

25TH ANNIVERSARY

HONG KONG INSTITUTE OF ACOUSTICS



Sounding Board

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Intensive Training on Acoustics in Green Buildings

16, 23 and 26 April 2018

With a view to enriching green building practitioners' knowledge of acoustics, the HKIOA co-organized an Intensive Training on Acoustics in Green Buildings with Business Environment Council (BEC) and BEAM Society Limited on 16, 23 and 26 April 2018 at BEC Auditorium in Kowloon Tong. This training course received positive responses from industry practitioners and attracted 264 participants including architects, engineers, consultants, contractors and surveyors.

The course consisted of three sessions covering a variety of topics such as architectural acoustics design, related statutory requirements and BEAM Plus submission requirements. Ir C K Lee, Chairman of HKIOA Environmental Noise Subcommittee, and Ms Grace Kwok, HKIOA Immediate Past Chairman, represented HKIOA to deliver two of the sessions and shared their knowledge of noise assessment and fundamentals of acoustics with participants respectively.

As the only learned acoustical society in Hong Kong, the HKIOA will continue to foster professional development of acoustics practitioners in the industry through co-organizing technical seminars with professional institutions.



(From left to right) A group photo of representatives from co-organizers, including Ms Grace Kwok, HKIOA Immediate Past Chairman; Ir C S Ho, General Manager of BEAM Society Limited; Ir C K Lee, Chairman of HKIOA Environmental Noise Subcommittee; and Ir C F Leung, Director – Operations of Business Environment Council.

Intensive Training on Acoustics in Green Buildings

16, 23 and 26 April 2018



Ir C K Lee, Chairman of HKIOA Environmental Noise Subcommittee, delivered the first session on *Noise Assessment, Control and Management* on 16 April 2018.



Ms Grace Kwok, HKIOA Immediate Past Chairman, delivered the second session on *Fundamentals of Acoustics* on 23 April 2018.



(From left to right) Mr Fred Chan, Managing Director of Kinetics Noise Control (Asia) Limited and Ir C F Leung, Director – Operations of Business Environment Council delivered the third session on *Vibration Control and Acoustics in BEAM Plus* on 26 April 2018.

International Noise Awareness Day - A Radio Interview

25 April 2018

HKIOA conducted a radio interview on 25 April 2018 to celebrate the 23rd Annual International Noise Awareness Day. With the aim of raising awareness of noise impacts in Hong Kong, Prof K.C. Lam (Hon. Advisor) and Ms. Grace Kwok (Immediate Past Chairman) represented HKIOA to deliver the interview and discussed the topics including the International Noise Awareness Day and the Hong Kong Noise Map project.

Being one of the densest metropolitan cities in the world, the impact of environmental noise such as those from traffic, construction and other noisy activities has become a crucial importance to the hearing health of the people of Hong Kong, thus HKIOA continually strives to educate the public about the importance of reducing noise in our lives and to advocate mitigation measures that can tackle challenges in many ways.



Prof C.K. Lam (Hon. Advisor) and Ms. Grace Kwok (Immediate Past Chairman) on Metro Radio Interview

Pioneering Rail Damper - An Invention in Hong Kong

25 April 2018

A seminar titled “Pioneering Rail Damper - An Invention in Hong Kong” was jointly organized by the HKIOA, the Hong Kong Institute of Engineers, and the Department of Mechanical Engineering of Hong Kong Polytechnic University on 25 April 2018.



Seminar was attended by over 60 participants.



Ir. Wilson Ho, founder of Wilson Acoustics Limited, shared his experience on the development of his patented Multi-Directional Tuned Mass Damper. Benchmarking among other rail dampers using the tuned mass damping mechanism was also presented.

Ir Wilson Ho discussing the creation of the Multi-Directional Tuned mass Damper.



The seminar was well received by over 60 participants, including professionals from government departments, railway operators and consultants.

