

AJCE

NEWS LETTER 2014



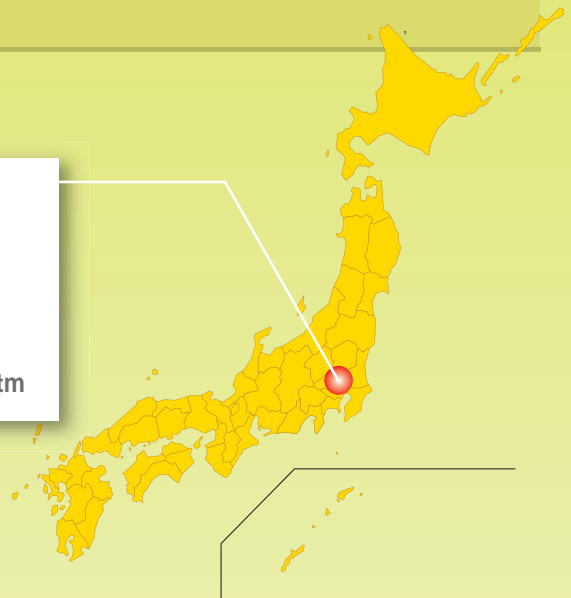
About AJCE

The Association of Japanese Consulting Engineers (AJCE) was established in 1974, and was approved by the Science and Technology Agency of Japan (currently, Ministry of Education, Culture, Sports, Science and Technology) as a legal entity in 1977. Further, AJCE was approved as a public legal entity by cabinet office in 2012. Representing Japanese consulting engineers, AJCE is a member of the International Federation of Consulting Engineers (FIDIC).


AJCE strives to enhance the status and competence of private consulting engineers (CEs) who are independent and impartial of manufacturers, contractors and others. By doing so, AJCE contributes towards the advancement of science and technology, development of industry, sustainable considerations in built-environment, as well as the enhancement of human safety and welfare.



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“I-Ro-Ha Cards” is a traditional card playing game that has inherited from ancient days in Japan. The cards are composed of 47 pictures on which each card shows Japanese character, “Hirakana” . I-Ro-Ha is an orderly way of expressing Hirakana, similar to alphabet in English. It starts from “I” , then “Ro” , then “Ha” and so on. It is played by 2 to several persons. All the cards are randomly spread out on rush mat, called “Tatami” . A card reader reads a short phrase starting with one of the 47 Hirakanas. Players compete by picking up the card of the same Hirakana that was read by the card reader. A person who got maximum number of cards wins the game. “I-Ro-Ha Cards” is played with friends or family in new year period. People drink green tea while playing the cards.



AJCE and its Activities



Noriaki HIROSE

President, AJCE

President, NIPPON KOEI CO., LTD

Annual Overview in 2013

The change of regime at the end of 2012 in Japan brought a drastic change of government economic policy, and we are increasingly feeling the positive trend towards economic recovery. As far as conservation of national land is concerned, national budgets corresponding to the preparedness for a high-potential Tonankai (east-south coast) earthquake, disaster reduction and prevention against windstorm, flood and landslide damages, life extension and renewal of economic and social infrastructures those were rapidly developed after the war as well as reconstruction after the Great East Japan Earthquake in 2011 have been approved and executed. This creates a favorable business climate for the construction industries in Japan.

With respect to external economic policy, export of infrastructure projects with financing has been strongly promoted through collaborative relationship among the political, industrial, and public administration sectors, arising out of a sense of crisis for the continuity of domestic infrastructure demand in the medium and long terms. Japan has aggressively started top-level government involvement in sales and it is expected that projects under Public-Private Partnership (PPP) and private initiatives in addition to the traditional Official Development Assistance (ODA) projects will increase. Under these changes in the business environment, both domestically and internationally, the role of consultants would be more diversified and we have to be more proactive in addressing the serious challenges in order to achieve our missions.

FIDIC Conference

The FIDIC Conference 2013 was held in Barcelona, Spain as a centennial anniversary event. The theme of the conference was "Quality of Life - Our Responsibility", and the participants, not only from consulting industries but also from other industries involved in infrastructure development, discussed how consulting engineers should serve and act in the coming century, reaffirming the real world and the present status of consulting engineers. In the conference, FIDIC invited unique personalities, including a Formula 1 race car driver, pop star, and entrepreneur, as special presenters to stimulate the minds of participants. Through the conference, we reconfirmed that it is imperative for consultants to exert more positive contact with project stakeholders in order to boost mutual understanding and trust among themselves. In order to advance the consulting industry to a stronger position, we have to cultivate the next generation of engineers and leaders. It

appears that a shortfall of human resources is a pressing concern in most countries, whether developed or less-developed. It is important to rebuild our society in such a way that it will be more attractive to recruit ambitious young people, and this can be realized through a serious effort of all concerned parties including the project owners and the academic circle.

Especially for the Japanese construction industry, human resources who are able to actively work in the global market are necessary to be cultivated. On-the-job training could be the most practical approach for human development, however, a strategic and organized approach including application of training programs customized for each career stage could also be very effective. Full awareness and commitment of all concerned persons in fostering young professionals are certainly essential.

Another special event in the conference was the FIDIC Centenary Awards, which were given to the most excellent architectural projects, civil work projects, and consulting engineers (or firms) during the past 100 years. A total of 113 candidates from FIDIC member associations worldwide applied for this prestigious award, but only 21 candidates received the "Award of Excellence" during the gala dinner. AJCE submitted the Yoyogi Olympic Stadium (architectural work), Tokaido Shinkansen/bullet train (civil work), and Mr. Yutaka Kubota (consulting engineer) to FIDIC, and all of them were successfully honored with the "Award of Excellence".

AJCE Annual Seminar

In July 2013, AJCE organized an annual seminar focusing on the FIDIC Red Book, MDB version (Pink Book), whose Japanese version was published by AJCE in May. The presentations were provided by members of the AJCE

Contract Committee. About 100 participants from various consulting firms, contractors, and plant manufacturers attended the seminar. The FIDIC MDB version has been employed in JICA's Standard Bidding Documents for Works since 2009, and awareness of FIDIC contracts has been growing in Japan.

Young Professional Exchange Program

The AJCE and Consult Australia (formerly ACEA) have maintained the Young Professional Exchange Program since 1996 and more than 130 young professionals have participated in this program so far. In October 2013, seven Japanese young engineers had a three-week training in Australia, which was hosted by seven Australian consulting firms. After their return to Japan, a debriefing session was held in Tokyo and trainees reported the outcome of the program, site visit outline, usefulness of the training, memorable experience in Australia.

FIDIC Contract Training Workshop

AJCE provided two FIDIC Contract Training Workshops in February and November 2013 to enhance the capabilities of engineers who will be assigned as contract administrators in projects. More than 130 engineers participated in these workshops. As AJCE maintains a good reputation in terms of FIDIC contract workshop, AJCE will continue to organize these workshops.

Future Activities

AJCE will celebrate its 40th anniversary this year. In commemoration of this occasion, AJCE plans to hold a special annual seminar with the theme, "Mission of Consulting Engineer", and will invite the FIDIC President. After the seminar, AJCE will honor several members of AJCE for their outstanding contribution and devotion to the development of consulting engineering industry in Japan. AJCE also plans to publish a booklet which introduces the history of AJCE and Japanese consulting engineers.

Efforts by the Ministry of Land, Infrastructure, Transport and Tourism (MLIT) to contribute to infrastructure systems in overseas countries

Goro YASUDA

Director, Overseas Project Division

Ministry of Land, Infrastructure, Transport and Tourism (MLIT), JAPAN

In developing countries, the need for infrastructure increases along with economic growth. Rapid economic growth in many countries, including those in Asia, causes their infrastructure development to be very urgent. The Asian Development Bank estimates that these needs amount to \$8 trillion between 2010 and 2020 in Asia alone. MLIT is trying to contribute to the infrastructure development by skilled experts and cutting-edge technologies in and around the organization.

In 2013, the Government of Japan issued the "Infrastructure System Export Strategy" under the leadership of the prime minister. The strategy describes what the government should do to contribute to infrastructure systems in overseas countries by exporting technologies and products from Japan.

In line with the policy of the government, the Ministry of Land, Infrastructure, Transport and Tourism (MLIT) focuses mainly on three points in carrying out our efforts. The first point is cooperation from the "upstream" stage, the conceptual stage of planning of infrastructure. The second point is the development of "non-structural infrastructure", such as the formulation of new standards for infrastructure with contributions by Japanese experts. The third point is the provision of support to Japanese private companies engaged in the export of infrastructure systems.

In order to realize successful cooperation on infrastructure development, it is particularly important to build a cooperative relationship with partner countries from the upstream conceptual stage of planning. For this reason, government executives including the prime minister and other

government ministers are actively engaging in high level dialogue with their counterparts. In 2013, the MLIT minister conducted ministerial-level visits to Myanmar and Singapore in August, Thailand and Vietnam in September and Indonesia in December.

