



Property & Facility Management Division
Sr Charles Hung PFMD Council Chairman



PMSA Commemorative Ceremony

Reported by Sr Charles HUNG, PFMD Chairman

The PMSA held the “Embracing the New Era for Property Management” commemorative ceremony on 31 August at the HKCEC and operated a booth at the International Property Management and Procurement Expo, which featured related information and videos.

The ceremony was well attended with about 1,000 in-person and online participants. Chairperson Dr James Wong made an inspiring speech on the three core values of property management (PM) practitioners – quality, integrity, and advancement – to encourage the industry to improve its professionalism so that Hong Kongers can live and work in harmony.

Sr Charles Hung represented the HKIS to receive a souvenir of appreciation during the ceremony.

A CPD was also held during the ceremony and featured three prominent speakers: Ms Quince Chong, Chief Corporate Development Officer, CLP Power HK, Ltd; the Hon Doreen Kong, member of the Legislative Council; and Ir Alfred Sit, Senior Advisor to the President of Hong Kong Baptist University, who delivered the keynote discussion on the challenges of the three aforementioned core values for PM practitioners to strive for in the future.

The ceremony concluded with 15,368 participants signing their electronic pledges, which was recognised on site by the World Record Association for “the greatest number of people signing the Electronic Pledge to support the Sustainable Development of the Property Management Profession”.



PMSA Chairperson Dr James Wong (5th from left), Clarence Leung, BBS, JP, Under Secretary for Home and Youth Affairs (6th from left), and Sr Charles Hung (6th from right) during the Souvenir Presentation

Innovative Painting for Building Maintenance on External Wall Surfaces

Reported by Sr Dick Li, PFMD Council Member, and Sr Charles Hung, PFMD Chairman

The PFMD organised a site visit to SKK (HK) Co, Ltd, in Tai Po on 16 June. SKK Senior General Manager Ms Michelle Tsang gave the guests an interesting talk on the different types of paint (e.g. PU, acrylic, polyurethane, and silicon) SKK produced, as well as introduced their specifications and applications during the site visit.

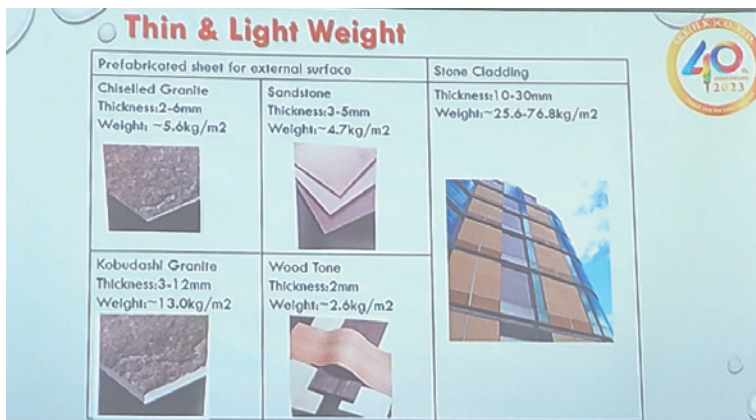


(L-R): Ms Michelle Tsang; Mr Shinji Nishida, General Manager of SKK's International Dept; Sr Charles Hung; and Sr Dick Li

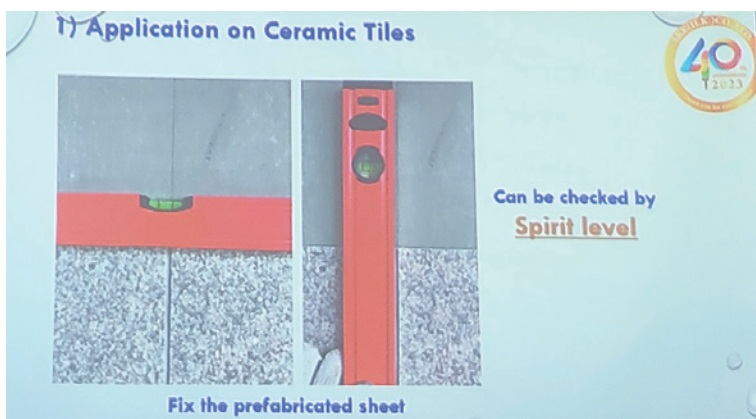


Visitors included representatives from Japan, Singapore, Indonesia, and Malaysia, along with PFMD members.

