



### Micro Vibration Monitoring & Structural Engineering for Vibration Sensitivity Equipment

by Ir. Dr Lee Choo Yong

Ir. Dr Lee Choo Yong is currently the chairman in Electronic Engineering Technical Division (eETD).

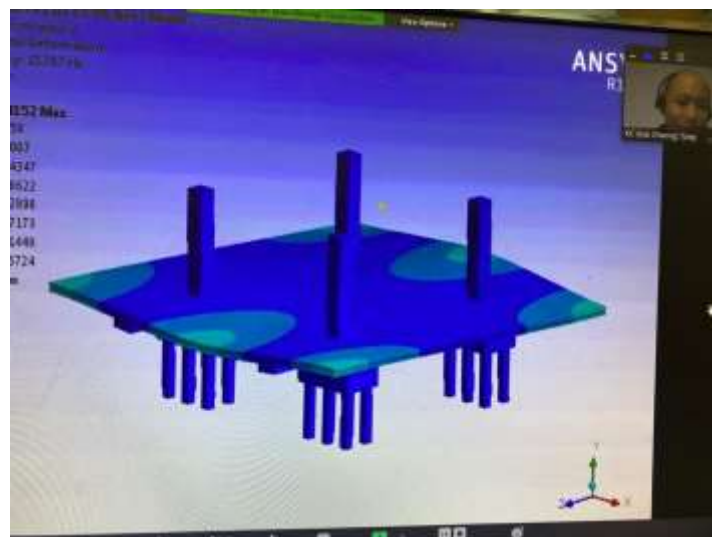
The Electronic Engineering Technical Division (eETD) has successfully organized an evening webinar talk on “Micro Vibration Monitoring & Structural Engineering for Vibration Sensitivity Equipment’ on 25<sup>th</sup> June 2020.

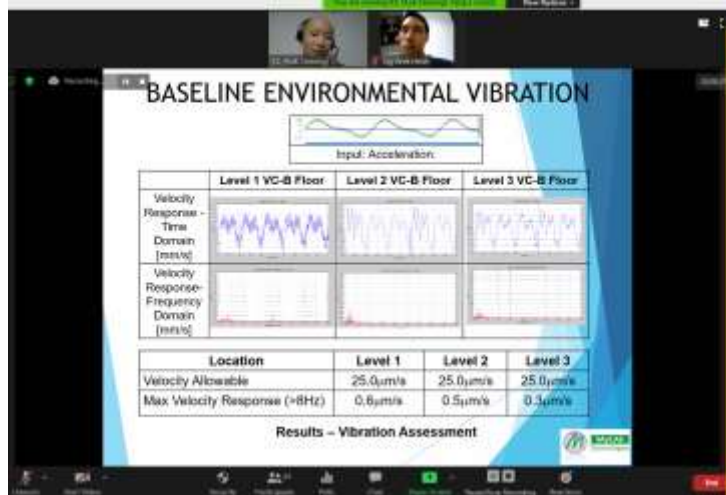
Speaker of the webinar is Ir. Dr. Tang Kok Cheong. Ir. Tang is a professional engineer and an engineering simulation specialist, he has undertaken and managed over 100 engineering consultancy projects for clients in oil and gas, biomedical, environment and energy, electrical and electronics, defence, nuclear and other industries. This webinar was moderated by Ir. Dr. Lee Choo Yong, chairman of eETD and was attended by 60 participants from various disciplines.

Ir. Tang started the webinar by introducing overview of vibration, generic vibration criteria, published by SPIE in 1991, that are conveniently used to classify vibration levels and their relevance to different types of vibration sensitive equipment.

Ir. Tang then shared suitable hardware and software needed to measure, acquire, process and assess the vibration levels, followed by review of fundamentals of dynamic response of engineering structures and the common types of vibration sources.

The speaker also discussed the use of finite element analysis (FEA), a highly valuable design and engineering tool, to study the resonance and dynamic response of the building subjected to different vibrational excitations, by means of modal, harmonic, transient analyses. Ir. Tang shared challenges and limitations for addressing vibration serviceability using current approach.





*Presentation on FEA and vibration assessment*

Ir. Tang received a lot of questions from practicing engineers on vibration on equipment in real case studies, it was indeed a fruitful and informative discussion. A group photo on screen was taken prior to closing of webinar.



*Group photo*