In addition, in light of the importance of information sharing and opinion exchange among the government and private sectors, public-private councils have been established in respective fields since 2010. Both the "PPP Council for Overseas Roads" and the "PPP Council for Overseas Water Infrastructure" have been held four times so far, inviting high-level government officials of various countries in Asia and Africa to provide opportunities to mutually enhance knowledge and understanding. Technologies of Japanese companies are exhibited and opportunities for business-matching are provided at the sessions of the councils. Moreover, the ministry is making efforts in the field of disaster prevention, and a new platform of industry, government and academia will be established in April.

In addition, it is also important to provide support to private Japanese companies related to infrastructure export. Especially, in an effort to reduce business risks in the "downstream" parts of projects, that is, management and operation, MLIT is in the process of developing the "Act to Establish a Company to Support the Development of Infrastructure Systems Overseas". The company is mainly funded by the government and invests in SPCs (special purpose companies) that conduct infrastructure projects with operation and maintenance in overseas countries. Participation of experts in SPCs can also be anticipated if it is preferable.

These efforts have produced promising results. In 2011, a consortium of Japanese companies was successful in winning the contract for the construction of the Izmit Bay Crossing Bridge (Turkey), with a total length of 3000m, and in 2012, the Intercity Express Programme (IEP), which was the largest procurement project in the history of the UK's railway system, involving the delivery of 866 railway vehicles and about 30 years of maintenance in the UK (including an additional order in 2013), was awarded to a Japanese company. In addition, in 2013, Japanese companies received orders for the reclaiming of ground and construction of improved seawalls in the Lach Huyen Port Development Project in northern Vietnam, which is aimed at developing a new container terminal under the PPP system. Thus, our efforts are gradually bearing fruit.

Taking advantage of our outstanding technology and experience, Japan has contributed to the development of overseas countries, including those in Asia, in a wide variety of infrastructure fields, such as roads and bridges, railways, ports and harbors, water resource development and sewage systems. In order to expand future activities in the world's growth markets, MLIT feels the need to develop sustainable efforts based on the integrated collaboration of industry, government and academia from the perspective of international cooperation and provision of support to Japanese companies that develop overseas businesses.

MLIT supports the wider application of Japanese infrastructure-related technologies in overseas countries. Workshops to introduce the technologies, high level meetings, and exchange of experts are among the measures we conduct. The partnerships among stakeholders such as private companies, academia, ministries and JICA are part of the policy we are promoting. With these policies, MLIT is ready to cooperate with developing countries to make progress in infrastructure development as well as to achieve sound sustainable economic growth.

Fukushima and CEs, and the Future

Ichiro SEKO

Vice President, AJCE

President, Chuo Kaihatsu Corporation

Three years ago the Great East Japan Earthquake caused damage to 20 out of 47 Japan's prefectures with the destruction costing between 16 and 25 trillion yen. Even now there are about 270,000 evacuees. The earthquake was what IAEA (International Atomic Energy Agency) considers a worst level accident at the Fukushima Daiichi nuclear power plant. Due to this, a quarantine area of a 20 km radius was established, resulting in the displacement of over 130,000 people. A decontamination plan was formulated and the decontamination in 106 municipalities progressed in which a portion of them currently completed. Although there is the prospect of eliminating the restricted areas, reconstructing livelihoods will take time.

Although the Fukushima Daiichi Nuclear Power Plant is being decommissioned, there are parts of the site where high contamination levels have been detected in groundwater and there is a concern regarding ocean pollution through groundwater runoff. To stop the outflow of water, construction is now in progress of an underground frozen-soil-wall which will enclose the nuclear power plant. The IAEA study team has admitted that contaminated water could be

released into the ocean after proper treatment and under proper monitoring management. Regarding the contamination of Fukushima prefecture's marine products, the ratio of rejected catches during the October-December period in 2013 was 1.9%, reduced to one 18th compared with the ratio in two years ago. Now all the fish catches and products in Japan are shipped with the new and severer safety standard on radioactive materials.

The cause of the accident at the Fukushima Nuclear Power Plant is considered as the simultaneous progression of a loss of power and damage to the reactor caused by seismic motion and tsunami. The former produced maximum acceleration exceeding the design value and the latter raised the run-up height of tsunami more than twice of assumed value. Even though it was occurred by a subduction zone earthquake that experts couldn't have predicted, it must be said that, from engineering, geology and geopolitical perspectives, there might have blind spots in risk assessments and countermeasures which resulted in an irretrievable outcome.



Photo1: Fruits and Vegetables produced in Fukushima prefecture

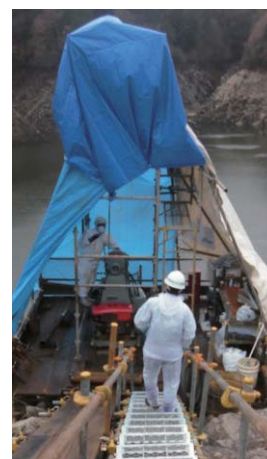


Photo2 : Dam body survey in a quarantine area after decontamination (Writer photography in December 2012)

Operations at all 50 nuclear power plants in Japan are suspended as of February 2014. Since July last year, new nuclear regulation for people and the environment came into effect and the Nuclear Regulation Authority is conducting safety reviews on 16 facilities in 9 nuclear power plants. According to recent polls, 53% of people are "opposed to restarting the operation of nuclear power plants." Although public opinion is divided, opponents against nuclear power have yet to provide specific measures on how to secure electricity supply in the future.

In the vicinity of Japanese islands, there are four tectonic plates that are colliding with each other. Twenty percent of earthquakes all over the world that are of a magnitude of 6 or more occur around Japan. Although more than 2,000 faults were identified that are supposed to move once within 120,000 to 400,000 years, it is impossible to predict when exactly they will move. It has also been pointed out that there still exist unidentified faults beneath the alluvial plain. Furthermore, through tsunami sediment surveys, the damage caused by tsunamis in the past is becoming clearer more than ever.

On this hazardous landmass, Japan exists with the world's 3rd largest GDP of 6 trillion dollars and the 10th largest population of over 120 million people. Here the challenge is to reduce the amount of damage caused by a massive earthquake through establishing disaster reduction measures.

Currently, decontamination and the recovery of livelihoods are proceeding in Fukushima and the prefecture's demographics have returned to pre-



Photo3: Tanabata summer festival in Fukushima city
(Photo : The Fukushima Chamber of Commerce and Industry)

earthquake figures. Households evacuated with children are starting to return to Fukushima. Reconstruction related businesses and companies are setting up new sites and new residents are also flowing in. We, geotechnical CEs, are working diligently on reconstruction projects, surveys on active faults and tsunami deposits, a part of nuclear power plant safety inspections and groundwater countermeasures for the Fukushima Daiichi Nuclear Power Plant.

Last year, it was decided that Tokyo will host the 2020 Olympic Games. Surveys for the Olympics have already begun. It is hoped that hosting such a large event will spur progress in infrastructure development. It has to be carried out by overcoming nature's dangers while achieving harmony with nature and implementing sustainable development and maintenance together with nature.



Tokyo Olympic 2020 logo mark symbolized with cherry blossoms, sakura

It is impossible to grasp every single natural threat. The only remaining information comes from verbal accounts that have been handed down by past tens of generations. It is essential that, through the involvement of CEs, direction to cope with yet to be experienced challenges and insight into non-standard challenges will be provided in order to create detailed diagram and to achieve safety and peace of people.

FIDIC celebrated its 100th anniversary last year. AJCE will be celebrating its 40th anniversary this year. We should play a major role in the future to come.

My lifetime as a Consulting Engineer

Minoru SHIBUYA

Director, AJCE

Chairman, Pegasus Engineering Corporation

More than 50 years has passed since I joined in Pacific Consultants with the recommendation of my professor in April 1962. Looking back, I am amazed at how fast the time went. Now I would like to reflect on how I accumulated my consulting engineer's capabilities, in the hope that this will help young engineers who intend to work in foreign countries.

For the first year and a half, my career was spent in domestic projects conducted in the various fields. During this period, I learned the basic engineering skills of the consulting engineer that formed my technical backbone.

At the end of 1963, I was assigned to an overseas project in Indonesia, Graving Dock construction at Surabaya Naval Base, as a member of the consultant's team for construction supervision. This project was financed by the Japanese Reparation Fund to the government of Indonesia. In those days, there were not many Indonesian people who could speak English, and I had difficulty to communicate with my local counterparts. I felt compelled to study the Indonesian language. As soon as I could discuss with my local counterparts in the Indonesian language, I became involved in the local community and was very happy working. Through the project, I came to realize one of the most important duties of a consultant is to establish communication capability.