Certificate Courses on Noise and Acoustics

25 June to 10 September 2018

Our annual acoustic certificate course is continuing to be a success this year. HKIOA in partnership with Hong Kong Institution of Engineers – Mechanical, Marine, Naval Architecture and Chemical (HKIE-MMNC) Division and BEAM Society Limited (BSL) proudly offers a certificate course for HKIOA members on various noise and acoustic topics.

These 23 sessions and 6 assessments sessions ran from 25 June to 10 September 2018. Various acoustic professionals were invited to speak in the lectures including Mr. Aaron Lui, Mr. Richard Kwan, Dr. F.C. Tsang, Ir. C.K. Lee, Mr. Benson Lee, Mr. Joe Leung, Ir. C.L. Wong, Mr. Tom Ho, Mr. James Choi,, Mr. Henry Chan, Prof K.C. Lam and Mr, Wilson Ho



Mr. Aaron Lui delivering lecture on Basic Acoustics and Fundamentals of Environmental Noise



Ir. C.K. Lee delivering lecture on Environmental Noise Management

Certificate Courses on Noise and Acoustics

25 June to 10 September 2018



Mr. Richard Kwan delivering lecture on Noise Pollution Sources and Impacts



Mr. Joe Leung delivering lecture on Experience and Practical Solution on Road Traffic Noise Impact Assessment



Dr. F.C. Tsang delivering lecture on Noise Prediction Modelling



Ir. C.L. Wong delivering lecture on Noise Monitoring & Measurement

Certificate Courses on Noise and Acoustics

25 June to 10 September 2018

This course is aimed at providing local professionals with a refresher or enhancement in knowledge on basic acoustic concepts, noise ordinance, road traffic noise assessment and measurement, 3D noise modelling, architectural acoustic design and railway noise measurement.

A total of around 42 enrollments were recorded this year with many positive feedbacks from participants. We look forward to welcoming new participants next year.



(From left to right) Speakers at the noise and acoustic certificate course
Mr. Aaron Lui, Mr. Richard Kwan, Dr. F.C. Tsang, Ir. C.K. Lee, Mr. Benson Lee, Ir. C.L. Wong

Sharing on Noise Control Policy and Mitigation Design in Victoria, Australia 3 July 2018

The seminar on Noise Control Policy and Mitigation Design in Victoria, Australia was organized by the Women In Acoustics of HKIOA at the Hong Kong Polytechnic University on 3rd July 2018.

Our speaker, Felice Wong, Senior Environment Officer (Noise and Vibration) in Integration Services VicRoads, shared her insights and experience on noise control policy and road traffic noise mitigation designs in Australia.



Appreciation certificate was presented to Ms Felice Wong



Ms Felice Wong delivered her insights on noise control policy in Australia.

