

# Noise and Vibration from Rail Transport Systems

## 2-Day Training Course by David Thompson



香港聲學學會

Hong Kong Institute of Acoustics

### Programme Highlights:

This is a two-day course on railway noise and vibration, specially designed for environmental consultants, acoustics professionals, railway operators and project engineers.

In addition to the review on the mechanism on noise generation and transmission as shown below, the course showcases the state of the art noise control measures.

- Introduction to railway noise and vibration
- Railway noise assessment principles
- Rolling noise mechanisms & control
- Curve squeal
- Noise from bridges
- Aerodynamic noise
- Ground vibration
- Ground-borne noise

### Speaker:

Professor David Thompson is a leading international expert in the area of railway noise and vibration. Being a professor of Railway Noise and Vibration in the University of Southampton, Professor Thompson is also the Head of the Dynamics Group in the Institute of Sound and Vibration Research (ISVR), University of Southampton.

Professor Thompson has rich research experience in noise and vibration of railways, particularly in the reduction of rolling noise, aerodynamic noise and ground vibration. He has worked in many EU-funded collaborative projects and acts as a consultant to many companies in the rail industry. He is the developer of TWINS software for predicting railway rolling noise, which is still one of the mostly adopted assessment software after 20 years of use in the industry. He is also the author of a definitive book "Railway Noise and Vibration", published in 2008. The book was translated into Chinese edition in 2014.

### Date

20 & 21 September 2016  
(Tue & Wed)

### Time

9:00 am – 5:00 pm

### Speaker

Prof. David Thompson  
(Professor, University of  
Southampton)



### Venue

HKMA, 2-4/F Pico Tower,  
66 Gloucester Road,  
Wan Chai, Hong Kong.

### Course Fee

HK\$3,000  
(10% discount for HKIOA,  
CHKRI, HKIE, HKIQEP  
members, and MTR Staff)

# Noise and Vibration from Rail Transport Systems

## 2-Day Training Course by David Thompson

### Programme (Tentative):

**Venue:** HKMA, 2-4/F Pico Tower, 66 Gloucester Road, Wan Chai, Hong Kong

**Speaker:** Prof. David Thompson (Professor, University of Southampton)

**Language:** English

	20 Sept 2016 (Tue)	21 Sept 2016 (Wed)
<b>9:00 am – 10:30 am</b>	Session 1: Introduction Railway noise assessment	Session 5: Noise from bridges
<b>10:30 am – 10:50 am</b>	Coffee Break	Coffee Break
<b>10:50 am – 12:20 pm</b>	Session 2: Rolling noise – Mechanisms	Session 6: Aerodynamic noise
<b>12:20 pm – 2:00 pm</b>	Lunch	Lunch
<b>2:00 pm – 3:20 pm</b>	Session 3: Rolling noise – Control	Session 7: Ground vibration
<b>3:20 pm – 3:40 pm</b>	Coffee Break	Coffee Break
<b>3:40 pm – 5:00 pm</b>	Session 4: Curve Squeal	Session 8: Ground-borne noise

A certificate of attendance will be awarded to participants who attended the entire training course. The certificate will be recognized as 12 hours of continuous profession development (CPD).

### Supporting Organizations:

- China Hong Kong Railway Institution (CHKRI)
- Environmental Division, The Hong Kong Institution of Engineers (HKIE-Env)
- Mechanical, Marine, Naval Architecture & Chemical Division, The Hong Kong Institution of Engineers (HKIE-MMNC)
- Hong Kong Institute of Qualified Environmental Professionals Limited (HKIQEP)
- MTR Corporation Limited



**“Noise and Vibration from Rail Transport Systems”  
2-Day Training Course by David Thompson  
(20 & 21 September 2016)**

**Application Form**

Title:            ☐ Mr    ☐ Mrs    ☐ Ms    ☐ Ir    ☐ Prof    ☐ Dr    ☐ (Others) \_\_\_\_\_

Surname:        \_\_\_\_\_

Given Name:    \_\_\_\_\_

Company / Organization:    \_\_\_\_\_

Address:        \_\_\_\_\_

\_\_\_\_\_

Tel.:            \_\_\_\_\_

Email:           \_\_\_\_\_

Course fee:    ☐ HK\$2,700 (HKIOA Member, Membership No.: \_\_\_\_\_)  
                  ☐ HK\$2,700 (CHKRI Member, Membership No.: \_\_\_\_\_)  
                  ☐ HK\$2,700 (HKIE Member, Membership No.: \_\_\_\_\_)  
                  ☐ HK\$2,700 (HKIQEP Member, Membership No.: \_\_\_\_\_)  
                  ☐ HK\$2,700 (MTR Staff – Please use MTR email address for correspondence)  
                  ☐ HK\$3,000 (Non-member)

- Completed application form should be sent to **hkioa-course@wal.hk** for reservation of seat.
- For successful application, notification email with payment methods will be sent to applicants. Applicants will be required to pay for the full course fee within one week to complete the registration, otherwise any reserved seats will be released to other applicants.
- Application should be made on or before **31 August 2016**. Please note that seats are limited and registration will be processed on “first-come, first-serve” basis.
- Course handouts, lunches, coffee breaks of the programme are included in the course fee.
- The Organizing Committee reserves the right to change the programme without advanced notification.
- For enquiries, please contact the course coordinator Mr Wilson Ho – Tel.: (852) 3188 1170; Email: **hkioa-course@wal.hk**