

My treasure memory

Name: Umemura Keita

Affiliation at Nagoya University: Mechanical Systems Engineering

Participated program: Medium course 2019

Research theme: About ISO 15118

Advisor at the visiting university: Prof. Rajit Gadh

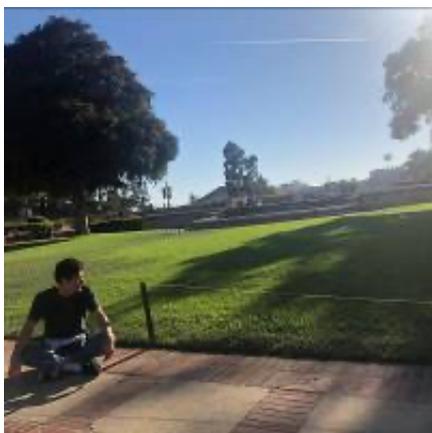
Affiliation at visiting university: Mechanical & Aerospace Engineering at UCLA



The all experiences in the JUACEP were wonderful. I did research under the Professor Rajit Gadh. I was concerned whether I could do research well in UCLA because of language difference. But the laboratory members were very kind. When I had a problem, they always helped me. Without their helps, I must not finish my research. I appreciate very much.

In holiday, I went to a lot of places in Los Angeles. The all places –Santa Monica, Down Town, Hollywood, Baseball Stadium- are very moving. Especially, the most favorite place is art museum. Before I come to Los Angeles, I have never been to art museum. But the atmosphere of the Los Angeles made me want to go to a new place. When I looked into the museums in Los Angeles, I found that all museums were very popular and famous around the world. So I went to the all museums in Los Angeles. I had no knowledge about artwork, it was very interesting to walk around in the museum. There are many artworks by famous painter, for example Picasso, Monet, Gogh and so on.

All experience in these 6 months must be treasure in my life. I absolutely recommend this program to anyone who is interested in.



Findings through JUACEP

Name: Takumi Kani

Affiliation at home country :

Dept. of Micro/Nano Mechanical Science of Engineering, Nagoya Univ.

Participated program: Medium course

Research theme: Development of low adhesion film using mesoporous silica

Advisor at the visiting university: Prof. Laurent Pilon

Affiliation at visiting university: Department of Mechanical and aerospace engineering, University of California, Los Angeles



I got a lot of wonderful experiences in the U.S through JUACEP program. Before I came, I was worried about university and daily life. Because it was first time to live in foreign country. However, I realized that the concern was completely unnecessary. People I met in the U.S are very kindly and friendly. Through this study abroad, I was able to touch kindness across borders.

I would like to introduce my research life at UCLA. The field of research in Prof. Pilon is different from my research in Japan. So I thought that I would join the project of Prof. Pilon group. However, when I told him about my research in Japan, he designed a research theme that would be relevant to research in Japan and the U.S. My research at UCLA is a kind of development and evaluate thin film and lubricant oil. Since this theme was a joint research with a chemical laboratory, students who belong to chemical laboratory taught me how to handle equipment and make samples. The laboratory I belong to was composed with students from various countries such as France and Colombia. This research experiences with students from different majors changed the view of thinking for the research.

I participated in a club of gathering students interested in Japanese culture. This club is held once a week at the university, discuss each other's culture and interests using both Japanese and English. Many of them were interested in Japanese comics and music, I really felt that Japanese culture was spreading all over the world.

I think it was very good that I bought a bicycle in the U.S. I bought a bicycle for going to school because the house where I lived was far from to the university. As a result, this purchase was very good because the range of action became wide and I could go to various places with bicycle. There are many sunny days in Los Angeles and I was able to spend comfortably by bicycle. It was great to be able to go to the watching sports game that I wanted.

I am very appreciated with all of the people who met and supported me.



Findings through JUACEP

Name: Yusaku Kawagoe

Affiliation at Nagoya University: Mechanical Systems Engineering

Participated program: Medium course 2019

Research theme: Conditional Machine Learning-Based Inverse Design of Photonic Metasurfaces

Advisor at the visiting university: Prof. Aaswath Raman

Affiliation at visiting university: Materials Science and Engineering - UCLA



My life in LA for six months has been the most exciting and memorable experience of my life. UCLA, where people from all regions of the world such as Europe and Asia gather, gave me a wonderful opportunity to learn about these differences in cultures and expand my vision. I developed proficiency in sophisticated technological expertise, and expanded my skillset through conducting research in a challenging and distinctly different environment from Japan.

