

Saitama University Newsletter

Issue No. 5 2000

International Graduate Program for Overseas Students
Civil & Environmental Engineering

The first gathering of ADB-JSP students

The first gathering of the Asian Development Bank-Japan Scholarship Program (ADB-JSP) was held in Tokyo on December 11, 1999 in collaboration with the Director of the ADB Japanese Representative Office.

Three universities, the University of Tokyo, the International University of Japan and Saitama University together with many ADB scholars were invited. From our university, nine ADB students, Prof. H. Mutsuyoshi, Head of Foreign Student Office and Ms. N. Nakasone, FSO staff participated.

The reception began at noon. First, Mr. N. P. Samarasinghe, Director of the Japanese Representative Office of the ADB, addressed the gathering. After that the students and the guests talked to each other about life and studies in Japan through eating and drinking. It was a nice opportunity for the ADB students to understand the ADB-JSP. During the reception, brief speeches were given by Mr. N. Shinohara, executive director of ADB in Japan, guest professors and some ADB



scholars. Finally, Mr. J. H. Hovland, Chief Scholarship Administrator, gave a talk about the future plans of ADB-JSP. In fact, the gathering was the first official opportunity for the ADB students to understand more about ADB and this is necessary for their future work in contributing to the development of their own countries after graduation. We would like to express our sincere gratitude to all the ADB staff for arranging such a fruitful opportunity.

Message from the Head of the Foreign Student Office



Photo: Meeting with graduates in Sri Lanka
L to R, Nimal, Nisa, Prof. Mutsuyoshi,
Dhammika, Harshanie, Rameezdeen, Mahesh

Greetings!

Last March, I went to Sri Lanka to attend the Asian Concrete Model Code Symposium and to visit the University of Moratuwa where many graduates from Saitama University are working as faculty members. I was very happy to meet Dr. Mahesh Jayaweera, Dr. Harshanie Karunaratne, Dr. Nimal Priyantha, Dr. Rameezdeen, Ms. Nisa Zainudeen, Ms. Dhammika Nanayakkara (a past faculty member of our Dept.) and Dr. Anura Nanayakkara (my friend). We had a meeting with the vice Chancellor and the above faculties to discuss the academic agreement between the University of Moratuwa and Saitama University. We agreed to establish an agreement. I hope that both universities will collaborate with each other on research and education through this academic agreement. I would like to thank all the mentioned faculty of Moratuwa University for a great deal of hospitality.

Best wishes,

Hiroshi Mutsuyoshi
Professor and Head of Foreign Student Office

Graduation Time Congratulations

September 1999

Mr. Wael A. Zatar from Egypt was awarded his Ph.D. degree in September 1999. His doctoral thesis was on the "Seismic behavior of prestressed concrete bridge piers and viaduct structures" under the guidance of Prof. Mutsuyoshi.

Mr. Kumud Acharya from Nepal was awarded his Ph.D. degree in September 1999. His doctoral thesis was on the "Modelling and laboratory experiments on zooplankton for the control of eutrophication in temperate lakes and reservoirs" under the guidance of Prof. Asaeda.

Mr. Krishna Murari Neaupane from Nepal was awarded his Ph.D. degree in September 1999. His doctoral thesis was on the "A fully coupled thermo-hydro-mechanical system for freezing and thawing porous media" under the guidance of Dr. Yamabe.

Ms. Melanie Marcos Regino from the Philippines was awarded her M.Eng. degree in September 1999. Her master's thesis was on the "Shear strength enhancement of reinforced concrete bridge piers by wrapping of fiber reinforced plastic sheets" under the guidance of Prof. Machida.

Mr. Rajapakse Liyanage Hemantha Lalith Rajapakse from Sri Lanka was awarded his M.Eng. degree in September 1999. His master's thesis was on the "Groundwater management and control during drought seasons by means of telemeter data transmission system in Saitama, Japan" under the guidance of Prof. K. Sato.

Ms. Ima Fatima from Indonesia was awarded her M.Eng. degree in September 1999. Her master's thesis was on the "Simplified transportation systems analysis method for developing countries based on a continuous / discrete network representation" under the guidance of Prof. Tsunokawa.

Ms. Le Thi Viet Hoa from Vietnam was awarded her M.Eng. degree in September 1999. Her master's thesis was on the "Numerical computation for the flow and sedimentation in rivers and shallow lakes" under the guidance of Dr. Vu Thanh Ca.

March 2000

Research Profile Series (4) ENVIRONMENTAL ENGINEERING LABORATORY

Environmental research activities at Saitama University are conducted within the organizational structure of the Department of Environmental Sciences & Human Engineering. The formation of this interdisciplinary entity in 1996 has enhanced opportunities to integrate research and taught courses across a range of disciplines, responding to new environmental challenges. The Environmental Engineering Laboratory in the Civil Engineering Department is academically linked to this new department. The laboratory was formed in 1995; however, within this short period of time it has well established its name to be at the forefront of environmental research. Prof. Kenji Fujita headed the laboratory from its inception until his retirement this March. Prof. Takashi Asaeda has taken the lead since then. The second faculty member attached to the laboratory is Dr. Takeshi Fujino. Other members include three researchers, 7 doctoral and 14 masters students.

