

AJCE Activity 2013

Young Professionals Exchange Programme (YPEP) 2013 -Everlasting Friendship of CA and AJCE-

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Last October, seven young engineers selected from AJCE member firms flew to Australia to participate in Young Professionals Exchange Programme (YPEP), which has a long history of exchanging young talented consulting engineers between Australia and Japan.

YPEP was established in 1996 according to the Memorandum of Understanding by AJCE and ACEA (present Consult Australia) to promote good relationship and friendship between Japanese and Australian young consulting engineers, in view of possible future collaboration among participating firms. In the past 18 years, more than 130 young engineers from Australia, New Zealand and Japan attended this programme, and it has been attracting attention of other organizations like FIDIC, as a good example of successful overseas training program.

In 2013, 7 Japanese young engineers from 7 AJCE member firms visited 7 Australian consulting firms in 4 cities. They stayed and worked for three weeks at the host firms which were assigned to them according to their technical background and interest. Although the on-site training in Australia is only for 3 weeks, the entire program is designed for a 6 months period, including "Pre-visit Dialogue", which requires trainees to communicate with host firms' personnel for several months beforehand on a variety of issues; technical, cultural or personal. The "Pre-visit Dialogue" helps the participants to understand each other well in advance and thus enables them to start the on-site training much smoother.

In the post-training conference, which was held for the 7 trainees to share their experiences with AJCE's other young engineers, they reported that they had had very stimulating and fruitful 3weeks, full of technical exchanges, discussions, site-visits, seminars and entertainments after work, of course. They also reported that they were really impressed by the dissimilar work environment and excellent work-life balance.

I hope that all 7 young engineers will continue to develop their capacities further, capitalizing on the

precious experiences, and maintain the network built with the Australian engineers, which will be their valuable asset in the future. I also expect them to return their home companies' investment with their future contribution to the companies in any possible way.

This year AJCE and its member firms will be hosting Australian young professionals in October. I have no doubt that this year's program will be another big success and add a new page to YPEP's long outstanding history. In order to maintain a solid friendship between CA and AJCE, I ask member firms, especially those which sent trainees last year, to participate in YPEP again as a host firm.



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YPEP 2013 Report - Opening my eyes -



Masashi FUKAYA
 YPEP2013 Trainee
 Nippon Koei Co., Ltd.

This is the report of YPEP 2013, which has held from 14th Oct. to 1st Nov. mainly at URS Brisbane office. It has given me a great opportunity and experience after which it opened my eyes widely and touched my heart deeply.

1. Overview

I have stayed at Brisbane for 18 days and had training at URS Brisbane. URS is one of the leading firms of engineering consultants, which has 56 thousand employees over 50 countries. Brisbane has 200million population and is very comfortable for living. It has good weather, beautiful close-by beach, compact urban function, useful public transportation, and environmental friendliness.

2. Office Work

At URS Brisbane office, I have learned railway engineering and structural engineering such as 1) railway alignment planning, 2) railway standards and guidelines in Queensland, and 3) making spread sheet of structural calculation. I found Queensland has some unique standards and guidelines like existing of cant committee.

3. Site Visit

I visited five sites; Brisbane Port, Ipswich Motorway, Roma Street Station, Legacy Way, and Gold Coast LRT.



Construction Site of Gold Coast LRT

Gold Coast LRT was challenging project which will be first LRT /Tram project in Queens land. It has 16 stations and 52 intersections in 13km length of alignment. I think demand management and safety operation would become key factors for success in this project.

4. Life in Brisbane

"Don't waste your sunshine!" That is the words my colleague expressed when I was working till late in the evening. The words hit my heart and made my eyes open to recognize the difference of life-value between Australia and Japan.



With friends @ Consult Australia Event

In weekdays, besides working in the office, I had fun chatting and drinking with friends. In weekends, I enjoyed many activities with them such as Surfing, Trapeze, Football, Dolphin feeding, and whale watching. Those activities have surely helped me understand the value of life in Australia.

5. The Fruits

Everything carried out in this program became valuable experience and will be reflected in my life in future. Especially, the social network with friends and colleagues was most precious time. I feel that we could establish sound trust through deep communication in spite of short training period.

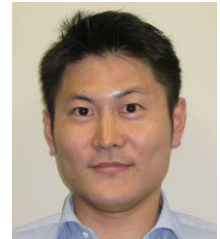


With Zisis (My mentor) @ Sydney

Finally, I would like to express my gratitude to AJCE, Consult Australia, URS Brisbane, and Nippon Koei for helping my participation in this valuable program.

