

Saitama University

Newsletter

International Graduate Program on
Civil & Environmental Engineering

Issue No. 15 2010

Since 1992, the Department of Civil and Environmental Engineering has started receiving foreign students to its program. In total, 185 master's students and 111 doctoral students have graduated from our program. Currently, the Department is administering three scholarship programs: Monbukagakusho (Japanese Government) scholarships for doctoral study, and ADB-JSP and World Bank scholarships for master's study. Our strong commitment in providing high quality education has been proven by being selected as one of the most promising distinguished graduate programs in Japan by the Ministry of Education, Culture, Sports, Science and Technology. Another acknowledgment of our high quality graduate degree program is from the ADB-JSP Scholarship Program. Among the reduction of scholarships allocated to institutions participating in the ADB-JSP due to the recent economic crisis, we are proud to inform that from the annual evaluation carried out by ADB in 2009, the performance of our program was deemed satisfactory. Therefore, we are exempted from the reduction.

At the Foreign Student Office (FSO) side, there is a restructuring in the administration post. Prof. Hiroshi Mutsuyoshi has replaced Prof. Koji Tsunokawa as the Head of the FSO starting from 1 April 2010. Prof. Mutsuyoshi is not a new face in the FSO. He has an instrumental role in the International Collaborative Graduate Program (ICGP) activities and was previously the Head of FSO from 1992-2002.



The 2nd ADB-JSP Scholars Research Forum

Greetings from the Head of the Foreign Student Office

It is my pleasure to be appointed as the Head of the FSO. The present situation is more challenging than 15 years ago when I was holding the same post as the Head of the FSO. There are currently many international programs available in Japan and other universities in the region. Therefore, attracting highly qualified students to our program would not be as easy as before.



However, with the high performance of the FSO that has been implemented and managed by Prof. Koji Tsunokawa, succeeding his position would be a great responsibility for me. I hope that with the help from all of you, especially our alumni, we can spread the good news about our program, and the excellent opportunities to continue graduate studies in one of the best civil and environmental engineering programs in Japan.

Professor Hiroshi Mutsuyoshi
Head of FSO

Graduation Time Congratulations

September 2009

Mr. Mulati Yusaiyin from China was awarded his Ph.D. degree under the guidance of Prof. Tanaka.

Mr. Hassan Safi Hemaïd Ahmed from Egypt was awarded his Ph.D. degree under the guidance of Prof. Tanaka.

Mr. Aung Ko Ko Soe from Myanmar was awarded his D.Eng. degree under the guidance of Associate Prof. Osada.

Mr. Dinh Van Hiep from Vietnam was awarded his Ph.D. degree under the guidance of Prof. Tsunokawa.

Mr. Muhammad Abdur Rahman Bhuiyan from Bangladesh was awarded his Ph.D. degree under the guidance of Prof. Okui.

Ms. Farzana Rahman from Bangladesh was awarded her Ph.D. degree under the guidance of Prof. H. Kubota.

Mr. Swe Yu from Myanmar was awarded his D.Eng. degree under the guidance of Associate Prof. Oguchi.

Mr. Weragoda Sujithra Kaushaliya from Sri Lanka was awarded his Ph.D. degree under the guidance of Prof. Tanaka.

Ms. Kaythi Aung from Myanmar was awarded her M.Eng. degree under the guidance of Prof. Tsunokawa.

Ms. Uangudom Aussanee from Thailand was awarded her M.Eng. degree under the guidance of Prof. Tsunokawa.

Mr. Md. Nazim Uddin from Bangladesh was awarded his M.Eng. degree under the guidance of Prof. Asaeda.

March 2010

Mr. Mebruk Mohammed Nurhusein from Ethiopia was awarded his D.Eng. degree under the guidance of Prof. K. Watanabe.

Mr. Nguyen Duc Hai from Vietnam was awarded his Ph.D. degree under the guidance of Prof. Mutsuyoshi.

Mr. Nguyen Tung Hoang from Vietnam was awarded his M.Eng. degree under the guidance of Prof. Tsunokawa.

Research Profile Series (14)

Structural Material Laboratory

High-Strength Concrete and Prestressed Concrete Research Group

The Structural Material Laboratory is part of the Department of Civil and Environmental Engineering, at Saitama University. The laboratory has many research groups such as High-Strength Concrete (HSC) and Prestressed Concrete (PC), Fiber Reinforced Polymer (FRP), Fiber Reinforced Concrete (FRC), Corrosion, Pseudo Dynamic, Round Bar, Shrinkage and Creep, and Admixtures. The HSC and PC Research Group is led by Professor Hiroshi Mutsuyoshi, Associate Professor Takeshi Maki, and Assistant Professor Shingo Asamoto. This research group aims to develop design and construction guidelines for PC structures using HSC with a strength of over 100 MPa. Currently the group consists of one doctoral student and three masters' students as well as one undergraduate student.

