



**JAPAN SOCIETY OF CIVIL ENGINEER**  
Represented by VietNam Engineering Society, VietNam

**REPORT**

**FOR**

**2015 JSCE - STUDY TOUR GRANT**

Supported by 75<sup>th</sup> International Scientific Exchange Fund-ISEF

**Mr. Dang Quoc Su,(Civil), UTC.**

**(Structural Design Engineer)**

**University Of Transport and Communication, Ha Noi, VietNam.**

## ***1. 2015 – JSCE Study Tour Grant***

The Japan Society of Civil Engineers ± Study Tour Grant (JSCE-STG) is a grant travel program supported by the International Science Exchange Fund (ISEF). This program which was held on the 3<sup>rd</sup> week of September (13-19), 2015 invited the engineers in the construction field: architectural buildings, bridges, ports, etc. to visit and exchange and learn experience in design and construction of the works.

Based on the conditions for selection include one essay will be presented during a trip from which to select members from these countries. The participating countries in the region most sent to the young engineers and the students of the university, which this year is the participation of member states:

1. China: Mr. Jun Li ± Student (Master Degree) at Tongji University
2. Philippines: Mr. Jess Anthony Alcid ± Student (Undergraduate) De La Salle University Manila
3. Indonesia: Mr. Andi Subhan Mustari ± Lecturer at University of Hasanuddin, Indonesia
4. Vietnam: Mr. Dang Quoc Su ± Student (Master Degree) University of Transport and Communication, Hanoi,
5. Myanmar: Ms. Hmwe Kyu ± Structural Design Engineer, Aung Myin Thu Construction and Real Estate Development Co., Ltd, Myanmar.

## ***2. Itinerary :***

2015 Study Tour Grant, JSCE				2015.7.24
Schedule				
	Date	Time	Events	Attend ( byCommittee Members)
1	9-13-Sun	AM	Arriving at Narita Airport	
		PM	Move to Hotel (Tokyo)and check in	Mr. Kawakami
2	9-14-Mon	6:45	Time of Departure	Mr. Kawakami
		9:20-11:50	Public Works Research Institute, Tsukuba National Institute for Land and Infrastructure Management	Dr. Wada
		14:30-16:30	Tokyo-Gaikan Expressway Construction site "TAJIRI-Area Project"	Dr. Ueno Dr. Wada
3	9-15-Tue	7:30	Time of Departure, Move to construction site by bus	Mr. Kawakami
		9:00-11:30	KAJIMA Technical Research Institute, Chofu, Tokyo	Mr. Yoshizawa
		13:30-16:00	Construction site "JR Shinjuku Station Project"	Mr. Kawauchi
		16:00-17:00	Move to Tokyo Station by JR	Mr. Kawauchi     Dr.Wada
		17:20	Move to Okayama by Shinkansen, Nozomi	Dr. Wada
4	9-16-Wed	8:00	Time of Departure, Move to Okayama Univ.	Dr. Wada
		8:30~	(Meeting with International Scientific Exchange Fund (ISEF) Committee Members ) Attending 2015 JSCE Annual Meeting /The 17th International Summer Symposium at Okayama University	
		9:00-12:00	International Summer Symposium Presentation	
		13:30-17:00	International Workhop for Young Engineers	
		18:00-21:00	Reception at Okayama Castle	
5	9-17-Thu	8:00	Time of Departure, Move by bus	Mr. Kawauchi
		9:00-11:30	Seto Ohashi Commemorative Park (Seto Ohashi Tower,Commemorative Hall) ,Yoshima P.A.	
		13:30-16:00	Construction site "Mizushima tamashima Area Road Const."	
		17:00	Move to Tokyo by Shinkansen, Nozomi	
6	9-18-Fri	7:30	Time of Departure, Move to Bus stop (Hato Bus).	Dr. Wada
		8:30-13:30	Sight Seeing (Bus Tour /Hato Bus)	
		13:30~	Free time	
7	9-19-Sat	AM	Check out the Hotel and move to Narita Airport	Mr. Kawakami
		PM	Departure from Japan	

### ***3. Public Works Research Institute:***

Since the trip, because one of the problems arise that I was late for his flight 1 day and for this reason the schedule for my first day in Japan also differs slightly with members Others in the delegation. The first feeling knowing I travel with my flight was really nervous but with the enthusiasm and friendliness of Mr. Toru Kawakami duco I had the good start in the country of Japan. That morning's excursion to the Public Work Research Institute, however it is the friend of the group, though not miss this place, but with the guidance of Dr Wada I had the opportunity to visit places outside city by high speed train with great experience. This is also a chance for my first glimpse of the development of transport in Japan, really have to say is: It's amazing.