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YPEP 2013 Report



Shuji IMURA

YPEP2013 Trainee
P.T.MORIMURA & ASSOCIATES, LTD.

1. Introduction

I often think about how we can let people know what engineers do. As the basis for responding to this challenge, young engineers need sound experience in capacity building. YPEP provided me a precious chance to meet with overseas engineers through which I tried to get some tips on the challenge mentioned above

2. Pre-visit Training

I started from studying the basic concept of "Green Building" in various countries. By definition, it means the building that is sustainable in environmental, social and economical standpoint including resource efficiency throughout its life-cycle. I noticed that there are some other interesting definitions besides this, relating to workplace productivity and health (UK), or designed to harmonize with the local climate, traditions, culture and the surrounding environment (JP).

3. Host Company

My host firm, Norman Disney & Young (NDY) is a global company based in Australia which has branch offices in 5 countries around the world. As the business contents of NDY resemble with my company, I was confident in pursuing training program.

At beginning, I was invited to the award ceremony that commends the best engineers of the year. I felt it enhances communication between branch offices around the world and greatly motivates engineers.



Picture1 Ian Hopkins CEO giving a speech

4. Training

I had training in Sydney branch office and the Melbourne head office.

The Barangaroo Project, the largest in Australia is progressing. I had a chance to discuss about the project with the mechanical engineers and other engineers in charge and saw many design drawings.



Picture2 Architectural visualization of Barangaroo Project

I had chances of presenting Green Buildings in Japan. It was beneficial as we could discuss various related subjects. It was interesting to know that most of the questions were on the systems for the surrounding environment.



Picture3 Presentation at Melbourne office

5. Conclusion

Many young engineers in NDY lively discuss with managers who are similar to my age. It seems that they work efficiently in good teamwork based on technical knowledge and competence in each section.

I would like to enhance working environment by sharing my experiences with my colleagues.

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YPEP 2013 Report



Riota ADACHI

YPEP2013 Trainee

Nihon Suido Consultants Co., Ltd.

I'm going to introduce this unforgettable and wonderful three weeks I had in Costin Roe Consulting Pty., Ltd., Sydney.

1. Program details

Costin Roe Consulting Pty.,Ltd. is a consulting and engineering company which has been engaged in various projects on structural, civil and remedial engineering since 1989.

For I'd been working in planning division for water supply systems back in Japan, there was a bit of uncertainty about what I could take from different discipline. However, my experience in Sydney turned out pretty meaningful and broadened the perspective of my own job in Japan, too.

2. Training contents

What they offered were a bit of deskwork and a plenty of site visits. Costin Roe's projects really vary in terms of their scale and contents, ranging from small inspection to designing of a huge warehouse, which was a bit surprising to me. I wanted to find out a trick to manage a couple of hundreds of projects with 30 something people. My guess is that it is partly due to the work efficiency (in Japan many times we are demanded to make something which really does not seem necessary), appropriate allocation of workforces and proper project management.



Rooftop inspection

Getting back to site visit topic, inspection and remedial works were interesting in the sense that I could see how close the works were to people's life. On the other hand, visiting huge buildings was

just astonishing and I was overwhelmed by its scale, as well as it was intellectually interesting to see how the structures were set up to make the building strong enough towards internal and external forces.

The biggest difference from Japan in regards to design concept was seemingly how to incorporate the impact of earthquakes into structural design. As you can imagine, the regulation on that factor is not very strict in many parts of Australia. Apart from planned training program, I started learning the basics of structural design by myself with a textbook. It was, I thought, a good way to learn something if you could combine "on the desk" and "reality."

3. Weekend activities

Let me put it that I had amazing weekends thanks to my mentor, Mark. We, his family, his schoolmates and their families all came to a summerhouse near the Boomerang beach, spending laid-back time with surfing, eating and of course, drinking. I'd say, that was the most relaxing weekend I'd ever had since I started working. Mark and his family kindly let me stay at their home on the last day of the weekend. In both situations Australian friendliness and hospitality really made me feel that I was a part of them, which was just a great feeling.

I have a lot more to express and transfer, but I'm going to wrap up showing my sincere gratitude to Mark, Maria, everyone in Costin Roe, CA, AJCE and my bosses and co-workers in my company for making my stay wonderful and memorable one.



With a great "company"

AJCE Activity 2013

YPEP 2013 Report



Hirofumi KANEKO
 YPEP 2013 Trainee
 CTI Engineering Co., Ltd.