The internal research groups, together with several members in other departments, provide a unique combination of environmental skills across many disciplines. Broadly speaking, there are 5 areas that underlie the research work: i. Aquatic Ecology, ii. Thermal Environment, iii. Sustainable Development of Aquatic Resources, iv. Water Treatment, and v. Solid Waste Management. Biomanipulation studies have been the major focus of the aquatic ecology group for many years. In addition, well-structured studies, both experimental and mathematical modelling, are carried out on planktivore feeding behaviour, zooplankton growth dynamics, macrophyte growth/decomposition and fish energetics. Results of extensive field studies are occasionally used to validate mathematical models and ecological hypotheses. The major focus of the thermal environment group is urban heat island phenomena and plant-atmospheric interaction. The facilities include a well-equipped experimental laboratory that features equipment for physico-chemical and biological testing both within a laboratory setting and a field environment. Apart from chemical methods, a variety of techniques are employed for water quality parameter testing, viz. spectrophotometry, chromatography and carbon analyzers. There are a series of tanks for the biological monitoring of aquatic species such as fish, zooplankton, phytoplankton and macrophytes. Also, the laboratory maintains an on-campus and a local array of instruments for thermal climate monitoring.

Both teaching and research emphasize applying fundamental principles to analyze complex environmental problems and to devise effective solutions. This is reflected by the fact that the members have published more than 25 research papers, during the past several years in international journals alone - a unique achievement, for which they are earnestly proud of the collective effort. Also, they present their research work regularly at international and local symposia. There is a strong network of internationally prominent scientists with whom the members maintain regular contact with so as to initiate active discussions of the research work and to receive regular feedback on its strengths and weaknesses. It is worth to note that the laboratory has already marked its presence within the broad field of environmental sciences, especially in aquatic ecology.



Mr. Dodampe Gamage Tilak Priyadarshana from Sri Lanka was awarded his Ph.D. degree in March 2000. His doctoral thesis was on the "Experimental analysis on foraging behaviour of planktivores with varying prey density and structural complexity" under the guidance of Prof. Asaeda.

Mr. Eakarat Witchukreangkrai from Thailand was awarded his M.Eng. degree in March 2000. His master's thesis was on the "Development of externally PC bridge with large eccentricities" under the guidance of Prof. Mutsuyoshi.

Mr. Kaushal Kumar Jha from Nepal was awarded his M.Eng. degree in March 2000. His master's thesis was on the "State concept and its application in plane strain prob-

lems" under the guidance of Dr. K. Suzuki.

Ms. Ei Chaw Khin from Myanmar was awarded her M.Eng. degree in March 2000. Her master's thesis was on the "Study on parking policy and its effects on traffic flow in CBD areas in developing countries" under the guidance of Dr. H. Kubota.

Ms. Oyunchimeg Mendbayar from Mongolia was awarded her M.Eng. degree in March 2000. Her master's thesis was on the "Study on earthquake behavior of buildings from strong motion records by using wave propagation modeling" under the guidance of Prof. Kawakami.

Mr. Do Tho Duc from Vietnam was awarded his M.Eng. degree in March 2000. His

master's thesis was on the "Numerical computation for the waves, wave-induced current and sediment transport around coastal structures" under the guidance of Prof. Tanimoto.

Mr. Mishraq-UL-Quraish from Pakistan was awarded his M.Eng. degree in March 2000. His master's thesis was on the "Ultimate-state analysis of cable-stayed bridges based on Diana" under the guidance of Prof. Yamaguchi.

Mr. Chong Jiun Yiat from Malaysia was awarded his M.Eng. degree in March 2000. His master's thesis was on the "Fundamental study on appropriateness of seismic analysis model for viaducts" under the guidance of Dr. Okui.

