

Topic: **Technical Seminar: Acoustic Camera Application in Hong Kong**

Organized by: **1) Manufacturing Technology Training Board of VTC HK**
 2) Manufacturing and Industrial Engineering Section, IET HK
 3) VTC Alumni - Engineering Discipline

Seminar Schedule:

Date: 15-December-2017 (Friday)
Time: 14:15 - 17:30
Venue: Multi-function Room at 6/F
 VTC Kowloon Bay Complex
 46 Tai Yip Street, Kowloon Bay

Programme Highlights:

Acoustic Camera is a sound level analyser visualising the source location in 2D and 3D. Sound wave propagation is determined by beamforming analysis on signal intensities and delays from multiple microphones. The results are output in acoustic overlay format on the image - transforming the complex sound field into a colourful visualization. Acoustic cameras were originally used to visualise vibration modes of a solid plate more than a century ago. In the last two decades, their applications are thriving all over the world due to the advancements in computing power and acoustic sensors which allow for real-time analyses with more than 100 microphones. The seminar will provide an introduction to the principles of acoustic camera and its applications in the acoustics consultancy industry of Hong Kong. Some examples are highlighted as follows.

- Partition acoustic insulation test and identification of noise leakage locations
- Construction tunnel portal door noise leakage detection for immediate mitigations
- Train and tram noise source detection
- Hydraulic breaker noise visualisation of noise control effectiveness
- Localise an unknown noise source in urban area affecting the community for months

Speaker:

Mr Wilson Ho, Director of Wilson Acoustics Limited.
Mr Cai Ting, Consultant of Wilson Acoustics Limited.

Target Audiences:

- 1) Experts and interested persons in different aspects of noise measurement, acoustic design, noise control, environmental impact assessment and management.
- 2) Engineers, technicians or engineering students
- 3) The persons who have interest in modern techniques.

Language: English / Cantonese
Fee: Free of charge
No. of Particulars: 50 (registration is required)
Enquiries: Mr John Chow (johnchow@theiet.org)

Programme Rundown:

Time	Activity
1400 - 1415	Registration
1415 - 1425	Opening Speech Dr. George Lau MIE section Chairman of IET Hong Kong
1425 - 1440	1, Souvenir Presentation to guest speakers 2, Group Photos
1440-1520	Technical Talk: Acoustic Camera Application in Hong Kong Speaker: Mr Wilson Ho Director of Wilson Acoustics Limited
1520-1540	Tea Break
1540-1610	Demonstration of Acoustic Camera Speaker : Mr. Cai Ting Consultant of Wilson Acoustics Limited
1610-1620	Discussion/ Sharing Time
1620-1640	The Role of Manufacturing Technology Training Board of VTC Mr Stanley Cheung Chairman of MTTB of VTC
1640-1730	Visit the STEM center of VTC Kowloon Bay Complex