A few of the highlights of studying at UCLA include learning machine learning, various kinds of simulation, and data analysis under the supervision of Professor Raman. As part of a three-member project team, I helped develop a program to generate images based on user-defined conditions using a machine learning technique called GAN (Generative Adversarial Network). GAN is one of the applications of artificial intelligence (AI) in the world today that can be used in a wide range of industries, such as automobiles, pharmaceuticals, medicine, architecture, etc. We applied this method to the design of nanophotonic devices that absorb electromagnetic fields. My contributions toward this project during my time at UCLA may contribute towards two publications that are currently pending review. I plan to use the AI experience that I have acquired at UCLA to my research at Nagoya University.

In addition to the technical skills, I gained unforgettable, precious friendships with my lab members. They were not only smart and friendly, but also they exhibited professional charisma. They invited me to a hike on my first weekend in LA and we soon became friends. We played board games at my friend's house, trained at the UCLA gym, enjoyed the all-you-can-eat dining halls, and explored restaurants near UCLA. I became best friends with Chris, a Ph.D. student in Professor Raman's lab and the project leader. He taught me not only the techniques related to research, but also various philosophies about work and life. I am convinced that being able to absorb American philosophy and culture will have a significant impact on my future career. I had a farewell party on my last day in LA. Although I really miss them, I am confident our paths will cross again someday.

On weekends, I traveled to national parks and cities in various states. Every trip has given me a new experience. On my travels, I had many encounters, such as making friends with people from different states. I was impressed by the superb view of America's natural landmarks and I felt how small I am. Solving unexpected big and small problems while traveling made me stronger. My most memorable experience is hiking at Yosemite National Park with my lab members.

Finally, I would like to thank Professor Aaswath Raman and all the lab members for giving me such a wonderful opportunity to study in Raman Lab. I also really appreciate JUACEP for providing me with this extraordinary opportunity.



Improving my personality through JUACEP

Name: Tomohiro Saso

Affiliation at Nagoya University: Micro-nano Mechanical Engineering

Participated program: Medium course 2019

Research theme: Study on tribological performance of aluminum alloy 7075(T6)-TiB₂ nanocomposites

Advisor at the visiting university: Prof. Xiaochun Li

Affiliation at visiting university: Mechanical and Aerospace Engineering, UCLA



First, about my research. I joined the laboratory that was doing research about enhancing metals' mechanical properties, which was slightly different from what I had been studying in Japan. Although I didn't know so much for the metal side, everyone in the lab treated me so nicely that I soon got used to the situation. Many PhD. students participated in that lab. I was very impressed by their passion toward the research. Scheduling the procedure, preparing samples on time, deeply think of the mechanisms that may concern, and so on. These techniques can surely be used for the rest of my master's research and also for a job. During my stay in UCLA, I put my effort on research the most throughout my life. The opportunity of having this experience I would have never had in Japan is the most valuable thing I conclude.

Second, about the life in Los Angeles. I felt the complete difference of personalities between Americans and Japanese. Americans are talkative, express their thoughts to others without hesitation which lead to easiness to be friends each other. On the other hand, most Japanese are relatively quiet, tend to avoid any kind of trouble. Since these differences of personalities between people in two countries, I was very stimulated through my stay in the U.S. Specifically, in Japan, I was not willing to talk with strangers, but by the end of my stay in the U.S., I had no hesitation to talk with people who I first met; For example, shoppers and staffs in a supermarket, people in a bus, or even people just walking on the streets. By communicating with people more frequently, it became easier for me to solve and prevent troubles or misunderstandings which save more time, and able to get new knowledge that I didn't expect before talking.

Also, I learned that arguing about problems which one cannot tolerate is very important to live in the U.S. For example, one day I got my flight time rescheduled from night to morning on the same day. With that schedule, I couldn't be on flight time, so I complained to the airplane company and they easily and kindly rebooked the flight which departs at night for free. Different from the Japanese company, they take our opinion into account only when we argue, otherwise it would be us which lose the opportunity. Another skill I learned to live in the U.S. is to take care of oneself. During Thanksgiving holidays in December, I got my bike stolen from the balcony of my house because I was out for a trip. It is so pity, but after all, I should have known that there are some crazy people in LA who are always looking for bike to steal. I needed to keep the bike in my room at least during the trip. Any unbelievable things happen in LA compared with Japan, so everybody need to be aware of dangerousness of living in LA, and it is their own responsibility to stay safe.



