

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

October 1993 No.1

For More Fruitful Mutual Communication and Understanding



Yoshikazu NISHIKAWA

Professor,
Dean,
Faculty of Engineering

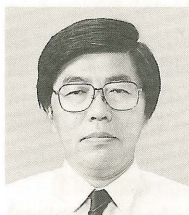
It is my great pleasure to have an opportunity to give a message on the occasion of the publishing of the first issue of "NEWSLETTER", by the Committee for International Academic Exchange of our Faculty of Engineering. Nowadays, Kyoto University is accomodating so many foreign scholars and students. Of special note is the Faculty of Engineering, the biggest faculty not only in Kyoto University but also in all the national universities in Japan, where 132 foreign scholars were present through the academic year of 1992, and about 260 foreign students from more than 35 countries are studying at present.

As all of us know well, Kyoto is a very old, historical city, and is full of traditional atmosphere; accordingly, it is the most suitable place to understand the true spiritual assets of Japan. This kind of atmosphere yields, undoubtedly, a quite appropriate environment for profound

study and creative research work in any specialized field. Please try to know and understand more about Kyoto during your stay in this city.

More and more, internationalized and borderless communications and interactions are growing in academic and cultural society. Real internationalization can be attained successfully on the basis of the salient features of each nationality. In order to accomplish fulfilling study and research, please devote yourself sincerely to the work in your own field, and at the same time, please pay attention to obtaining deep understanding of different ideas and cultures from different areas of the world. I am quite sure that this *NEWSLETTER* will be a very useful medium for promoting such mutual communication and understanding among us.

NEWSLETTER: Why and How?



Kenjiro SUZUKI

Professor,
Department of Mechanical Engineering
Acting Chairman, The Committee for
International Academic Exchange

On the occasion of its first issue, I would like to describe what is aimed at in the production of the newsletter.

During the last ten years, the number of non-residential students and overseas academic visitors increased very much in the Faculty of Engineering, Kyoto University. Therefore, on the one hand, it is important to give general information useful for the overseas people's efforts, and to improve our support system if necessary. On the other hand, we can learn from overseas people what is important from different viewpoints and can accommodate our educational, research and support systems to their needs. In any university, students educate themselves by interacting with each other. An international atmosphere should provide a better chance for this self-education, if proper care

is given to students. In any part of such activities, communication is a key factor. One of the aims of the publication of the newsletter is to use it as a medium to improve communication among us.

We have established Faculty-level agreements for educational and scientific cooperation with nine overseas institutions, in addition to similar, department-level agreements with more than one hundred institutions outside Japan. Additionally, our Faculty has now numerous overseas alumni. We would like to send information to the students and staff at institutions which have agreements with our Faculty and our overseas alumni, to update their knowledge about our activities and recent developments in the Faculty of Engineering.

After modernization, Japan seems to have been pursuing growth as a self-contained society. Our education system is no exception to this. This situation, however, has created a conservative atmosphere among students. Many Japanese students go abroad these days but mostly for tourims. However, one cannot learn in depth a different way of life, different culture and different way of thinking only from tourism. It is important for students to be exposed to different cultures and to learn from them.

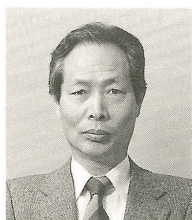
Therefore, we have to encourage students to go and study outside Japan, too. We would like to use this newsletter as a medium to give information to students and to encourage them to make such efforts.

For the reasons mentioned above, we are going to include four different kinds of articles. The first is topics from the Faculty of Engineering. The second is articles to improve communication among us; i.e. staff, students and visitors. The third is information about international activities in our Faculty. The last is news from the Committee for International Academic Exchange of the Faculty of Engineering. The editorial committee will invite articles from selected people, and submission of unsolicited articles from staffs, students and visitors is also welcome.

We also had some discussions in the editorial committee about the official language of the newsletter. Students both in undergraduate and Master programs should have reasonable command of Japanese. Therefore, Japanese articles appearing in the newsletter may give a good opportunity for their Japanese language practice. On the other hand, most research students and visitors are doing research work using non-Japanese language, normally English, as the language for discussions. Therefore, Japanese is not a good language to use with them. Thus, we decided to make both Japanese and English the official languages of the newsletter.

Lastly, I sincerely hope that the newsletter can be helpful for non-residential students now studying in the Faculty of Engineering, Kyoto University to accomplish good studies. I also hope that this newsletter can serve as a good medium to encourage people to come to our Faculty, or to go to overseas institutions for further study.

