

Project Profile

KVMRT - Kuala Lumpur

Maxwell GeoSystems were appointed by contractor MMC GAMUDA to provide the Instrumentation Data Management Systems (IDMS) for the underground portion of the Klang Valley MRT (KVMRT) in Kuala Lumpur, Malaysia.



The KVMRT will be integrated with existing LRT, Monorail, KTM Komuter and bus network marking a new milestone in Malaysia’s public transport system. The first phase of the project is the Sungai Buloh-Kajang Line (SBK) with a 9.3km underground alignment between Semantan North Portal to Maluri South Portal. This includes seven station boxes (25-45m deep), three emergency escape shafts and two intervention shafts.

The alignment traverses challenging geological formations including ‘extreme’ karstic limestone with caves and cavities beneath a cover of soft soil, presenting very irregular tunneling conditions.

The underground portion will pass through the densely developed inner city and heritage buildings of Kuala Lumpur, and a robust approach to geotechnical and structural risk monitoring during tunneling is essential to ensure the stability of the urban environment.

Maxwell GeoSystems’ proprietary MissionOS will integrate the construction and TBM data with the instrumentation data, providing a shared real-time ‘cause & effect’ analysis resource, allowing project teams to predict and control the ground and ground-water movements. According to MMS-GAMUDA, Maxwell GeoSystem’s excellent track record on Asian projects, ability to cover all aspects of the brief and their commitment to delivering the service in a collaborative manner was key to the contract award.



Sector	Tunneling	Location	Kuala Lumpur, Malaysia
Client	Gamuda/MMC	Budget	USD\$ 6.0 Billion