Precious experience in the United States

Name: Takeshi Matsumoto

Affiliation at Nagoya University: Mechanical Systems Engineering

Participated program: Medium course 2019-2020

Research theme: Toward robust tuning of Integral Resonant Control

Advisor at the visiting university: Prof. Tetsuya Iwasaki

Affiliation at visiting university (Dept & Univ): Engineering, UCLA



My six months stay in U.S was my first challenge. I was born and raised in Japan and had lived with my family in whole my life. As most Japanese are said conservative, I was also one of the typical Japanese. I hesitated to study and live other places away from where I was. However, I realized that my horizons and what I experienced so far were totally narrow when I was traveling the other countries for three weeks. At the same time, I wanted to know about other cultures and what the people who were born and raised in the community believe. Having those thoughts, I decided to join the JUACEP. As a result, I am totally satisfied with my six months stay and made the right decision.

Research in UCLA

I joined the laboratory of Prof. Iwasaki in mechanical engineering of UCLA and researched about control engineering. I faced some difficulties in first several weeks. Thankfully, he offered many helps to me and I was able to conduct research without any concern. I learned not only deep knowledge which is related to my major but also differences how to conduct our research between Japanese and American laboratory. I am going to leverage it for my future work and convey good things of American laboratory to people around me. I am sure that what I experienced during my six months stay is going to make me a greater engineer.

Life in Los Angeles

Firstly, I was very nervous because this stay was the first time to live away from my family. But all my worries were gone right away. Fortunately, my roommates and lab mates helped me in every situation and made me excited in the U.S life without any problem. I could know both light and dark of the United States. Technologies are advanced such as electrically-powered cars and solar power. On the other hand, I observed the huge gap between rich and poor. I found that we have to consider carefully when we adopt American systems.



Thank you for your support!!!

Findings through JUACEP in UCLA

Name: Tomoyasu Watanabe

Affiliation at Nagoya University: Department of Micro-Nano Mechanical Science and Engineering

Participated program: Medium course 2019

Research theme: Effects of Pulse Width of VNbTaMoW High Entropy Alloy Thin Films Deposited by HiPIMS

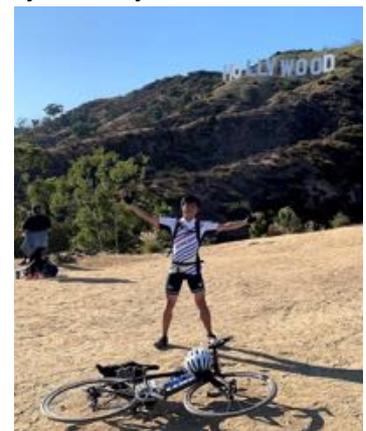
Advisor at the visiting university: Prof. Suneel Kodambaka

Affiliation at visiting university (Dept & Univ): Department of Materials Science and Engineering, University of California, Los Angeles



I experienced various special events through JUACEP. I would like to introduce two events that are particularly impressive. The first is regarding a bike. I brought my bike from Japan with my other luggage. I used my bike not only for commuting to UCLA but also for everyday shopping and sightseeing. In Los Angeles, it's really good for cyclists because it doesn't rain much as compared to Japan (only about 10 days in the last 6 months). Of course, we can use buses and trains in Los Angeles, however they are much worse than that in Japan. The delay of more than 10 minutes was common, and there were several times that the bus passed without stopping when I was waiting at bus stop. Many people (including homeless and drug addicts) use these public transportations, so it was a bit dangerous at times. I cycled to various locations, including Santa Monica Beach, Hollywood Sign, Malibu Beach, etc. One of the most memorable trips is riding my bike alone from Los Angeles to Mexico via San Diego at the end of year. Cycling approximately 260 km in two days was very tough, but I could cycle on the freeway (highway in Japan) and along the beautiful coastline, and when I reached the border safely, I couldn't have felt better. The most useful luggage brought from Japan is definitely a bike. However, it is a bit difficult to carry a bike from Japan, so if you spend 6 months in Los Angeles, I recommend you to buy it locally.

The second is regarding a club activity at UCLA. I belonged to JPAM (Japan-America Language & Culture Club) in the fall and winter quarter. In the club, several Japanese students who want to learn English and a large number of students who want to speak Japanese can meet and interact weekly after school. At the beginning of this JUACEP program, I felt that I had fewer opportunities to use English than other JUACEP members because the number of students in my laboratory was less, and my housemates were Japanese. So, I decided to join this club to improve my English skill. I could participate in dinners after club activities and drinking parties on weekends. As a result, I got many foreign friends as well as improving my English skill by this club. I made an appointment to meet one of foreign friends when he comes to Japan this winter, and I'm looking forward to it.



