

香港環境卓越大獎

Hong Kong Awards for Environmental Excellence 2019

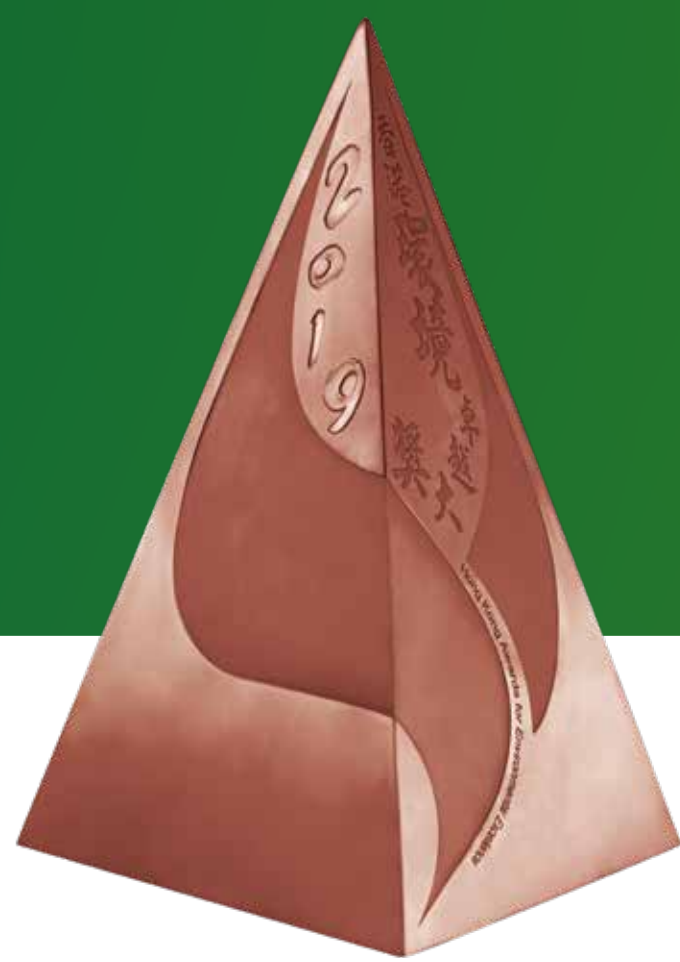
銅獎 Bronze Award

建造業 Construction Industry



協興工程有限公司 — 科學園創新斗室工程

Hip Hing Engineering Company Ltd. – Main Works Contract for InnoCell at Pak Shek Kok, Tai Po



本項目使用「組裝合成」建築方法，在廠房完成組件預製，包括室內裝修、機電和渠管裝置等，再運至工地進行裝嵌。這方法不單縮短施工時間，減少傳統地盤對周邊環境的影響，更可以於較偏僻的廠房進行所有污染性較高的工序，較容易控制污染源頭，大大提升了施工質素及可持續性。

Modular integrated construction method has been applied in this project, in which prefabrication works such as interior finishing, mechanical, electrical and plumbing installations and fitting out are all completed at offsite factories before installation onsite. As compared to conventional sites, this construction method can shorten the construction period, mitigate the impact on surrounding environment, enable all polluting steps to be carried out in remote factories for easier control of pollution sources and thus significantly enhance the quality and sustainability of the construction.

