



Sounding Board

October 2022 Issue

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Report on Recent Activities

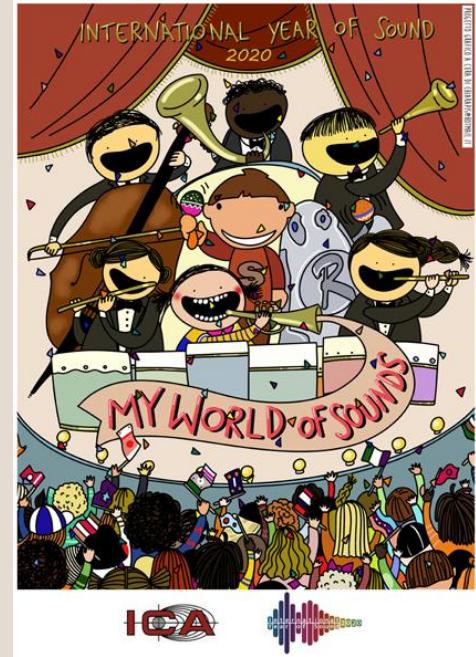


"My World of Sounds" Student Competition

“My World of Sounds” is one of the activities under the global initiative of the International Year of Sound to highlight how the sound environment is a key component in the equilibrium of all human beings, in their relationship with others and with the world, in its economic, environmental, societal, medical, industrial and cultural dimensions. The competition is strictly connected to the melody “We are the sounds of our world” (<https://sound2020.org/society/student-competition>) and its refrain, and is structured in two categories, i.e. (i) Primary school students to produce hand-made drawings, pictures and patchworks related to their world of sounds and inspired by the said melody; and (ii) Secondary school students to write a stanza of 4 verses in mother tongue and/or in English inspired by the said melody.

In response to the International Year of Sound 2020 – 2021 organized by the International Commission of Acoustics (ICA), HKIOA has collaborated with International Commission of Acoustics to hold the International Competition “My World of Sounds” for students in Hong Kong and is pleased to announce that one of the winners, CHEUNG Hau-ching, has obtained the 2nd-runner up in the International Competition Category.

(Reported by Chris Kwok)



A collage of various school newsletters from different countries, including Turkey, India, and the USA, illustrating the global reach of the HEAD-GEAR Foundation's competition.

Local Champion: Wendy NG
(from Po Chiu Catholic Secondary School)

B 47 C A- G
 When e-very time things go a down-hill, turn this on blast the wall the

53 F C A-
 sound of the world Just like ma-gic sub-li-mi-nal-ly,

58 G F
 Stop the tears when you hear the sound of the world

Local 1st Runner-up: WU Ki-wing
(from Salesian English School)

"My World of Sounds" Student Competition (Cont'd)

List of Winners of the Hong Kong Contest:

Primary School Section	
Champion	Matthew Eden CHING (Y.C.H. Chan Iu Seng Primary School)
1st Runner-up	Oliver Tianjun CAI (Chinese International School)
2nd Runner-up	CHEUNG Hau-ching * (Ching Chung Hau Po Woon Primary School)
Merit	ZHANG Kwan-yiu (T.W.G.Hs Kwan Fong Kai Chi School)
	Trinity LAW (Creative Primary School)
	Alex Tianyi CAI (Chinese International School)
	Benjamin Yue-man TSO (Ching Chung Hau Po Woon Primary School)
	Wing HO (Ching Chung Hau Po Woon Primary School)

* CHEUNG Hau-ching also won the 2nd runner-up in the Primary School Section in the International Contest.



Hong Kong Institute of Acoustics



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Merit: Trinity LAW

Merit: Benjamin Yue-man TSO

Merit: Wing HO



Hong Kong Institute of Acoustics

2nd Runner-up: CHEUNG Hau-ching



Hong Kong Institute of Acoustics

Champion: Matthew Eden CHING



Hong Kong Institute of Acoustics

Champion: Wendy NG

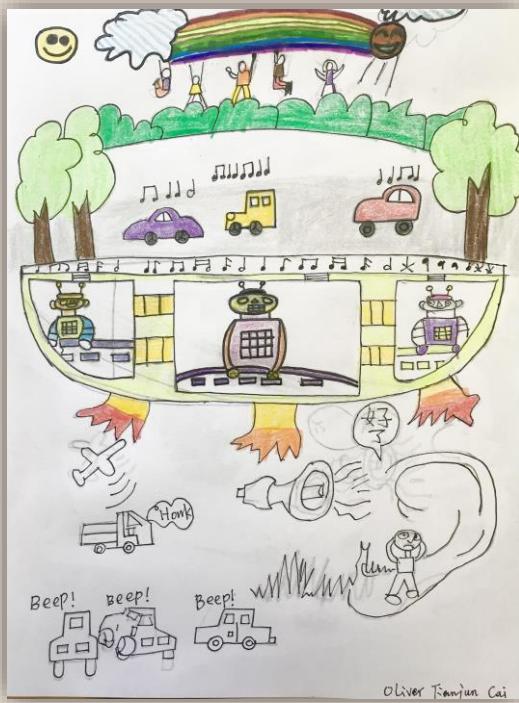


Hong Kong Institute of Acoustics

2nd Runner-up: MA Tszyiu

Secondary School Section	
Champion	Wendy NG (Po Chiu Catholic Secondary School)
1st Runner-up	WU Ki-wing (Salesian English School)
2nd Runner-up	MA Tszyiu (St. Rose of Lima's College)
Merit	Emerald FUNG (Jockey Club TH College)

