

Seminar Jointly Organized by
Hong Kong Institute of Acoustics and
Department of Mechanical Engineering- Hong Kong Polytechnic University

Innovative Strategies to increase Damping in Tall Buildings and Bridges: Tuned Mass Dampers and Vibration Isolation Technology for buildings along the subway

Date: 18 October 2024 (Friday)

Time: 6:30 pm – 8:00 pm; registration starts at 6:00 pm (1.5 CPD Hours)

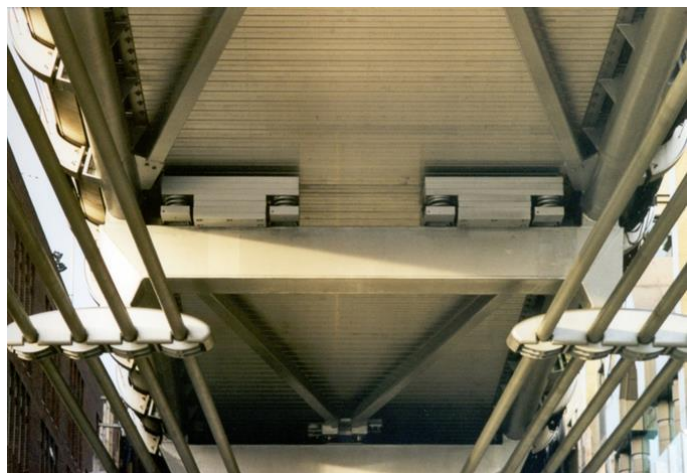
Venue: Room BC303, 3/F, Seal of Love Foundation Building (BC), PolyU, Hung Hom, Kowloon, Hong Kong

Fee: Free of charge. Priority to HKIOA Members, PolyU Students and Staff.

Seminar Highlights

Tuned Mass Dampers are a probate measure to reduce wind-, human or machine-induced vibrations at structures. Besides theoretical investigations a standard application are floors and footbridges. The application for more complex structures or different type of loadings is often discarded due to the difficulties that arise with the practical implementation.

This lecture will give an overview about the fields of application for passive devices, show innovations to overcome technical limitations and introduce additional strategies to combine the benefits of passive control devices with enhanced performance of innovative systems.





香港聲學學會
Hong Kong Institute of Acoustics



THE HONG KONG
POLYTECHNIC UNIVERSITY
香港理工大學



Department of
MECHANICAL ENGINEERING
機械工程學系



随着城市轨道交通的不断发展，具有快捷、准时和运量大等特点的地铁、高铁和城际铁路等得到了广泛的运用，其运行时对沿线周边建筑物产生的振动和噪声将越来越突出，严重时将影响建筑的使用功能甚至对建筑物主体结构产生破坏。报告将介绍既有地铁沿线环境振动实测结果，给出了地铁振动源特性，并分析弹簧隔振技术的原理、隔振方式，重点介绍建筑隔振技术在北京、上海和香港等多个建筑工程上的实际工程应用，对香港的建筑和结构设计师、振动和噪声从业者的工程设计具有参考意义。





香港聲學學會

Hong Kong Institute of Acoustics



THE HONG KONG
POLYTECHNIC UNIVERSITY
香港理工大學



Department of
MECHANICAL ENGINEERING
機械工程學系

Speakers



Dr. Christian Meinhardt is the managing director/CTO in Gerb Vibration Control in Germany. He studied structural engineering at the Technical University Berlin and specialized in structural and soil dynamics. His first contact with Tuned Mass Dampers (TMDs) was during an undergraduate research internship at the KATRI and the Kobori Institute in Japan. After he received his Dipl.-Ing degree in 2001 he worked in the fields of structural dynamics at the Federal Research Institute of Material Research and Testing as research associate and concluded these activities with a PhD thesis and degree. In 2006 he joined GERB Vibration Control Systems and worked on multiple projects to implement Tuned Mass damper systems at buildings, bridges and structures.



罗勇

隔而固（青岛）振动控制有限公司建筑及桥梁事业部总经理，工学硕士，高级工程师，主要从事建筑和桥梁的振动控制研究，尤其对地铁沿线和地铁上盖的建筑隔振具有丰富的工程经验，作为项目主要负责人参与了上海交响乐团音乐厅隔振、深圳万科红树湾别墅隔振、香港中文大学（深圳）音乐学院隔振、港珠澳大桥减振、广东虎门大桥减振等数十个建筑和桥梁减隔振项目。

Language

English and Mandarin

Registration

The seminar is free of charge and open to all interested parties. The total number of participants is limited to 60 for this event. Registration is accepted on a first-come-first-served basis, with priority given to HKIOA members, PolyU students, and staff. An electronic CPD certificate of 1.5 hours will be granted via email to the participants after the seminar. For any queries, please don't hesitate to contact admin@hkioa.org. Please complete the online registration by 4 October 2024 (Friday). Email notification of successful registration will be delivered by 7 October 2024 (Monday)

Please register here: <https://form.jotform.com/242634858659372>

Remark: The participant's personal information will be sent to PolyU for access QR code application.