In the beginning of 1967, I was assigned to the detailed design of Asian Highway in Pakistan financed by The World Bank. This project included review of F/S, preliminary designs, detailed designs and preparation of tender documents and specifications. Our output was sent to the management consultant team

organized by the World Bank and they gave us comments promptly. I often visited their office to clarify the meanings of their comments. My counterpart was very generous and gave me a lot of valuable technical information that became my textbooks of standards for international consulting. From this experience, I acquired indispensable techniques which were indispensable for consulting engineering.

Over the years, I worked as a project manager for a wide variety of projects including Hong Kong Metro, Jakarta Intra Urban Expressway, Jubail Industrial Estate in Saudi Arabia, Comprehensive Transport Master Plan in Poland, Transport Master Plan in Northern Viet Nam, Bridge over the Suez Canal, Bosphorus Rail Crossing, Dedicated Freight Corridor in India, etc. Through the experience of these projects, I found that good team work within the team members and mutual trust between the client and consultant are the most valuable keys to successfully reach the goal of projects.

At present, I am very happy to have been a consulting engineer. I intend to devote my remaining years as much as possible to educate and developing the capability of young engineers and to transfer my consulting experience and techniques.

AJCE Forty-year Commemorative Undertaking

The Association of Japanese Consulting Engineers (AJCE) was founded on 26th April 1974 aiming at establishing professional ethics and independence of consulting engineers while enhancing development of consulting engineering industry as well as to contribute advancement in science and technology in Japan. Following its establishment, AJCE was approved as a FIDIC Member Association at the general assembly meeting held in Cape Town, South Africa in Oct 1974 and became a new family member of FIDIC. At the time of foundation, AJCE was composed of 185 individual and 16 firm members.



FIDIC Member Celebration Conference (Oct 1975, Tokyo)
 Left: Hiroshi Tanaka, President at the time
 Right: B.O.M. Olson FIDIC President at the time

In Sept. 1991, FIDIC Conference was held in Tokyo in which 650 participants gathered from approx. 40 countries.



FIDIC general assembly meeting Tokyo, 1999

In 2014, AJCE will celebrate its 40th year anniversary through various undertakings as shown in the followings.

Fortieth Year Commemorative Seminar

Date: 9th July, 2014
 Venue: To be announced, Tokyo
 FIDIC president will address keynote speech.



Pablo Bueno
 FIDIC President

Fortieth Year Commemorative Party

Date: 9th July, 2014
 Venue: To be announced, Tokyo
 Dignitary from national government (Ministry of Land, Infrastructure, Transport and Tourism, Ministry of Education, Culture, Sports, Science and Technology, etc) and JICA will be invited as guest speakers.



Fortieth Year Commemorative Award

Award of excellence will be presented to AJCE members who have contributed for the development of consulting engineering industry for over 2 decades as well as for contribution to AJCE activities. The ceremony will be held in the 40th year commemorative party.



Fortieth Year Commemorative Publication

Special issue for 40th year celebration will be published. Planned date of publication will be January 2015.
 It covers 40-year history of AJCE activities, mission and role of consulting engineers, contributed articles by concerned parties/ people, 40th year commemorative seminar and party, etc.

AJCE Activity 2013 at a glance

January

AJCE New Year Celebration Party



February

1st Contract Administrator Seminar for the Overseas Project [see page 17]



July

AJCE Annual Seminar 2013
FIDIC Red Book MDB
[see page 15]



October

Young Professionals Exchange Programme 2013 [see page 21]



November

Interdisciplinary Seminar 2013 [see page 19]



Panel discussion by female consulting engineers [see page 12]

CE Promotion in University [see page 13]

August

YP Award and “Yakai”
 [see page 12]



September

FIDIC 2013 Barcelona Conference
Quality of Life-Our Responsibility
 [see page 11]



December

1st Contract Administrator
Training Workshop for the
Overseas Construction Project
 [see page 18]



AJCE-Cup Futsal Game
 [see page 12]



AJCE Activity 2013

FIDIC Centenary Award







Japan Received 3 Awards of Excellence

Yoyogi National Stadium, Tokaido Shinkansen, Mr. Yutaka Kubota

International Federation of Consulting Engineers (FIDIC) was established in 1913 and celebrated its 100 years of accomplishment in 2013 in which consultancy association from 97 countries participate as members. To commemorate its 100th year anniversary, FIDIC planned to confer FIDIC Centenary Award for the excellent works on Civil Engineering Projects, Architectural Structures, Firms and Individual Consultants in the last 100 years. Through the Association of Japanese Consulting Engineers, Japan nominated Yoyogi National Stadium for Architectural Project, Tokaido Shinkansen for Civil Engineering Project, and Mr. Kubota Yutaka for Individual Consultant. We are pleased to report that all of the nominated subjects received the

FIDIC Award of Excellence.

Awarding ceremony was held during FIDIC Centenary Conference, 15th to 17th September 2013 in Barcelona, Spain. AJCE president, Noriaki Hirose and persons entitled for the award received trophy for the Award of Excellence from FIDIC president, Geoff French and Ms. Olivia Prangey, grand daughter of the first FIDIC President, Mr. Louis Prangey. A total number of nomination was 113 from 16 countries in which Excellent Awards were given to following 21 subjects; 8 Architectural Structures, 11 Civil Engineering Projects, and 2 Individual Consultants. Excellent Award was not given to Firms.

Mr. Yutaka Kubota	Yoyogi National Stadium	Tokaido Shinkansen
		
		
<p>From the right: Mr. Noriaki Hirose, AJCE President & President of Nippon Koei; Geoff French, FIDIC President; Ms. Olivia Prangey, grand daughter of Mr. Louis Prangey, first FIDIC President; Mr. Yukinobu Hayashi, AJCE member & Director, Nippon Koei. Mr. Hirose received the trophy as the current president of Nippon Koei which Mr. Kubota has established.</p>	<p>Dr. Mamoru Kawaguchi President, Mamoru Kawaguchi Structural Design Office</p> <p>As the structural designer, Dr. Yoshikatsu Tsuboi was deceased, Dr. Kawaguchi who engaged in structural design of Yoyogi National Stadium under Dr. Tsuboi received the trophy.</p>	<p>Center: Mr. Yoshinori Hatta, General Manager, Central Japan Railway Company, London Office.</p>

AJCE Activity 2013

Activities of Young Professionals (YP) in 2013

Kazutoshi AKASAKA

Chair, Young Professionals Sub-Committee, AJCE
Nihon Suido Consultant Co., Ltd.

1) 2nd YP Award for YPs

On 29th Aug 2013, the 2nd YP Award Contest was held by YPSC. Six groups representing respective firms entered into the Contest in which approximately 50 YPs participated as contestants. Presentations in this Contest were diverse, ranging from YP competency in international arena, social contributions, in-house capacity building, study meeting with other business sectors, and to YP networking through futsal competition.

Everyone was able to share a lot of information through their presentations. It was a wonderful experience for YPs as well as for participants including YPSC.

After evaluation among juries, the YP Award was given to "Activity of Circle K to learn and enjoy all of the Bridges (in-house capacity building) " by Oriental Consultants Co., Ltd.



2) 4th "YAKAI", Social Networking Event

After the YP Award Contest, a social networking event called as "Yakai" was hosted by YPSC. Over 40 YPs from several companies participated and enjoyed exchange of communication among them. This event provided an opportunity to disseminate activity of YPs.



3) 2nd Panel discussion entitled "Career path and work-life-balance" for female consulting engineers

Recently, women participation in society is calling attention in the world. Though number of working women is increasing in society, however, those working in CE industry is still small. This situation makes difficult for female professionals working in CE industry to build up sound career path and to manage good work-life balance, etc.

Based on the above background, YPSC organized the captioned 2nd panel discussion on 15th Nov 2013 for sharing information and experience among participants, composed of 20 female CEs and 8 YPSC male members.

Following self-introduction by all participants, 3 female professionals presented their experience. Common issues in their presentations being women professionals were i) difficulty in managing both work and private life, ii) difficulty in returning to the same position and work after giving birth, iii) custom of working overtime when work load is heavy, iv) support of career-up by boss and firm, etc. After presentations, panel discussion by speakers and exchange of opinions with floor were carried out after which fruitful and positive outcomes were drawn. There were many requests from participants that this kind of dialogue should be continued in regular basis.



4) 3rd YPEP Reporting Workshop

YPEP was established in 1996 between AJCE and CA (Consult Australia). Over the past 15 years, about 130 YPs participated in the program. The past trainees of YPEP are now taking major roles in the activity of YPSC.

In October 2013, Japanese young professionals from 7 consulting firms had training for about 3 weeks in 7 Australian firms locating in 4 cities.

