Recently, Shao Xinming, general manager of Beijing Jingganga Metro Co., Ltd. (Jingganga Metro), said in an exclusive interview with the journalist of Ta Kung Pao, the oldest active Chinese language newspaper in China, that urban rail transit has been clearly included in the category of “new infrastructure” and will provide more possibilities for residents to travel in the future.

The development of Jingganga Metro is a microcosm of the cooperation between Beijing and Hong Kong. On January 16, 2006, Jingganga Metro was established, which became the first rail transit operating company in the Mainland to implement the “PPP” (public-private-partnership) model. Up to now, Jingganga Metro has operated a total of 4 metro lines including Beijing Metro Line 4, Daxing Line, Jingganga Metro Line 14, and Jingganga Metro Line 16. It will also operate Beijing Metro Line 17 in a lease operation mode. In 2019, the daily total average passenger traffic volume of each line under the jurisdiction of Jingganga Metro reached approximately 2.038 million.

In recent years, Shao Xinming’s deepest feeling is the rapid development of science and technology. Jingganga Metro Line 16 is the first metro line in the mainland China with full coverage of 5G signals. With the support of 5G signals, passengers can watch 4K HD live broadcasts smoothly, experience VR cloud games and cloud education in a more interactive, immersive, and real-time way. As mobile payment is more popular nowadays, Jingganga Metro is also promoting non-cash payment services in its stations.

Shao Xinming pointed out in the interview that Jingganga Metro has gradually developed and used intelligent operation and maintenance platforms and intelligent maintenance equipment in recent years and used technology to empower rail transit. He also revealed that Jingganga Metro is preparing to use intelligent inspection robots instead of manual inspection to perform automatic inspections in substations and other places in order to achieve real-time warning and intelligent data analysis. In addition, it is also studying the application of unmanned aerial vehicles (UAVs) to replace manual visual inspection in high altitudes and limited spaces, in order to improve work efficiency and personnel safety.
Jinggang Metro has also been applying the “Maintenance Management Information System (MMIS)” jointly developed with the MTR Corporation Limited. The system can track and monitor the whole life cycle of the investment, use, maintenance, scrapping, and replacement of various operating assets, in order to extend the service life of the assets and reduce maintenance costs. For example, according to Shao Xinming, if a bulb can be used for 100 hours on average, it may be replaced by 95 hours. The MMIS can accurately locate the safety critical point of the bulb up to 99 hours, so that all kinds of items can be more “fully utilized”. In terms of maintenance and repair, the MMIS can apply big data mining, integration, and visual analysis functions to some operating scenarios, which will optimize the entire operating environment and make rail transit maintenance more intelligent.

According to Shao Xinming, the current internet, big data, AI and other technologies are increasingly integrated into rail transit. The most important thing is to improve the ability and quality of operation and management and enhance the reliability and convenience of rail transit operations, so as to provide better services for passengers and help build smart cities.

(Source: June 29, 2020 Sohu.com)