"My World of Sounds" Student Competition (Cont'd)



B 47 **C** A- **G**
Close your eyes and opening your mind To feel to listen the

53 **F** C A-
sound of the world Bird singing tidal sound, wind sound

58 **G** F
Can enrich our lives because of the sound of the world

Local 2nd Runner-up: MA Tszyiu
(from St. Rose of Lima's College)

Annual General Meeting 2022

The Annual General Meeting (AGM) of the HKIOA was held on 25 May 2022. Similar to the special arrangement of the AGM under the COVID-19 pandemic situation in the past two years, physical attendance of the meeting at the Conference Room of Ramboll's office in Wai Chai this year was available to the Executive Committee and nominees standing for the election of Executive Committee members, while the attendance with the Zoom online meeting system was available to all members. A total of 29 corporate members and 3 non-corporate members attended the meeting, and proxies from 37 corporate members had been received by the Secretariat.

The Chairman, Mr. William Fung presented his report on the activities organized by the Institute throughout the Session 2021 – 2022. He described that the past year had been challenging and difficult due to the COVID-19 pandemic, but the Institute still managed to organize several activities through local and international collaborations, including technical webinars and educational training. He expressed gratitude towards the support of partner institutes, the Executive Committee, Organizing Committees and those who participated in the activities for the great success of the events. The Chairman's report was followed by a financial report of the Hon. Treasurer Dr. Calvin Chiu, who reported that the Institute's finance remained in a healthy condition and the Auditor for the coming session was appointed during the meeting.

The next agenda item was the election of Chairman and Committee Members. With the support by the great majority of the voted members, Dr. Calvin Chiu was elected as the Chairman of the Institute for the coming 2-year term of 2022 – 2024, Mr. Franki Chiu, Ms. Claudine Lee, Mr. Joe Leung were newly elected, and Mr. Chris Kwok, Mr. Aaron Lui were re-elected as Committee Members of the Institute for a 3-year term of 2022 – 2025.

Before the end of the AGM, as suggested by Ir. KK Lu and supported by the audience, a vote of thanks was passed to the outgoing Chairman and Executive Committee for their good efforts in the work of the Institute.



HKIOA Panel

Agenda

- Confirmation of the proceedings of the last AGM (21st April 2021)
- Report by Chairman
- Report by Hon. Treasurer
- Auditor Appointment for 2022/2023
- Election of Chairman and Committee Members
- AOB

HKIOA Annual General Meeting 2022

Date	Activities
14-7-2021	Acoustic Metamaterial Webinar Series - Product Development from Membrane-type Locally Resonant Acoustic Metamaterials
26-7-2021	Acoustic Metamaterial Webinar Series - The Genesis and Development of The KEF LS50 Meta
28-7-2021	Acoustic Metamaterial Webinar Series - Attempting Acoustic Metamaterial Liners for Duct Flow Silencer Design
30-11-2021	HKIOA Career Talk 2021
18-1-2022	Indoor Acoustics Webinar Series - Latest Technology Solutions for Challenging Acoustics Environment
20-1-2022	Indoor Acoustics Webinar Series - Lightweight Acoustic Floor Solution for Gym & Fitness Centre
15-2-2022	HKIOA Technical Webinar - Spatial Sound Perception Experience in a Virtual Reality (VR) World

HKIOA Annual General Meeting 2022

(Reported by Cindy Cheung)

Technical Webinar “Piling Noise Reduction by Magnetic Tuned Mass Damper (MTMD)”

The Technical Webinar “Piling Noise Reduction by Magnetic Tuned Mass Damper (MTMD)” was held on 16 June 2022. The webinar was presented by Mr. Wylog Wong, Design Manager of Acoustics Innovation Limited, and Mr Allen Wong, Environmental Engineer of Build King Civil Engineering Limited. A total of 187 participants attended the webinar.

The webinar focused on a case study on the implementation of the magnetic tuned mass damper which was tailor-made for the sheet piling noise abatement at a construction site in Tung Chung East. Wylog shared the identification of locations and frequencies of major noise sources from site observations, acoustic imaging by acoustic camera and Finite Element Analysis modelling. He explained the noise abatement mechanism of the 14 modules of dampers per row at target frequencies from 630 Hz to 1250 Hz, and the use of rollers and magnets for easy installation. He showed the installation of 6 rows of the dampers to 6 piles adjacent to the pile being in operation, and the on-site measurement results, which demonstrated a vibration reduction of around 10 dB and a noise reduction of around 7 dB(A) at the target frequencies. Allen then shared the project background, and site constraints which includes the presence of noise sensitive receivers in close proximity and the spatial limitation for the installation of noise barriers within the site. He also showed videos demonstrating the damper installation and removal process, and shared his user experience on the damper that he viewed the damper as a user-friendly product and an effective tool for noise reduction.