工学部の国際交流活動について



木村 磐根

前国際交流委員長代理
電気工学第2教室教授

工学部は平成5年5月現在、40カ国から41名の研究者、259名の留学生を受け入れている。京都大学の受け入れ留学生総数の1/3弱である。またこの4年間に工学部としては米国（ウィスコンシン大学/マジソン校工学部、ワシントン大学工学部、テキサス大学/オースチン校工学部）、フランス（グルノーブル工科大学、パリ第6大学）ノルウェー（ノルウェー工科大学）、チェコ（チェコ工科大学）、カナダ（ウォータールー大学工学部）、タイ（チュラロンコン大学工学部）の6カ国の9つの大学との間で学術交流協定が結ばれた。このうち特にウィスコンシン/マジソン校、ノルウェー工科大学との間では学生交流の追加的協定書をも交換し、学部レベルの学生の交流をも行なうとともに、相互に授業料免除の措置も可能としている。

工学部ではこれら留学生のお世話は、勿論大部分それぞれの所属教室で行なわれているが、全般的な基本方針は工学部の国際交流委員会が検討し、学部長に答申することになっている。上述のように工学部における外国人研究者・学生の数が300名になってきているので、それなりにこれらの方々のお世話など、もっと積極的に、かつシステムティックにされなければならないと考えられるが、なかなか思うようには進んでいないのが現状である。

特に、前述のように世界の多数の大学と学術交流協定を結んでいるが、学生の交流については先方からの学生の受け入れが大部分で、こちらからの派遣が大変少ない。これにはいくつかの理由が考えられるが、特に外国で取得した

単位の本学での認定がこれまで積極的に行なわれる体制がなかったことによるものと思われる。海外留学のための奨学金なども十分でないことも理由の一つであるが、最近では観光目的の旅行にでかける余裕をもっている学生も多いので、単位の認定の方がより重要であろう。文部省の大学設置基準の改正等、最近では単位の認定についてかなりフレキシブルとなってきている。国際交流という観点からも国内の大学との間の単位互換に加えて外国との大学との間での単位互換（特に外国語の単位などについて）を容易にできるように努力する必要がある。また若い年齢の間に外国の大学で学ぶ機会を増やすようさらにエンカレッジしてもよいのではないと思われる。

工学部の特別コース研究留学生は協定締結大学の学生を受け入れ、研究室にはいって研究面で活躍していただくことができる他、本学の教官が英語で講義をする機会があるので、若手教官にとっても役立ち、いろいろな面で国際交流の上で大変有効に機能している。ただ現在土木系、化学系、機械系、金属系、電気系の5つのコースがあるが、計10名の定員で運営されているので、なかなか多数の希望者に対して十分に応じられていないという問題点をもっている。例えば本年度（10月開講）には定員10名に対し27名の応募者があった。

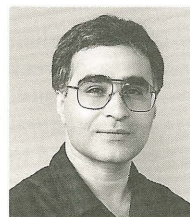
筆者はこの4年間に、京都大学および工学部に来訪された、世界の50近くの大学からの150名程の学長、学部長、教官の方々とお会いする機会を持つことができた。これらの方々とお話すると、世界の多数の大学が、日本の文化、日本の大学教育に関心を持っておられること、又、大学レベルでの国際交流を通じて、国と国との相互理解を少しでも進めようと努力しておられることがひしひしと感じられた。

学術的な面での国際的な競争は、科学技術の発展のために必要なことであるが、申すまでもなく狭い地球上で、世界の人々が共に仲良く住んで行くためには、国際的に真に親しい友好関係を持つことが必要であり、それにはたとえ個々の力は小さくても、個人的な友情の積み重ねが、将来世界の真の平和のために大きな力となるものと信じている。

ただ、現実的には、外国からの来訪者に対する短期の住宅の問題や、様々な習慣の違いなどが、交流にブレーキをかけている面もあり、私が、30年近く前にスタンフォード大学に滞在していた時の経験を振り返ってみると、我々の国際交流に対する対処の仕方にはかなりの遅れがあることも事実である。国際交流という言葉も最近色々な場面で見られるが、例えば米国における30年前のそれは、わざわざなく、もっと自然な、それが常識と言った感じであったが、しかし大変行き届いたものであった。

筆者は本年7月、4年間の任期を終了し、8月からは機械工学教室の鈴木健二郎教授が工学部の国際交流のお世話をして下さることとなった。また、新しく国際交流ニューズレターも発行されることになったので、工学部の国際交流の実をあげるために役立つものとなることを期待している。

Catching up, Internationalization and Restructuring



Mehdi Nouri Shirazi

Lecturer, Department of
Electrical Engineering

In the early Meiji era (1886-1911), a centralized school system including universities and private schools was established in Japan. Under the new system, the study of Western culture was strongly encouraged. Soon Western scientific civilization took root, as a result of the hard work of a few self-motivated and fervently passionate pioneers.