The use of HSC has become common in building construction in recent years as it enables the use of smaller cross-sections, longer spans, reduction in girder height and enhanced durability. Applying HSC to PC structures has many benefits, namely the reduction of additional costs associated with construction, maintenance and repair. However, there are still no design and construction guidelines for the use of HSC with a strength of over 100 MPa. Therefore, the main research interest of the group is to study the mechanical behavior of HSC elements particularly shear behavior, fracture behavior, flexural behavior, effect of early age shrinkage, tension stiffening, and bond strength with the goal of developing design and construction guidelines.



Diagonal shear failure at high strength RC beam

Most of the research work in this group is based on experiments conducted using modern equipment and testing facilities with small and large scale reinforced concrete (RC) and PC members. The main equipment in the laboratory includes a 3000kN capacity compression machine, 500kN capacity tension machine, digital microscope, laser microscope, humidity and temperature control chambers as well as computerized recording instruments.

The laboratory is currently collaborating with both local and international partners including Tohoku University, Kajima Research Institute, Mitsubishi Construction Company, Oxand Consulting Company in France, and the University of Moratuwa in Sri Lanka. Over the past years, the group has made a significant contribution to the field of concrete technology. Group members have presented the results of their research in both academic conferences and in journals of the Japanese Concrete Institute (JCI), Japan Society of Civil Engineers (JSCE), American Concrete Institute (ACI) and Prestressed Concrete Engineering Association (PCEA).

The HSC and PC research group of the Structural Material Laboratory relies on an atmosphere of team work and cooperation not only among its team members, but also between teams. The goal of the research group is for the students to conduct high quality research leading to the development of design and construction guidelines for PC structures using HSC.

Mr. Mulmi Sagar Prasad from Nepal was awarded his M.Eng. degree under the guidance of Associate Prof. Mogi.

Ms. Rahmita Sari Rafdinal from Indonesia was awarded her M.Eng. degree under the guidance of Prof. Kawakami.

Ms. Kahawaththa Gamage Kumari Inoka Damayanthi from Sri Lanka was awarded her M.Eng. degree under the guidance of Associate Prof. Oguchi.

Mr. Rabbi Abu Taher Md. Zillur from Bangladesh was awarded his M.Eng. degree under the guidance of Prof. Kuwano.

Ms. Ke Wenjun from China was awarded her M.Eng. degree under the guidance of Associate Prof. Fukahori.

Mr. Mohammad Mahadi Hasan from

Bangladesh was awarded his M.Eng. degree under the guidance of Prof. Tanaka.

Ms. Chhoden Tshering from Bhutan was awarded her M.Eng. degree under the guidance of Prof. Komatsu.

Ms. Illankoon Mudiyansele Thilini Nuwanradha Illankoon from Sri Lanka was awarded her M.Eng. degree under the guidance of Associate Prof. Osada.

Mr. Tariq Kh. Adeel from Pakistan was awarded his M.Eng. degree under the guidance of Associate Prof. Maki.

Mr. Dissanayake Amila Prasanna from Sri Lanka was awarded his M.Eng. degree under the guidance of Associate Prof. Matsumoto.

Mr. Razzaq Muhammad Kashif from

Pakistan was awarded his M.Eng. degree under the guidance of Prof. Okui.

Mr. Gull Jawad Hussain from Pakistan was awarded his M.Eng. degree under the guidance of Prof. Yamaguchi.

Mr. Gunaratne Delkandura Arachchige Gayan Lakendra from Sri Lanka was awarded his M.Eng. degree under the guidance of Prof. Sasaki.

Mr. Sakunwanich Wiwat from Thailand was awarded his M.Eng. degree under the guidance of Prof. Kuwano.

Ms. Zhang Han Bing from China was awarded her M.Eng. degree under the guidance of Prof. K. Watanabe.

Ms. Nag Mitali from Bangladesh was awarded her M.Eng. degree under the guidance of Associate Prof. Suzuki.