(Reported by Wilson Ho)

On-site noise reduction performance

Wylog Wong

Site Constraints

Century Link
The Visionary
West Sewage Pump Station

Wylog Wong

Demonstration for MTMD Installation

EPD Site Visit for MTMD Demonstration and Date: 10 January 2022

Feedback from EPD:

- Sincerely appreciate BKCEL and WAL works
- Effective method
- Interested in future versions of MTMD

Wylog Wong

Speaker: Mr. Wylog Wong (Design Manager, Acoustics Innovation Ltd)
Mr. Allen Wong (Environmental Engineer, Build King Civil Engineering Ltd)
Date: 16 June 2022 (Thu)
Time: 19:00 to 20:30 (Reception at 18:45)
Webinar Platform: ZOOM

Webinar Highlights:

The construction of sheet pile wall is generally driven by vibration induced by pile driving. Such effects nearby residential premises is not negligible. Noise from the vibrations of the sheet piles could be reduced by vibration dampers. This presentation will focus on fast and safe installation process. For the noise mitigation of the sheet pile wall of West Sewage Pump Station (WSPS) of the Tung Chung New Town Scheme Major Project, a new type of magnetic tuned mass damper (MTMD) was developed in Tung Chung East. Magnetic Tuned Mass Damper (MTMD) is a device designed for a fast and safe magnetic installation in Hong Kong. Total 6 sets of MTMD were installed on 12m high x 4m wide sheet pile wall. Each set of MTMD consists less than 20kg and can be installed in a few minutes for 6 sets.

In the invention process, acoustic imaging and finite element analysis (FEA) are used to identify resonance mode characteristics and dimensions of efficient vibration energy absorption due to MTMD to absorb vibration energy from 630 Hz to 1250 Hz by adjusting the size of the resilient layer and size of oscillation masses. On-site measurement result shows that the Pile TMDs achieved -9.14dB vibration reduction at target frequency -1250 Hz overall noise reduction.

The seminar will brief the invention process and share hands-on experiences on the following areas:

- Noise source identification by acoustic camera
- FEA for resonance analysis
- Sheet Pile TMD mechanism and design features
- On-site noise and vibration reduction performance
- Project background and site constraints
- User experience on Sheet Pile TMD

Registration
Please complete the online registration by 14 June 2022 (Tuesday) via <https://tinyurl.com/241nq76g>. The seminar is free of charge for HKIOA and supporting organizations members. CPD Certificate in electronic format will be provided via email after the seminar.

QR Code

Technical Webinar “A More Precise Method in Evaluating the Acoustical Performance of Resilient Sports Flooring System”

The screenshot shows the Hong Kong Institute of Acoustics website with the following details:

- Logo:** HKIA Hong Kong Institute of Acoustics
- Title:** Technical Webinar: A more precise method in evaluating the acoustical performance of resilient sports flooring system
- Description:** Within the fitness flooring industry, the acoustical performance of products has typically been measured in a test chamber or in the field using a dropped object, with the system response sensed as a vibration or impact. This system test involves a number of measurement uncertainties arising from variations in the structural subfloor. Additional uncertainties are caused by the use of non-standard drop heights and object release methods. In this webinar, Pliteq dives into these complex challenges and discusses an alternative technique to evaluate the acoustical performance of resilient sports floors.
- About the Seminar:** A brief introduction to the seminar's purpose and scope.
- About the Speaker:** Profiles for James Bligh and Ramy El Kawkgi, including their roles and expertise.
- Image:** Two small images showing different types of sports flooring.
- Information:** Date: 23 June 2022 (Thursday), Time: 7:00pm – 8:15pm (1 CPD Hour), Webinar Platform: ZOOM, Fee: Free of charge, open to all. Enquiry: admin@hkia.org.hk. Please register online via: <https://forms.gle/2AP2htr3xTKG4t8RwB> (on or before 22 June).
- QR Code:** A QR code linking to the registration page.

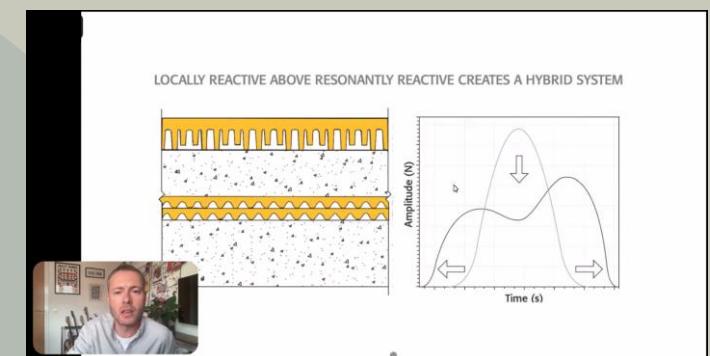
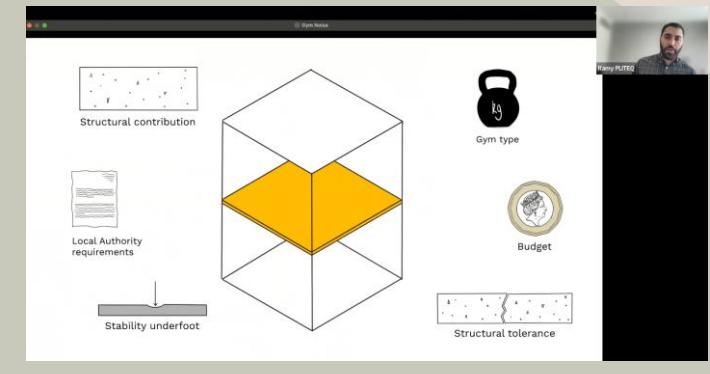
The Technical Webinar “A More Precise Method in Evaluating the Acoustical Performance of Resilient Sports Flooring System” was held on 23 June 2022. The webinar was presented by Mr. James Bligh and Mr. Ramy El Kawkgi from Pliteq on the complex challenges of measurement and prediction uncertainties arising from variations in the structural subfloors and an alternative technique to evaluate the acoustic performance of resilient sports floors. 62 participants attended the webinar.

