

Saitama University

Newsletter

Graduate Program for Foreign Students
Civil & Environmental Engineering

ISSUE No. 4 1999

The Fourth Year of the Asian Development Bank - Japan Scholarship Program in Saitama University

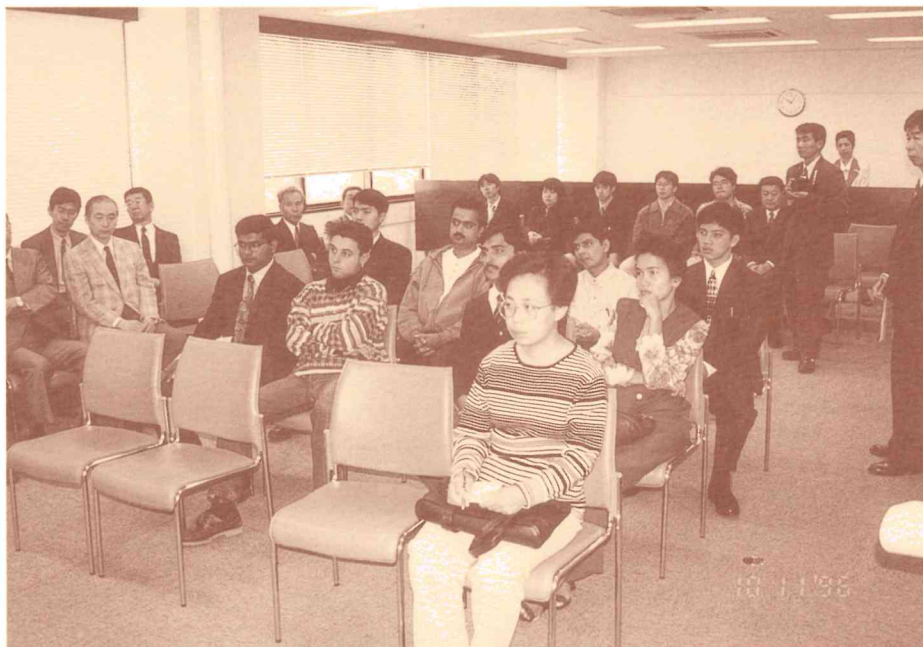
It is already more than three years from the beginning of the agreement between the Asian Development Bank and Saitama University for the support of students in our graduate program by the Asian Development Bank - Japan Scholarship Program (ADB-JSP). Now, let's see what we have achieved so far.

On December 15, 1995, the Asian Development Bank and Saitama University signed a Memorandum of Agreement at the Asian Development Bank Headquarters in Manila, the Philippines, in which both institutions have agreed to cooperate in the development and implementation of a study program to train talented individuals for civil engineering and related fields. The ADB will provide the funding to support the scholarship grant through the ADB-JSP, while Saitama University will provide training and education of the scholars through the Graduate Program for Foreign Students on "Environmental Management and Infrastructure Development Engineering" of the Graduate School of Science and Engineering in the university.

Under this agreement, the first four scholars from Sri Lanka, Bangladesh, Nepal and the Philippines entered the Graduate Program through the ADB-JSP in April 1996. In October 1996, the Graduate Program received five other scholars from Vietnam, Sri Lanka, the Philippines and India.

After more than three years of implementation, 21 scholars have already received the ADB-JSP Scholarships to study at our university. Last April, the first three scholars completed their study program and returned back to their countries. After the first batch of graduates, seven more scholars completed their study and returned back to their countries in October 1998.

We would like to congratulate the scholars who have been awarded this prestigious scholarship. With the support of the ADB, our graduate program has enlarged our contribution to the development in various countries.



Entrance Ceremony for the first ADB-JSP scholars

Message from the Head of the Foreign Student Office

I am very happy to send you the fourth issue of our Newsletter. Congratulations on graduation! Ten students in the doctor's course and twelve in the master's course have been newly awarded doctoral and master's degrees, respectively. I wish you good luck and great success in the future. Eleven new students (five in doctor's course and six in master's course) entered our graduate program in 1999.



