in product engineering capability for RF transistors, fast recovery rectifiers, and later integrated circuits. After I was given the opportunity to be trained in USA in manufacturing technologies for integrated circuits, I was assigned to run the product and test engineering operations for Motorola Asia Pacific Semiconductor Division in Nov 1979. Subsequently, I took up the integrated circuit business in Asia Pacific region in Jan 1982, giving me the opportunity to develop the skill required for marketing and business management.





## Case 2

In Jan 1992, I was transferred to USA to run a global consumer integrated circuit operation with more than 1000 people around the world reporting to me – strengthening my skills in running global technology business. I was given a challenging assignment to transform a high voltage, high cost automotive BICMOS process into a low voltage, low cost consumer BICMOS process, to be set up in Tianjin China to manufacture consumer integrated circuits for worldwide needs. I returned to Hong Kong in Jul 1995 as General Manager of the Global Consumer Integrated Circuits Division and in 1996 as Corporate Vice President.

## Case 3

In Jul 1999, Motorola sold a major portion of my business together with myself and 35 engineers to a Taiwan corporation as a management buyout. I started up one Integrated Circuit Design company in Hong Kong and one Wireless System Design company in Taiwan. In Jun 2002, I joined Hong Kong Science and Technology Parks as Vice President with a major responsibility to build the technology infrastructure at HK Science and Technology Parks, thus establishing 7 different laboratories to help Hong Kong and China technology companies to move from design concept to mass production. I was also responsible to incubate over 200 high technology start-ups until I retired in Apr 2009.

### Advice 1: Understand the role of engineers

Engineers are not scientists. Engineers do not invent or discover new knowledge but engineers can apply and use new knowledge to its fullest commercial values to help improve Quality Living conditions. Engineers are not valued by a few success cases in the research labs but valued by the commercial wealth created by repetitive manufacturability and reproducible capability of the innovative product where ideas are generated from the labs.

### Advice 2: Brave to take risk and plan for the remedial measures

Engineers are effective problem solvers and should be good scenario planners. Engineers should not be afraid to take up new challenges. Making mistakes are normal and as long as we know how to correct the mistakes effectively with different alternatives for different scenarios planned ahead. A good product plan is a plan that can accommodate unforeseen hurdles that are not controllable.

### Advice 3: Understand the role of Hong Kong in high technology development for China

I set up the '7+1' collaboration linking up Hong Kong with seven national R&D bases in China namely Beijing, Shanghai, Xi'an, Shenzhen, ChengDu, WuXi, and Hangzhou while I was at Hong Kong Science and Technology Parks. Through the lab infrastructure I built, more than 40 Chinese High Technology companies got access to technologies not available in China. Hong Kong became the bridge between China and the world on high technology transfers and protection of intellectual property rights.

### Advice 4: Learned from experienced engineers to avoid repeated mistakes

Experienced engineers should be good advisors to young engineers so that the same mistakes would not be repeated. Young engineers have many new ideas but they may lack of executable business plans, particularly to turn their ideas into saleable and profitable products. The average success rate of high technology start-ups is around 30% worldwide. But even with only one third of the ideas creating wealth for the society, the money reward and the personal achievement motivation obtained is really deserved to putting in more efforts.

# Ir CHOI Yu Leuk 蔡宇略



BSc(Eng), BSc Special, ME, PhD

FHKEng, FHKIE, FICE, CEng, MASCE

Disciplines: Civil, Hydraulics, Urban Development Mgt

蔡宇略工程師是香港工程學科院院士，香港特區政府前屋宇署署長。退休前長期負責城市建設工作，退休後在香港大學兼任教授城市建設管理。他重視理論與實務的創新結合。香港第一份長遠發展策略是他的代表性創作。

## Motto

在平凡中創新求進步！工程不外乎有機應用知識以改善民生！

Innovate for progress from routine work. Engineering is nothing else but the systematic application of knowledge for the betterment of livelihood!

## Targets

Early: 增強分析能力。博覽科工新發展報導。深入研習一門專科。廣泛應用知識。

Later: 參與社會事務。關心國家發展。繼續未完項目。開拓有益民生的新領域！

## Case 1

I was responsible for managing district development works of Hong Kong Island in the Highways Office for 5 years (1973-1977) While most of the items were minor and routine, the few exceptions of difficult cases provided the opportunity for innovation that helped advance the engineering practice using basic principles. An example was the improved design of the standard sand trap which is provided at the inlet to storm water drains. By directing only the lower layer of the inflow to pass through the sand trap, the risk of overflow from the sand trap during heavy rains was reduced.





## Case 2

In 1981 Government circulated an initial plan of formulating Hong Kong's Territorial Development Strategy for the first time. The objective was long term adequacy of land supply and housing. As traffic congestion was a critical issue, I proposed a new method that integrates the two traditionally separate disciplines of land use and transport planning. Hong Kong subsequently became the first major city for which the urban development strategy was successfully planned and implemented with the new approach of simultaneous optimization of land use and transportation (LUTO).

## Case 3

After retiring from government service, I continue to pursue the safety of existing buildings as a voluntary engineer. In 2003, I organized a community project to help building owners to improve the management of building repairs. Together with several former colleagues, we demonstrated the effectiveness of a new approach to control the cost of small repair contracts. Recently, we demonstrated the effectiveness of a new direct approach to investigate the source of water seepage in buildings.