Ramy listed and explained the major considerations in deciding mitigations to be applied: gym type, structural contribution, local authority requirements, stability underfoot, budget, and structural tolerance.

James showed a video demonstrating their standard test rig for heavy impact testing, which provides repeatable testing conditions of drop height and mass

to minimize uncertainties in the measured dynamic characteristics of resilient products. He illustrated a quantitative analysis of a typical floor system by considering it as a hybrid system of locally reactive and resonantly reactive components. He shared their experience on the use of a standard 8mm calibrated test sample sheet, which can be conveniently delivered to the site for a standard drop test for collecting in-situ baseline acoustic data under better-controlled testing conditions. A precise transfer function can then be evaluated for the prediction of the mitigated impact noise and selection of resilient products. He showed the predicted and measured noise spectra obtained from sites to demonstrate the accuracy of the prediction method, and encouraged consultants to use the prediction method as well as their resources and support.

(Reported by Cindy Cheung)



Technical Webinar “Lift Noise and Vibration Control Technique”

The Technical Webinar “Lift Noise and Vibration Control Technique” was held on 7 July 2022. 78 participants attended the webinar.

The first speaker Dr. Mors Leung, Technical Director of Architectural Acoustics Limited shared a few cases on his project experience on the troubleshooting of lift noise and vibration problems, which includes the identification of whether the main noise propagation path is airborne or structureborne, and the improvement after acoustic treatment. He shared some soundtracks of noise from problematic lifts, and discussed the investigation, findings and solutions. He also shared a laboratory setup investigating noise from guide shoes and guide rails and quantifying the effectiveness of the planned mitigation measure.

The second speaker was Mr. Denghua Ma, Technical Director of Shenri Elevator's Noise Abatement Center in Shenzhen, who is an expert on lift noise and vibration control. Mr. Ma shared some recent lift noise problems from high speed lifts at skyscraper residential buildings due to improper design of vibration isolation. He shared a few case studies, and explained some common errors and misconceptions in lift noise and vibration control design that he observed in the Mainland China.

(Reported by Cindy Cheung)

电梯机房噪声影响的解决方案

SHENRI 深日

电梯机房噪声扰民示意图

电梯减振案例（电梯主机加装大橡胶块减振）

SHENRI 深日

电梯受力不平衡，减振严重下陷导致侧倾严重，电梯导向轮及钢丝绳严重磨损

香港聲學學會
Hong Kong Institute of Acoustics

Technical Webinar
Lift Noise and Vibration Control Technique 電梯噪音及震動防治

Introduction
The lift generated noise and vibration is a classic problem for residential buildings in Hong Kong. Noise generated from lift motor and lift shaft transmitting to the habitable area is a nuisance to residents. This seminar shares the experience of lift noise and vibration control from investigation, study and real life application.

Speakers:
Dr. Mors Leung
Architectural Acoustics Limited - Technical Director
Mors started in the architectural acoustic field in 2016 after he obtained PhD in the Mechanical Engineering from the University of Hong Kong. He provides local support to the manufacturer and company by utilizing different tools to investigate problems. This included acoustic simulations and laboratory tests for lift noise study in his recent project.

Mr. Ma Deng Hua 馬鈴華先生 (Language: Cantonese 廣東話)
Shenri Elevator's Noise Abatement Center 深日電梯噪音減振研究中心 - Technical Director 副總經理
馬先生又稱電梯先生。深圳市首屈一指的優秀人才。深日市聲學環境局資訊技術專家。超高速電梯專機減振技術研究方案負責人。專注電梯安裝防治實踐研究超過16年。實踐研發了多種針對不同建築結構、不同電梯安裝工藝的電梯降噪解決方案。並獲得2項國家發明專利、6項實用新型專利。主要核心技術成果有：電梯機房減振控制系統、無線電電梯降噪控制系統、電梯導軌減振控制系統、立體導軌減振控制系統、別墅電梯降噪系統、電梯反彈輪減振控制系統等。技術已在全國省會城市及地區中得到應用。

Webinar Detail
Date: July 07, 2022, (7:00 - 8:30pm, HK Time)
Medium: English / Cantonese
CPD: 1.5 Hr
Platform: Zoom
Fee: Free of Charge
Target Audience: Open to all interested parties, including non-HKIAA Member
Enquiry: admin@hkia.org
Please register online via:
<https://forms.gle/0Qv1q7u6y5lg2hWTG>