Photo 1 : Rail Star



Photo 2 : Rail system



Photo 3 : System traffic near airport

Besides the trip of my friends that morning:

**Group Photo at NILIM :**





Bridge Component Failure



Dynamic Centrifuge



Three-Dimensional Shaking Table

#### ***4. Tokyo-Gaikan Expressway Construction Site, TAJRI-Area Project:***

After lunch, I went straight to Tokyo-Gaikan and meet with the members of his delegation. Project Tajiri-Area highways that were built under the joint venture of TAISEI -TODA-DAIHO. The main idea of the project is to link noiTokyo-Gaikan Keiyo Expressway, and the way by building roads Keiyo-Junction. This is said to be a challenging large project because of the construction process is the continuous operation of highways to move large volume. The problem is the construction not cause anything to hinder that movement, although the construction process is done right underneath routes.

Under such difficult, but what we see is one of the best construction organization safe, rational and science. It not only ensures the stability of the works above, but also the safety of the entire construction workers below, as well as the safety of the surrounding environment. They use different methods for building, an underground route cutting through the heart of the underground drill modern centrifuge.



Covering methods relating to the use of wall and ground anchors. And really superb when visiting this special underground drill underground system because this is the first time that one group is visiting it. I also did very well to witness how you protect the environment and especially the protection for people with noise for a solid line, the system only and protective safety.



Tokyo-Gaikan Expressway construction site, TAJRI-Area project.

##### ***5. KAJIMA Technical Research Institute, Chofu, Tokyo***

On the morning of the next day, we were taken to visit. Loosen this is pretty much a combination of innovative technology represents the creativity of Japanese engineers in the face of the challenges of nature. For a long time I was really curious about how they work in order to build high-rise buildings that would stand after the earthquake - it was really great.



Photo 4 : Group In KAJAMA

However, despite not allowed to take pictures here, but we were eyewitnesses of their actual model That is one model of high-rise buildings are designed with knee system is capable of rotating and trans help for buildings that can withstand the shaking caused by the earthquake, I was really impressed about this initiative although my understanding of it is very limited. Besides the wall system capable of using fire-resistant materials, which are also very useful when the earthquake struck and capable appearance of fire, this is really dangerous to life people and surrounding property. Besides the wind lab. Wind is a factor plays a very important role in the design and construction not only high rise buildings but also greatly affect the major bridges in Japan 1 countries mainly bridges large sail and the storm as well as tsunamis. This is one topic that I believe is very useful to his country, the coastal country and has a length of contiguous large sea that will lead to the construction of large bridges have direct effects from wind.

After the great things that we continue to come with the creation of one new type of land they Japanese team of engineers developing one type of soil that have more water and light rather than the usual type of soil to solve the problem of lack of resources in Japan, besides the introduction of these high-strength concrete, field labs ... all should say creation of the Japanese nation.

## ***6. JR Shinjuku Station Project***

After a visit to JR Shinjuku Station Project we visited one project with a very large scale, with the participation of urban systems, high-speed rail system. That is one major transportation hub with multiple ad units and buildings at the



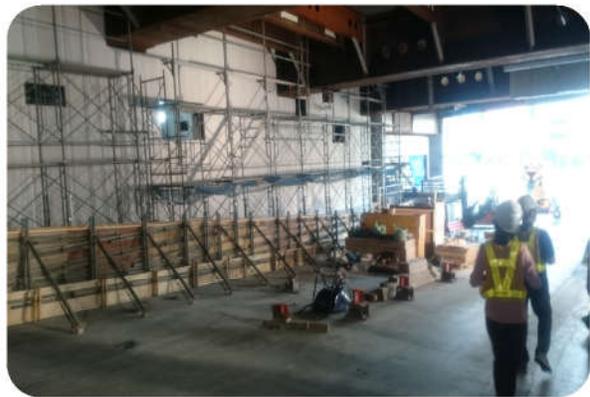
*Photo 5 : Group inside office*

side and the upper side. This is also the reason necessary to improve the transportation system to serve the process of circulation and travel needs. Another objective towards which they are creating space for relaxation and comfort to people when moving popular demand in Japan is walking through the neighborhood. Notably, due to the lack of space taxi service and car freight movement is one difficult to handle. The very complexity that could lead to the project, from the design, construction commencement to completion will probably need to first relatively long time period. But it gives me one interesting feeling when their morale very seriously, expeditiously, while ensuring the quality on every item. And certainly

that is one very admirable spirit. It seems not only a job, but it is the passion and dedication of each member for their part work to contribute to the success of the whole project.

