

Wong Tit-shing Student Exchange Scholarship Exchange Learning Report



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Department: ME

Country: Australia

Host Institution: University of New South Wales

Exchange Period: 17 July 2017 – 13 December 2017

Learning experience

Participating the exchange-out programme is absolutely an unforgettable experience. It really did encourage me to explore the world more. Studying overseas alone has granted me an opportunity to experience, adapt and adopt the culture in Australia. I am very grateful to be granted such a precious opportunity to enrich my university life and widen my eyesight.

Firstly, the education system in UNSW gave me more freedom in terms of time management. There are lecture recordings on web, where students can access it whenever they want to revise the lecture materials. It is very beneficial to students when it comes to examination periods. More importantly, students can attend the online-lecture class when they desire to take the subject with timetable crash with others. This provides students more flexibility in their course arrangements and time management.

Moreover, the arrangements of core subjects are more systematic and efficient. Most of the fundamental subjects are studied during their first year, the remaining three years of their studies are focused on the advancement of knowledge on their professional fields. Unlike PolyU, their General University Requirements are not as heavy. Owing to this, the workload of each semester is not as great as in PolyU, and consequently students have more time to focus on developing their professional knowledge.

During the lectures, some professional engineers working in the industries were invited to share some experiences they have encountered in their careers and some real-life applications of knowledge printed on the textbooks. What the lecturer of Engineering Mechanics II did was a good example of the aforementioned statement. She was delivering the knowledge of multiple degree of freedom spring-mass-damper system, which was related to vibration absorber. An extra mass-spring system was introduced into the original one to act as a tuned mass damper. As a result, the amplitude of vibration of the system will be minimized even when force was applied at its original natural frequency. After she taught us about this, she invited an engineer to talk about his career, which was to build an isolation system in the swimming pool to reduce the noise generated by the water and minimize the transmission of low frequency wave through the walls. It was important because low frequency wave could travel long distance and it may disturb the residents if the swimming pool was constructed in a condominium. She also demonstrated that the enormous Taipei 101 building applied such a system to withstand the impact due to tornado and earthquake. She inspired me to think out of the box with the knowledge I have learned.

One thing that is new to me is that, they provide extra ten minutes of reading time to study the exam paper before they are allowed answer it. This is extremely useful for students to plan their strategy during the exam, particularly in allocating their time usage on each question. Although I was given reading time, I did not manage to complete all the questions in the exam. In my opinion, they expect students to have a firm grasp of the study materials and begin answering the questions without hesitating too long on a question. This requires numerous hours

of self-study on the theories because the lecturers focus more on delivering the applications of knowledge.

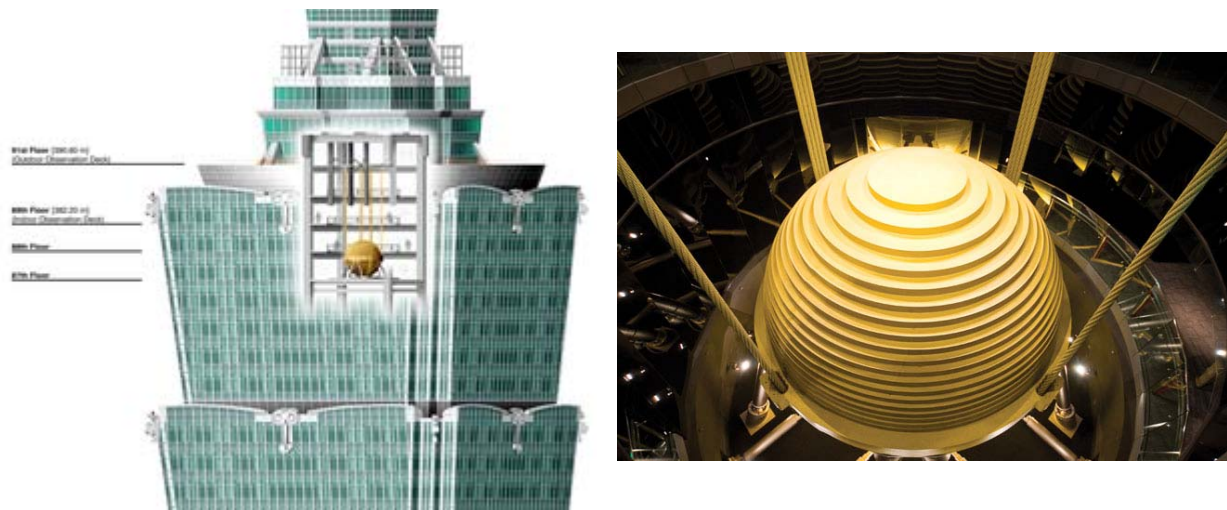


Figure 1. Tuned mass damper in Taipei 101

Exploring Australia

Besides learning knowledge in the university, I also travelled around Sydney and learned the history about Australia. Back in 18th century, Captain James Cook led his fleet to arrive in Sydney with his mission to discover a new territory around South Pacific Ocean. His settlement on Sydney greatly impacted to the development of Australia. At that time, British government was looking for a place to accommodate their prisoners from all around the world. This resulted in the diversity of cultures in Australia ever since.