QR code

LIFT NOISE AND THE TREATMENT

1. Traction Machine: Provide traction and move the cabin up and down
Noisy? Yes

2. Controller: Circuit and the main control of the lift system
Noisy? Yes

3. Cabin and CounterWeight
Noisy? Not really

4. Guide rails and Guide shoes
Noisy? Yes, create Noise to adjacent room

cdm-stravitec ARCHITECTURAL ACOUSTICS LIMITED cdm-stravitec.com // www.aa-hk.hk

LIFT NOISE AND THE TREATMENT

Case 5: Madrid Case

I. Noise and vibration data obtained simultaneously under lift operation

Noise Data

RECEIVER	THREE OF AN	BEST	AFTER PARTIAL	AFTER FULL
100 Hz	32.4 dB	32.2 dB	31.8 dB	31.5 dB
100 Hz	34.6 dB	34.4 dB	33.8 dB	33.4 dB
100 Hz	34.4 dB	34.2 dB	33.8 dB	33.4 dB

4/F Bedroom

G/F Room

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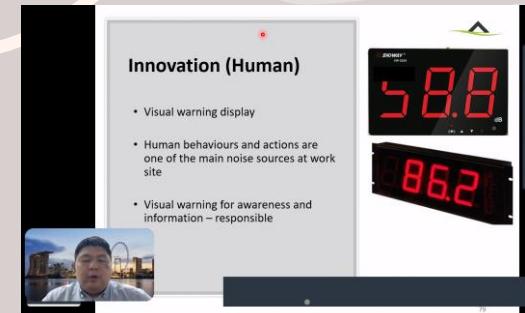
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Technical Webinar “Innovative Construction Noise Control in Singapore”

The Technical Webinar “Innovative Construction Noise Control in Singapore” was held on 26 July 2022. The webinar was presented by Dr. Vincent Hii (Director of Affinity Engineering Consultancy Pte. Ltd.) on an overview of construction industry in Singapore, local regulations and requirements, government support on innovative noise control measures, construction noise impact assessment and noise management plan, construction noise troubleshooting and innovative control measures case study. The webinar was well received by 179 attendees.

Vincent presented the growth of construction market in Singapore, the increase in the number of complaints on construction noise in recent years and during COVID-19 pandemic situation. He introduced and explained the common practice of noise impact assessment and noise management plan. He showcased a range of examples of conventional noise control measures and innovative measures, including (i) reduction of noise source generation such as the use of continuous, gentle methods like spinning, rotatory, crushing in construction procedure and equipment in place of the conventional impulsive hacking method; (ii) reduction at path with alternative barrier shape (such as the jagged edge cantilevered barrier), barrier material (such as the lightweight and waterproof aluminium form material) and barrier with special features (such as the retractable noise barrier); and (iii) consideration on human factor such as relieving public's negative impression by improving the greenery at the periphery of the construction site, introducing visual warning display of the prevailing noise level to alert workers to avoid any excess generation of noise, etc.

(Reported by Wilson Ho)



Organizer: Hong Kong Institute of Acoustics
Supporter: HKIEQEP, EMAHE, CIWEM

Technical Webinar on “Innovative Construction Noise Control in Singapore”
Dr Vincent Hii - Director of Affinity Engineering Consultancy Pte Ltd
26/07/2022 (Tue) | 19:00 - 20:30
Webinar Platform: ZOOM

Technical Webinar on “Innovative Construction Noise Control in Singapore”

Dr Vincent Hii - Director of Affinity Engineering Consultancy Pte Ltd

26/07/2022 (Tue) | 19:00 - 20:30

Webinar Platform: ZOOM

In Web Barrier Jagged Edge Barrier Noise Management Plan Located Enclosure Cantilever barrier Retractable Barrier

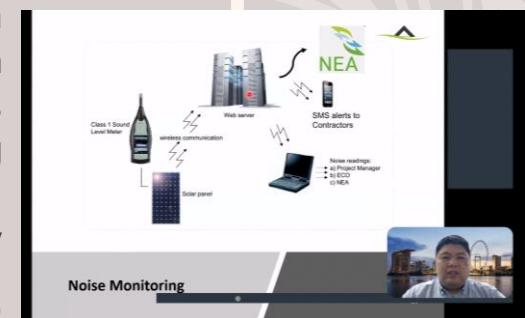
Seminar Highlights:

- Overview of construction industry in Singapore
- Local regulations and requirements
- Government support on innovative noise control measures
- Construction Noise Impact Assessment and Noise Management Plan
- Construction noise trouble shooting and innovative control measures case study

Speaker:
Dr Vincent Hii has more than 17 years of experience in noise/acoustic consultancy and has been involved in a wide range of construction projects in Singapore, internationally involving commercial and residential developments, major infrastructure projects such as MRT stations, tunnels, railway viaducts, underground expressway, faculty buildings, road upgrading and repair works.
His expertise in construction noise involves carrying out construction noise impact assessment, recommending construction noise mitigation measures and control, developing construction noise management plan, handling of noise complaint and stakeholders liaison, performing construction noise inspection and audit to evaluate the mitigation measures and control to achieve as low as reasonably practicable (ALARP).
He had been involved in validating the effectiveness of the noise control measures for the application of Quieter Construction Fund by National Environment Agency.
Dr Vincent Hii is also involved in providing training to Singapore Land Transport Authority (LTA) on Construction Noise Control Training.