On 22nd Nov, YPEP2013 Reporting Workshop was held in Tokyo in which 7 trainees presented their experiences gained through the training. After the presentations, discussions with YPSC members and participants from various firms were carried out and their outstanding experience was shared.

Before departing to the visit training, all the trainees were given assignment to conduct

hearing on "Career Path of CEs in Australia" from the standpoint of difference between Japan and Australia. Following the result of hearings, we could hear real voice on career path from many experienced professionals in Australia. As the result of presentations and discussions, following issues were acknowledged:

- Consulting service fee in Australia is 3 times greater than Japan in hourly rate. What an amazing difference !
- Changing workplace is nothing special in Australia.
- Fluorine addition in tap water. Sounds good for teeth.
- Working as a CE is cool and dream for children in Australia,
- Status of CE and government official is same.



5) CE Promotion in University;

YPSC has been conducting promotional lectures on CE, CE industry and role of CEs to University Students since 2010. In the lecture held on 2nd Dec 2013, about 80 students participated.

YPSC aims at the following objectives through the lectures:

- 1) CE's works are well disseminated among university students and faculties,
- 2) To inform students that work of CE is contributing greatly in economical and social development while keeping sustainable environment in the world.
- 3) Inform students that CE work is indeed rewarding and enjoyable profession. They are welcomed to join in such a challenging profession.



6) 1st AJCE-Cup Futsal Game;

On Friday 13th Nov 2013, 1st Futsal Game was held in Tokyo. In spite of very cold and busy December, 6 teams entered into the Game in which 38 YPs included one woman participated as players.

The Game was carried out by round-robin tournament procedure in which one game lasts for 7 minutes. The 1st place winner was the team of CHODAI. The total winning score was 2 wins, 0 loss and 3 draws.



For future

In 2013, activity of current YPSC has entered into the fourth year. We believe it is very important to keep spirit and these activities continuously in the future.

We recognize some difficulties that may lie in our front, however, we need not hurry. We shall progress step by step but steadily while enjoy new challenges.

Finally, our achievement was not possible without dedicated contributions by YPs and big hearted support by many seniors. We would like to thank and count on your continuous support, understanding and encouragement on our activities.

AJCE Activity 2013

AJCE Annual Seminar in 2013

Explanations on FIDIC Red Book MDB 2010 in Commemorating Publication of Japanese Version

Professional Development Committee

Contract Subcommittee of International Activity Committee

Time: 14:00-17:00, Tuesday, July 30, 2013

Place: Conference Room A, 3F, Head Office of Nippon Koei Co., Ltd.

Participants: 100 persons



■ Preface

As an AJCE annual seminar in fiscal year 2013, the newly published Japanese edition of FIDIC Red Book MDB 2010 which was completed in June 2013 was explained in the captioned seminar. The book was prepared by Multilateral Development Banks (MDBs) as the project contract conditions to be ordered by them over the basis of the Conditions of Contract for Construction 1999. The MDB edition of the 2010 is based on the first edition in 2005, and additions were made in the 2006 edition, and further particular conditions, forms, health and sanitation and prevention of bribery were added in general conditions. On the other hand, Japan International Cooperation Agency (JICA) has comprehensively incorporated the general conditions of the MDB 2010 edition without any change upon amendment of Standard Bidding Documents under Japanese ODA Loans, Procurement for Works in October 2012. The MDB 2010 version will be widely used as the standard contract conditions for ODA projects.

■ Lecture 1 "Introduction", Mr. Takaharu Kaburaki

MDBs have used the Red Book for contracts of

construction designed by employers. Often the particular conditions were rewritten by each employer and the conditions of contract were subsequently not uniform. To improve the adverse effects, MDBs produced the MDB edition to standardize the contract conditions. JICA has followed this movement. The particular conditions of the Standard Bidding Documents of JICA seem to modify some clauses, the basic principle is considered same as the MDB edition. FIDIC series of conditions of contract includes the Yellow Book for design and build contract and Silver Book for turnkey contracts, which have been also used for ODA projects. It is highly probable that their particular conditions by each employee may include the idea of standardization exemplified by the MDB edition in the near future.



Mr. Takaharu Kaburaki

■ Lecture 2 "Explanation of General Conditions", Mr. Tatsuro Hayashi

The lecturer introduced the contents in each provision to explain the whole general conditions. This sort of clause-by-clause explanation might have fallen into superficial descriptions. However, he explained, the gist of what was mainly described in the clause of the conditions for example: "10. Employer's Taking Over"; "The Works are completed by taking over by the Employer,

and the Defects Notification Period (period of defects liability) starts simultaneously. By taking over, the responsibility of managing structures passes to the Employer. The countermeasures against the employer preventing from carrying out the Tests on Completion are provided as well." The changes in clause from the 2006 to 2010 edition were also explained and revisions in the new edition were explained.



Mr. Tatsuro Hayashi

■ **Lecture 3 "Explanation of General Conditions", Mr. Hidekazu Konishi**

Changing the viewpoint, the lecturer explained the flow of projects, focusing on features of the General Conditions. First, he introduced the main actors including the Engineer, the Employer, the Contractor and the Dispute Board. Their roles and obligations in contractual relations which form the legal basis was illustrated. Concerning the Engineer in the actors' backyard, he explained the gist of tasks for the whole project management. Next, he explained the summary of project, commencement, inspection and test, taking over, defect liability and completion of works in time sequence. He stressed the basic idea of the FIDIC General Conditions that the quality of civil engineering works can be achieved by implementing steady time and program management. Finally, he briefly introduced major problematic subjects such as



Mr. Hidekazu Konishi

claim and Dispute Board.

■ **Lecture 4 "Explanation of Additional Forms", Mr. Hiromi Hoshi**

Many of the additional contract forms are requisites of a contract but they may be difficult to understand for inexperienced engineers due to the legal format. The forms cover party's position in the project, legal effects, key clauses, and specific notes in actual projects, Letter of Tender, Letter of Acceptance, Contract Agreement, Dispute Board Agreement (for single and triple parties), Performance Security, Performance Bond, Advance Payment Security, Retention Money Security, Parent Company Guarantee, and Bid Security. All of the forms are incorporated in the Red Book. Although the forms are important documents in actual projects, they were rarely introduced in the past seminars. It was a good chance to present this subject in the seminar.



Mr. Hiromi Hoshi

■ **Summary**

The Japanese version of Red Book MDB 2010 has completed after 2 years of translation work by the Contract Subcommittee and cooperation with several lawyers in reviewing the manuscript from legal aspect. Considerable efforts were exerted in the course of translation for using proper terminology, consistency, legibility and legal correctness. A few members of the Contract Subcommittee served as lecturers this time. Other members also worked for preparations over several months, and we are confident that the contents were understandable to many of the participants. The members of the Contract Subcommittee wish that we may have chances to contribute in the training of FIDIC Conditions of Contract, in the future.

AJCE Activity 2013

1st Contract Administrator Training Seminar for the Overseas Project

Contract Administration Training Subcommittee, International Activity Committee

1. SEMINAR OVERVIEW

Date: February 22, 2013,

Time: 10:00 to 17:00

Venue: Nippon Koei Co., Ltd. Conference Room

Number of Participants: 102



AJCE held the 1st Contract Administrator Training Seminar for the overseas construction project on February 22nd, 2013 in Tokyo.

The primary aim of this training seminar is to obtain a basic knowledge about terms and conditions of the standard FIDIC contracts and to enhance recognition to an importance of the contract administration in overseas construction projects, at the entry level.

Over 100 people including clients, contractors, consultants, and lawyers who are interested in the contract administration or to be assigned to the overseas construction project in the future participated in the seminar.

Experienced experts in this field were invited, as speakers.

2. PROGRAMS

The seminar consisted of the following three parts:

(1) Importance of Contract Administration at the Construction Supervision Stage of Overseas Infrastructure Construction Projects, by Dr. Shunji KUSAYANAGI

Dr. Kusayanagi who is recognized as one of the

leading experts on the project management for infrastructure construction projects, presented a difference of recognition to contract administration between Japan and foreign countries, covering the following contents:

- Characteristics of infrastructure construction projects and contract administration
- Contract types depending on project characteristics
- Actual situation of the construction contract in Japan - undeveloped contract administration culture
- Quantitative contract administration
- Basic knowledge related to terms and conditions of the contract
- Improvement of contract administration skills
- Change in the construction industry in Japan

(2) Outline of the FIDIC's Conditions of Contract, by Mr. Hidekazu KONISHI

Mr. Konishi, project management expert, presented an outline of the FIDIC's conditions of contracts, covering the following contents:

- Introduction of FIDIC
- Framework of the construction contract
- Role of project implementation players
- Outline of the Red Book MDB edition

(3) Case Study on Disputes, by Mr. Akira SHIROYA

Mr. Shiroya is a chairman of the contract administrator training subcommittee. After explanation about some of the important principles for the contract administration, some case histories of contractual disputes were presented.