Therefore, I have made friends from different nationalities via activities and events I participated in UNSW. Being a sporty person, I participated in both badminton and basketball competition. Being one of the representatives of Malaysians in UNSW, I played games with Malaysians from different universities around Sydney.

Other than Sydney, I have visited Melbourne, Tasmania and Brisbane. The trips were such valuable ones. The extraordinarily stunning sceneries have granted me an opportunity to enjoy the tranquillity and beauty of nature. I felt that I should bear the responsibility to protect and love our one and only planet.



Figure 2. 3v3 Basketball Competition



Figure 3. Badminton Competition



Figure 4. Tasmania trip



Figure 5. Loch Ard Gorge



Figure 6. Melbourne trip



Figure 7. Melbourne trip



Figure 8. Sydney trip

Career aspiration

Among all the friends I have met in Australia, there were some who were studying, or graduated from, Mechanical Engineering as well. Sometimes we talked about our future career, we talked about dreams. One of my friends, Fardi, told me that he wanted to be consultant engineer in building services company, who introduced me BIM (building information modelling). BIM is a relatively new software that is used for construction modelling with accurate information associated with the design. I had no idea for my future career at that moment until my friend Bryant told me about Elon Musk.

After doing some research on Elon's achievements, I realized that I was interested in exploring aerospace field. There was a reporter that asked him about how he managed to learn enough to create and run SpaceX, and he replied: "I read a lot of books". From his stories, I learned that reading books is an important approach to accumulate knowledge on fields that I have not be familiar with. He was humble to learn from his employees, although he was the CEO of the company. He inspired me to be humble to learn because there is always something that

we do not know about. I will have to accumulate a great amount of knowledge and experience before achieving my dream.

Views on Australian culture

Back in my semesters in Hong Kong, I have a group of friends that I can study with, but I do not have one in Sydney. I prepared the tests alone and tried to reach any resources that I could. One thing valuable that I have learned from local students in Australia is they are not shy to ask questions, which undeniably seems to happen among Asian students. Being less shy to approach everyone has not only given me a good start in building social network in a new environment, it also has taught me a lesson: it is not a shame to admit I do not know something, but it is shameful if I pretend that I know it. Asking valuable questions helps clarify things, not only in learning, but also in career.

Australia is a country where work-life balance is well managed. There are almost no shops stay opened after 6pm, except some restaurants which mostly open until 9pm. This is different from Hong Kong, and also my hometown, Malaysia. During weekend, public parks are all fully filled by people from all age. They play basketball, jog, picnic, walk dogs and others. Despite working from 9am to 5pm for 5 days, they do not give up their leisure time staying at home being a couch potato, instead they exercise and make their body stay healthy. People often think “relaxed lives” are words substitution for Australians, but to me it is their lifestyles that make it looked so.

Overall, this trip is priceless. It gave me an opportunity to step out of my comfort zone and it encouraged me to shape my learning attitude. This trip has also changed my mindset on viewing things and grew me to be respectful about the differences among cultures and mindsets of different people.

Study Schedule

Reached Australia: 17 July 2017

Orientation Week: 18-20 July 2017

Semester begins: 23 July 2017

Semester break: 22 September – 1 October 2017

Study week: 27 October – 1 November 2017

Exam Period: 2 – 20 November 2017

Leaving Australia: 13 December 2017

Semester 2	23 Jul - 20 Nov 2017
O-Week	18-20 Jul
Teaching period T2	23 Jul - 26 Oct
Teaching period T2A	30 Jul - 7 Sep
Teaching recess	22 Sep - 1 Oct
Teaching period T2B	10 Sep - 26 Oct
Teaching period T2C	17 Sep - 21 Dec
Study period T2	27 Oct - 1 Nov
Exams T2	2-20 Nov

Figure 9. Academic Calendar of Semester 2 in 2017

🚦 Subjects Taken

- BEES6601 Sydney Environment
- MATH2018 Engineering Mathematics 2D
- MMAN2300 Engineering Mechanics 2 (credit transferred)
- MMAN2600 Fluid Mechanics (credit transferred)

	Monday	Tuesday	Wednesday	Thursday	Friday
9:00AM		BEES6601 Sydney Environment 9:00AM-11:00AM Central Lecture Building 5		MMAN2300 Engineering Mechanics II 9:00AM-11:00AM Ainsworth 102	
9:30AM					
10:00AM					
10:30AM					
11:00AM		MATH2018 Engineering Mathematics 2DR 11:00AM-12:00PM Red Centre Central Wing 1042			
11:30AM					
12:00PM					
12:30PM					
1:00PM					
1:30PM					
2:00PM	MMAN2300 Engineering Mechanics II 2:00PM-4:00PM Ritchie Theatre	BEES6601 Sydney Environment 2:00PM-3:30PM Morven Brown LG30			
2:30PM					
3:00PM			MMAN2300 Engineering Mechanics II 3:00PM-4:00PM Ainsworth G03		
3:30PM					
4:00PM	MMAN2600 Fluid Mechanics 4:00PM-6:00PM Willis Annexe 116A UG Lab		MMAN2600 Fluid Mechanics 4:00PM-6:00PM Willis Annexe 116A UG Lab		
4:30PM					
5:00PM					
5:30PM					
6:00PM					
6:30PM					
7:00PM					

Figure 10. My timetable