I would like to inform you that Dr. William Tanzo, who has been a faculty member since 1992, resigned from Saitama University last March and returned to the Philippines to start his new business. I would like to express our sincere thanks to him for his great dedication to our graduate program for 7 years. I wish his family happiness and for his great success in the Philippines.

If you change your position or address, please let me know soon.

Best wishes,

Handwritten signature of Hiroshi Mutsuyoshi.

Hiroshi Mutsuyoshi

Professor, Chairperson of Dept. and Head of Foreign Student Office

Graduation Time Congratulations

September 1998

Mr. Raufdeen Rameezdeen from Sri Lanka was awarded his PhD degree in September 1998. His doctoral thesis was on "Role of Infrastructure on Decentralization of Manufacturing Industries in ASEAN Countries: Evaluation of Growth Pole Strategies" under the guidance of Prof. Akatsuka.

Mr. Laksiri Chandana Kurukulasuriya from Sri Lanka was awarded his PhD degree in September 1998. His doctoral thesis was on "Undrained Shear Strength Anisotropy of an Over-consolidated Clay and its Effect on the Bearing Capacity of Strip Footing" under the guidance of Prof. Oda. At present he is working as a Lecturer at Peradeniya University, Sri Lanka.

Mr. Ali Abdel-Rahman Mohamed Gad from Egypt was awarded his DEng degree in September 1998. His doctoral thesis was on "An investigation of pollutants migration in shallow underground due to evaporation" under the guidance of Prof. K. Watanabe. He is currently working as a Lecturer at Assiut University, Egypt.

Mr. Vu Dinh Hung from Vietnam was awarded his DEng degree in September 1998. His doctoral thesis was on "Dynamics of Immiscible Droplets and Bubbles in Groundwater Pollution" under the guidance of Prof. Sato. He is currently working as a researcher at the Hydraulic Structure Research Center, Vietnam.

Mr. Md. Alauddin from Bangladesh was awarded his PhD degree in September 1998. His doctoral thesis was on "Vibration Control and Its Mechanism in Cable System with Secondary Cable" under the guidance of Prof. Yamaguchi.

Mr. Shailendra Sharma from India was awarded his MEng degree in September 1998. His master's thesis was on "Statistical Study of Spatial Variation of Response Spectrum Using Free Field Strong Motion Records of Dense Arrays" under the guidance of Prof. Kawakami. At present he is working for Central Designs Organization, India.

Mr. Phung Dang Hieu from Vietnam was awarded his MEng degree in September 1998. His master's thesis was on "A Numerical Model For Irregular Waves and Wave-induced Current in the Near-shore Area". He is currently working as a Lecturer at Hanoi University, Vietnam.

Research Profile Series (3)

STRUCTURAL MATERIAL LABORATORY

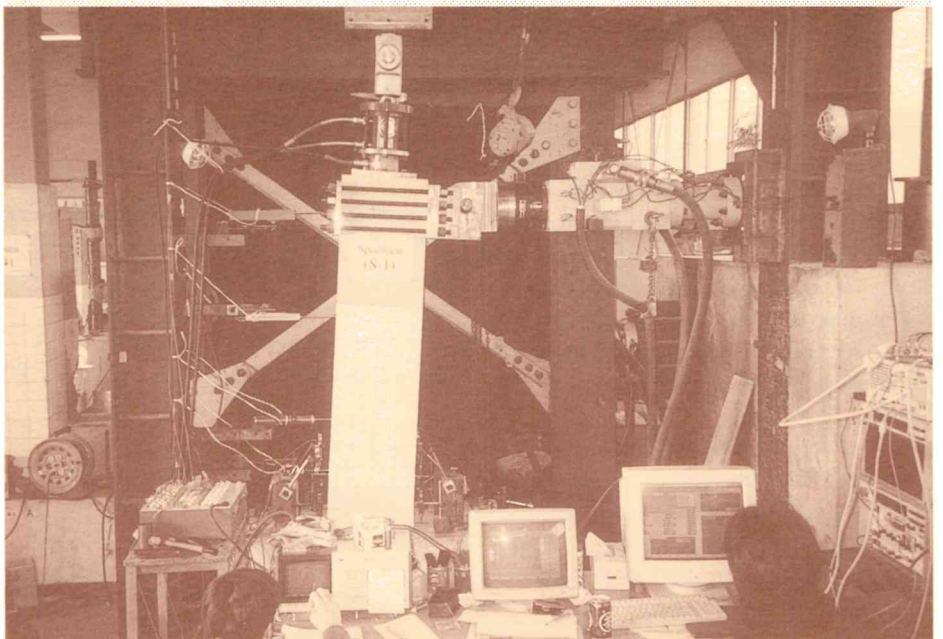
The Structural Material Laboratory is one of the oldest laboratories in the Department of Civil and Env. Engineering. We are involved in a wide range of research activities, comprising of flexural behavior of externally prestressed concrete structures, seismic behavior of partially prestressed viaducts and piers, steel-concrete composite structures, soil-structure interaction, simulation and properties of fresh concrete, strengthening and retrofitting of existing concrete structures, and application of advanced composite materials in infrastructure rehabilitation, etc.