Registration
HKIOA, HKIBA, HKIEQEP, HKIEPO, EMAHE and CIWEM members: free of charge
Please register online via: <https://forms.gle/3f4tPqXkVxGzCg8>

CPO Certificate (1 hour) in electronic format will be provided via email after the seminar.



Delegates to Inter-Noise 2022 in Glasgow, UK



The 51st International Congress and Exposition on Noise Control Engineering (Inter-Noise 2022) was held at the Scottish Event Campus in Glasgow, UK on 21 – 24 August 2022. Inter-Noise is a major international conference on noise control engineering, organized by the International Institute of Noise Control Engineering (I-INCE) and the local organising committee every year. A total of 1,244 delegates around the world joined the conference this year, 949 joined in person and 295 joined virtually.

Prof. Li Cheng, Chair Professor of Mechanical Engineering of The Hong Kong Polytechnic University, and Prof. Lixi Huang, Professor of The University of Hong Kong were among the session chairs of the conference.

The following papers were presented by delegates from Hong Kong:

- *Five years' monitoring data on rail damper performance*
Wilson Ho, Max Yiu, Ron Wong
- *A large-scale study of the social response to construction noise in Hong Kong*
Silver C.K. Chan, K.C. Lam, C.L. Wong, Richard Kwan, Wilson Ho
- *Lightweight retractable noise barrier in Hong Kong*
Wilson Ho, Wylog Wong, Eric Chu
- *Optimizing the performance of a sidebranch array duct muffler*
Shiu Keung Tang, Ho Man Yu
- *Programmable time-serial resonances for broadband spectrum*
Yumin Zhang, Keming Wu, Lixi Huang
- *Railway groundborne noise reduction by rail dampers*
Wilson Ho, Max Yiu, Ron Wong
- *Sheet pile tuned mass damper for construction noise control*
Wilson Ho, Wylog Wong, Eric Chu, Aldous Lo, Allen Wong
- *Track decay rate measurement method for reactive damping by tuned mass damper*
Wilson Ho, Marco Ip, Yi-Qing Ni

In the Congress, Prof. Li Cheng was elected to be the President-elect of the I-INCE, and that he will take over the Presidency of the I-INCE in 2026 for a three-year term. Congratulations to Prof. Cheng!

Technical Webinar “Acoustic Concerns and Treatment in Hydraulic Installation”

The Technical Webinar Acoustic Concerns and Treatment in Hydraulic Installation was held on 29 September 2022. This is the first joint webinar with the Chartered Institute of Plumbing and Heating Engineering (CIPHE) and HKIOA. A total of 97 participants attended the webinar.

The webinar was presented by Mr. Ben Yuen from CIPHE and Dr. Jeffery Tam from HKIOA. Mr. Ben Yuen is the Technical Director from WSP (Asia) Limited, he explained the general principles in plant room design planning to reduce potential noise nuisance to noise sensitive receiver. He also shared the detailed design concepts against noise from pump sets, including the cause of noise problems, and the control of pipeline noise. Apart from the equipment, Mr. Yuen showed different noise sources due to fitting and accessories along the supply network. His presentation covered a comprehensive review of all possible noise sources in a pumping and drainage system.



CIPHE The Chartered Institute of Plumbing and Heating Engineering
英國特許水務工程師學會
Hong Kong Branch 香港分會

Hong Kong Institute of Acoustics

PLANT ROOMS PLANNING

Noise Sensitive receiver vs Plant Room

- Water tanks
 - Concrete
 - Fiberglass
 - Steel

EPOXY REINFORCEMENT CLEARING MAINTENANCE TWIN TANKS DRAINAGE BUFFER TANK GRADE B2 FOR WATER TANK FLOOR PLATE

PUMP SETS DESIGN CONCERN

Booster Pump sets

- Maintenance

1. Pump lift too high.
2. Pump or suction pipe not completely filled with liquid.
3. Suction lift too high.
4. Insufficient margin between suction pressure and vapor pressure.

5. Foot valve too small.
6. Air in pump.
7. Air leak.
8. Air leak.
9. Poor flow.
10. Foot valve partially clogged.
11. Inlet of suction pipe insufficiently submerged.

12. Seal cap improperly located in stuffing box, preventing sealing fluid from entering space to form the seal.

13. Seal cap excessively located at bottom of stuffing box between shaft and casing, causing packing to be forced into pump interior.

14. Speed too low.
15. Speed too high.
16. Wrong direction of rotation.
17. Total head of system higher than design head of pump.
18. Total head of system lower than pump design head.
19. Specific gravity of liquid different from design.
20. Viscosity of liquid differs from that for which designed.
21. Operation at very low capacities.
22. Parallel operation of pump units unsuitable for such operation.

CIPHE & HKIOA JOINT WEBINAR
Acoustic Concerns and Treatment in Hydraulic Installation

2022/09/29 14

CIPHE The Chartered Institute of Plumbing and Heating Engineering
英國特許水務工程師學會
Hong Kong Branch 香港分會

Hong Kong Institute of Acoustics

PUMP SETS DESIGN CONCERN

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20. Viscosity of liquid differs from that for which designed.
21. Operation at very low capacities.
22. Parallel operation of pump units unsuitable for such operation.

Mechanical Troubles

23. Foreign matter in impeller.
24. Misalignment.
25. Impeller not rigid.
26. Shaft bent.
27. Rotating part rubbing on stationary part.
28. Bearings worn.
29. Wearage rivers worn.