3. CONCLUSION

This training seminar was successfully completed by an achievement of the primary purposes.

The subcommittee will continue this training seminar on an annual basis.



Dr. Shunji KUSAYANAGI



Mr. Hidekazu KONISHI



Mr. Akira SHIROYA

AJCE Activity 2013

1st Contract Administrator Training Workshop for the Overseas Construction Project

Contract Administrator Training Subcommittee, International Activity Committee

Date: November 28, 2013

Time: 13:30 to 19:30

Venue: Nippon Koei Co., Ltd. Conference Room

Participants: 30



Introduction

Subcommittee of Training of Contract Administrator for the Overseas Construction Project has been established in 2012 to improve the ability for engineers to administer the contract on the overseas project. The Subcommittee held 1st Seminar on contract administration in February, 2013; and lectured the importance of the construction supervision work and overview of the FIDIC contract clauses, and conducted case studies.

This time, the Subcommittee organized the workshop for the persons who have been working for the overseas project, and the lecturers explained the core clauses of FIDIC Red Book MDB in respect of contract administration such as "Extension of Time" and "Additional Payment"; and the participants had group discussions through case study.

Explanation of the Clauses in FIDIC Red Book MDB 2010 version, by Mr. Akira Shiroya

As an introduction, Mr. Shiroya made a simple explanation of "Contract" and "Contract Clauses" addressing basic principles of contract interpretation such as Contra Proferentem, Quantum Meruit, and Time at large. Mr. Shiroya mentioned the stance and view of claim evaluation. Finally, he highlighted each clause and procedure of "Extension of Time" and "Additional Payment" in FIDIC Red Book MDB 2010

version. This lecture was set for the preparation of the next workshop, aiming at practice of contract interpretation and administration.



Mr. Akira Shiroya, Nippon Koei Co., Ltd.
Chairman of the subcommittee

Workshop: Group discussion on "Extension of Time" and "Additional Payment" with case study, by Dr. Masaru Kaido

Five groups (each 6 persons) made the group discussion and presentation in following order ;

1. Self-introduction among group members
2. Review of the Case
3. Interpretation of the Technical Specifications
4. Group discussion on 2 issues
5. Presentation of group's conclusions
6. Comments by Dr. Kaido on each group's presentation



Dr. Masaru Kaido Adjudicator,
MD of Kaido & Associate/ Member of the subcommittee

For the practice of contract administration, proactive approach and appropriate interpretation of the contract are required for the contract administrator. It seems that the participants found exercises in the group discussion useful and fruitful.

AJCE Activity 2013

Report of Interdisciplinary Seminar 2013

"Topic on Energy, Disaster Countermeasures and Railway for Freight Transport"

Technical Exchange Committee

Date: November 13, 2013

Venue: CTI Engineering, Room 10A

Speakers: Yumio Ishii, Adviser, CTI Engineering; Hisamitsu Ohki, Rep, Ohki Environment Institute; Ken Nishino, General manager, Railway division, Nippon-Koei; Hiroshi Tanaka, Rep, Tanaka Hiroshi Engineering Office.



I. Introduction

In the technical exchange committee, professional consulting engineers serving in the field of construction, machinery, electricity, etc. have been exchanging information and raising capacity through committee activities. As a part of activities, captioned seminar was planned and implemented. Outline of the seminar is reported in the following sections.

II. Outline of the Seminar

1. Presentation by Dr. Yumio Ishii

Theme: Comprehensive Disaster Management - Integration of Soft and Hard Measures -

It could be stressed that natural disaster is not a natural phenomenon, but it is considered as a social phenomenon triggered by nature. Therefore, disaster countermeasures should be conducted from the social view-point in the synthetic manner. Integrated disaster countermeasures is composed of i) fusion of hard measure and soft measure, ii) distribution of

subject area to be two-dimensional or three-dimensional, iii) reduction of damage that exceeds design scale, iv) community participation, v) evaluation by considering extreme phenomenon.

Based on the above, speaker explained comprehensive disaster countermeasures and their evaluation after which he expressed the role of government, role of firms, role of citizen and role of academic society.



Dr. Yumio Ishii

2. Presentation by Mr. Hisamitsu Ohki

Theme: Shale-oil and Shale-gas

There have been many discussions whether to continue or to discontinue nuclear power which contributes 25% in total domestic energy. Under such background, commercialization of shale gas and shale oil attracted lots of attention in the world. "Horizontal Mine Technology" made possible for commercial dredging of shale gas. It will be a challenge for shale gas development that how the cost of environmental measures such as air and water pollutions, ecological impact, etc. are added on the sale price.



Mr. Hisamitsu Ohki

3. Presentation by Mr. Ken Nishino

Theme: Railway for Freight Transport in India

Freight train project connecting Mumbai and Delhi in India by Japanese ODA loan is under construction in which the target completion year is 2017. It was concluded that development of freight train is most suitable based on the aspect of accurate operational time, large transport capacity, small environmental load and high safety in the West corridor region. In this project, whole route is electrified and a large reduction in CO₂ emissions is expected by shifting tracking of 29,000 vehicles / day into rail transport. Feasibility Study by JICA estimates 16 million tons/year of CO₂ reduction in 2031 which is equivalent to commercial value of about 6.5 billion yen.



Mr. Ken Nishino

4. Presentation by Dr. Hiroshi Tanaka

Theme: Wind-Generated Power

Wind power generation in the world has reached 200 GW in 2010. Amount of its power in Japan was only 2.3 GW, and it is expected to increase by 50 GW in 2050. In the construction of power generation facilities, it is important to reduce construction cost, harmony with natural environment and keep stable power supply. Examples of current state of wind power projects in Japan was presented in the seminar including "floating offshore wind power plants (100 KW and 2 MW)" by the Ministry of Environment and "floating offshore wind power plant (7 MW)" by the Ministry of Economy, Trade and Industry. In order to further develop wind power generation, speaker stressed importance in the following subjects: rules for using sea, creation of new industry, environmental protection, technology necessary for resource conservation, infrastructure development, cooperation with the government, and project finance.



Dr. Hiroshi Tanaka

AJCE Activity 2013

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

Keiichi KANAI

Chair, Professional Development Promotion Sub-Committee, AJCE
CTI Engineering Co., Ltd

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 3 weeks, 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.



AJCE Activity 2013

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.

AJCE Activity 2013

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.

AJCE Activity 2013

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

AJCE Activity 2013

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.

AJCE Activity 2013

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

AJCE Activity 2013

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.

AJCE Activity 2013

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.

Project Accomplishments by AJCE Members

The Project for Management of Non-Revenue Water in Kenya (2nd FY)

Principal Firm(s) Chuo Kaihatsu Corporation

Project Site Nairobi, Meru, Embu, Narok and Kapsabet in the Republic of Kenya

Client Ministry of Water and Irrigation of Kenya, etc.

Finance Technical Cooperation Projects of Japan

Period July 2011 - May 2012

Type of Project Project Management Services

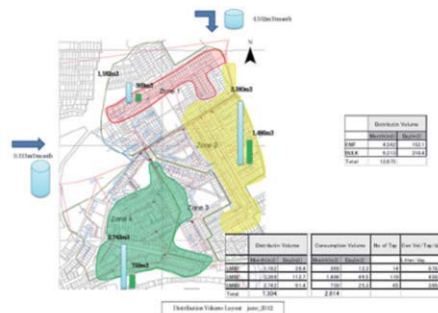
- Analysis of the current NRW monitoring structure of WASREB based on Manual and Guideline
- Training course for the NRW reduction measures based on Manual and Guideline
- Completion of the preparation of materials for Training course (curriculum, syllabus, training material and equipment)

Project Outline

The reduction of Non-Revenue Water (NRW) is a cost effective method and it is Kenyan government's aim to reduce the current national rate of NRW of 60% to 30% by 2015. The Ministry of Water and Irrigation of Kenya has approached the Japanese Government for assistance in order to achieve its goals of NRW reduction, reducing its running costs and implementing effective water use.

