



## **Hong Kong Institute of Acoustics Vibration Seminar 1: TBM Groundborne Noise Prediction Models**

Speaker: Wilson Ho / Banting Wong, Wilson Acoustics Limited  
Convener: David Salisbury, MTR Corporation Limited  
Venue: N003, Hong Kong Polytechnic University  
Time: 6:30-7:30pm, Wed, 6 Jan 2010 (Reception starts at 6:00pm)

In the last decade, many tunnels in Hong Kong were constructed by Tunnel Boring Machine (TBM). More TBM tunnels are coming in the next decade, including tunnels for MTR SIL, XRL and SCL, DSD Lai Chi Kok Tunnel, DSD Tsuen Wan Tunnel, Central Kowloon Route, etc. For tunnel alignment close to residential buildings, noise impact from TBM tunnelling may restrict its nighttime operation and may have implications on the overall construction program. Therefore, extensive noise & vibration predictions are required during EIA and construction stages. Throughout the previous TBM projects, groundborne noise prediction models were developed, improved and becoming more sophisticated. However, the prediction reliability still has rooms to improve.

Mr. Wilson Ho and Banting Wong have been developing TBM Groundborne noise models for various TBM projects, including

DSD West Drainage Tunnel, 2009  
MTR WIL and XRL Tunnels, 2008-09  
CLP Chi Ma Wan and Castle Peak Tunnel, 2003-08  
KCRC Lok Ma Chau Tunnel and Kowloon Southern Link, 2003-07  
MTRC Quarry Bay Congestion Relief Works, 1998-99

In the seminar, concept of TBM Groundborne noise prediction models will be presented. The prediction accuracy, pros and cons, practicability and limitations of various models will be discussed.

### **Registration**

The Seminar is free of charge to members of HKIOA and supporting institutes (HKPolyU ME Dept, HKIE MI, MMNC and EV Divisions, HKIEIA, AGS (HK), IOM3). Non-members are welcome but will be charged at HK\$100 per head to cover administrative costs. For registration, please fill in and submit the form at <http://wal.hk/hkioa/vibration1.html>. Registrations will be served in first-come-first-served basis. Enquiries please send to: who@wal.hk.

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