My life in the United States for half a year was not only fun as described above, but it was also difficult due to lack of my English skill, differences in culture and customs. However, these events were all irreplaceable and led me to my own growth. I would like to thank all of the people who supported me.



Findings through JUACEP

Name: Takaaki Miyachi

Affiliation at Nagoya University: Department of Micro-Nano Mechanical Science and Engineering

Participated program: Medium course 2019

Research theme: Finite Element Analysis of Contact in Asperities

Advisor at the visiting university: Prof. Shaker A. Meguid

Affiliation at visiting university: Department of Mechanical and Industrial Engineering, University of Toronto



I got many experiences through visiting Canada. The all experiences made me happy and grow. The first one is studying in University of Toronto. I had studied Finite Element Method (FEM) for six months. I did not have enough skills and knowledge about FEM at first. However, my professor gave me a textbook about FEM and my laboratory members helped me a lot how to use ANSYS. Actually, I wanted to stay more to learn FEM and obtain good discussion skills. Anyways, it greatly helped me to understand FEM. I really thank to those people and JUACEP program. Those experiences should have good effect for my career after I come back to Japan.

My life in Canada was so nice. I had stayed in homestay. My host family was so kind and gave me 2 meals every day. They had some homestay members like me. I could improve my English skills with them through chatting because they were English learner. Moreover, I went to a language school for 10 weeks in the morning. I could learn English a lot and make some friends there.

There are a lot of nature and big park in Canada. I enjoyed some outdoor activities. In autumn, I went to a big national park. Leaves change their color like in Japan. The view was so beautiful. In winter, I skied and did ice skating. It was so cold but nice experiences.



I joined the kendo club in University of Toronto. I have practiced kendo since I was 8 years old. I was really looking forward to playing kendo in Canada. I practiced kendo twice or three times in a week. It was difficult to tell about kendo in English. However, it was very interesting to learn how to explain about kendo techniques in English. My target was to join a kendo competition and win. I could not win the competition. But it was a good memory. Every kendo member was so kind and friendly to me. I really love them.

Finally, I really appreciate JUACEP program and all people who supported me.



Unforgettable life in UCLA

Name: Masahiro Itoh

Affiliation at Nagoya University: Aerospace Engineering

Participated program: Long course 2019

Research theme: The wind tunnel experiment of low profile double floating-elements shear stress sensor

Advisor at the visiting university: Prof. Chang-Jin Kim

Affiliation at visiting university: Department of Mechanical and aerospace engineering, University of California, Los Angeles



A life in UCLA is pretty valuable experience. I researched the sensor used in wind tunnel at Micro and Nano Manufacturing Laboratory in UCLA as a collaboration with fluid dynamics laboratory in Nagoya University I belong to. When I applied JUACEP program, I set a goal to be a person who has internationality. Here, internationality means the ability of communication without any language barrier. When I first started researching in the lab, I couldn't express my thoughts well. But by talking to my labmates actively and doing presentation every week, the ability of conveying my thoughts had pretty improved through eight months. Also, I understood how I should think in science field.

I met many excellent students in UCLA. They are energetic, smart, polite and hard worker. They changed my thoughts. By talking with and knowing them, I realized that struggles I have had is not a big deal. They told me I can put all my effort in the future.

I often went to lunch with labmates in the dining hall of hospital and eat healthy food. For dinner, I often went to dining hall for UCLA students and restaurant with labmates. UCLA is located in urban area, so we can eat good, various kinds of food. I usually spent weekends traveling with friends. I visited Texas, New York, Alaska, Boston, Las Vegas, some national parks and so on. Each place has different character and worth to visit. Driving in vast extent of land is very exciting. Los Angeles is good place to live for me. It's sunny and warm almost every day and has a lot of place worth to visit.

The one thing I'm regretting is about my roommate. The first three weeks, I lived with another JUACEP student. After these three weeks, I moved to another apartment because I planned to live with foreigner in order to improve my English communication skills. When I met new roommate first time, I felt he is a nice person, so I contracted for remaining seven months in that time. But couple of days after, I realized I can't live with him. But I can't move out because I already contracted remaining seven month. I had a lot of trouble between him. If you plan to share room with someone, you have to be very picky. Otherwise you enjoy life is going to be ruined. Your roommate is very important for daily life.



The life in UCLA is unforgettable, best enjoyable experience in my life and will influences on my future career. I appreciate to everyone I met in US and JUACEP.

