

# n e w s l e t t e r



Faculty of Engineering, Kyoto University

京都大学工学部国際交流ニューズレター

April 1995 No.4

## Toward Broad-Based International Exchange at Kyoto University



Ryuichi KITAMURA

Professor  
Division of Transportation  
Engineering

Nobody would dispute the notion that higher levels of international exchange in education and research should be promoted at Kyoto University. As an "economic giant," Japan is responsible for technology transfer toward an integrated global economy, a more uniform distribution of wealth, and more equitable consumption of the limited resources on this planet. Universities are natural entities which should assume leading roles in this technology transfer. "Internationalization" of Japanese universities also benefits us. Being exposed to different cultures, and arriving at the recognition that there are different social values and behavioral patterns than what we commonly hold as Japanese, are particularly important in this very homogeneous society. After all, how can we gain insight into our own culture without exposure to other cultures?

There are, however, many impediments that need to be overcome for active and broad-based international exchange at Kyoto University. Some rules and regulations tend to discourage active international collaboration in research. I was once told that if one seeks funding by the Ministry of Education (*Monbusho*) for a collaborative research project with foreign universities, one must have foreign participants stay in Kyoto throughout the project period. This is based on the antiquated notion that collaboration is impossible without the participants working face-to-face, as if Federal Express, facsimile machines and Internet never existed. It is important to recognize that much of international exchange is achieved by means of telecommunication, and therefore is invisible. This invisible international exchange must be appreciated, encouraged and supported, as well as the visible exchange of actually having people over to Kyoto.

In my opinion, truly "internationalizing" Kyoto University as an educational institution would imply having more foreign students entering its programs, receiving academic degrees, and then pursuing careers all over the world. Important in this context is to establish clear application procedures for foreign students. Currently, the University procedures are laden with preposterous rules.

For example, a prospective foreign student must apply in person — he/she has to make a trip to Japan just to submit his/her application packet. Admission criteria are not clear either. We do not have a Test of Japanese as a Foreign Language. How fluent in Japanese should an applicant be to be admissible? Nor do we require any standard test scores, such as Graduate Record Exam (GRE) scores. The only information we require as evidence of an applicant's academic qualifications appears to be his/her transcript. But do we know enough about educational institutions around the world to be able to compare transcripts from different institutions in different countries? The problem is that we do not have a system laid out through which qualified students from any part of the world can apply and be admitted to our graduate programs.

Another factor is whether our campus offers an attractive learning and research environment. The problem is what Mr. Shirazi called earlier in his article in this *Newsletter*, "old, eroding, insufficient buildings, facilities and equipment," and very limited athletic and recreational facilities on campus. Combined with the high living costs and notorious housing conditions in Japan, this makes Kyoto University a less-than-ideal place to stay for many foreign researchers and students. My most sincere respect goes to my many colleagues on this campus whose reputations have attracted many foreign researchers and students, despite the pathetic physical conditions on campus.

What, then, can we do to further international exchange at Kyoto University? How can we overcome these and other impediments, as well as the most serious problem of language? Several things seem possible. Firstly, we must seriously consider the following two alternative positions on language: (i) a foreign researcher or student who wishes to work or study in Japan should be able to speak, read and write in Japanese, and (ii) since there are only so many people who speak our language, we must be able to use a more international language, say English, to be effective in education and research. Secondly, we should make every attempt to improve the educational and research facilities on campus. Thirdly, the University faculty and staff have become too used to the idea that we can automatically get the very best students without any recruitment effort. This is not the case for foreign students. We need to establish streamlined application procedures and clear admission criteria for foreign students, develop a knowledge base to be able to identify qualified foreign students, and make efforts to recruit the cream of the crop from all parts of the world.

ワシントン大学工学部



森 田 司 郎

建築学第二教室教授

「ワシントン大学工学部と京都大学工学部との間の教育・研究における協力のための協定」は、1991年10月に京大工学部としては第3番目の学部間協定として締結されました。協定書は協力研究活動、講義・講演会等への研究者相互参加、学術資料・情報の交換、研究者・学生の相互交流をうたっております。いずれの協定についても同様ですが、財政的な処理を要する場合は、その都度協議するとして、予算的裏付けがないのが泣き所でしょう。

当時の双方の工学部長である J. R. Bowen 教授と中川博次教授が本協定書にサインされたとき、私が先方の副学部長の親友ということで学部長室で陪席したのが、この記事を担当するにいたった由来です。私自身は2度ほど旅行者としてワシントン大学工学部土木工学教室を訪問した経験があるだけですが、その度に何はともあれキャンパスの壮大な風光に驚いたことでした。University Police と書いたバトカーに乗った警官が構内を巡回するのとでくわした時は、大学紛争の真只中から来た身には異様に感じられましたが、教職員・学生の居住区を含んだ広域の行政区をキャンパスが形成しているのですから、不思議ではなかったのです。以下の記事は正確を期するために、博士課程の2年間を同大学で過ごした建築学科卒業生河野進君の助力を得たものです。