Welcome New Students

October 1999



Riaz-UL-Islam
Pakistan, Doctor



Mohammad Shariful Islam
Bangladesh, Doctor



Rabindra Raj Giri
Nepal, Doctor



Keerthi K. Ranasinghe
Sri Lanka, Doctor



Chandra Bahadur Gurung
Nepal, Doctor



Wita Purwasih
Indonesia, Master



Lokuhewage M. Asha Udayamali
Sri Lanka, Master

April 2000



Witchukreangkrai Eakarat
Thailand, Doctor



Qaiser UZ-Zaman Khan
Pakistan, Doctor



Xiao Peng
China, Master



Baral Narayan Prasad
Nepal, Master



Thwin Kyi Myint
Myanmar, Master



Resurreccion A. Cooper
Philippines, Master



Waluwe A. Dharmakeerthi
Sri Lanka, Master



Palupi Ira
Indonesia, Master



Tran Anh Ngoc
Vietnam, Master



Muhammad Ishaq Ashraf
Pakistan, Master



Nguyen Viet Bao
Vietnam, Master



Kay Thwe Tun Tun
Myanmar, Master



Hossain Mohammed Iqbal
Bangladesh, Master



Eldina Fatimah
Indonesia, Master



Dinh Ngoc Hai
Vietnam, Master



Pratima Sharma
Nepal, Master

News

New Appointments

Dr. Norio Tanaka was appointed as an assistant professor of the Environmental and Hydraulic Laboratory in April 2000. His research field is river engineering, including dynamic modeling of emergent macrophytes.

Dr. Yasunao Matsumoto was appointed as a research associate in the Structural Engineering Laboratory in October 1999. He received a Ph.D. degree from the University of Southampton, England, for a thesis on the dynamic response of the human body to vibration. His main research interests are in the field of vibration and noise.

Dr. Hamid Reza Haddadi was appointed by the Faculty of Engineering as a research associate of the Department of Civil and Environmental Engineering in August 1999. He graduated from the same department at Saitama University. His research is focused on wave propagation analysis of earthquake ground motion.

Ms. Ima Fatima was appointed as a research associate in the Design and Planning Laboratory in October 1999. Her research field is urban transportation systems planning.

Faculty on Move

Prof. Kenji Fujita retired from Saitama University in March 2000. He made a great contribution to the field of environmental engineering, water treatment, solid waste treatment and disposal. He is currently the chairman of a foundation in his related field.

Assistant Prof. Hiroaki Nakamura retired from Saitama University in March 2000, where he had served in the field of hydraulic engineering for more than 30 years. He is spending his retirement in Miyazaki Prefecture.

Faculty Upswing

Dr. Takashi Asaeda was promoted to Professor in April 2000. His major field of specialization is environmental engineering, hydraulic and hydrology, atmospheric environment.

Dr. Takeshi Fujino was promoted to Assistant Professor in June 2000. His major field of specialization is atmospheric environment, urban climatology.

Alumni Directory Issued

The FSO has issued an *Alumni Directory* recently. The *Alumni Directory* offers you useful information on your supervisors and graduates of this department. The graduates from September 1995 to September 1999 are included in this list. The directory will be handy and useful when you want to keep in touch with one of the graduates. Email address will be available to correspond easily from anywhere in the world. Please correspond with your friends on the Internet by using the *Alumni Directory*. In addition, an English version of the prospectus for this department will be published soon. Lastly, we would like to thank all of you for your kind assistance in issuing the *Alumni Directory*.

Awards

Dr. Wael A. Zatar was awarded the Japan Society of Civil Engineers Excellent Paper and Presentation Quality Honor in the First International Summer Symposium held in Tokyo, 1999. His paper title was "Towards Implementation of Partially Prestressed Concrete in Bridge Piers" and was co-authored by Prof. H. Mutsuyoshi. The authors are considered as pioneers in the field of mitigation of earthquake residual drift of RC bridge piers.

Dr. Jagath Manatunge was awarded the Certificate of Excellent Presentation in recognition for the distinguished presentation his research results during the First Summer Symposium of the JSCE held in August 1999.

Message from a Graduate

I came to Saitama University to pursue my education at the Department of Civil and Environmental Engineering in 1995. Soon after arriving, I was sure that I had made the right choice of applying to Saitama University. I got whatever needed in order to complete my education including capable and responsible supervisors, requisites to conduct my research, and living accommodations in a calm environment. I obtained my Ph. D. degree in March 1999 and I got an opportunity to continue my research at the Ground Motion and Lifeline Engineering Laboratory in the same Department.

Doing research was not the only fruit of joining this program. It was also a unique chance to get familiar with the culture and tradition of other nations. Meanwhile I am glad to cooperate with the FSO to let more applicants, who are seeking graduate study, know about the special graduate program of our Department. Let's keep in touch and share in promoting the graduate program by exchanging our ideas and introducing the program to others.

Hamid R. Haddadi
Research Associate

Message from the Foreign Student Office

We hope everything is going well for you and that you often think of your stay and study at Saitama University.

Every year, we receive many applications from people in different countries for admission to the special program of the Department. Sometimes, we notice that previous students from our Department recommend these new applicants. Please introduce our program to prospective students in your country and let them know about this valuable opportunity.

As mentioned above, we are pleased to inform you that we have recently issued an alumni directory. We hope that this directory will help us keep in contact with each other no matter where we are. This time we

are sending you an alumni directory along with a newsletter. If you have any corrections for the alumni directory, please feel free to contact the FSO by email. Your comments, suggestions and contributions to our Newsletter would be also greatly appreciated. We are waiting for your kind reply.

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