

IMECHE HONG KONG BRANCH CUM ASME HONG KONG SECTION  
TECHNICAL VISIT TO SHENZHEN WUZHOU LONG ON 7/12/2012



Shenzhen, the cosmopolitan city in the southern tip of Guangdong province adjacent to Hong Kong, has long been the pioneer and showcase of the mainland China since the “Reform and Open Door” policy over 30 years ago. Its public transport sector has no exception. Its municipal public bus is so ambitious to equip its fleet with large number of pure electric and hybrid power-train city buses. They are mostly made indigenously by Wuzhoulong, translated “Dragon of Five Continents”, a high-end passenger-carry vehicle manufacturer specialised in unconventional powered passenger-carry vehicles.



Together with ASME Hong Kong Section, 17 delegates visited Wuzhoulong on 7 December 2012. Currently, Wuzhoulong’s electric vehicles use lithium-ion-based batteries, which output direct current is converted by Insulated-Gate Bipolar Transistor into alternative current (A.C.) to power the A.C. motor-drive rear axle. Carrying batteries, pure electric buses are overall one (1) tonne heavier than their hybrid cousin. As a result, in order to save weight, while the conventional diesel- and

hybrid-powered units are bodied with steel-made body, electric buses have aluminium body frame structure and light-weight alloy rims, giving weight reduction of 800 kilograms. The Wuzhoulong developed control system, both pure electric and hybrid, providing indistinguishable driving experience in comparison with conventional diesel-powered buses. Wuzhoulong has stepped into Hong Kong by delivering hybrid buses to Hongkong International Terminal and pure electric vehicles to Chinese University of Hong Kong.



Prior to the trail ride of pure electric bus around the premises of the Wuzhoulong site, delegates toured the production facilities. Wuzhoulong performs chassis, body and overall mechanical and electrical design and system integration, while components made according to its design requirements are purchased from parts suppliers. Upon visit, the production line was busy fulfilling the order of 300 units for Shenzhen Bus Group, Shenzhen Eastern Bus and Shenzhen Western Bus at the rate of eight (8) electric units daily. In addition to Shenzhen and Hong Kong, Wuzhoulong supplies buses to Macau, Philippines and the U.S. The over 20 medium-sized buses in Sociedade de Transportes Colectivos de Macau livery waiting for delivery lined-up before the company main entrance was impressive to the delegates.



IMechE Hong Kong Branch and ASME Hong Kong Section thank Wuzhoulong for its hospitality to make the visit happen.

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