ワシントン大学は1861年に創設されました。米国西海岸にある州立大学では最も古い歴史を誇っている大学です。現キャンパスはワシントン湖とユニオン湖にはさまれた275万平方メートルの地域からなり、国内で最も魅力的な場所と言われているほど、素晴らしい環境の中にあります。学部学生約24,000人、大学院学生約10,000人、教官数約2,500人を擁し、国からの補助金は全大学中で第5位にあるなど、全米でも有数の拠点大学となっています。

工学部はこの大学にあって大変重要な位置を占めています。1889年に Mining Engineering と Metallurgical Engineering において最初の学位が認められて以来、Civil, Electrical, Mechanical, Chemical, Ceramic, Aeronautical, Nuclear, Bioengineering, Computer Industrial, Scientific



ワシントン大学キャンパスからの眺望

and Technical Communication の順に Department を増設してきました。現在では工学部には教官190人、学部学生3,800人、大学院学生1,000人が在籍しています。これは国内で15位、北西部では最大規模です。その地理的条件を利用して、日本を含めて太平洋沿岸に位置する諸外国の大学との教育・研究の交流に積極的です。

ワシントン大学のあるシアトルは大都市でありながら、自然環境にも恵まれており、海へ山へとあらゆる種類の野外活動を楽しめる地理的・気象的条件を有しています。写真のようにキャンパス内のドラムヘル噴水広場から「タコマ富士」と呼ばれるレーニア山を望む眺めは絶景で、この広場はシアトルの名所の一つになっています。

ワシントン大学工学部は、学問においても、その生活環境においても、素晴らしい条件を備えている所の一つであると言えるでしょう。

My "New Life" Started Here — at  
Kyoto University



Roman NOWAK

Associate Professor  
Department of Electrical  
and Computer Engineering  
Nagoya Institute of Technology

I visit Kyoto occasionally when on a business trip. Whenever I come into this town I simply cannot stop smiling to everyone I meet in the street. With great emotion I look at the buildings, trees, monuments, no matter how busy I am. My breathing becomes deeper since for me the wind rushing through Kyoto streets has a particular aroma. I look with tension at any face I see, hoping to recognize my former supervisor, Professor Miura, or the other people with whom I had unforgettable contacts. The list of the individuals is too lengthy to be quoted here, but they will forever remain in my memory. Frankly speaking, I act as if in a dream, and only a tight schedule prevents me from forgetting myself entirely. On such occasions, I cannot resist the impression that I am much younger, and the only thought left in my head repeats itself in flush here: I am in Kyoto! It is real!

Why should such feeling arise in a foreigner's heart? Why should he approach Kyoto—an Imperial capital—in such an emotional manner? To answer these questions let us return to the beginnings of the story I am going to present today.

It is not common for European researchers to have the experience of working in Japan. However, I was extremely lucky, since my attendance at the Polish Conference of Solid Mechanics in 1984, resulted in attraction of interest from several foreign participants. To my surprise, Professor Tatsuo Inoue of Kyoto University, came up to me during the coffee break for a brief discussion. The best reward I obtained was from Japan, since Prof. Inoue described my findings to his colleague Prof. Sei Miura, who applied on my behalf for a fellowship sponsored by Monbusho in order to allow me to undertake research in his laboratory. I was delighted—to join a Japanese research team had been my dream for years. The comple-

tion of due formalities, however, was no easy task, since Poland was at that time still under the control of the USSR, part of the so called "East Bloc". I was lucky again, because Prof. Miura does not give up easily once he gets an idea. In consequence, after a long struggle with "diplomatic problems", I arrived in Japan in January 1988, leaving temporarily my wife and two small children behind in Poland.

I shall never forget my first weeks of working and living in Japan. With great excitement I watched and tested everything around, repeating to myself, "I am here in Kyoto! It is real!". I was moved by the view of the mountains surrounding Kyoto, which I stared at through the window of our library. The strongest impression I got from observing the perfectly organized, very hard-working Laboratory. Before I came to Japan, I expected to find a "feudal type" unit with a strong hierarchy and formal interpersonal relations. Instead, I found warm welcome from the team, which was working in an atmosphere of well-respected freedom. Prof. Miura, although strictly controlling the research results, appeared to be a leader with great intuition, a man of tact; he gave everyone a chance to find his preferred field of activity, irrespective of his age and position. He seemed not to push his staff and students too much, although he was well informed of every action undertaken in the lab. This was more than I could expect—I had an entirely free hand concerning choice of research subject, being able at the same time to count on various people's help during the realization of the project.