### Advice 1:

志乎其大；切實規劃。循序漸進；逐步推行五年十年計劃。

### Advice 2:

重視現在，不輕視平凡事務。深廣增加及應用知識，逐步建立信譽。  
(Case 1)

### Advice 3:

分辨事務輕重，小心分析最佳對策。機會來臨時，不怕排眾議，創新猷。  
(Case 2)

### Advice 4:

堅定信念。堅持原則。不畏阻力。致力促進社會進步。  
(Case 3)

# Ir LAU Ching Kwong 劉正光



BSc MSc PhD FICE FISTructE FCIHT FHKIE  
FHKIHT MASCE FHKEng  
President HKIE (2002/03), President HKIHT (2003/06)  
Disciplines: Civil, Structural

Ir Dr. Lau has over 40 years experience in the implementation of infrastructure projects, in particular the management of large projects. The most notable projects are the three world class cable-supported bridges, namely the Tsing Ma bridge with a span of 1,377m, being the world's longest suspension bridge carrying both road and rail; the Kap Shiu Mun bridge, a 430m span cable-stayed bridge and Ting Kau bridge, a triple-tower cable-stayed bridge with spans of 448 and 475m respectively. He has published many technical papers highly complimented by international bridge professionals. In 1998 Ir Dr. Lau was awarded the Mao Yi Seng 茅以升 Bridge Grand Award, the most prestigious award to bridge engineers in China. Now he is the Executive Director/Transportation in AECOM Asia Ltd promoting HK experience into mainland China.

## Motto

不要錯過爭取專業知識的機會，增強實力，前途是掌握在自己手中。

## Targets

Early: 找份適合自己興趣而有前途的工作，可以有安定的生活，組織新家庭。

Later: 在自己的專業領域中，爭取更高成就。幫助年青工程師，傳授經驗，提升專業水平，令他們了解及更容易融入本地及大陸市場。

## Case 1

60年代末期，香港經濟開始繁榮，交通運輸量大幅增長，需要興建大量公路和橋樑。當時香港缺乏橋樑工程師。我發覺這是對我好的機會。因而申請政府獎學金，帶薪到英國讀橋樑工程碩士學位，70年尾，回港後自然成為香港有數之橋樑工程師。其後不斷學習，尤其是工程管理知識。在香港特區政府退休時，為土木工程署署長。





## Case 2

如何有效管理青馬大橋之顧問工程師，又如何清楚大橋的設計是否符合經濟原則及達到設計和使用要求。當年我參觀世界各地大型橋樑，拜訪各地有關大學，顧問工程師，風洞實驗室，營造商，大橋管理局等。聽取他們的意見及吸收他們的經驗，有效地引入到青馬大橋項目。

## Case 3

爭取更多更高的專業知識。在研究拆卸公主道天橋時，報名在英國 Kings College 讀在職博士學位，但其後他們取消土木工程系。自然沒法讀。1993年到北京清華大學參加公務員學習班，機會重現，以「青馬大橋加勁箱樑之動力校準研究」，1998年，得清華大學頒發工學博士。論文受重視，校方交“北京圖書館”收藏，供大眾省閱。2005年為清華大學兼職教授。

### Advice 1:

要有長遠的工作目標。在自己的專業領域中，通過進修及自我學習，爭取機會增值，把握先機，機會自然比別人多，前途是掌握在自己的手中。大家有沒有想到“工程維修保養”工作？香港過去完成不少工程，是要不斷維修和保養，以求達到設計壽命。現在十分缺乏公路橋樑保養工程師啊！

### Advice 2:

要多參與社會及專業機構，如 HKIE 等之義務工作。盡力幫助別人，做福社會。從中自己也可以增長知識和擴大人脈關係，利己利人。到自己有困難時，也容易面對困難，別人也一定伸出扶手，這就更容易渡過難關。

### Advice 3:

盡力維持及發揮香港工程專業之優點。香港有健全的工程管理制度，在質量，風險，安全，環保，法制等方面有良好記錄，吸收國際信息快，這都是我們的優勢，令香港在國際層面和內地競爭，保持優勢。

### Advice 4:

健康至上。不要以為這只是老人家的口頭禪。良好的健康就要自少要培養，大家要作經常性運動，到年齡大才注意健康就太遲了。近年發現高血壓，心臟病都年輕化。這都是不注意健康的結果。相信大家都知道，身體不健康，後果十分嚴重，所以大家一定要注意健康。

# Ir Gregory LO Chun Hung 盧振雄



SBS FSDSM FIFE FHKIE

Honourary Fellow, University of Central Lancashire, UK

Discipline: Fire

Being a fire officer with 37 years of experience in the Fire Services Department, Ir Lo had extensive professional knowledge and experience in firefighting and rescue, fire protection, management and administration work. In recognition of his distinguished and dedicated service to the Government and the Hong Kong community during his tenure as the Director of Fire Services, Ir Lo was awarded the Silver Bauhinia Star. He has made exemplary effort in enhancing the professional knowledge and skills of the fire and ambulance personnel, and in promoting quality service and a customer-oriented culture in the Fire Services Department.

## Motto

自強不息 與時並進

Self-discipline (in development). To advance with the times.

## Targets

**Early:** To better equip myself with management and professional abilities with a view to performing well in my job.

**Later:** 與時並進 為民解困 “To advance with times to serve better” was the motto which I established for the Fire Services Department (FSD) during my tenure as the Director. With this, I hoped all members of the Department would strive to further elevate their competence and performance in firefighting and rescue, fire protection and emergency ambulance service.

## Case 1

**Enhancing operational competence** As short term measures, specialist teams (Urban Search and Rescue, High Angle Rescue, Fire Attacker and Hazardous Material) were set up. They were trained and provided with the most advanced equipment to upgrade their operational abilities and safety. Generally, operational competence of all firefighters was also enhanced. In the long run, a new Fire Services Training School at Tseung Kwan O is being built to provide the most comprehensive and advanced training facilities not only for new recruits, but also for serving members to upgrade their operational abilities.