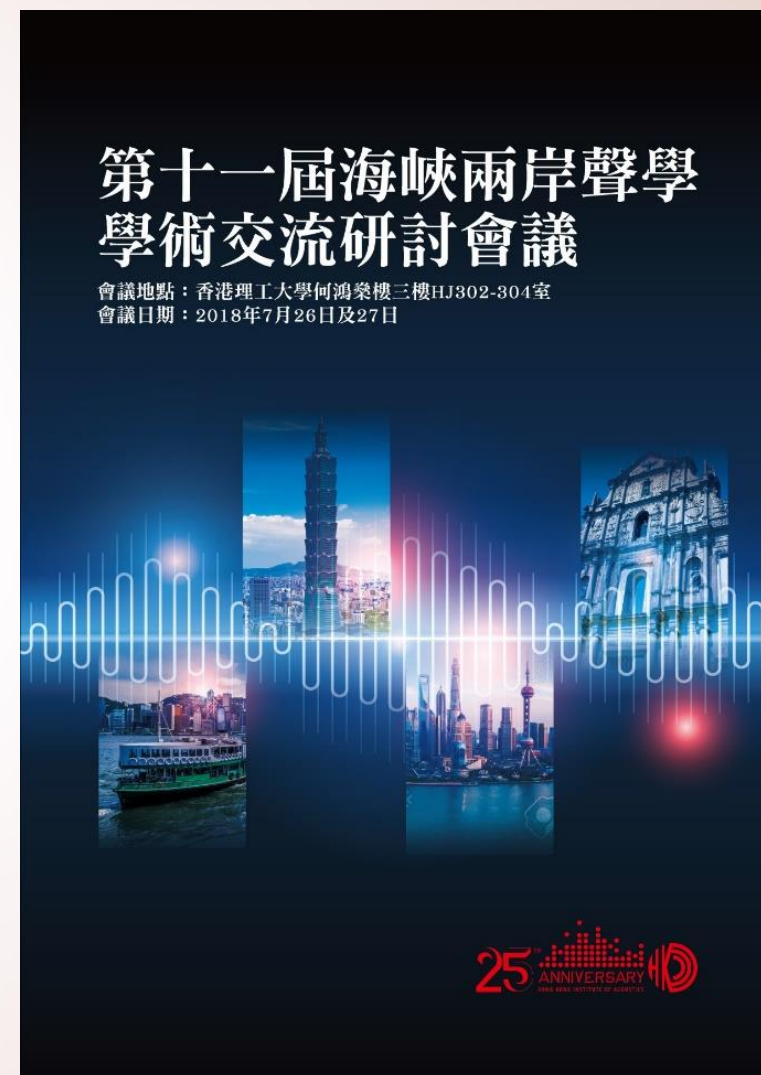


A group photo of the representatives of HKIOA Women in Acoustics.

The 11th Cross-strait Acoustic Conference 26 & 27 July 2018

This year, the 11th Cross-strait Acoustic Conference was held in Hong Kong, following the previous conferences hosted in Taiwan (2009, 2013, 2017), Macau (2016), Beijing (2015), Yunnan (2014), Hangzhou (2011), Shanghai (2010) and Hong Kong (2012, 2008). The symposium was hosted by the Hong Kong Institute of Acoustics (HKIOA) and the Department of Mechanical Engineering of the Hong Kong Polytechnic University. It was co-organized by the Shanghai Acoustical Society, Shanghai Zhang Kuisheng Acoustic Engineering Consultants Limited, Chinese Society of Sound and Vibration, Taiwan Acoustical Association and Macau Instituto de Acústica.

Guest speakers include Dr. Thomas Scelo (Director, Marshall Day Acoustics), Prof K.C. Lam (Hon. Advisor of HKIOA), Prof D.X. Mao (Professor, Tongji University) and Prof. Z. Y. Yang (Professor, HKUST).

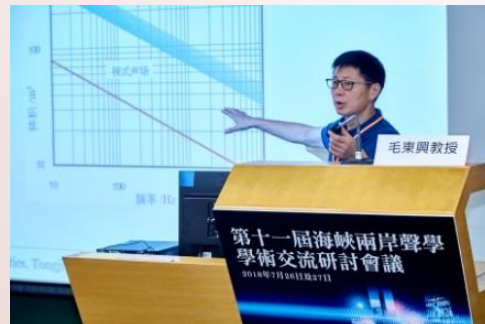


11th Cross-strait Acoustic Conference booklet

The 11th Cross-strait Acoustic Conference 26 & 27 July 2018

Dr. C. W. Law, Chairman of the HKIOA, gave an opening speech to participants and presented souvenirs to guest speakers and representatives of institutions from Shanghai, Taipei and Macau.

There were 24 technical papers presented during the 2-day programme and some over 80 participants. In the conference, research topics included indoor acoustical design, environmental noise impact assessment and control, material science, innovations of at-source and at-receiver noise mitigation measures, acoustical modelling review, quiet construction/ renovation and planning control.



The 11th Cross-strait Symposium on Acoustics 26 & 27 July 2018

The cross-strait symposium was a success and it was an excellent opportunity for experts, scholars, and technicians to gather and share their research advancements and new technologies. Participants enjoyed the stimulating conference and the various activities across the two days. HKIOA is looking forward to participate in such meaningful event in the future.

第十一屆海峽兩岸聲學學術交流研討會代表合影



Group photo of representatives from acoustic societies and participating delegates.