I was in my element—I decided to discover for myself the secrets of the Japanese miraculous effectiveness, creativeness and prosperity. I decided to behave similarly to the members of our team, to act exactly in a Japanese way. I worked hard at the lab till late at night—this caused me to visit most Kyoto monuments after 11 p.m., in a very romantic night atmosphere. I trained in Ken-do to absorb into my mind elements of Japanese culture. I definitely learned a lot at Kyoto University. Things that at first surprised me enormously appeared later to be quite sensible, and they are proving extremely helpful now that I am partly responsible for the activities and effectiveness of another Japanese laboratory. Let me provide you with an example. Once having a dinner with Prof. Miura I heard him say: "You are probably astonished at our numerous and complicated rules and customs, however, they allow us to live in harmony and not to disturb one another—you should remember that this is the most highly populated area in the world". I never forgot these words.

When my family arrived in Japan I had to reorganize my time to meet my parental duties as well. Both my wife and I consider today our Kyoto period as one of the most pleasant and effective in developing the spirit of our family. Particularly we enjoyed the educational style of Iwakura kindergarten, which taught modesty and charming behaviour to our small daughter. However, I still worked very hard, and had little time to visit all the famous monuments. Once my wife complained that we had visited Ginkakuji Temple and never seen Kinkakuji Temple. "We can see it during our next stay here"—I answered. She was more than surprised—"What makes you think we will come back to Japan again?" "We will be back all right! The Japanese never forget devoted work". My wife must really have thought I was overworked.

Since hard work results in success, I was nominated

for a Max-Planck Gesellschaft Fellowship. I never forgot Japan nor did Japan forget me during our stay in Stuttgart. Before finishing the Max-Planck Fellowship, I received a letter with an invitation to the Government Industrial Research Institute in Osaka as STA fellow. We decided to take this opportunity and return to Japan in March 1990. I cannot describe how moved I was when I again shook hands with Prof. Miura, soon after my arrival in Japan. Guess what happened then? Then I went with my family to visit Kinkakuji Temple!

Later, I met many more excellent researchers, attended prestigious conferences, worked as Research Associate at Toyohashi University of Technology, and was accepted as the first foreign Associate Professor by Nagoya Institute of Technology... but all this new life started here, at Kyoto University. All that has followed based on the experience I obtained there.

\*

## 国際交流雑感



田村 武

交通土木工学教室助教授

土木系教室では1982年に発足した特別コースを契機として本格的な国際交流活動の気運が徐々に高まってきた。年々、外国人の数は増加を遂げ現在では、関連する付置研究所や特別コースを共同運営している衛生工学教室をあわせると、常時60名ほどの外国人が教室内外で研究に励んでいる。これにともなう一つの大きな変化は日本人学生が外国人に違和感を感じなくなったことであろう。日本人学生が国際化されたとも言えるし、外国人にマヒしてしまったりとも言える。完全な共通のことばを持たなくても、それなりにコミュニケーションができることを彼らが体得したことは、それなりに大きな成果である。

「国際交流」ということばは好かない。なにか不自然である。たとえば「国内交流」ということばはそれほど使われない。PKO を国際交流といいにくいと同様に、途上国からの留学生への物的援助が国際交流のすべてとも思えない。「交流」とは、これまで友人でなかった人々とつき合うことである。要するに他人どうしがお互いの内面を認め合うことである。学内にある種々のレベルの国際交流委員会では、組織として交流の効率化と整理を行う。しかし、委員会活動はあくまで従であり、個人と個人の交流が主であることには変わりはない。論語の冒頭にある「有朋自遠方来、不亦楽乎」の精神こそ大切にしたい。

土木系教室では、定期的に外国人を招待して京大会館でパーティを催している。外国人、関係事務職員や教官が知り合う1つの機会でもある。出席者全員に1分程度のスピーチをしてもらう。そのとき、ほとんどの外国人は日本語で話そうとする。たどたどしい日本語であるが、少しうれい気分になる。先日、香港での学会に参加したとき、スタッフの一人の若くて美しい外国人女性から流暢な日本語で私の名前を呼びかけられた。どこかで見かけた顔であったが、すぐには分からなかった。実は数年前に衛生工学教室で修士課程を終えたスリランカからの元留学生で、ご主人とともに香港大学に滞在中とのことであった。非常にうれい気分であった。