Details

- ◆ Project Purpose:
System and mechanisms for reducing NRW in Kenya are set up and the implementation capacity is developed.
- ◆ Indicators:
 - Status of capacity of Embu WSP staff to implement NRW reduction measures
 - Preparation of Manual and Guideline (ver.2) based on the OJT in Embu
 - Information on location of buried main distribution pipes in Narok (whole town)
 - Information on location of buried main distribution pipes in Kapsabet (50% of the whole town)
 - Improvements in the NRW monitoring structure of WASREB (ver.1)
 - Training implementation plan for the NRW reduction based on Manual and Guideline (ver.2)
- ◆ Outputs:
 - Capacity for the NRW reduction measures is established in Embu WSP staff
 - Completion of Manual and Guideline based on the OJT in Embu
 - Data gathering of basic information for the NRW reduction measures in Narok and Kapsabet



Project Accomplishments by AJCE Members

Ethiopia Water Technology Center Project

Principal Firm(s) KOKUSAI KOGYO CO., LTD.
 **KOKUSAI KOGYO CO.,LTD.**

Project Site Addis Ababa, the Federal Democratic Republic of Ethiopia

Client Ministry of Water, Irrigation and Energy

Finance JICA

Period 1998 - Nov. 2013

Type of Project

- ◆ Technical transfer
- ◆ Providing training for local trainers and technical staff

2) Achievement

- ◆ Number of Trainees
 - more than 3,500 technical staff as of June 2013



Project Outline

Supplying clean and safe drinking water to all citizens has been a top priority for Ethiopia for many years. However, appropriate human resources have been lacking to take on these tasks in the administrative agencies as well as the private sectors. In response to this, Japan embarked on the technical cooperation project "Ethiopian Water Technology Center (EWTEC)" in January 1998, and assisted the development of human resources in the water supply sector. Phase 3 of the EWTEC project was completed in November 2013. As a result of EWTEC's increased importance in the water sector, the Ethiopia Water Technology Institute (EWTI) had been established as the successor organization of EWTEC by Council of Ministers Regulation in August 2013.



Details

- 1) Training courses for development of human resources in this project.
 - ◆ Basic courses in
 - Groundwater Investigation
 - Drilling Technology
 - Drilling Machinery Maintenance
 - ◆ Advanced courses in
 - Well Diagnosis & Well Rehabilitation
 - Hydraulic System Maintenance
 - Hand pump Installation & Maintenance



Project Accomplishments by AJCE Members

Southern Binh Duong Province Water Environment Improvement Project - Phase II

Principal Firm(s) Nihon Suido Consultants Co., Ltd.
 Nihon Suido Consultants Co., Ltd.
Water and Environmental Consultants

Project Site Binh Duong Province, Viet Nam

Client Project Management Unit (PMU) for Binh Duong Province Water Environment Improvement Project

Finance Loan of JICA (Japan International Cooperation Agency)

Period June 2013 - June 2018

Type of Project Consultancy Services for Detailed Design and Tender Assistance

Project Outline

The Objective of the Project is to improve the water quality of the Sai Gon River by developing a sewage treatment plant (STP) and sewage collection system for Thu Dau Mot city and Thuan An Town in Binh Duong Province and to contribute for improving the living environment of the said areas located along the lower sections of the Sai Gon River in Ho Chi Minh City.

The Project consists of the following construction / procurement packages;

1. LCB/01: Earth Filling at STP;
2. LCB/02A: Construction of Access road, embankment and canal road at Thuan An STP;
3. ICB/02: Construction of STP in Thuan An Town;
4. ICB/03: Sewage Collection System and Pumping Stations in Thuan An Town;
5. ICB/04: Sewage Collection System and Pumping Stations in Thu Dau Mot City;
6. MS/01: Procurement of Sewer Operation and Maintenance Equipment.

Location

The location for this project includes two (2) areas shown in Figure.1:

1. Thu Dau Mot city area (remaining scope of Phase I Project):
 - Includes: Chanh Nghia, Phu Cuong, Phu Loi, Phu Tho, Phu Hoa, Hiep Thanh wards;
 - An Thanh and Thuan Giao wards.
2. Thuan An town area:
 - Includes: Lai Thieu, An Phu, Vinh Phu, Thuan Giao and Binh Hoa wards;

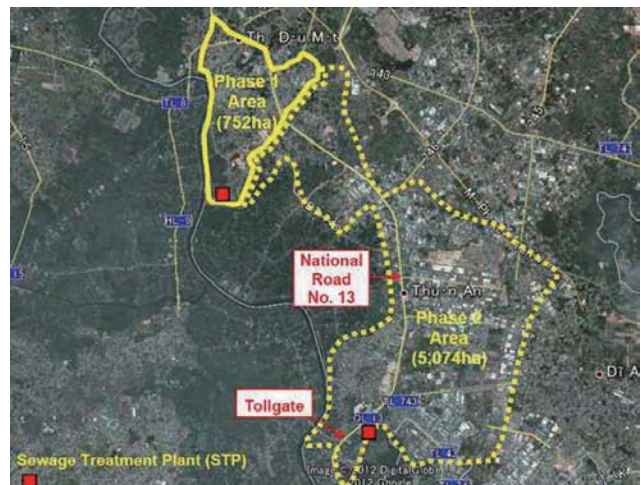


Figure.1 Sewerage Service Area

The location of STP site is shown in Figure.2.



Figure.2 Sewage treatment plant Site (Vinh Phu Ward, Thuan An Town)

Project Accomplishments by AJCE Members

Project Component

Sewage Treatment Plant	
Site Area	6.9 ha
Capacity	17,000 m ³ /day (Ultimate: 51,000m ³ /day)
Sewage Treatment Method	Activated Sludge (SBR)
Sludge Treatment and Disposal	Dewatering and Landfilling
Discharge	Sai Gon River

Pumping Stations	
Main Pumping Station: Capacity in Thuan An STP	54.00m ³ /min.
Relay Pumping Station: Number in two(2) areas	34

Separate Sewer Collection System			
Area	Thuan An	Thu Dau Mot	Total
Main (Gravity)	84km (D225-D1200)	39km (D200-D800)	123km (D200-D1200)
Main (Pressure)	2km (D250-D600)	7km (D110-D400)	9km (D110-D600)
Tertiary	88km (D110-D160)	120km (D110-D160)	208km (D110-D160)
Total	174km (D110-D1200)	166km (D110-D160)	340km (D110-D1200)

STP is constructed with capacity of 17,000m³/day shown in the above table, serving for domestic sewage treatment of Thuan An town.

Actual Service provided in the assignment:

The objective of the Consulting Services is to carry out detailed design, assistance to PMU in Tender and Construction Supervision in accordance with the requirements of the Government of Vietnam and JICA. The more specific tasks of the Consultant are as follows:

1. Survey Works:

- Topographical, geological and hydrological survey and landmark defining in the Project area;
- Public Utility Survey;

2. Detailed Design

- Review approved investment project report and propose optimal technology;
- Review Basic Design, existing studies and propose optimal design method;
- Detailed Design of STP, sewerage collection system, relay pumping stations,
- Prepare general and detailed project implementation programme of STP, sewerage collection system, relay pumping stations,
- Prepare cost estimate of STP, sewerage collection system, relay pumping stations;

3. Assistance of Tender, RFP Document Preparation and Tender Evaluation

- Prepare Pre-qualification (PQ) Documents and Tender Document;
- Conduct PQ and Tender including PQ and Tender evaluation;
- Assist PMU in Contract Negotiation and prepare Contract Documents;
- Liaison with Funding Organization (JICA);

4. Construction Supervision

- Setting-out of the Works;
- Evaluate and approve Contractor's Working and Workshop Drawings and Method Statement;
- Evaluate and approve Contractor's Construction Programme;
- Quality supervision in accordance with Decree No.15 of Ministry of Construction;
- Quantity measurement in accordance with the Specifications;
- Evaluate and approve Contractor's Environmental Monitoring Plan and Environmental Monitoring Report in compliance with EIA approved by Department of Natural Resources and Environment;
- Evaluate and approve Contractor's Safety Plan including traffic and labors and check implementation;
- Prepare Monthly Progress Report, Quarterly Report, Completion Report, etc.;
- Develop and provide Customer, Financial and Project Management System Application;
- Provide O&M Training on STP and sewerage collection system;
- Assistance for institutional building and other technical measures;
- Provide Capability Training for PMU.

Project Accomplishments by AJCE Members

Supply and Installation of a 230kV Transmission Line and Substations at Siddhirganj and Maniknagar in Bangladesh

Principal Firm(s)	Nippon Koei Co., Ltd. NIPPON KOEI
Project Site	Siddhirganj and Maniknagar, Dhaka
Client	Power Grid Company of Bangladesh Limited (PGCB) Govt. of Bangladesh
Finance	World Bank
Period	September 2008 - March 2014
Type of Project	Consulting Services for Design, Tender Assistance and Construction Supervision

Project Outline

Reflecting robust economic growth, peak power demand in Bangladesh was projected to increase at an annual rate of 8-10% in the foreseeable future. Capital investments were required to be balanced among power generation, transmission and distribution and the number of transmission facilities were needed to be increased to accommodate the construction of new power plants.

The Project consisted of replacement of the existing 132kV line to 230kV double circuit transmission line to ensure the commission of the new Siddhirganj 2 x 150MW gas turbine plant.

