



Property & Facility Management Division  
Sr Charles Hung PFMD Council Chairman

## PFMD Conference 2023: New Generation of Smart Property and Facility Management in the Greater Bay Area

Reported by Sr Charles Hung,  
PFMD Chairman

The PFMD conference 2023 entitled, “New Generation of Smart Property and Facility Management in the Greater Bay Area,” was successfully held on 22 September at the Chiang Chen Studio Theatre, PolyU, with the overwhelming support of over 230 participants. Its purpose was for property and facility managers from the GBA to gather and share their insights and experiences.

keynote speech to highlight how the Housing Bureau had introduced innovative technologies to the construction and management services, which were in line with Government policy, and provided conveniences to tenants.



Ms Winnie Ho delivers her keynote speech.

Sr Charles Hung gives his opening remarks.

During the morning session, Legislative Councillor Sr Tony Tse explored the challenges facing property managers such as professionalism, social status, discipline, technical developments, green issues, Hong Kong's ageing population, etc. Mr Li Yongxin, President of the Guangzhou PM Association (廣州市物業管理行業協會), introduced the practice of smart property management in Guangzhou and the Association's background.

Then Mr Chen Zuoqin, Deputy GM of Guangzhou Yuexiu Services Group, Ltd, (廣州越秀物業發展有限公司), explained the (AI) intelligentisation and digitalisation of property management services such as smart platforms for communication, smart car parks and security controls, IoT for monitoring building services installations, etc.

Mr Nixon Chau, Managing Director of SenseTime Hong Kong, illustrated artificial general intelligence, which would help accelerate the transformation of PFM via large language models, digital human generation, AIGC text image generation, and 3D space/object content generation models. For example, AI can enhance customer service and interviews.

Ar Donald Choi, CEO of the Chinachem Group, highlighted the importance of ESG policy integrating with business, which should result in improved operational efficiency and long term prosperity.



Secretary for Housing Ms Winne Ho, HKIS President Sr Paul Wong, Honourable Guest Speakers, and PFMD Council Members

HKIS President Sr Paul Wong made a welcome speech to thank all speakers, sponsors, and attendees for joining the conference to examine the new challenges to the industry due to technological advancements. I introduced the PFMD and praised the good work of property management (PM) practitioners during the recent black rainstorm and last year's pandemic explosion in Hong Kong. The conference provided participants with a good opportunity to generate new and innovative ideas so that smart property and facility management will reach new heights.

Secretary for Housing Ms Winnie Ho made a

Sr Prof Eddie Hui, the moderator, chaired the panel discussions, which featured many interesting questions answered before everyone broke for lunch.



(L-R): Ar Donald Choi, Mr Nixon Chau, Mr Chen Zuoqin, Mr Li Yongxin, and Sr Prof Eddie Hui

During the afternoon session, Mr Chen Yaozhong, Vice President of the Shenzhen Property Management Industry Association ( 深圳市物業管理行業協會 ), introduced the Association's work, while Mr Chen Haizhao, Managing Director of the China Merchants Property Operation and Service Co, Ltd ( 招商局積餘產業運營服務股份有限公司 ), explained his organisation's role in creating value for its clients.

Mr Arthur Lee, Assistant Director of the Government's EMSD, introduced a digitalised E&M solution using BIM to provide equipment information, operational data, maintenance records, smart toilets, IoT networks, etc. Ms Bella Chhoa, Director of Asset Management, Sino Land Company, Ltd, gave an informative discussion on enhancing customer experiences such as through shopping malls, smart contactless car parks, smart toilets, AI for counting people, e-patrols and controls in HVAC systems, etc, through innovative IT systems. Her ESG policy included the installation of solar panels and other green building items – energy efficient lifts, water-saving fixtures, effective waste management systems, recycled paviers, green roofs, neighbourhood farms, etc.

Mr IP Siu Chuen, Director of Hong Yip Service Company, Ltd, illustrated the concepts of IoT, 5G technology, VR/MR, robotics, platform

development, automation, big data, AI, cloud computing, blockchain, etc, with examples such as shuttle bus location-tracking, smart car parks, visitor go and self-registration apps, smart toilets, robot cleaners, smart security controls with detection cameras, IoT for monitoring escalator operations and energy use, BIM to help visualise positions accurately with fewer errors, unmanned aerial vehicle inspections, AI for interesting platforms, etc.

The panel discussions were moderated by Prof James Chan with interesting questions raised and answered.



(L-R): Mr IP Siu Chuen, Ms Bella Chhoa, Sr Charles Hung, Mr Chen Haizhao, Mr Arthur Lee, and Prof James Chan

Conference Organising Committee Chairman Sr Louis Lee concluded the conference by thanking all speakers and participants for their enthusiastic support and dedication to making the conference a great success. He also thanked PolyU for its exhaustive efforts to overcome difficulties such as the university's rectification works and rainwater flooding the studio.



Sr Louis Lee delivers the closing remarks.