Several foreign students supported by Monbusho and ADB-JSP as well as private scholars, study together with Japanese students in our graduate program. Currently there are 3 foreign students at the doctoral level and 4 at the master level. These students, along with 9 Japanese master students carry out research under the supervision of 3 faculty members, Prof. A. Machida, Prof. H. Mutsuyoshi and Research Associate T. Maki. The laboratory is supported by experienced and reliable Technician Mr. K. Sato and Secretary Ms. J. Zhao.

Most of the research works in our laboratory are based on experiments. There are modern equipment and testing facilities to carry out small to large scale testing of RC, PC and composite structures. The laboratory has approx. 80 sq. meters of strong resisting floor with sufficient anchorage slots that allow the mounting of loading frames and experiments, and 6 sq. meters of strong vertical reaction wall. The major equipment consists of 490 kN and 196 kN capacity servo-pulsers, a 500 kN capacity tension machine and a 3000 kN capacity compression machine. There are three large capacity loading frames with vertical and horizontal loading facilities to conduct both static and dynamic testing of beams, columns and frames. The lab is equipped with the latest computerized recording instruments for load, deformation and strain measurements.

We use different analytical approaches from classical to advanced finite element and distinct element methods to understand the real behavior of structures and materials. Every graduate student is provided with a personal computer with full Internet access and connection to the lab's 3 UNIX machines.

We publish our research findings regularly. Many technical papers have already been published and some of them have been awarded JSCE (Japan Society of Civil Engineers) and PCEA (Prestressed Concrete Engineering Association) prizes. We believe that our laboratory is one of the leading laboratories in the field of concrete engineering in Japan. For further information, take a look at our homepage "<http://www.mtr.civil.saitama-u.ac.jp/index-e.html>".



Welcome New Students

Ms. Nguyen Chuc Diep from Vietnam was awarded her MEng degree in September 1998. Her master's thesis was on "Oxygen diffusion into compost layer of the post digestion process" under the guidance of Dr. Vu Thanh Ca. She is currently working as a Lecturer at Hanoi University, Vietnam.

Mr. Daniel C. Peckley Jr. from Philippines was awarded his MEng degree in September 1998. His master's thesis was on "Non-linear Analysis and Ultimate Strength of Composite Beams Considering Partial Interaction" under the guidance of Prof. Yamaguchi. He is currently working for Maunsell Philippines, Inc., Philippines.

Mr. Tolga Piskiner from Turkey was awarded his MEng degree in September 1998. His master's thesis was on "Modal Damping and Buffeting Response Characteristics of the Tatara Bridge" under the guidance of Prof. Yamaguchi. At present he is joining the Compulsory Military Service in Turkey.

Ms. Shriyangi Wijewardna from Sri Lanka was awarded her MEng degree in September 1998. Her master's thesis was on "Hydrogeological modeling of fractured zone in rock mass and valuation of permeability-Hydrogeological investigation at Kamioka and Kamaishi mines". Her supervisor was Prof. K. Watanabe. She is continuing her Doctoral course at Saitama University.