During the workshop, the latest paint technologies were introduced starting with the application of tile filler followed by the pattern-design texture, pre-fabricated sheet-typed, fair face-like, and spray granite coating systems, which were the most widely applied to new renderings, metal surfaces, ceramic tiles, and granite on external walls.



Prefabricated Paint Sheet Affixed to External Walls



Prefabricated Paint Sheet Affixed to Ceramic Tiles

Members gained valuable experience learning how to apply paint to different surfaces with different patterns. It was also enjoyable to affix a fabricated paint sheet over an existing wall surface with the formation of joints in between.

The tour was fruitful, interesting, and memorable for everyone.

Latest Application of the Artificial Intelligence (AI) Chiller Plant Control System

Reported by Sr Danny Leung,
PFMD Council Member

A webinar on the latest application of artificial intelligence (AI) to a chiller plant control system for the property industry occurred on 3 May and focused on AI-driven, energy-saving solutions; hybrid performance prediction models; and optimisation systems. The objective of the webinar was to discuss the benefits of adopting continuous AI retro-commissioning (RCx) to maximise chiller plant efficiency.

The event began with a welcome speech and opening remarks by moderator Sr Danny Leung.



Figure 1

Following this, Ir Rocky Lau, Head of Building Solutions of EnerRight Intelligent Solutions, introduced the CE100 AI system's energy-saving solutions. His talk provided insights into selecting the right AI system platform to maximise benefits (Figure 1) and the latest AI application for operating BIM (Figure 2).

Latest Application of Artificial Intelligence (AI)
Building Information Modelling Platform
人工智能 (AI) 建築信息模擬平台最新應用

BIM useful to Facilities Management (FM)
建築信息模擬對設施管理有用

			
Improved Efficiency	Fewer Project Reworks	Increased Clarity	Reduced Waste and Cost

- 1) Real-time monitoring of building systems for improved performance and reduced downtime.
實時監控建築系統以提高性能並減少停機時間。
- 2) Centralized data management for streamlined workflows and efficient decision-making.
集中數據管理，簡化工作流程和高效決策。
- 3) Predictive maintenance to prevent system failures and reduce repair costs.
預測性維護，防止系統故障，降低維修成本。
- 4) Energy efficiency tracking to identify areas for improvement and reduce energy usage and costs.
能源效率跟踪以確定需要改進的領域並減少能源使用和成本。
- 5) User-friendly interface for building operators and occupants, leading to increased satisfaction and productivity.
為建築運營商和住戶提供友好的用戶界面，從而提高滿意度和生產力。
- 6) Sustainability - Less construction waste is generated as less rectification work
可持續發展 - 由於整改工作減少，產生的建築垃圾減少

Figure 2

Next, Dr Oscar KC Chan, Research Assistant Professor, Department of Building Environment and Energy Engineering, PolyU, discussed the hybrid performance prediction model of chiller plants by AI for chiller plant energy management (Figure 3). He included a description of the role of and relationship between an artificial neural network and particle swarm optimisation (Figure 4).

AI Chiller Plant Optimization Sharing

Pilot Implementation of AI Chiller Plant Optimization Strategy

Chiller Plant Optimization Using AI

The hybrid performance prediction model consisted of:

- > Data driven model using artificial neural network (ANN - 人工神經網絡) model and Particle Swarm Optimization (PSO - 粒子群最佳化) as data mining algorithm based on acquired performance data
- > Physically based model for components with clear relationships between different parameters

Baseline Model for existing chiller plant system:

- > Mathematical model developed for existing chiller plant system as baseline model for future energy saving analysis

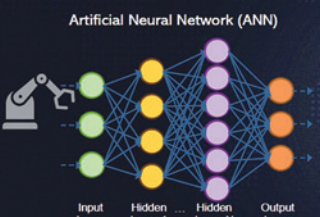
Figure 3

AI Chiller Plant Optimization Sharing

Pilot Implementation of AI Chiller Plant Optimization Strategy

Roles and Relationship between ANN and PSO

Artificial Neural Network (ANN)