HKCA & HKIOA Joint Symposium of “Smart Construction for Quiet” on 25 October 2018

“Smart Construction for Quiet”
Symposium (SCQ 2018)
寧靜建造作業研討會

 香港建造商會
Hong Kong Construction Association

 香港聲學學會
Hong Kong Institute of Acoustics

 25
ANNIVERSARY



Co-organized by HKCA and HKIOA, the “Smart Construction for Quiet” Symposium was held at Asia World-Expo on 25 October 2018 as a “side-by-side” event with Eco Expo Asia 2018 .

World-renowned experts have shared their views and experiences of the latest policy development in tackling construction noise, the most updated practices in noise management, and innovative quiet construction / demolition methods. Besides, we have invited Mr. WONG Kam-Sing, JP as our keynote speaker to share with us about his vision of “QUIET”.

HKCA & HKIOA Joint Symposium of “Smart Construction for Quiet” on 25 October 2018



SCQ Pavilions were another highlight in Eco Expo Asia where exhibitors showcased various innovative and quiet construction and demolition methods, practices, equipment and tools. Two eye-catching quiet excavators were mobilized for display there. Responses from visitors were very positive.



HKCA & HKIOA Joint Symposium of “Smart Construction for Quiet” on 25 October 2018



Mr. Colin ENGLISH shared his experience of planning permissions for two major projects in the UK. He explained the importance of accurate and representative noise survey and assessment of the tangible construction noise impact for the planning authorities to set appropriate noise limits.

Noise assessment and control design were an integrated part of the planning application process. Working with the plant supplier for developing innovative and practicable noise control solutions was the key of success. Meanwhile, inaccurate assessment would have resulted extra-ordinary noise mitigation measures and unexpected costs.

Mr. Paul MADDOCK is a Senior Noise Officer with the New South Wales Environment Protection Authority. He drove the strategic reform for managing noise and provided technical expertise on regulatory decisions.

Mr. MADDOCK shared Sydney Metro Rail project as an example of how the EPA worked with business, government and the community for managing construction noise impact. It showed the best-practice approach and lesson learned to identify a solution that allowed essential infrastructure construction work to be carried out, protecting businesses and residents from adverse construction noise impacts.



HKCA & HKIOA Joint Symposium of “Smart Construction for Quiet” on 25 October 2018



Mr. LIM Ee-Khoon is with Singapore’s National Environment Agency (NEA) under the Pollution Control Department. He is an Engineer in the Construction Noise Section and develops policies and implements programmes to control noise from construction sites.

Mr. Lim shared the regulatory strategy and key initiatives to manage construction noise in Singapore such as the Quieter Construction Fund (QCF) in Singapore. He briefly introduced some good noise control practices at construction sites for striving a balance between productivity in the construction industry and a quieter living environment.

Mr. Caspar TER BILLE is the founder/owner at the Acosorb Group, with the vision of setting a new standard in the market for seamless acoustic solutions, based on EU regulations.

Mr. Caspar gave a brief presentation on how construction noise was regulated under the Dutch legislature, and how different parties coped with the requirements. Special noise requirements for finished buildings including noise insulation from room to room, and noise absorption in public areas were covered. The general trends in designing absorbing ceilings were also discussed.



HKCA & HKIOA Joint Symposium of “Smart Construction for Quiet” on 25 October 2018