1. Introduction

I visited Brisbane and Sydney in Australia as YPEP (Young Professionals Exchange Program) trainee from 13th OCT to 3rd NOV 2013. In this report, I will present about my training, life in Australia, difference between Australia and Japan.

2. Work in Brisbane

My host firm was AECOM, and my mentors were Samantha and Claire, YPEP 2012 trainee. I was assigned to Water Infrastructure group as my discipline is mainly in river engineering.

(1) Safety induction

On the first day in Brisbane office, I learned safety at construction site such as BLUDOG TRAINING.

(2) River Engineering

I read reports about flood in Australia and felt that the difference between Australia and Japan is only software and visual aspect of report. (Report looks very nice in Australia.)

(3) Coastal Engineering

I calculated new beach line angle by using CERC formula to prevent from beach from flowing out of sand and changing beach alignment.

3. Site Visit

I went to Helidon and Withcott to examine flood damage. It was so impressive for me because I didn't have the image about Australian countryside. There are many creeks which are all too small for floods to flow downstream. I thought it would be possible to prevent flood damage by introducing measures used in Japan. But it will not be simple as it costs more and people in the subject area are not many. Despite of large land in Australia, population is not sufficient, countryside in particular. So it's difficult to make countryside safety due to budgetary constraint.

3. Life in Brisbane

I had many activities in Brisbane such as puddle boarding, BBQ, leaser skirmish, surfing at Gold Coast, etc. I was surprised to see their vitality and ability to enjoy life. I think we Japanese are still in the path of reaching similar life-style. It may take some time before we really enjoy.

4. Summary

I had great experience both in work and activity. Thanks to AECOM, CTIE, CA, AJCE and Samantha and mentor for providing me with an excellent opportunity.



Fig1. Site Visit



Fig2. Puddle Boarding on Brisbane Riv

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YPEP 2013 Report

Hirotsune FUKUZUMI

YPEP2013 Trainee
CHODAI CO.,LTD.



1. Introduction

I had the opportunity of training at MLEI in Adelaide city for about 3 weeks in October 2013. This is a report on the pre-training and visit-training.

2. Pre-training

During three months before visiting Australia, I exchanged dialogue with my mentor, Nic, MLEI through e-mail on self-introduction, hotel accommodation, training schedule and training program, etc.

3. Visit-Training

3.1 Host Company

My host company, MLEI is a consulting engineering firm that specializes in civil and structural design. It was established 4 years ago in Adelaide. Despite of rather a small number of staffs, many of them are competent and experienced.

Major projects locate in South Australia.

3.2 Working Style

Though standard working hours are from 9:00 to 17:00, it is not fixed and can be changed according to own working style.

They consider time to spend with a family and friends is important, therefore they do not work overtime unless it is unavoidable.

They were very friendly as if I was their family member. At tea time, they enjoy talking and exchange opinions in office's kitchen, so they were very relaxed.



Photo1- kitchen in the office

3.3 Work Experience

In the training, I conducted design calculation and drawing check of the floor of a hotel under

construction in a city. In the process of calculation and drawing check, I referred to the drawings of road plan, drainage plan, and pavement specifications of an industrial complex. Further, I visited some construction sites and participated in meeting with client. In addition, I visited South Road Super Way which is one of the biggest projects in South Australia. That client is government of South Australia.



Photo2 - Project of MLEI , Liebherr Para Hills

4. Life in Adelaide

In the first weekend, I had sightseeing to Adelaide zoo, national parks, etc. in Adelaide. In the second weekend, I enjoyed drinking wine at famous winery in Barossa Valley and BBQ with Mentor's family.

I felt as if the time in Adelaide was progressing slowly.



Photo3 - Team MLEI

5. Acknowledgement

I would like to extend my thanks to Nic, Thomas, MLEI, CA , AJCE, Chodai and my family for giving me a precious opportunity.

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YPEP 2013 Report



Saori TAKAGI
YPEP2013 Trainee
KOKUSAI KOGYO CO., LTD.

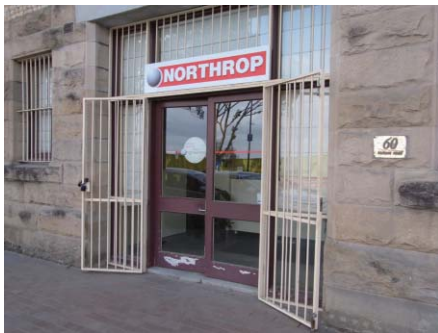
1. Introduction

I had one of the most unforgettable and amazing experience in my career through 3 weeks of YPEP 2013. It was the first time for us, Kokusai Kogyo to join this program; however I could bring back excellent outcome and share those experiences with colleagues.