30. Running off-center because of worn bearings or misalignment.
31. Out of balance, resulting in vibration.
32. Too tight, resulting in lack of liquid to lubricate packing.
33. Too loose, resulting in water-cooled stuffing boxes leaking.

System Troubles

34. Spout too low.
35. Spout too high.
36. Wrong direction of rotation.
37. Total head of system higher than design head of pump.
38. Total head of system lower than pump design head.
39. Specific gravity of liquid different from design.
40. Viscosity of liquid differs from that for which designed.
41. Operation at very low capacities.
42. Parallel operation of pump units unsuitable for such operation.

Pump Questions and Answers
Worthington Pump and Machinery Corp. (1st)

2022/09/29 26

Technical Webinar “Acoustic Concerns and Treatment in Hydraulic Installation” (Cont'd)

Dr. Jeffery Tam is the General Manager of Kinetics Noise Control (Asia) Ltd. He first presented the fundamental acoustic knowledge to the members from noise criteria, sound insulation and reverberation noise control to vibration isolation principle. Then he shared the practical solutions to noise and vibration control for equipment, including some real-life examples of installation defects to the members.

The Webinar received many favourable responses from both CIPHE and HKIOA members.

(Reported by Him Tang)



This slide is titled "COMMON PROBLEMS" and features two photographs. The left photograph shows a mechanical assembly with a central isolator being tested under load, labeled "Isolator overloading". The right photograph shows a piece of equipment mounted on a trailer or stand in an outdoor setting, labeled "Free standing isolator in outdoor area". The footer of the slide includes the logos for CIPHE (Chartered Institute of Plumbing and Heating Engineering Hong Kong Branch) and HKIOA (Hong Kong Institute of Acoustics), along with the text "CIPHE & HKIOA JOINT WEBINAR Acoustic Concerns and Treatment in Plumbing and Drainage Installation". The date "2022/09/29" and page number "38" are also present.

This slide is titled "COMMON PROBLEMS" and features two photographs. The left photograph shows a close-up of a mechanical isolator with a visible misalignment, labeled "Isolator misalignment". The right photograph shows a large piece of equipment being transported across a wall, labeled "Trucking Across the acoustics wall". The footer of the slide includes the logos for CIPHE (Chartered Institute of Plumbing and Heating Engineering Hong Kong Branch) and HKIOA (Hong Kong Institute of Acoustics), along with the text "CIPHE & HKIOA JOINT WEBINAR Acoustic Concerns and Treatment in Plumbing and Drainage Installation". The date "2022/09/29" and page number "40" are also present.

Professional Certificate Course on Acoustics, Noise and Vibration Control

The Professional Certificate Course is organized under a structured framework comprising basic acoustics, noise control concept and management to local professionals. Courses which form the two compulsory modules of the Professional Certificate have been announced earlier and are being held in September and October 2022. Elective modules will be announced in the next stage.

Candidates who passed these 2 compulsory modules and other elective module(s) with overall not less than 40 hours are considered fulfilling the membership requirements of the HKIOA as have been educated in acoustics or in a discipline relevant to the practice of acoustics.

September 2022							October 2022						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
				1 S1	2	3 S2							1
4	5 S3	6 S4	7	8 S5	9	10		2	3 S16	4	5 S17	6	7 8
11	12	13 S6	14 S7	15	16 S8	17		9	10	11	12	13	14 15
18	19 S10	20	21 S11	22	23 S12	24		16	17	18	19	20	21 22
25	26 S13	27	28 S14	29	30 S15			23	24 S9	25	26	27	28 29
								30	31 S18				

Compulsory Module 1: Fundamentals in Acoustics and Noise Control (Total 18 Hours)		
Session	Topic	Speakers
S1	Basic Acoustics Principle (Part 1)	Dr. Calvin Chiu
S2	Basic Acoustics Principle (Part 2)	Dr. Calvin Chiu
S3	Basic Acoustics Principle (Part 3)	Dr. Calvin Chiu
S4	Architectural Acoustics (Part 1)	Mr. Henry Chan
S5	Architectural Acoustics (Part 2)	Mr. Henry Chan
S6	Noise Control & Ordinance (Part 1)	Mr. Joe Leung
S7	Noise Control & Ordinance (Part 2)	Mr. Joe Leung
S8	Noise Control & Ordinance (Part 3), Noise Pollution Sources and Impacts	Mr. Joe Leung
S9	Assessment	-

Compulsory Module 2: Noise Modelling, Monitoring and Measurement (Total 18 Hours)		
Session	Topic	Speakers
S10	Calculation of Road Traffic Noise Methodology	Mr. Frankie Chiu
S11	Noise Prediction Modeling (Part 1)	Mr. Benson Lee
S12	Noise Prediction Modeling (Part 2)	Mr. Benson Lee
S13	Experience and Practical Solution on Road Traffic Noise Assessment	Mr. Frankie Chiu
S14	Noise Monitoring & Measurement (Part 1)	Mr. CL Wong
S15	Noise Monitoring & Measurement (Part 2)	Mr. CL Wong
S16	Hands-on Experience on Road Traffic Noise Measurement and Latest Developments in Instrumentation	Mr. Ivan Ho
S17	On-site Road Traffic Noise Measurement (Site Practices)	Mr. Ivan Ho
S18	Assessment	-

Notice

HKIOA Taxation and Follow Up

The Hong Kong Institute of Acoustics Limited (HKIOA) has been informed by the Inland Revenue Department (IRD) that the HKIOA's exemption claims on the profits tax cannot be granted. As a result, the HKIOA shall have the obligations to pay the profits tax due on the previous years. The IRD is now chasing on the HKIOA's tax returns starting from 2016/17 onwards for their assessment of the tax due and the penalties, if any.