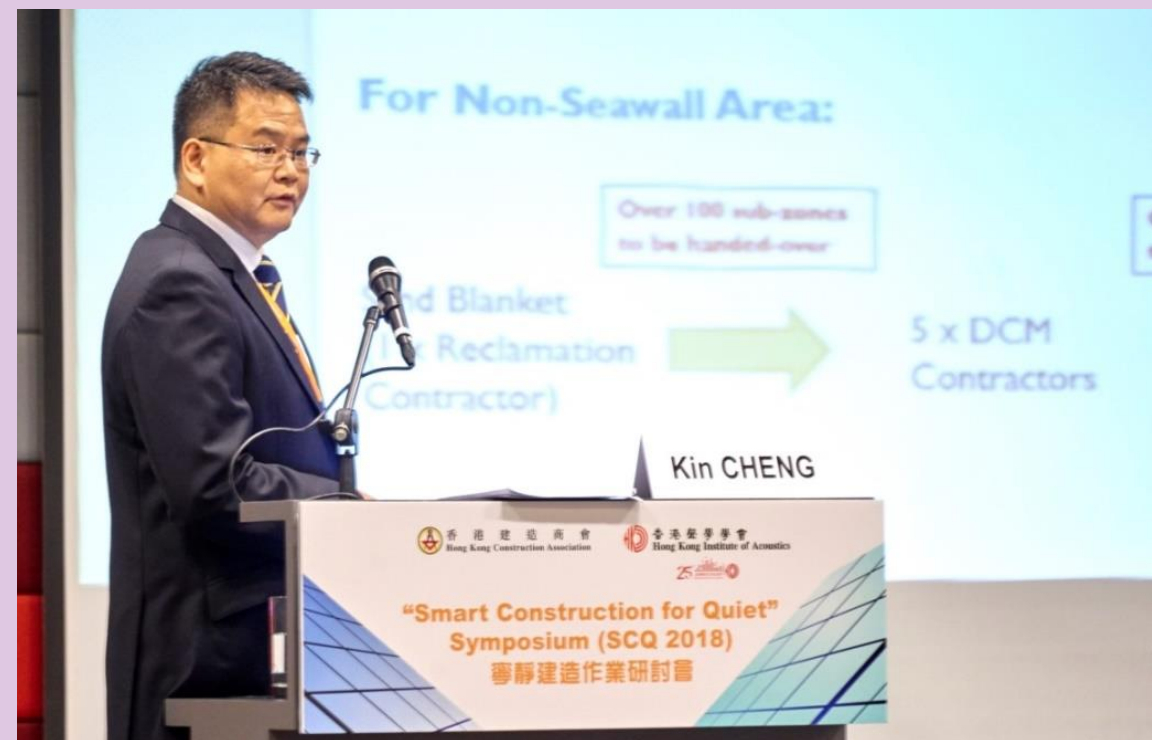


Mr. Shunsuke SAKURAI and Mr. Yoshio SHINOHARA introduced the designation system in respect of the processes leading to noise certification of a construction machine in Japan.

They introduced the development and trend of different design features of excavators to address concerns on noise, emission, energy, as well as operation and maintenance requirements. The development of a “hybrid” excavator and an integrated noise and dust control system for excavators were elaborated.

Dr. Kin CHENG is a Senior Environmental Protection Officer with the Environmental Protection Department, HKSAR Government. He is a veteran acoustics professional with over 20 years and he was also a past Chairman of HKIOA.

Dr. CHENG presented the innovative approach in administering the CNP application and approval processes to take into account the frequent hand-over of completed site areas from Deep Cement Mixing (DCM) contractors to the reclamation contractor under the Three-Runway System while strictly adhering to the legal requirements.



HKCA & HKIOA Joint Symposium of “Smart Construction for Quiet” on 25 October 2018



Mr. LEE is the General Manager – Environment of the Airport Authority Hong Kong for the 3RS project with over 20 years’ experience in managing the EIA studies for major infrastructure projects.

3RS project involves land formation of 650-hectare by five DCM contractors and a reclamation contractor. More than 200 construction vessels could be working concurrently. For managing construction noise proactively, Marine Traffic Control Centre was established and equipped with innovative information technology for working 24-hour to monitor 3RS construction vessel movement under a permit-to-work system.

Mr. Raymond WONG is a Senior Environmental Engineer of MTR Corporation and working in environmental field for more than 25 years.

West Kowloon Approach Tunnel as part of the West Kowloon Station construction was located in a dense-populated area. The noise mitigation requirements for the CNP application were stringent. Mr. WONG shared a successful story of how the project team developed a novel method of using tall acoustic curtain to fulfill the stringent noise control requirements. As a result the working hours for handling of excavated material, rebar and formwork was extended to 2300hrs.