*Photos 6: Inside Project*







*Photo 7 : Inside Project*

## ***7. 17<sup>th</sup> International Summer Symposium at Okayama University***

Main content of the Study Tour Grant was the 17th International Summer Symposium at Okayama University. It is a chance for me to learn from everyone. Learn how they treated the subject and presented it before the crowd members come from different countries, there is also the opportunity for me to learn a certain part of the first development of the construction industry from the country friends and especially the country of Japan, which is really great motivation for me have tried.



Then we have lunch together at school, here I see more of the young Japanese, is quite interesting. That evening, we have a small workshop to share about: why the Japanese want to learn.



That really is the question thought not only my own but also with the members of the trip, this is where the action takes place between the group members come from various countries to explain difficult challenge largest food prevents us to Japan is. Activity is interesting that as soon we get together to go to Okayama Castle - it's great to be here offering me first explore something about Japanese culture and exchange with each other much more common understanding of their country, each person has his own

one felt that night.



*Photo 8 : Work in group*

### **8. Seto-Ohashi Bridges:**

The next day of the trip we were taken to one place where all of us

were admiring just enjoy seeing: the system of highways and railways Seto

- Chuo JR Seto Expressway and Ohashi -Line with a total length of 39 km, respectively, and 32km. The most special thing is the system of bridges: Shimotsui-Seto Bridge, Hitsuishijima Bridge, Iwakurojima Bridges, Yoshima Bridge, Bisan Seto Kita-Minami-Bisan Seto Bridge and across the Strait Bridge 9.4 km.



This really is one great discovery for both construction technology and wonder around. This is the first time I saw one bridge across the sea and it is a combination of three bridges with 3 different kinds of bridge structures. Along the way, if you go up on top of the cable-stayed bridge tower, we can see all the great period of it from on high, to feel the greatness of the people and their spirit to build this bridge and share the listening of the engineer here on the bridge construction process. Really, again, the country and people of Japan do I have to

admire. After the exciting tour that chugs I have lunch at one location near the bridge below and continue to admire its majestic beauty.



*Photo 8 : Panoramic bridge*

### **9. Mizushima Port Bridge:**

Location final excursion was superstructure for Mizushima jetty. After a short wait time we were able to train and go explore the bridge and harbor construction system there. The construction of the sea port in Mizushima Mizushima - Tamashima as infrastructure projects in order to increase affiliate manufacturing facilities in Mizushima area and the basis of regional distribution as well as outside of the bridge transport and the length of the bridge ngoi.Chieu is

approximately 2,564 m connection between TAMASHI (TAMASHI Arteria Portside Road) and Mizushima (Highway 430).





During migration by boat we were a team of engineers here explained more about the construction process as well as the benefits from the project brings, and we also see direct duco construction process 1 video replayed the construction technology that 1 in detail before together back office area nearby and together pose questions direct exchange of bridge and construction technologies used In the project, which is really useful for us. Then all of us together return to Tokyo by Shinkasen.

### **10. *Sight seeing:***

The last period of our trip together to visit Tokyo Tower Hato bus. Prior to the official view is great that we had the opportunity to bypass the neighboring superb and see more new things about the country Japan. Tokyo Tower, opened in 1958, 333m high and it's even higher than the Eiffel Tower of France and it weighs more than 4,000 tons lighter than the Eiffel Tower.



From above we can observe the entire city around and take pictures memories there. The next stop of the trip was the Imperial Palace and Asakusa to discover the culture and religion of Japan before acquired by the end of your journey in this beautiful country.

### **11. *Speech of Gratitude:***

It's great, that's the first thing I can say about the trip and about the country as well as people in Japan. I was really overwhelmed and excited when put on to this country, and the first thing I feel that's why everyone in the world has always talked about "the spirit of Japan," which is the effort and bright make restless people here in the face of the problem: earthquakes, floods, accidents, and lack of land resources to be able to build and grow. It seems difficult that has given the people here one something very different, you look at how they build their city, it seems that every building built before are calculated one way Be careful not only about its use value, but also consider the beauty in harmony with surrounding safety and safe environment for the construction of man. I also admired the way of life and scientific work of the people here, you will not hear a loud car horn or traffic policeman but struggled at each intersection, they - the people of Japan they really serious when in traffic and observe it like one real beauty of a traffic culture.

Looking back on the project has been to visit and experience the trip would probably be difficult to celebrate in my life and it really made me more determined to love and to be able to have the opportunity to go there 1 again here to explore and learn more interesting things that this country still latent.

Finally sincere gratitude to the program and especially our guide: Mr. Toru Kawakami, Dr. Wada and all units have given us great experience and really rewarding. And actually Japan is one country that everyone should come in his life, one beautiful country, resilient and growing.