## Visit to Guangzhou SPM Expo 2023

**Reported by PFMD Past Chairman Sr Kays Wong and Mr Gary Wang**

The Guangzhou SPM Expo 2023 (廣州國際智慧物業博覽會 2023) convened under the auspices of the Department of Housing and Urban Rural Development Department of Guangdong (廣東省住房和城鄉建設廳) and the Department of Housing and Urban-Rural Development of Guangzhou (廣州市住房和城鄉建設局) at the behest of the Guangzhou Property Management Association (廣州市物業管理行業協會). On behalf of the PFMD, the two of us, along with Sr Patrick Leung and Sr Maxine Yao, attended its opening ceremony and main forum from 20-21 September.

development trends, and address cutting-edge issues. It aimed to create a versatile international venue for the property industry and lead the industry towards higher-quality smart property management and development.



(L-R): Mr Gary Wang; Mr Zhang, 山東省物業管理協會副會長兼秘書長張立君先生; Sr Kays Wong; Mr Li Yongxin, 廣州市物業管理行業協會會長李永新先生; and Sr Patrick Leung

The establishment of the Guangdong-Hong Kong-Macao Greater Bay Area Property and Facility Management Federation in 2022 marked the beginning of a new era in the expanded knowledge and talent exchanges within the GBA's property and facility management industry. The PFMD intends to continue promoting regional exchanges and high-quality development of the PFM industry. At the same time, Hong Kong, as the only city in the GBA that has implemented a property management industry licencing regime, will harness its advantages to recommend improvements to relevant policies and regulations that will better the lives of its people.



(L-R): Sr Patrick Leung, Sr Kays Wong, Sr Maxine Yao, and Mr Gary Wang

One of the highlights of this year's main forum was the inaugural "Guangdong-Hong Kong-Macao Greater Bay Area (GBA), Yangtze River Delta Region, Hainan Free Trade Port" Regional Collaborative High-Quality Development Conference for the Property Industry (粵港澳大灣區·長三角地區·海南自貿港 物業行業區域協同高質量發展大會) held during the exhibition. The forum attracted government leaders, distinguished experts, and elite representatives of various fields and leading companies to engage in high-level discussions to interpret industry policies, discuss

## Eco-Certification of Existing Buildings: A BEAM Plus Perspective

Ir Dr Eddy Lau, head of green labelling at the Hong Kong Green Building Council, gave a talk, "Eco-Certification of Existing Buildings," on 28 July, which was organised by the HKIFM and PFMD with help from HKIFM member Mr Simon Chu.

Eddy briefed the audience on the latest arrangements for the Volume Certification, which started three years ago and has received nearly 300 registrations from companies that manage large property portfolios. He mentioned a dedicated study of the eco-certification of existing buildings in Hong Kong to shed light on what the city could do better to transform its stock of ageing buildings. As for the incentives to join BEAM Plus, he pointed to the fast-growing area of local green mortgages and reviewed the Inland Revenue Department's accelerated tax deduction incentives. Finally, he gave an advance preview of BEAM Plus' future developments including the launch of a revised fitting-out rating tool and an initiative to further revamp the existing buildings rating scheme.

## Building Rehabilitation Resource Centre (BRRC), Urban Renewal Authority (URA)

**Reported by Sr Charles Hung, PFMD Chairman**

The PFMD organised a visit to the BRRC, 2/F, eResidence, 8 Hok Yuen Street, Hung Hom, on 16 September. It was led by URA Senior Manager Sr Alvin Cheng with illustrations of the six major steps of building rehabilitation:

1. Seeking Owners' Consensus
2. Appointment of Works Consultants
3. Condition Surveys and Tender Preparations
4. Appointment of Works Contractors
5. Works Commencement and Site Supervision
6. Works Inspections and Completions

It was noted that the centre could provide comprehensive advice to help building owners complete the forms to apply for different maintenance subsidies and engage consultants to advise on some reference unit rates of completed rehabilitation projects. In addition, the centre can provide rooms for owners to conduct meetings or AGMs in relation to building rehabilitation, redevelopment, etc, for free.

The visit was fruitful and useful for the attendees, who could help promote the centre's services to the general public.



Ir Dr Eddy LAU shares his experiences with the BEAM Plus application.



Mr Simon Chu (right) presents a souvenir to Ir Dr Eddy Lau (left).



Sr Charles Hung (3rd from left) and Sr Alvin Cheng (3rd from right)

The PFMD Delegation with Sr Alvin Cheng



# Passive Cooling Materials on Building Envelopes of Commercial Buildings

**Reported by Sr Danny Leung, PFMD Council Member**

On 11 August, the PFMD convened a webinar titled, “Case-Sharing on the Latest Application of Passive Cooling Materials to the Building Envelopes of Commercial Buildings”. It featured two speakers who shared their expertise on the latest green building technologies.

The first speaker, Dr Martin Y Zhu, co-founder of i2Cool Limited and a PhD graduate of CityU’s School of Energy and Environment, discussed the next generation of green building technologies – specifically how to combine passive radiative cooling materials and thermochromic smart windows. He also highlighted the importance of energy-saving technologies for air conditioning systems, especially in Hong Kong. A passive radiative cooler would go on roofs and exterior walls to reflect almost all sunlight while emitting mid-infrared thermal radiation to the cold universe, thereby achieving an “electrical-free cooling” effect.