The overhead 230kV double circuit transmission line was originally planned to construct in the existing 132kV Siddhirganj-Maniknagar line route by replacing old 132kV steel towers. But the first 5 km line route passed through densely populated area having lots of residential and commercial buildings, and the residents of this area were vehemently opposing to construct the new transmission line. To minimize the environmental and social impact, PGCB decided, in the interest of the public, to construct the 230kV double circuit transmission line over the DND (Dhaka-Narayanganj-Demra) canal after getting the permission from Bangladesh Water Development Board (BWDB). 230kV line route from tower T-1 to tower T-22 was changed and taken by the side of the DND canal.

The Project is to be commissioned in February 2014.

Details

- (1) Replace of the existing 132kV line to a double circuit 230kV transmission line from Siddhirganj Substation to Maniknagar Substation (11 km)
- (2) Constructing a new 230kV AIS switchyard with 230/132kV, 2 x 300MVA power transformer as well as extension of two 132kV feeder bays
- (3) Constructing new 230kV GIS substation with 230/132kV, 2 x 300MVA power transformer as well as extension of two 132kV feeder bays



Maniknagar 230kV GIS substation



Siddhirganj 230kV AIS substation



230kV AIS switchgear at Siddhirganj



230kV GIS Switchgear at Maniknagar

Project Accomplishments by AJCE Members

Sondu-Miriu Hydropower Project Sang'oro Power Plant in Kenya

Principal Firm(s) Nippon Koei Co., Ltd.
NIPPON KOEI

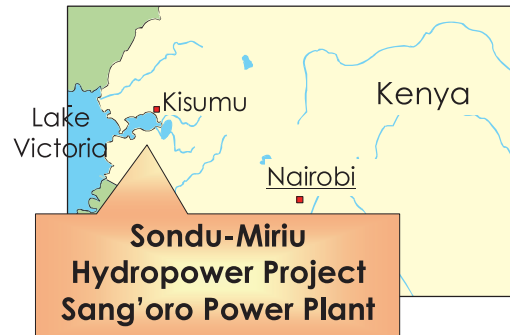
Project Site Kisumu, Kisumu County

Client Kenya Electricity Generating Company Limited (KenGen), Govt. of Kenya

Finance Japanese ODA Loan

Period May 2007 - July 2013

Type of Project Engineering Services for Construction Supervision



Powerhouse, Penstock and Switchyard



Head Tank

Project Outline

Hydropower development had been significant in Kenya for many years since the country had little variety of fuel resources for power generation until coal and geothermal was exploited recently.

The Project consisted of construction of a 21.2 MW hydropower plant (2 x 10.6 MW) at Kisumu, Kisumu County in western Kenya. The project achieved increased power supply, which is crucial for the country's economic development.

The Project recycled the water discharged from the Sondu-Miriu Hydropower Plant (60 MW: Run-of-river type with a intake weir by utilizing the head between the Sondu river and the Nyakach Plain), before the water returns to the Sondu River. The Sondu-Miriu Hydropower Plant also designed and supervised by Nippon Koei was funded by a Japanese ODA loan.

Details

Power Station

Installed Capacity: 21.2 MW (2 x 10.6 MW)
 Rated Head: 61.2 m
 Maximum Discharge: 39.9 m³/sec
 Powerhouse: Open-air type reinforced concrete building 34 m (L) x 22 m (W) x 34 m (H)
 Transmission Line: 132 kV single circuit/ 5 km



Additional Outlet Channel from Sondu-Miriu Power Plant (504 m)

Waterway

Additional Outlet Channel: Open Channel, L = 504 m
 Penstock Line: Steel Pipe surface type
 L = 134 m, Diameter = 4.2 m - 1.8 m



Generator Room

Project Accomplishments by AJCE Members

Marmaray Project - Railway Bosphorus Tube Crossing, Tunnels and Stations

Principal Firm(s)

Oriental Consultants Co., Ltd



TBM Tunnels: Total length 10.1 km
Stations: 3 underground stations (including 1 NATM station), 1 at grade station

Project Site

Fatih, Uskudar and Kadikoy District, Istanbul, Republic of Turkey

Client

Harbours and Airports Construction, General Directorate of Railways, Ministry of Transportation, Republic of Turkey

Finance

ODA Loan of Japan

Period

February 2002 - Jun 2015
(Operated since 29 October 2013)

Type of Project

Project Management Service

Project Outline

Istanbul City with a population of 14 million is divided by the Bosphorus into the Asian and the European side. There are two bridges and various ferry services that connect the two sides of the Bosphorus but these can be affected by weather conditions like snow or dense fog, and are unable to meet the large traffic volume. As a result the citizens of Istanbul have for a long time been suffering from chronic traffic congestion with an adverse environmental impact. As a solution the Turkish Government planned the upgrading of the existing commuter line in order to run frequent commuter services and to construct an underwater tunnel crossing under the Bosphorus. For this purpose, in 1998 the Turkish Government requested of the Japanese Government an ODA Loan for technical support and funding in the implementation of the project. Construction was commenced in August 2004 by the Japanese Taisei JV. The Bosphorus Tube Crossing Railway opened on 29 October 2013. The Japanese Prime Minister Sinzo Abe attended the opening ceremony where he addressed the Turkish people congratulating them on this achievement.

Details

Total length of Bosphorus Crossing Railway: 13.6 km
Immersed Tunnels: Total length 1.4 km, Maximum depth 60 m



Project Accomplishments by AJCE Members

Pro-Poor Eastern Infrastructure Development Project

Principal Firm(s) Oriental Consultants Co., Ltd

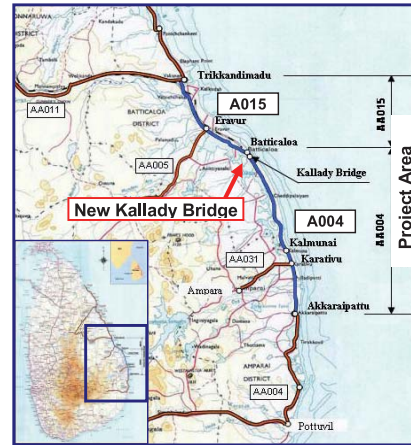

Project Site National Roads A004 & A015 in Eastern Province, Democratic Socialist Republic of Sri Lanka

Client Road Development Authority, Ministry of Highways, Ports and Shipping

Finance Japanese ODA Loan

Period November 2007 - November 2013

Type of Project Design Review and Construction Supervision Services



Project Outline

The tsunami that struck the coastline of Sri Lanka on 26th December 2004 caused severe loss of life and livelihood, together with extensive damage to buildings, physical infrastructure and the coastal environment. The tsunami caused further damage to roads, bridges and causeways that were already affected by the 20 year long civil war, by seasonal flooding, and the lack of maintenance.

The Government of Sri Lanka (GOSL) recognized that the permanent road rebuilding measures are necessary to protect the main transport links and feeder roads of the road network along the coastal belt, particularly against frequent heavy rains and potential flooding.

This Project aimed to improve the approximately 100 km length of road, which consists of the two national highways of A004 and A015, together with the construction of a New Kallady Bridge.

Details

- Improvement of National Highways
- A004 Road from Akkaraipattu to Batticaloa (62.8km, Carriageway 3.5m x 2, Shoulder 1.5m x 2)
 - A015 Road from Batticaloa to Trikkandimadu (36.0km, Carriageway 3.5m x 2, Shoulder 1.5m x 2)
 - Improvement of Culverts: 191

- Construction of a New Kallady Bridge
- Length; 288.35m (6 @ 48.05m + 0.50m)
 - Width; 14.0m (Carriageway 3.50m x 2, Cycle Lane 1.70m x 2, Side Walk 1.8m x 2)
 - Superstructure; 6-spans, PC Box Beam
 - Substructure; RC T-Type
 - Foundation; Cast-in-situ RC Pile (Dia.1,200mm)



Project Accomplishments by AJCE Members

CONSULTING ENGINEERING SERVICES ON THE CONSTRUCTION SUPERVISION OF PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PMRCIP), PHASE II



Principal Firm(s) CTI Engineering International Co., Ltd.



Project Site Metro Manila, Philippines

Client Department of Public Works and Highways, Philippines (DPWH)

Finance STEP Loan, 26th JBIC Loan Package

Period Dec. 2007 - May 2013 (47 months)

Type of Project Review of Detailed Design and Construction Supervision

Project Outline

PMRCIP is a flood control project for the Pasig-Marikina River which runs through the center of Metro Manila and flows out to the Manila Bay. The river system with a total catchment area of 621 km² contributes largely to the flooding in the metropolis brought about by the riverbank overflow of floodwater during heavy rains.

The main objectives of the Project are: i) to mitigate flood damages caused by channel overflow of the River, ii) to facilitate urban economic and social development, and iii) to enhance the favorable environment along the River.