The tax issue came into the attention when the Executive Committee (ExCom) of the HKIOA received a letter from the IRD on 29 July 2019 requesting for supplementary information in support of IRD's assessment on the HKIOA's tax return in 2017/18. After two rounds of reply to the IRD on 21 August 2019 and 14 May 2020 respectively, the IRD replied the ExCom representative on 2 June 2022 that the request from profits tax exemption claims cannot be granted. The ExCom had discussed and considered whether it would be preferable to engage a tax expert (i.e. consultant/auditor) to i) conduct a review of our case from due diligence perspective and ii) provide a review report to confirm whether the HKIOA is liable to pay the profits tax claims and any associated penalty from the IRD under the IRO. In past few months, the ExCom has approached several tax experts for the above, but none of them offered services except that only one tax expert provided a quote for preparing a simple report for the case, at a lump sum cost of HK\$8,600, for Item ii). Indeed, in the informal discussions between the ExCom representative and the few tax experts, and further discussion with the IRD officers, it has become more clear that the HKIOA cannot exempt from taxation under the Inland Revenue Ordinance (IRO) and the chance for a successful tax exemption claim is unlikely. Hence, the ExCom considered it is not worth the while for the HKIOA to hire a tax expert to re-confirm the above and the views of the IRD. It is, therefore, recommended that the ExCom should ask the HKIOA's CPA Accountant to file the proper tax return as required in order to close the case with the IRD.

An email has sent to all HKIOA members on the above for opinions on 7 Sept 2022. 46 feedbacks from the members were received, all of the reply are concurred with the recommendations of the ExCom not to further argue on the tax exemption matter and pay the tax due and any associated penalty as requested by the IRD.

(Reported by Henry Chan)

Notice

Survey on Members' Specialisation and the Proposed Chinese Names for HKIOA Membership Titles

In the recently-proposed amendments to the Noise Control (Air Compressors) Regulations (Cap. 400C) and the Noise Control (Hand Held Percussive Breakers) Regulations (Cap. 400D), the Government is considering to include the Corporate Member of the Hong Kong Institute of Acoustics (HKIOA) in the legislation. Taking this opportunity, we sent out a survey to collate views from our corporate members on the Chinese translations of various membership types. A total of 60 feedback has been received. It appears that large majority of the members responded to the survey (88%) agrees to the proposed translation. The membership titles are confirmed as follows:

English	中文
Corporate Member of the HKIOA (include)	香港聲學學會正式會員 (包括)
1. Honorary Fellow of the HKIOA (Hon FHKIOA)*	香港聲學學會名譽資深會員
2. Fellow of the HKIOA (FKIOA)*	香港聲學學會資深會員
3. Member of the HKIOA (MHKIOA)*	香港聲學學會專業會員
* Authorized Titles & Abbreviations under para.7 of the Articles of Association of the HKIOA	
Non-Corporate Member of the HKIOA (include)	香港聲學學會非正式會員 (包括)
1. Associate Member of the HKIOA (AMHKIOA)	香港聲學學會準會員
2. Student Member of the HKIOA	香港聲學學會學生會員

The survey also collected information from our corporate members regarding their specialisation areas. Results indicate that Environmental Noise, Architectural Acoustics, and Structural / Groundborne Noise and Vibration are the 3 areas that most of our members specialise in. While we would try our best to implement a specialisation scheme to serve as many members as possible, it is necessary to set a priority for the road map for the specialisation scheme. We would let you know once a consensus is reached.

(Reported by Alson Pang & Franki Chiu)

In Remembrance of **Ir Dr James W.H. WONG** **1958 – 25th Aug 2022**

On behalf of the Hong Kong Institute of Acoustics, we wish to convey our deepest condolences to the family of Ir Dr James W.H. WONG on his passing.

Ir Dr James W.H. WONG would be remembered as a pioneer bringing awareness and the development of architectural acoustics to Hong Kong.

James chose to develop his specialty in room acoustics based on his background as a musician & engineer with special interest in eco-architecture. He was a guitar player in school band as early as in the 1970's. In 1988, James was invited to join a small acoustics and theatre consulting firm in London. His expertise and talent is in conceiving the acoustic design of auditoria in collaboration with architects and theatre consultants.

He was educated and worked in the U.K. until 1991 when he returned to HK to lead the design team participating in the construction of HKUST. He joined the Noise Policy Group of Environmental Protection Department in 1992 and later found his consultancy firm in 1995.

In this time of mourning, please accept our compassion and we will long remember Ir Dr James W.H. WONG and his dedication to the science of acoustics.

Sincerely,

Mr William FUNG
Immediate Past Chairman,
On behalf of Hong Kong Institute of Acoustics