

## Findings through JUACEP

**Name:** Benye Tang

**Affiliation at home country:** ISD Department, University of Michigan

**Participated program:** Summer Course 2019

**Research theme:**

Friction Controlling Method with Optimal Solid Lubricant Conditions

**Advisor at Nagoya Univ:** Prof. Noritsugu Umehara

**Affiliation at Nagoya Univ.:** Micro-Nano Mechanical Science and Engineering



This summer, I am very happy to participate in this JUACEP program at Nagoya University. Not only I conducted a research about tribology, but also achieved many things which can be written on my accomplishment list during this summer vocation.

It was my first time to get into Toyota plant to visit its production line which impressed me a lot. Toyota Production System is so famous, especially its lean manufacturing. When I was reading the book *The Toyota Way*, the seed of being able to visit Toyota production line one day was buried in my heart. I appreciate JUACEP office and Kato-san for organizing such a great excursion for us.

It was my first time to learn Japanese, and Yasui Sensei helped me a lot patiently. From those classes, I learned some basic knowledge of Japanese, such as Hiragana, greetings and some grammar. Even though learning a foreign language needs a lot of memory, I still find it is interesting because of Yasui Sensei's lively teaching. I hope to keep on learning Japanese after going back to United States.

It was my first time to travel around Japan. I went to Kyoto, Osaka, Tokyo, Sendai and Nagano, which made me learn more about Japanese society and its wonderful culture. And the summer trip organized by Umehara Lab is another unforgettable experience. We went to Lake Suwa in Nagano and lived in a cottage. The BBQ and blue berries picking organized by lab members were a lot of fun.

Time flies with joy all around! It's time to farewell to Nagoya University, to my respectful professors, to helpful JUACEP members, and to my friendly lab members. I will miss the ten weeks and the lovely people here forever. Hope to meet with these old friends again!



## Findings through JUACEP

**Name:** Chen-Yu Cheng

**Affiliation at home country:**

Mechanical Engineering, University of Michigan – Ann Arbor

**Participated program:** Summer Course 2019

**Research theme:**

Passive Knee Assist Device for Squat Lifting: Toward High Usability

**Advisor at Nagoya Univ:** Prof. Shogo Okamoto

**Affiliation at Nagoya Univ.:** Mechanical Systems Engineering



It was an unforgettable experience this summer, not only did I learn more about the multidiscipline between human and engineering, improved my academic research abilities, but I also experienced lots of Japanese culture, including working attitude, eating habits, and understood more about the career in Japan, especially for women

Actually, I didn't have much independent research experience before I came here. Besides, although the research topic was interesting to me, I wasn't familiar with it. Hence, I faced difficulties at the first several weeks. Thanks to my advisor, Professor Okamoto, he offered me a lot of help, discussed the research progress with me very often. Also thanks to my lab mates, they taught me how to use the devices to do the experiments and also the method of signal processing. '

Besides the research here, I'm interested in the careers in Japan, too. Hence, I talked to a student studied in Nagoya University who was doing an internship in Toyota during summer vacation. It was surprising to know that the working hours for an engineer were not as long as I expected, there was even a rule for not working overtime on Wednesday and Friday. I also talked with a woman who has been worked in Japan for 4 years as a sales assistant. The promotion for women are still worse than men in Japan, same as what I heard, but this situation has become better and better. Furthermore, because of the huge population of Chinese people nowadays, there are about 1/3 Chinese in her company, which make the culture of the company more similar to a mixture of Japanese and Chinese culture. Understanding these change in careers in Japan makes me more willing to look for a job here.

During the 10-week program, I spend several weekends to travel around Japan and experience the cultures here. Other than the architectures and weather here, I think the most different thing between Taiwan and Japan, or American and Japan, is the reactions between people. Japanese people tend to be very considerate, they are really good at reading the air, and helping others before they say their needs. However, this is both an advantage and a disadvantage: people seldom get disturbed in public places, but it will be tiring if you need to care about others all the time. But I think this is an important skill for me to learn from Japanese. Another interesting thing is that Japanese people are modest. Thus, if I tell them that I can only speak a little Japanese, they would regard me as being modest and talk to me in Japanese.

It was really a joyful and unforgettable experience for staying in Nagoya this summer. Not only did I gain experience on academic research, but I also enjoy Japanese cultures here. I will definitely come to Nagoya or other places in Japan again in the future. In general, JUACEP program is an amazing program that I'll recommends others to participant.