Dr Zhu also mentioned the thermochromic smart windows that can change their colours according

to the temperature and divert heat gains and losses through windows. He presented a near-infrared-activated thermochromic perovskite smart window that demonstrated reversible color change (Figure 1) and another technology – ceramic-based daytime passive radiative coolers (Figure 2).

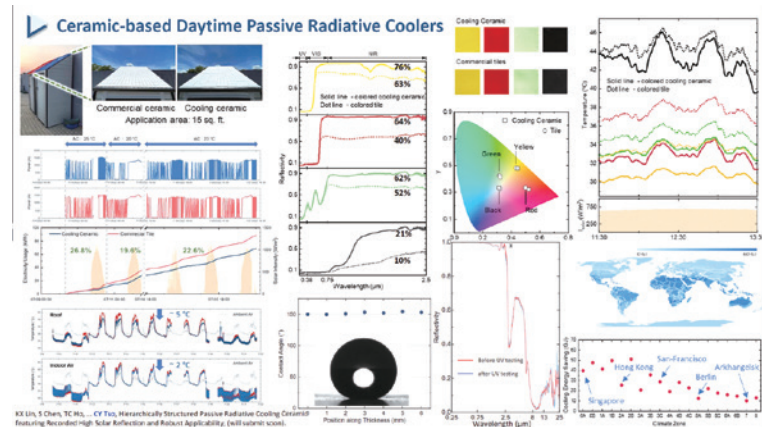


Figure 2: Ceramic-Based Daytime Passive Radiative Coolers

The second speaker, Ir Rocky Lau, Head of Building Solutions at EnerRight Intelligent Limited, shared several case studies on the latest applications of passive cooling materials on commercial building envelopes. He introduced the radiative cooling film (iFilm) on windows (Figure 3) and electricity-free passive radiative cooling paint (iPaint) on commercial and residential building rooftops, underneath solar photovoltaic panels, and condenser water pipes to reject solar heat gained from condenser water. He also discussed iPaintAI, an integration



Figure 1: Thermochromic Perovskite Smart Window

**Radiative Cooling Film (iFilm)**

### Application





項目位置	九龍灣翠雲道33號次後街輪椅碼頭區北面平台
地理坐標	北緯 22.30°, 東經 114.21° (香港東港-藍灣)
氣候條件	香港亞熱帶季風氣候, 濕潤炎熱, 7-8月全年最熱
應用類型	玻璃內部使用 Transparent Green iFilm
應用產品	iFilm (Transmissivity of Full-Wave Band-4.38%, Infrared-Thermal Insulation Ratio-90.4%)
應用效果	2023年5月光工, 定期驗測中

Figure 3: Radiative Cooling Film (iFilm)

of iPaint and artificial intelligence to optimise cooling tower performance, which could lead to an improved chiller coefficient of performance by lowering the temperature of condenser water entering a chiller condenser (Figure 4).

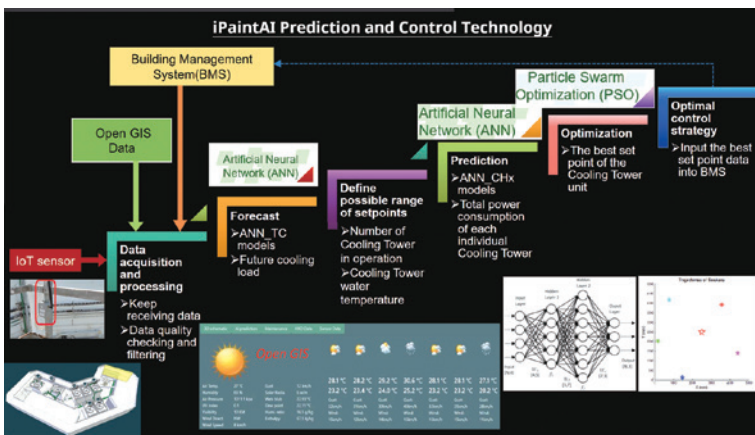


Figure 4: iPaintAI Prediction and Control Technology

During the Q&A session, Martin stated that iPaint was an environmentally-friendly material that was well recognised worldwide and sported BEAM, ISO, and LEEDS certifications.

Overall, the webinar presented innovative ideas and technologies that promoted economic development and carbon neutrality globally, making it a valuable learning experience for participants interested in green building technologies.



Figure 5: Dr Martin Zhu (Left), Sr Danny Leung (Middle) and Ir Rocky Lau (Right)

## HKU BSc (Surveying) Students Reception

Reported by Sr Charles Hung, PFMD Chairman

The HKU BSc (Surveying) Welcome Reception cum UG Research was held on 15 September in HKU's Knowles Building with the attendance of Sr Paul Wong and I, along with many other honourable guests, alumni, jurors, lecturers, students, etc. It provided a good platform for participants to exchange their knowledge and experiences, as well as to celebrate the success of students' 2023 dissertation projects.

This was a meaningful event that included an encouraging speech by Dr Isabelle Chan, Programme Director of HKU's BSc (Surveying) programme, to students who will pursue surveying as their career.



(L-R): Dr Isabelle Chan and Sr Charles Hung