Mr. Chakree Bamrungwong from Thailand was awarded his MEng degree in September 1998. His master's thesis was on "Flexural Behavior of Two-Span Partially Continuous Prestressed Concrete Beam" under the guidance of Prof. Machida. At present he is continuing his Doctoral course at Saitama University.

March 1999

Mr. Hamid Reza Haddadi from Iran was awarded his PhD degree in March 1999. His doctoral thesis was on "Modeling wave propagation by Normalized Input-Output Minimization (NIOM) method" under the guidance of Prof. Kawakami.

Mr. Khairy Hassan Abd El Kareem from Egypt was awarded his DEng degree in March 1999. His doctoral thesis was on "Analytical Study on Seismic Resistant Characteristics of RC Bridge Piers" under the guidance of Prof. Machida. At present he is an Associate Professor at Assiut University, Egypt.

Mr. Thirugnanasuntharan Aravinthan from Sri Lanka was awarded his DEng degree in March 1999. His doctoral thesis was on "Flexural Behavior and Design Methodology of Externally Prestressed Concrete Beams" under the guidance of Prof. Mutsuyoshi. He is working for DPS Bridge Works Co., Ltd. in Japan as a Senior Research Engineer.

Mr. Soheil Razavi Darbar from Iran was awarded his PhD degree in March 1999. His doctoral thesis was on "Earthquake resistance limit of concrete arch dams" under the guidance of Prof. H. Watanabe. He is currently working for Mahab Ghodss Consulting Engineers, Iran.

Mr. Jagath Manatunge from Sri Lanka was awarded his PhD degree in March 1999. His doctoral thesis was on "Analyzing Visual Predation in Aquatic Ecosystems Incorporating Environmental Variables & its Top-down Effect on trophic Relations". His supervisor was Dr. Asaeda. At present he is working as a JSPS Postdoctoral Fellow at Saitama University.

Mr. Vu Kien Trung from Vietnam was awarded his MEng degree in March 1999. His master's thesis was on "Total evaluation of purification mechanism of Biomanipulated Lake" under the guidance of Dr. Asaeda. He is continuing his Doctoral course at Saitama University.

Ms. Manori Lilangani Manatunge from Sri Lanka was awarded her MEng degree in March 1999. Her master's thesis was on "Decolorization of Aqueous Solutions Containing Dyestuffs" under the guidance of Prof. Fujita.

Mr. Liu Wei Ge from China was awarded MEng in March 1999. His master's thesis was on "Fundamental Study on Strength Anisotropy of Clayey soils" under the guidance of Prof. Oda. He is currently working for INS Engineering Co., Ltd. in Japan.

Ms. Gehan Mohamed El Hady from Egypt was awarded her MEng degree in March 1999. Her Master's thesis was on "Analysis of Visual Structure of open spaces around Highway Station buildings" under the guidance of Prof. Y. Kubota. She is continuing her Doctoral course at Saitama University.

Mr. Park Doju from Korea was awarded his MEng degree in March 1999. His master's thesis was on "Visual Structure of Residential Streetscape" under the guidance of Prof. Y. Kubota.



Sun Yaonam
China
Doctor, 1998. 10



S. Aluwihara
Sri Lanka
Doctor, 1998. 10



Park Bae Kyung
Korea
Doctor, 1998. 10



C. Bamrungwong
Thailand
Doctor, 1998. 10



Amin. A. F. M. Saiful
Bangladesh
Doctor, 1998. 10



C. Patikhom
Thailand
Master, 1998. 10



Vu Kien Trung
Vietnam
Doctor, 1999. 4



Gehan Elhady
Egypt
Doctor, 1999. 4



N. S. Singh
India
Master, 1999. 4



Cho Cho Win
Myanmar
Master, 1999. 4



Ha Minh
Vietnam
Master, 1999. 4



Md. Shah Alam
Bangladesh
Master, 1999. 4

News

New Appointments

Prof. Akira Wada has been appointed by the Faculty of Engineering as a visiting professor of the Hydrosience and Geotechnology Laboratory in April 1999. He obtained his PhD degree at Osaka University in 1963. He has broad working experience as vice-chief of the Central Research Institute of Electric Power Industry. He also served as a professor at Tokai University and Nihon University. His research field is Applied Hydraulics and Environmental Coastal Engineering.

