

Activity Report - Technical Visit to Visit to MTR Data Studio

By Mr Sam NG

To gain insights into the latest efforts in integrating smart technologies like big data analytics and AI into railway operations and maintenance, the YMC collaborated with the Institution of Engineering and Technology (IET) Hong Kong and The Institution of Mechanical Engineers (IMEchE) to organize a visit to the MTR Data Studio at Fo Tan Railway House (FTRH) on July 27, 2024.

We were warmly welcomed by Mr. HW Chan, the Deputy General Manager of the operations innovation hub, who shared the background behind the studio's establishment. He also highlighted several ongoing innovation projects designed to enhance operational safety and service quality through predictive and prescriptive methods.

One of the fascinating projects discussed was the Performance Health Monitoring (PHM) system, currently under development by the Corporation. This system aggregates data from each R-Train on the main line, allowing for real-time retrieval of crucial information. For instance, it can monitor track saloon temperatures, and provide the real-time location of each train. More significantly, the data can be analyzed to identify potential root causes of issues with rolling stock using big data techniques.

Another noteworthy initiative is the iSPS system for Light Rail. With the implementation of advanced 5G coverage, the Operations Control Centre can access real-time statistics on the performance of rolling stock. In addition to monitoring vehicle speed and location, the system is set to be enhanced to measure the distance between trains and issue alerts for approaching trains, thereby improving operational efficiency and ensuring passenger safety.

Participants expressed keen interest in the updates regarding the innovative initiatives at MTR Data Studio. We extend our sincere thanks to the Studio representatives for their comprehensive presentation.



Participants at the MTR Data Studio