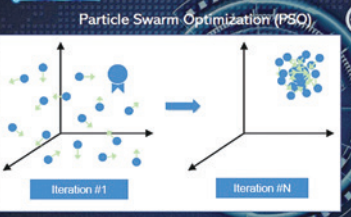


Input Layer, Hidden Layer 1, ..., Hidden Layer N, Output Layer

Predicts future:

- Environmental parameters
- Building cooling demand
- Power consumption of chiller (plant)

Particle Swarm Optimization (PSO)



Iteration #1, Iteration #N

- Search for optimal setpoints
- Optimize the HVAC system

Figure 4

Following Dr Chan's presentation, Ir Stanley Lam, branch head of Smart Solutions in CLPe, shared his experiences in leading a team of engineers to apply an AI-based chiller plant control and optimisation system, which incorporated key features such as control and automatic, measurement and verification, machine learning data models, detection of system faults, and report and chart builder (Figure 5).

What is AI Chiller Optimisation System?

AI-based chiller plant control and optimisation system

AI
On-premise Edge Computing

Key Features:

- Control and Automation
- Measurement and Verification
- Machine Learning Data Models
- Detection of System Faults
- Report and Chart Builder

CLP 中電

Information Classification: Proprietary | Page 75

Figure 5

The webinar concluded with a Q&A session, which gave the audience an opportunity to engage with the speakers and seek clarifications on the topics discussed.

In summary, the webinar showcased AI advancements in chiller plant control systems for the property industry. The speakers demonstrated AI's potential to optimise energy management, reduce operational costs, and contribute to sustainable development. The event served as an informative platform for professionals in the industry to learn about the latest AI applications and strategies for enhancing chiller plant efficiency.

Sr Danny Leung thanks all speakers for kindly sharing their knowledge with PFMD members (Figure 6).



Figure 6 (L-R): Sr Danny Leung, Ir Rocky Lau, Ir Stanley Lam, and Sr Oscar Chan

Shanghai Visit Connected with the Property and Facility Management Industry

Reported by Sr Charles HUNG, PFMD Chairman

Sr Charles Hung, along with GC members and Divisional representatives, joined the HKIS Shanghai visit from 20-22 August. The trip provided good opportunities for the PFMD to meet with its Mainland government counterparts such as the 上海市住房和城鄉建設管理委員會, 上海市規劃和自然資源局, and 上海市物業管理行業協會. During the visit, the PFMD managed to share the work experiences of PFM surveyors and promote the image of the profession including an announcement of a property management conference in September 2023 in Hong Kong. The delegation also met with Mr Hongwei Zhou, Executive Vice President of the Trade Association of Shanghai Property Management (上海市物業管理行業協會) to exchange professional knowledge and other useful information on property management in the Greater Bay Area.



Meeting with Officials from 上海市住房和城鄉建設管理委員會



(L-R): Sr Charles Hung and Mr Hongwei ZHOU



Sr Charles Hung (2nd from left) introduces the work of PFM surveyors.

Apart from holding official meetings, the delegation found time to visit some completed office buildings, shopping centres, and theatres built by Hong Kong developers such as Shun Tak, Hongkong Land, and Swire Properties. The trip ended with a CPD and dinner with the hosts. It was an enjoyable evening as members used this occasion to exchange work experiences and keep abreast of the current market situation in the Greater Bay Area. The visit was a fruitful journey that brought the two sides closer together and I expect this to pay off in the future.

HKAPMC Annual Dinner 2023

Reported by Sr Charles HUNG, PFMD Chairman

Sr Charles Hung was invited to attend the annual dinner of the Hong Kong Association of Property Management Companies, Limited (HKAPMC) on 15 August at the HKCEC Convention Hall. The Guest of Honour was the Hon Alice MAK Mei-kuen SBS, JP, who gave an opening speech. The dinner was a great opportunity for industry professionals and stakeholders to celebrate the milestones and achievements of Hong Kong's property management sector. It was an enjoyable and entertaining evening with singing by Ir Alkin Kwong JP, Managing Director of Hong Yip Services Co, Ltd.



(L-R): Dr Johnnie Chan, SBS, BBS, JP, Savills Property Management, Ltd; Dr Edmond Cheng, Urban Property Management, Ltd; Sr Andrew Lee, Sunbase International Properties Management, Ltd; Sr Charles Hung, PFMD Chairman.