Project Scope

The scope of the Project is enumerated below, wherein; the civil works are divided into two (2) contract packages.

< 1. Contract Package No.1-A: L = 9.2km >

- SSP Revetment 3.84 km
- Parapet Wall 5.15 km
- Single Barrel 62 pcs Culverts
- Double Barrel 4 pcs Culverts
- River Excavation 43,703 m³

< 2. Contract Package No.1-B : L=7.2km >

- SSP Revetment 3.80 km
- Parapet Wall 2.50 km
- Single Barrel 56 Culverts
- Double Barrel 1 pc Culvert

< 3. Consulting Services for both Packages >

- Review of detailed design; assistance for bidding; construction supervision; environmental monitoring; information campaign and publicity of the Project; inter-agency coordination; and transfer of technology.

Project Features in Management Aspects

[Schedule] the approved contract schedule with extension was completed on time. The time extension is a result from the change in the scope of works requested by Malacañang to particularly include the stretch of the Presidential Security Guard (PSG) in the Project.

[Quality] all of the determined defects/deficiencies were properly rectified by the Contractor. was no injury and physical accident ever recorded.



Construction of parapet wall.



Installation of steel sheet piles.



Restoration of Linear Parks.



Installation of boulders as counterweight and protection against scouring.



Improving the aesthetic view of the River.



Clearing of the 3-meter easement of the River.

Project Accomplishments by AJCE Members

The Project for Improvement of Water Supply System in Honiara and Auki in Solomon Island

Principal Firm(s) Yachiyo Engineering Co.,LTD

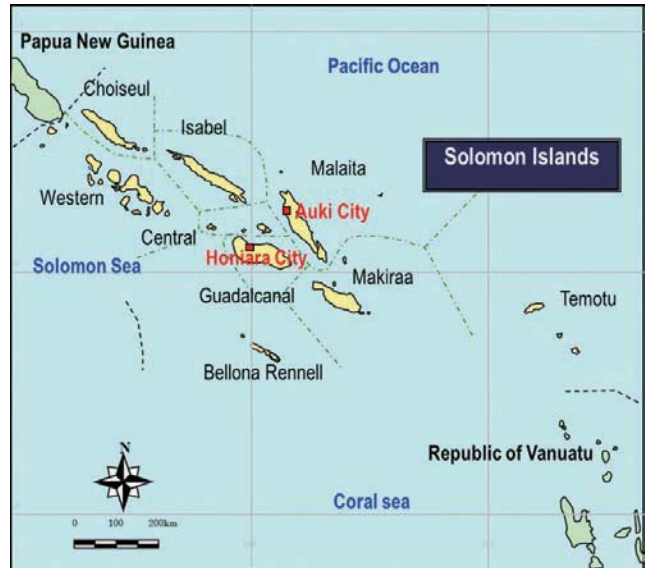
Project Site Honiara and Auki, Solomon Island

Client Solomon Islands Water Authority (SIWA)

Finance Japan International Cooperation Agency (JICA)

Period July 2009 - June 2014

Type of Project Japanese Grant Aid



Project Sites

Project Outline

Demand for water in Honiara and Auki has increased over the years and has resulted in water shortages to consumers. JICA agreed to provide funding to improve the water supply systems in both cities.

The project aims to develop following facilities; boreholes, construction of turbidity reduction facility (WTP) and distribution reservoirs, replacement of water transmission and distribution pipelines, to install electrical equipment and to provide emergency standby generators and associated civil and building works.

Details

Yachiyo Engineering Co., Ltd. has provided consulting services for the design and construction supervision of the following components;

- Borehole (Total 19 burials in 5 sites)
- Turbidity Reduction Facility with Disinfection Facility (Capacity 1,600m³/day)
- Distribution Reservoirs (Total 8 reserves in 5 sites)
- Water Transmission Pump Station with Disinfection Facility (1,600m³/day × 4 sites)
- New Water Conveyance and Transmission Pipeline (Total 9.9 km)
- Distribution Pipelines (Total 22.4km)



Main Watersource in Project Site



Borehole Facility



Water Transmission Pump Station



Transmission Pump Facility




Disinfection Facility



Distribution Reservoir

Project Accomplishments by AJCE Members

Nhat Tan Cable - Stayed Bridge Project

Principal Firm(s)	CHODAI CO., LTD. 
Project Site	Hanoi City, Vietnam
Client	Project Management Unit 85, Ministry of Transport of Vietnam
Finance	Japanese ODA Loan (STEP)
Period	November, 2007 - Present
Type of Project	<ul style="list-style-type: none"> ◆ Bridge Construction ◆ Detailed Design Service ◆ Construction Supervision Service

Project Outline

The Nhat Tan Bridge, which is located approximately 3.5km downstream of Thang Long Bridge, is planned to mitigate further congestion in the already congested bridges over the Red River. The Nhat Tan Road is located in the northern part of Hanoi Ring Road 2 which is expected to contribute the economic development along the route. Vietnam will celebrate the Thanh Long - Hanoi Millennium Anniversary in October 2010. The bridge will be the memorial bridge.

The main bridge is designed as six-span continuous cable-stayed bridge which forms the signature span of the project. When completed, the Nhat Tan Bridge will be called “Vietnam-Japan Friendship Bridge”. Among three interchanges constructed in the Project, Vinh Ngoc Interchange will connect Nhat Tan Road and National Highway No.5. The northern end of the project road will be extended to Noi Bai Airport. Alternative road connecting the airport and the city center.

Details

- Project Length, Widths: 9.95 km, W=33.2 - 47.3 m, 25 m x 2
- Bridges : L= 3.5 km
 - Main Bridge (Cable-stayed bridge) (L=1,500m, Main span L=300m)
 - Approach Bridges (L=2,255m, PC box girder, Super-T girder)
 - Other Bridges (L=240mx2, PC box girder, L=288m x 2, Super-T girder)
 - Interchanges:
 - Full-clover type 1 (crossing at NH5 extension), Others 2

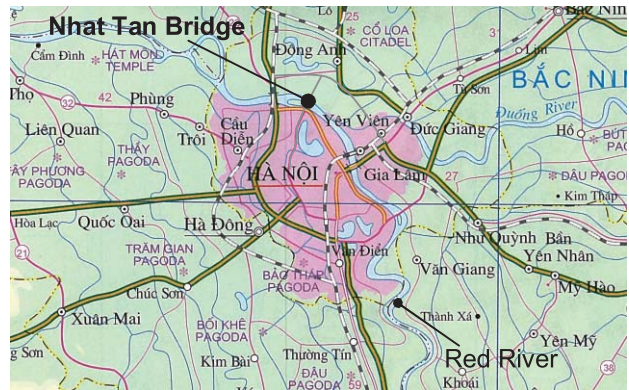


Photo : IHI Infrastructure Systems Co., Ltd

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Development**



ODA Loan Project
Tiete river basin depollution Project in Brazil



ODA Loan Project
Sanitation Improvement Project for
Baixada Santista Metropolitan Region,
Brazil



Technical Cooperation Project
Management of Non-revenue Water in Kenya

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Marmaray Project – Railway Bosphorus Tube Crossing, Tunnels and Stations



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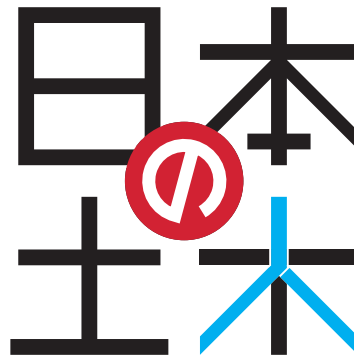
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People, Dreams, and Technology



Road and Bridge Design

Photo by Samsung C&T Corporation



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Editor's note

Three years have passed since the disasters by the Great East Japan Earthquake started. Recently, the country has struggled to rebuild towns and villages. There was a TV program that featured the resumption of a local train operation in all lines. In an interview, an old woman expresses her gratitude, "This train is our feet. I'm really happy that the whole operation resumes after quite a while".

There are many demands for rebuilding infrastructures not only for the damaged areas in Japan but also in developing countries most especially, in Asia. A lot of construction plans are expected to be carried out. Hence, I feel a big role to be played by CE, whom involved in the functions of planning designs and proper management for the infrastructure's development.

Meanwhile, infrastructures are essential to everyday lives but insufficient. As a CE, I feel the sense of responsibility to ensure the safety of the people. I share their sentiments of difficulties and think of how our projects affect the welfares of the whole community, how they will benefit from each. I believe these factors must be considered and are necessary as a successful CE.

This year, AJCE marks its 40th anniversary. AJCE has successfully launched various activities in the past years with the support and cooperation of the many people. AJCE wishes to continue to provide outstanding programs to produce excellent CEs, who are productive enough and can play their ultimate roles in and out of Japan in the near future.

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Yoshiaki SAMEJIMA



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