Welcome New Students

October 2009



Dang Viet Duc
Vietnam, Doctor



Dissanayaka Shiromi
Himalika
Sri Lanka, Doctor



Nandasena Napayalage
Aruna Kithsiri
Sri Lanka, Doctor



Neupane Ramesh
Nepal, Doctor



Pham Viet Hung
Vietnam, Doctor



Rauf Asim
Pakistan, Doctor



Subedi Shaphal
Nepal, Doctor



Chhetri Deepak
Nepal, Master



Dewan Sabur Abdus
Bangladesh, Master



Baniya Mahendra Bahadur
Nepal, Master

April 2010



Mya Aye Chan Aung
Myanmar, Doctor



Nguyen Anh Dung
Vietnam, Doctor



M. P. C. M. Gunasekara
Sri Lanka, Master



H. M. Rasel
Bangladesh, Master



Kattel Sagar
Nepal, Master



Nazir Mazhar
Pakistan, Master



Nguyen Trung Thanh
Vietnam, Master



Rashid Hafiz Muhammad Awais
Pakistan, Master



Shrestha Kamal Raj
Nepal, Master



Rangga Adiprima Sudisman
Indonesia, Master



Tran The Anh
Vietnam, Master



Wanasinghe Gayan Indika
Sri Lanka, Master

News

New Appointments

Dr. Shoichiro Hamamoto was appointed as an assistant professor of Soil Mechanics Laboratory in April 2010. His research field is soil mechanics and soil physics. One of his research topics is to understand coupled mass transport and deformation processes in variably-saturated soils.

Awards

Prof. Yoshiaki Okui received the Tanaka Award from JSCE in the category of Best Research Paper 2009 for his paper: "Structural redundancy analysis for steel truss bridges in Japan".

Mr. Razzaq Muhammad Kashif of Structural Eng. Lab was awarded the Young Researcher Best Presentation Award in the Joint Conference of the 7th International Conference on Urban Earthquake Engineering and the 5th International Conference on Earthquake Engineering in March 2010.

Mr. Kyosuke Kato was awarded the Excellent Presentation Award in the 64th JSCE Annual Convention in 2009, for his paper: "Study on inhibition of prestress loss of prestressed concrete beam by promoting creep at an early age and its influence on structural response".

The following students were awarded the Certificate of Excellence for distinguished presentation in the 11th JSCE International Summer Symposium held at Tokyo Institute of Technology in September 2009.

1. Mr. Razzaq Muhammad Kashif of Structural Eng. Lab: the paper entitled "Development of rheology model for RBs and LRBs and its implementation in seismic analysis"

2. Mr. Methsiri Samarakoon of Hydraulic and Environmental Eng. Lab: the paper entitled "Effects of substrate removal in root anchoring zone on maximum resistive bending moment for overturning"

3. Mr. S. K. Weragoda of Hydraulic and Environmental Eng. Lab: the paper entitled "Evaluation of the sequential impact of integrated submerged-floating macrophyte wetland systems in wastewater treatment"

Message from Alumni

It is my great pleasure to share my experience studying in the International Graduate Program on Civil and Environmental Engineering at Saitama University. Under this program I earned my master's and doctoral degrees in 2005 and 2009, respectively, and this was one of the most important periods in the path of my life.



My study at the master's degree program was financially supported by the ADB-JSP scholarship, while my doctoral degree was supported by the MEXT scholarship. During this study period, I found that there were a lot of professional software applications, experimental equipment, and advanced technology available for supporting study and research. The study environment was also very good and really internationally diverse. In addition, professors belonging to the university have deep and long international work experiences. These advantages have led to many successful research projects at the university, especially in the field of civil and environmental engineering.

Currently, I am working as a lecturer at the Hanoi University of Civil Engineering (HUCE), and responsible as the deputy director of the Institute of Planning and Transportation Engineering, HUCE. With the knowledge and experience gained at Saitama University, I strongly believe that I will contribute well to the development of my country, especially in the fields of transportation planning and infrastructure management which I intensively studied at Saitama University. I hope that more international students will consider the advantages/opportunities provided by the university for their future studies so that they are able to contribute well to the development of their beloved countries.

With best regards,

Dinh Van Hiep

Message from the Foreign Student Office

The 2nd ADB-JSP Scholars Research Forum was held at ADB Institute, Tokyo in Japan on April 9, 2010. Prof. Mutsuyoshi, new head of the FSO, Ms. Nakasone, FSO staff, and ADB scholars attended the Forum. ADB scholars from each university made a presentation of their researches.

We are also very happy to welcome 12 new students to our graduate program in April 2010. International students and their families staying in Japan can enjoy various events such as New Year's celebrations, Cherry blossom viewing, Children's day and so on. It would be nice if they could learn about Japanese culture and

celebrate annual events with the Japanese people around them.

Lastly, we really appreciate your contribution in issuing Newsletter No. 15. We are waiting for your future contribution anytime.

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