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Technical Seminar – Ventilation System for Road Tunnel

By

Ir Steven Lai and Mr Peter Wong

Date & Time: 4 July 2019, 7:00 – 8:30pm

Venue: N003 Polytechnic University, Hunghom

Registration: <https://www.engineersaustralia.org.au/event/2019/06/technical-seminar-ventilation-system-road-tunnel>

Registration Closes: 3 July 2019

Event Contact: Dr Alex Cheung

About the Event

In road tunnels, ventilation systems are needed to dilute the pollutant emissions from vehicles - like Carbon Monoxide (CO), Nitrogen Oxides (NOx) and soot (particles matter) - in order to keep acceptable air quality inside the tunnel.

Just as important is controlling the effects of a fire in tunnels. The ventilation system needs to be designed and sized to provide sufficient velocity and direction for controlling the spread of smoke and heat in the event of fire.

The technical talk will cover the basic design concept, design criteria and parameters under various tunnel operations, design tools for the design of tunnel ventilation system for vehicular tunnels. Also, major equipment used in the tunnel ventilation system will be introduced. This will include the use of air purification system for vehicular tunnels. Finally, testing and commissioning of the tunnel ventilation system will also be discussed.

Biography of Speakers



Ir Steven K.H. Lai graduated from the University of Hong Kong and has 30 years' experience in infrastructure engineering and is a Director (Infrastructure) in China Region with WSP (Asia) Limited. He is responsible for the technical development and the business development on the infrastructure projects. He has established his international experience on the system design of road tunnel and transit through projects in more than 20 cities or countries. Steven has an in-depth

understanding on the operation and maintenance requirements on various road tunnel systems as well as their impact to the surrounding environment. He is an expert in the Tunnel Ventilation System, Fire and Life Safety System. He has been involved in the road tunnel projects in Australia, Hong Kong, Macau, Mainland China, Middle East and Singapore.



Mr. Peter H.W. Wong has 12 years' experience specialized in Tunnel Ventilation System (TVS) design of road tunnel and transit projects, and is an Associate (Infrastructure) in China Region with WSP (Asia) Limited. He is responsible for the TVS design works of various infrastructural projects, and providing solutions for existing operation problems. Peter has strong experience in TVS projects in places over the world including Hong Kong, Mainland China, Macau, Qatar, Brazil, Singapore, India, and Australia. He has comprehensive knowledges in the design of tunnel ventilation system in road tunnel, such as design requirement, ventilation principle, equipment sizing, system layout planning, system operation mode control. He is also expertise in fire and life safety in road tunnel and transit tunnel project.

Continuing Professional Development (CPD)

Attending members will be issued with a certificate acknowledging **1.5** hours of CPD. A cost of HK\$20 will be levied for each non-member or attendee who is not affiliated with the Support Australia Group requiring a CPD certificate.

Notice for Registration

- Prior registration is required. The number of participants is limited to **100** and priority will be given to members of EAHK and co-organisers members.
- If typhoon signal no. 8 (or above) or the rainstorm warning (black) is hoisted or announced to be hoisted in effect within two hours prior to the start of the event, the event will be cancelled without further notice.
- Successful applicants only will be confirmed.
- If you have any queries, please email to: Dr Alex Cheung (keawhc@gmail.com).