2. My experience in training

2.1 Host Company

My host company was Northrop Consulting Engineers Pty Ltd, Sydney office. Northrop is one of a reputable engineering consultancy in structural and civil engineering and has a few local offices along the east coast of Australia. Sydney office has around 70 professional engineers (many are CEng) in many areas.



Northrop main entrance

2.2 Pre-visit Training

Rodney Pratt was my training mentor who is a senior structural engineer and one of the group managers of the section. For pre-visit training, we discuss what I am intending to learn during the training. And Rod planned for me to rotate several sections and having few interviews with people who are all in different positions and sections.

2.3 Training at Northrop

I had training at structural, civil, sustainability and mechanical sections and had two presentations on my area of expertise.

① First week-Structural

I followed few inspections at site, and learned about how the projects work through reading

contract and specification documents.

② Second week-Civil

I learned about how the cycleways planned in Sydney city and went to site inspection.

③ Third week-Sustainability and Mechanical

I had a chance to exchange a view of sustainable policy making between Australia and Japan. Also I learned about sustainability rating tools; Infrastructure Sustainability, and Green Star.

3. Differences in working environment

Working experience at Northrop helped me to understand there are many different perspectives to deal working life as well as private life. There is a diversity of nationalities which encourage people to communicate more. And also the management systems are functioning effectively that makes everyone's role clear and standardizes skills. I really enjoyed and the optimistic atmosphere at office and impressed with work-life balance which reasonably blended in their life style.

4. Acknowledgement

I would like to thank everyone at Northrop, CA and AJCE who provided and supported me to gain this wonderful experience. Also special thanks to my colleagues at Kokusai Kogyo who kindly let me join this program. I hope this program will continue and many young professionals would have opportunity in the future.



My mentor and colleagues at Northrop

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YPEP 2013 Report

Atsushi MASUDA

YPEP2013 Trainee

Oriental Consultants Co., Ltd.



1. INTRODUCTION

I was pleased to join as a trainee for YPEP2013 in which my 3 weeks training in Australia covered the period from 14th Oct. to 2nd Nov., 2013.

2. OUTLINE OF AURECON

I had training at AURECON Brisbane office. AURECON has offices around the world having a total number of 7,000 or more employees. Its business contents cover technology related discipline in architecture and civil engineering. For example, AURECON provides technologies in low-carbon energy generation, power, and homeland security. Though I could not see their business contents when I started training, I was impressed by homeland security department as it does not exist in consulting firms in Japan.



Photo 2-1 Office

3. TRAINING AT AURECON

At the beginning of training, AURECON's in-house system was explained. I could visit various project sites in QLD, studied reports and standards, and conducted traffic simulation by the model developed by AURECON. Traffic simulation is my specialty.



Photo 3-1 Checking the construction site

4. DIFFERENCE IN THE WAY OF THINKING BETWEEN JAPAN AND AUSTRALIA

There are many projects that span for several years most of which are selected basically by technical proposals. In addition, it was noted that consulting fee is very high which reflects high standing of consulting engineers in Australia.

Good work-life balance has been practiced in Australia. This may be attributable to the fact that culture of considering private life as the prime importance is widespread. I could not find someone who worked overtime till late at night.

In addition, career change has been widely practiced. Many engineers change jobs between consulting firms and government or among consulting firms for improving their career. It was observed that employers are seeking engineers having high competence and experiences.

5. LIFE IN AUSTRALIA

I commuted to the office from apartment nearby. Staffs in AURECON took me drinks almost everyday. My mentor Rob took me to various places including holidays. As such, I was able to spend fruitful weekends.

6. IN CONCLUSION

I would like to thank AJCE, CA, AURECON, Oriental Consultants for their kind support.

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YPEP 2013 Activities in Sydney

**Riota ADACHI
Atsushi MASUDA**

1. Welcome ceremony

On 14th Oct., Welcome ceremony for YPEP 2013 trainees took place at the AECOM office (with a great view of Sydney!). After a short time for ice breaking, the ceremony was kick-started with welcome greeting by Ms. Megan from Consult Australia, followed by the statement of "commitment" by all the mentors and trainees. It seemed like everyone had his/her own expectation and ambition toward the program. As the ceremony proceeded, a little nervous faces of Japanese engineers were gradually being melted in the casual and relaxing atmosphere, which I think was derived from Australian friendliness. After lunch, we departed for Sydney tour.