HKCA & HKIOA Joint Symposium of “Smart Construction for Quiet” on 25 October 2018



Mr. Eddie TSE is the Senior Environmental Manager of Gammon Construction Limited with extensive experience in the co-ordination and implementation of EM&A, design & application of environmental mitigation. In addition, Mr. TSE is the vice chairman of Environment Committee of HKCA.

Mr. TSE shared the experience of rethinking and reinventing the design and construction process through smarter and innovative design for manufacture and assembly, etc. It has not only enhanced productivity and safety but also achieved quiet construction in a more effective and efficient way.

Mr. M.H. ISA is an environmental manager of Central-Wanchai Bypass (CWB) project with over 25 years experience in construction industry for numerous infrastructures and building projects.

Mr. ISA shared the experience of CWB's Noise Control Management System (NCMS) requiring approval from management prior to the execution of night work and liaison with concerned stakeholders such as residents and the schools to check their examination periods for minimizing noise impacts during sensitive periods.



Technical Visit on 26 and 27 October 2018



Visited the Hong Kong International Airport - Marine Traffic Control Centre (MTCC) of 3RS Project. MTCC works 24-hour to monitor 3RS vessel movements for the management of construction activities (26 October 2018)



Visited the Hilti's Hong Kong Tool Service Centre for the "Top of the class" power tool services including tool diagnosis, inspection and testing process (26 October 2018).



Visited the Liebherr (HKG) Ltd warehouse for demonstration of Sound Power Level (SWL) measurement for QPME label renewal according to European measurement standard (27 October 2018).

Underwater Acoustics and the Application of the Hydrophone to Assess the Impact to Marine Mammals

29 October 2018

A seminar was jointly organized by the HKIOA, Hong Kong Institute of Qualified Environmental Professionals (HKIQEP) and Department of Mechanical Engineering of The Hong Kong Polytechnic University was held on 29th October 2018.

Mr. Pierre Almeida of Ocean Sonics and Dr. Tik Sun of Integrate System Ocean, shared their experiences in hydrophone monitoring projects.

Anthropogenic noise sources have been increasing steadily over recent decades largely due to coastal population growth, increased global transportation, and offshore industrialization. Understanding the potential impacts of anthropogenic noise requires the establishment of ambient acoustic baselines and documentation of individual marine mammals' response to various kind of noise. Further, strategies of protection against harmful anthropogenic noise to marine mammals need to be developed. In this presentation, technologies to establish the ambient acoustic baselines and measures to protect marine mammals against anthropogenic noise will be explored.

The seminar was well received by over 80 participants from different sectors, the government department, consultants and project proponents, and it serves to enrich the knowledge of underwater acoustics and stimulate the interest of local professionals.



Aircraft Noise Assessment and Control

14 November 2018

A Seminar on “Aircraft Noise Assessment and Control” was jointly organized by the HKIOA and BSE Department of HKPolyU and was successfully held on 14th November 2018 at HKPolyU. We were pleased to have Mr. Eden Ngan, Senior Manager, Environment of Airport Authority Hong Kong to share introduce his experience in Three-Runway System project. The seminar attracted 46 participants.



In a 1-hour presentation, Eden introduced to us the aircraft noise standard adopted in Hong Kong including a brief history of “upgrade” of standard from Kai Tak Airport to Chep Lap Kok Airport to further minimize impact on nearby residents. He also provided a comparison of the standards adopted in Hong Kong with different countries (e.g. U.K., USA, Singapore) overseas; explained the assessment procedure such as consideration of flight path, type, number of aircrafts take-off and boarding; change of assessment tool from INM to AEDT;



annual average noise prediction to determine worst impacted year with account of change/improvement of technology (with reference to Chapter 2, 3, 4 and 14 of ICAO), and consideration of control measures such as operating restriction, use of noise quota, etc. There is good feedback during Q&A session and all participants are satisfied.



HKIOA Student Branch – Institute of Vocational Education (Sha Tin) Orientation Party 20 November 2018



The IVE (ST) Student Branch of the HKIOA was officially established on 26 Sept 2018. The branch aims to raise the students' interest to acoustics, and to maintain the connection between students and professional acousticians in the industry.