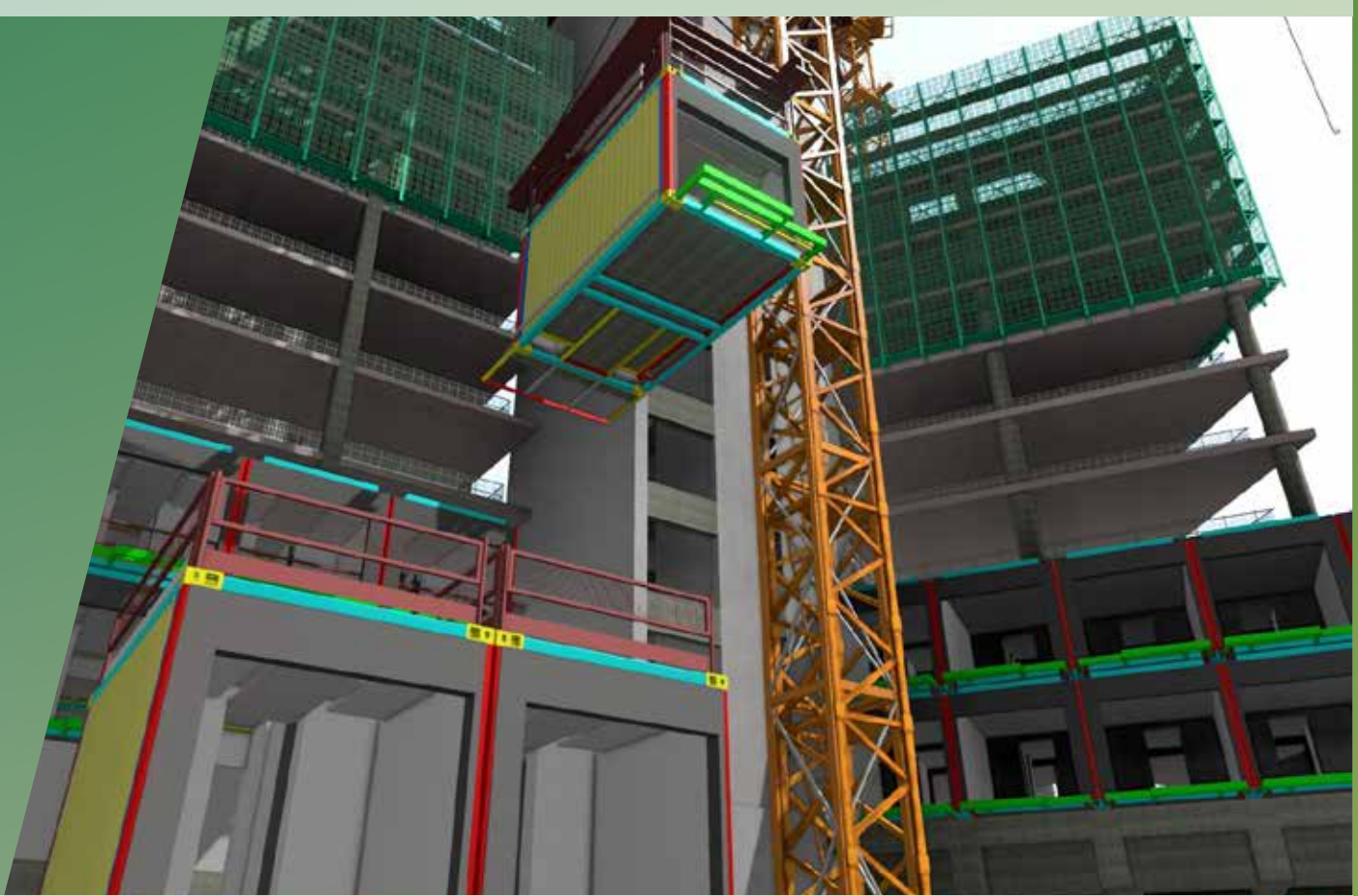


採用「組裝合成」建築法興建15層居住單位。「組裝合成」的模組比全鋼筋混凝土類型輕，因此只需使用較少的能源進行吊運和運輸，因而顯著降低碳排放。這種建築方法亦能減少在廠房生產和現場施工過程中的材料浪費。

Adopting hybrid type Modular Integrated Construction (MiC) for the 15 storeys of living units. The hybrid type of MiC module weighs lighter than full reinforced concrete type, which requires less energy for lifting and transportation, thus the carbon footprint can be significantly reduced. Its manufacturing process also helps reduce material wastage in factory production and on-site construction processes.

在項目早期階段廣泛採用建築訊息模型和三維打印技術，以確保建築方法的準確性及物料質素，從而避免不必要的物料損耗和相關的能源消耗。

Widely adopting Building Information Modelling and 3D printing technology at early stage of the project to assure accuracy of the building methodology and materials quantity, so as to avoid unnecessary wastage and the associated energy consumption.



計劃於起重機採用電池系統「淨能櫃」以提升能源使用效能。這種電池系統可以在低負載能源需求下儲存能量，並在高負載能源下向能源控制系統輸出能源。

Planning to adopt a power control system “Enertainer” for the tower crane to optimise energy consumption efficiency. This battery system can store energy from the power control system in low load power demand, and output power to the power control system in high load power.