Sydney Wildlife Zoo

2. Darling harbor, Sydney Wildlife Zoo and Departure

Enjoying a pleasant walk through Darling harbor, we entered the "Zoo in downtown," where we saw various reptiles, mammals and bugs squeezed into small but efficient display. The most featured one was "the world largest crocodile," being actually pretty huge, but apparently it preferred sunbathing to any customer-services (It didn't move even an inch as long as I reckoned). Anyway on the very first day, we've done pretty much of Australian stuff such as seeing kangaroos, wombats and koalas, thanks to this wildlife zoo! Then the time for departure had come, splitting us to each location to be mentored in.

3. Final summit & farewell party

After three weeks, we gathered again. In the final summit, we were at first asked to give a brief summary of our experience. All of us, of course, had different outcomes from the program and different perspectives about what should be done in the future. However, there certainly was one thing we had in common, such that we all had been having great and meaningful moments in Australia.

The summit went on and we discussed several topics on Australia and Japan (as shown in the other article).

After deepening mutual understanding a bit more through the discussion, we headed to again, exploring the rest part of Sydney must-sees.

The view from Sydney Tower-Eye was astonishing (that's because, we didn't expect a giant koala would climb it!). The architecture of Sydney Opera House has been anyway so interesting if you're an engineer. The choice of the steakhouse as the last dinner place seemed to be also nice and well organized. By that time, partly thanks to "social grease," the talks between us were getting more and more active.

The finishing place of our "summit" was the bar in downtown. As for this sort of matter, I didn't find any significant difference between Australian and Japanese engineers.

Lastly, thank you very much for your hospitality & organizing enjoyable events in Australia.

(Dear CA, from YPEP 2013 trainees)



Huge Koala! and Sydney Tower-Eye

AJCE Activity 2013

YPEP2013 Farewell Summit REPORT

Masashi Fukaya
Shuji Imura

1. Outline of Farewell Summit

All trainees and mentors talked for 2-3 minutes about YPEP2013 in general, their favorite experience and something to take back to Japan from Australia.

We had a group discussion about values of YPEP, and each group presented the outcomes out of the discussion.

2. Free conversation

Mentors talked about their impression about trainees. Trainees conveyed their gratitude to mentors, host firms and Consultant Australia who took care of them.

Mentors talked directly about trainees' engineering skills and this was very helpful.



Picture1 Wayne Costin CEO (Costin Roe Consulting) giving comment on free conversation

3. Group discussion

We mainly covered our thoughts on YPEP. It is important not only for trainees and mentors but also for each company.

[Difference between firms

- Office space
- Working hours and mindset
- Sharing of responsibility (or lack thereof)
- Importance of age vs. merit

[Similarities between firms]

- Professionalism
- Environmentally friendly
- Organizations project management
- Business ethics



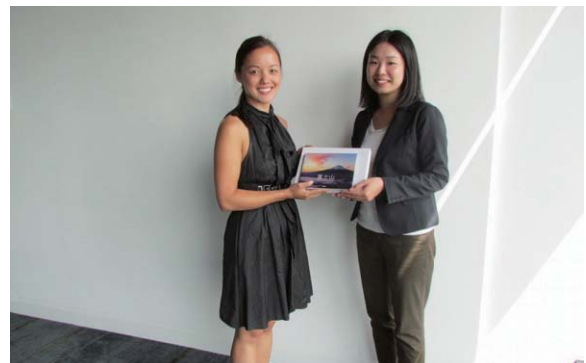
Picture2 Group discussion

[Values of YPEP]

- Networks development meant professionals can share IP / experiences.
- Motivational and rewarding experience for the whole office.
- Learning about other workplaces can make you aspire to adopt practices and methods which benefit productivity and staff happiness.

4. Finally

We presented a picture frame made of cypress by Japanese craftsman and a collection photographs of Mount Fuji, as souvenirs from Association of Japanese Consulting Engineers to the Consultant Australia.



Picture3 Takagi-san (KOKUSAI KOGYO) was handing Gillian (Consultant Australia) a Japanese souvenir.

Thanks to everyone, especially mentors who spent so much time with each trainee. We had very happy times dining and drinking after work, as well as sightseeing on days off.