## Findings through JUACEP

**Name:** Guanru Feng

**Affiliation at home country:** Mechanical Engineering, University of Michigan

**Participated program:** Summer Course 2019

**Research theme:**

Effect of Different Orientations of Compensation Chamber on Loop Heat Pipe System for Automobiles

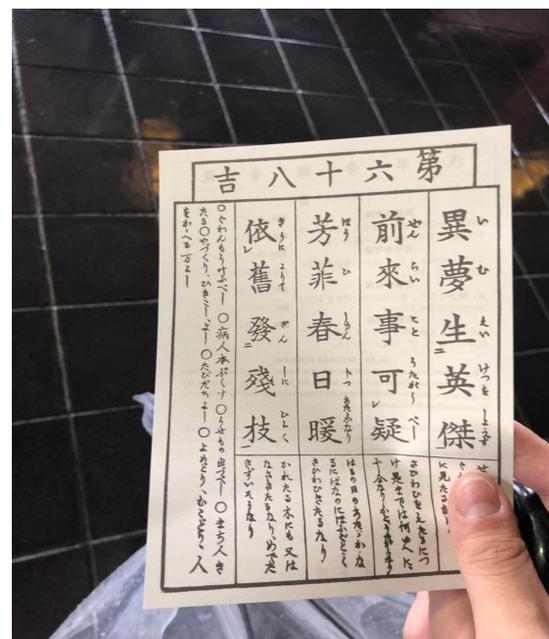
**Advisor at Nagoya Univ:** Prof. Hosei Nagano

**Affiliation at Nagoya Univ. :**

Thermal Control Engineering Group, Mechanical System Engineering



Nagoya is a pretty and quiet city. It is a good place for study and research. The lab facilities and campus facilities are great. The ergonomics here in Japan is the best in my opinion. Everything here is designed for the convenience and safety of people. The garbage sorting really makes me confused at first, but later on I find out it's really efficient and friendly to the environment. The field trip to the Toyota Museum and Asahi Beer Factory really open my eyes. I gain a deeper knowledge on the front-field technologies in automotive industry and the producing process of beer. The engine assembly workshop is also fascinating. Although I'm focusing my career on the internal combustion engine, this is still my first time to get a hand-on experience outside classroom. I also visited Tokyo during weekend. It's a great city full of opportunities as well as fun. While Kyoto, on the contrary, is a city full of historic buildings. In Japan, I felt both the beauty of modern city and historic city.



## Findings through JUACEP

**Name:** Yu-Ching Hsiao

**Affiliation:** Mechanical and Aerospace Engineering, UCLA

**Participated program:** Summer Course 2019

**Research theme:**

Inserted Wedge-shaped CoFe Layer Studied by Time-Resolved Magneto-optical Kerr Effect (TR-MOKE)

**Advisor at Nagoya Univ:**

Prof. Satoshi Iwata, Prof. Takeshi Kato, Prof. Daiki Oshima

**Affiliation at Nagoya Univ.:** Institute of Materials and Systems for Sustainability



Before coming to Japan, I was very looking forward to the research opportunity and life experience here. Now I would say, “It did not disappoint me at all. I really enjoy it!”

I joined Prof. Iwata’s lab this summer and chose the complicated equipment TR-MOKE as my research topic. Prof. Kato patiently walked me through all complex procedures step by step. Prof. Iwata and Prof. Oshima were very helpful when I encountered problems. The discussions with professors provoked my thoughts and deepen my understanding on my research magnetic dynamics. I greatly appreciate my research experience of operating TR-MOKE. I am excited to bring the newly gained knowledge and skills back with me to the U.S. to continue my journey as a better prepared doctoral student.

To all lovely lab members: due to my poor Japanese, in the beginning it was hard for me to communicate with them. I am very thankful they started teaching me Japanese. Day by day we overcame the language barrier and got to know each other better. In August, I was invited to the lab trip. Wearing yukata while having traditional Japanese food and playing with you guys are the highlights of my stay here. You guys make me like Japan much more!

Last but not least, I would like to express my gratitude to Tomoko-san. She always supports us whenever we need her. Without her, our lives here would be much more difficult. I remembered one evening I ran into her on campus. It was not her working hours but she still invited me for dinner and chat with me to make sure we were all doing fine. Thank you Tomoko-san. You make this program different.

Participating in JUACEP program is one of the best decisions I have made. Time flies. Good time makes leaving here hard. I will take the unforgettable memory with me back to the U.S. Love you all!

