



CHINA HONG KONG RAILWAY INSTITUTION



National Rail Transit Electrification and Automation
Engineering Technology Research Center
(Hong Kong Branch)
國家軌道交通電氣化與自動化工程技術研究中心
(香港分中心)

CNERC Tour cum Retrofitting Rail Noise Controls Seminar

Date: 6th July 2019 (Saturday)

Time: 9:30 am to 11:50 am, Reception starts at 9:15 am in Room Z105

Venue: Block Z, Hong Kong Polytechnic University

Itinerary

Time	Group A	Group B
09:30 - 10:00	Introduction of CNERC	Tour of Railway Corner
10:00 - 10:30	Tour of Railway Corner	Introduction of CNERC
10:30 - 11:00	Refreshments	
11:00 - 11:20	Review of retrofit railway noise mitigation measures <i>by Mr. Daniele Albanese</i>	
11:20 - 11:50	Rail Damper Case Study <i>by Ir. Wilson Ho</i>	

About CNERC

The Hong Kong Branch of the National Rail Transit Electrification and Automation Engineering Technology Research Center (CNERC-Rail) formed a partnership with the Southwest Jiaotong University (SWJTU) in October 2015. The joint aim of the two organisations is to improve railway safety and also tackle other most challenging problems currently evident in that industry. CNERC-Rail has also tackled and achieved further valuable individual achievements in R&D activities by means of railway technological collaborative arrangements with various top-tier Universities and High-Speed Rail (HSR) manufacturing enterprises all over the world.

CNERC-Rail derives encouraging support from the reception of a yearly maximum funding of HK\$ 5 million from the Innovation and Technology Commission of the HKSAR government and a dollar-for-dollar matching fund from the PolyU. The latter has been responsible for the development of three laboratories under the CNERC-Rail's name. They include a Research Laboratory for High Speed Rail Traction Power System and Safety Technology, a Research Laboratory for Condition Monitoring and a High Speed Train Vibration Control Laboratory.

Abstract of Seminar

For railway systems, actual noise levels may be higher in certain locations than the EIA acceptable noise levels. This is mainly due to uncertainty in rolling noise prediction. To ensure compliance, noise mitigation measures are needed and dampers provide the most convenient retrofit noise control measures in these cases. Also, dampers are a cost effective and safer option compared to other methods. In the seminar, various existing retrofit noise control measures for railway tracks will be presented and their pros and cons would be discussed with the help of theory and case studies.

About the Speakers

Daniele Albanese is a professional acoustic consultant who has been practicing for almost 10 years with expertise in railway noise and vibration, architectural acoustics and environmental noise. He has been responsible for addressing and resolving noise and vibration issues in numerous railway projects across Asia, Australia and Italy. He currently works at Wilkinson Murray, a Sydney based acoustic consultancy with a branch in Hong Kong specialized in railway noise and vibration.

Wilson Ho is the founder of Wilson Acoustics Limited. His consultancy covers railway and trackform noise control, TBM groundborne noise assessment, construction noise control, PA system acoustic design and acoustic expert witness. During his 25 years' consultancy works, he has taken keen interest to research and develop noise control products. He invented Q-Rail Tuned Mass Damper in 2008 for railway noise control and SilentUP Retractable Noise Barrier in 2014 for construction noise control.

Registration

The tour cum seminar is open for application by current members of CHKRI and tertiary students in Hong Kong. Please complete the online form: <https://forms.gle/nyxrCop2FhBoiiVj8> on or before **28th June 2019** for registration of application. Successful applicants will be notified by email. The maximum number of participants is 70. In the event of over-subscription, a ballot will be held.

ALL INTERESTED ARE WELCOME

For further information, please contact

Alex Lo, CHKRI Secretary
at secretary@chkri.hk

6th June 2019

