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OUR STUDENTS DO LEARN MECHANICAL AND ELECTRICAL ENGINEERING

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It is common that a civil engineering graduate always act as a Superintending Officer of infrastructure projects; and sometimes even if the projects were buildings dominated. Well, if you are a project manager, you are expected to know about almost everything if not their details of all. Jack of all trades! Thus, our students were exposed to mechanical and electrical engineering practices.

The two types of apparatus available in the laboratory are lux meter and anemometer. Students used lux meter to measure the illumination in several locations during laboratory session. While the anemometer was used to measure wind speeds from Ventilation Trainer (either Y-Shape and/or U-Shape). The measured data will be correlated to standards and students can conclude their results and findings.



lux meter



anemometer



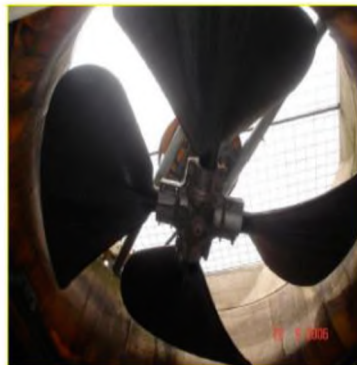
Ventilation Trainer (U-Shape)



Ventilation Trainer (Y-Shape)

Apart from the above, students learnt about 4 basic components of air-conditioning which are evaporator, compressor, condenser, and expansion valve. The advanced in Heating, Ventilation, and Air Conditioning (HVAC) system involve cooling tower and chillers was introduced through site visit with the helps from facility department staffs. As HVAC consumptions are in the range of 40% to 70%, it is crucial for us to understand how the HVAC system works and reduce the energy consume for a better environmental sustainability (<https://www.sciencedirect.com/science/article/pii/S235248472101427X>, <https://www.environment.gov.au/System/files/energy/files/hvac-factsheet-energy-breakdown.pdf>)

We wish that the exposures can produce better civil engineering graduates as a team member and leader in their works and endeavours.



Cooling Tower



Air Handling Unit (AHU)



4 Basic air conditioning components



Chiller CHWR and CHWS