Faculty on Move

Dr. Toshinobu Akagi, who is a professor of Toyo University, resigned his position as a visiting professor of the Hydrosience and Geotechnology Laboratory in March 1999. He served as a visiting professor at Saitama University for seven years.

Associate Professor, Dr. Ryokichi Hamajima of the foundation laboratory moved to Maebashi Institute of Technology in March 1999, where he is working as a professor of the Civil Engineering Department.

Associate Professor, Dr. William Tanzo of the Material Laboratory, returned to his home country, the Philippines, in March 1999. He is currently working as an associate scientist at the Department of Science and Technology, the Philippines.

Dr. Xie Xu, a research associate in the Structural Laboratory, quit his job in March 1999 and now he is joining a consulting company in Japan.

Awards

One of our staff, Dr. Takashi Asaeda was awarded the Japanese Society of Dam Engineering Prize for his papers contributing to the development of the curtain method. The curtain method was developed by Saitama University and Water Resources Development Public Cooperation in Japan as a new technology to prevent algal blooming in reservoirs. Details are available in Elsevier's journals, *Ecological Engineering*, Vol.7,

pp.95-105, 1996 and *Ecological Modelling*, Vol.98, pp.89-104, 1997.

Mr. Wael Zatar of the Structural Material Laboratory was awarded the Excellent Presentation Award in the 20th Annual Convention of Japan Concrete Institute (JCI) held in Tokyo, July 1998 for his paper titled "Dynamic Response Behavior of Prestressed Concrete Piers under Severe Earthquakes". The paper was also published in

the Transactions of the Japan Concrete Institute, Vol. 20, 1998.

Mr. T. Aravinthan was awarded the Excellent Presentation Award for the second time for his paper titled "Flexural Behavior of Externally Prestressed Beams with Large Eccentricities" presented in Japanese at the JCI Annual Convention held in Tokyo in July 1998.

Message from a Graduate

I obtained my doctoral degree from Saitama University in March, 1999. I am working as a Senior Research Engineer at the Research and Development Division of DPS Bridge Works Co., Ltd., a Specialist Company in prestressed concrete structures.



My responsibilities include conducting the research program on the development of an innovative continuous PC girder bridge with external tendons having large eccentricities, design checking of a similar bridge using FEM analysis and assisting in the research on the use of high-performance lightweight concrete in prestressed structures. I have found that the fundamental knowledge acquired at Saitama University has proved to be valuable in my work related to industrial research. I sincerely believe that by working in this company, I could gain valuable experience for my future career development as well as have a better understanding of the Japanese working society.

Dr. Thirugnanasuntharan Aravinthan
Senior Research Engineer
DPS Bridge Works Co., Ltd., Tokyo

Messages from the Foreign Student Office

The 1999 Graduate Program has started in April. New ambitious students have come to Saitama University as usual this year. They are now pursuing their studies in their fields. In addition to studies, they will have good opportunities to experience cultural difference in various aspects of their campus life.

Our Newsletter comes to you annually, full of information on current foreign students and graduates in this department. In order to make the Newsletter more informative, we

also need messages from the alumni. Please don't hesitate to contact us anytime.

We wish you continued success, and we are waiting for your contribution to our Newsletter.

Thank you in advance.

The Foreign Student Office (FSO)
Department of Civil & Environmental Engineering
Saitama University 255 Shimo-Ohkubo
Urawa Saitama Japan 338-8570
Phone/Fax: +81-48-858-3555
Email: fso@sun.civil.saitama-u.ac.jp
<http://www.civil.saitama-u.ac.jp/fso/fso.html>

Editorial Board for this issue

Chief Editor: Professor H. Mutsuyoshi
Design and Layouts: K. Nakazawa

Contributors :

Dr. Vu Thanh Ca, Dr. T. Fujino,
Dr. T. Aravinthan and
Mr. Bimal Babu Adhikary