## The 5th JSPS-VCC Seminar on Integrated Engineering



**Yoshiki CHUJO**

Professor  
Division of Polymer Chemistry  
Program Leader, JSPS Exchange Program  
on Integrated Engineering

The 5th JSPS (Japan Society for the Promotion of Science) — VCC (Vice-Chancellors' Council Malaysia) Seminar on Integrated Engineering was held on the 12th–14th of December, 1994 at the Puteri Pan Pacific Hotel in Johor Bahru, Malaysia. Johor Bahru is located near the borderline between Malaysia and Singapore. This seminar is biennially held to promote joint research programs and to publicize the results obtained within the "JSPS-VCC Scientific Exchange Program on Integrated Engineering". As Professor Hisanobu Ogoshi (Coordinator) described in the preceding issue of this newsletter, the Faculty of Engineering, Kyoto University is a core university for this program, which was established in 1984. The 1st JSPS-VCC Seminar on Integrated Engineering was held at USM (Universiti Sains Malaysia) in Penang, Malaysia in 1986, the 2nd one in Kyoto, 1988, the 3rd one at UM (Universiti Malaya) in Kuala Lumpur in 1990, and the 4th one in Kyoto again in 1992.

The 5th seminar consisted of 6 special lectures, 17 invited lectures, and 50 contributed papers. From the Japanese side, Professor Shozo Takahashi (Faculty of Agriculture, Kyoto University) gave a special lecture on "Chemical Communication in Insects." Professor Iwane Kimura, Chairman of the Committee for Academic Exchange of Kyoto University, also gave a talk about "International Activities in Kyoto University and the Faculty of Engineering." Invited lectures and contributed papers

were presented in the following three parallel sessions: (i) Chemistry/Chemical Engineering, (ii) Mechanical/Electrical/Civil Engineering, and (iii) Biology/Biotechnology. All 17 invited lectures were given by Japanese professors, 6 from the Faculty of Engineering, Kyoto University.

Aa a working committee, UTM (Universiti Teknologi Malaysia) took care of this seminar, which was very successful. Indeed, active and fruitful discussions were performed in each session. This seminar also provided a good opportunity for young scientists, especially those from Malaysian universities, to report their results obtained in this program. In total, 101 scientists participated in this seminar. Among them, 30 participants visited Malaysia from Japan; 22 were from Kyoto University, including Professor Yoshikazu Nishikawa (Dean of the Faculty of Engineering). It should be noted here that some papers were presented from Singapore. This fact may initiate a future seminar between Japan and Singapore under "JSPS-NUS (National University of Singapore) Exchange Program on Integrated Engineering".

All Japanese participants left Johor Bahru with feeling of great satisfaction, and also with a little pleasant fatigue. The 6th seminar is planned to be held in Japan in 1996.



The 5th JSPS-VCC Seminar on Integrated Engineering

### 国際交流日誌 (平成6年8月1日～平成7年3月31日)

#### 平成6年

- 9月12日 (月) ドイツ国 マンハイム大学学長 Dr. Dietmar Ertmann 来訪
- 28日 (水) 国際交流委員会
- 10月4日 (火) 中国科学技術大学孫仲俊外事弁公室工程師他2名来訪
- 17日 (月) フランス国 ストラスブール第一大学 (ルイ・バストゥール大学) 学長一行来訪
- 21日 (金) 平成6年度 特別コース研究留学生入学式
- 28日 (金) 西北大学長 克剛氏他2名来訪  
ドイツ国 DLR President Prof. Dr. W. Kroell 他8名来訪
- 11月10日 (木) マラヤ大学副学長室 VCC 事務担当官 Ms Rahmah Abdullah 来訪
- 28日 (水) 国際交流委員会

- 12月12日 (月) } 総合工学に関する第5回 JSPS-VCC セミナー
- 13日 (火) } (於 マレーシア国・ジョホールバル市)
- 14日 (水)

#### 平成7年

- 1月11日 (水) 国際交流委員会
- 17日 (火) カナダ国 ウォータール大学 Prof. Keith W. Hipel 来訪
- 3月6日 (月) アメリカ合衆国 MIT ジャパン プログラム マネージング・ディレクター Patricia E. Gercik 氏他1名来訪
- 9日 (木) 平成5年度 特別コース研究留学生修了式
- 17日 (金) 国際交流委員会
- 28日 (火) } 特別コース研究留学生見学旅行 (愛知方面)
- 29日 (水)

The Committee for International Academic Exchange, Faculty of Engineering, Kyoto University, Kyoto 606-01, Japan  
Phone 075 753 5038 / Fax 075 753 5065  
606-01 京都市左京区吉田本町 京都大学工学部国際交流委員会