It did not take long until “*Catching up with the West*” became an implicit, and then explicit, catch-phrase in the government, private sector and academic community. Application of appropriate policies well-adapted to the international mood, along with tremendous national efforts and sacrifices, brought astonishing success, then wealth and confidence, to such an extent that Japan declared proudly in the early 1980’s that she had surpassed Europe and become second only to the United States in terms of economy, technology and scientific expenditures.

The international community (mainly industrialized countries), plagued with in-house economical problems and the Cold War, was not wealthy enough to let Japan just enjoy her new status as one of the world’s leading economic powers. They started to argue that Japan was not in a give-and-take relation with the others. They showed through hard statistical facts that Japan had closed markets, while she owed her success to an open market protected by a costly defense network spread all over the world by the US and its non-Japanese allies. They further pointed out that science and technology in Japan were not open to the international community, though Japan had benefited and is still benefiting from the results of basic research and technological innovations carried out and funded generously by the West. Japan, embarrassed partly by being called a “free rider”, decided to open up its society and attend more to the needs of the world. In the middle of the 1980’s, the “*Internationalization of Japan*” became a new catch-phrase.

The government’s swift response to the new wave was as follows: to offer more and more financial aid to international organizations; to accept increasingly foreign students in public universities and to offer unprecedented postdoctoral fellowships to foreign researchers to work in national research institutes; to launch and fund big and ambitious projects aimed at promoting basic research and innovative technology; and to open its markets. All these efforts fell short of being widely recognized and praised, mainly because Japan failed to open its markets properly. Japan’s markets were scrutinized and soon labeled as markets with “*Structural Impediments*”. On the other hand, the influx of foreign students and researchers at a high speed, into public universities and research institutes, as well as publicity from faculty members and senior researchers in the leading universities and public research institutes, exposed more than ever the poor, old, eroded infrastructure of Japan’s public universities and research institutes to the outsiders.

The internationalization of Japan has shed light on infrastructural obstacles which Japan are constantly pressed by the international community to remove. Furthermore, the recent unprecedented, prolonged, sluggish economy has already convinced everybody in Japan, including the guardians of old tenets, that Japan needs a profound, structural overhaul. Now we read in newspapers, hear on the radio, and see people discussing the need for drastic changes in politics, life style, attitudes toward education and higher education, the role of Japan in the world, and hundreds of other things. Now, the “*Restructuring of Japan*” is the newest, most acceptable, and welcomed motto.

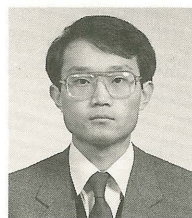
In the next half of this essay, I try to list some fundamental problems of the Japan’s higher education system which are worthy of being considered and solved properly in the restructuring phase. The fundamental problems from which Japan’s higher education system is suffering are financial, organizational and educational in nature.

The financial problems include: old, eroding, insufficient buildings, facilities, and equipment; a shortage of instructors, researchers, research support, such as laboratory technicians, and staff, such as secretaries; insufficient government direct investment in R&D and basic research; and the decrease of graduate students (especially Ph.D students in science and engineering) at an alarming rate, which is partly due to the lack of financial support.

Regarding organizational problems, I confine myself here to those which are related to the “*Koza*” system. A “*Koza*” is a basic academic unit in Japan, which consists of one full professor, one or two associate professors, and one or more lecturers and research assistants. The first problem with the *Koza* system is that it gives excessive powers to full professors, and provides almost no roles for associate professors, lecturers and research assistants in the decision-making process. The second problem is that in this system it is difficult to apply a fair and uniform system of evaluation for promotion and research fund distribution. The third problem is that a chair system cannot intrinsically foster and provide a positive environment for individual initiative, which is necessary for progress, to flourish. The fourth but not last problem, which I believe is the most important of all, is related to the role of research assistants in the Japanese *Koza* system. Research assistants usually hold a Ph. D degree, but regardless of this fact they are not allowed to give lectures. Furthermore, since they are expected to be completely subordinate to full professors, they might end up working as a researcher, laboratory technician or even simple secretary, all at the same time. Not allowing research assistants who constitute more than 40% of the universities’ academic staffs to take part in teaching programs is a huge waste of resources, which I doubt that Japan’s higher education system can afford.

Among the educational problems are those involved with the content of the undergraduate and graduate programs, and the way they are implemented. In order to see that there are real problems here, it is sufficient to consider the fact that university applicants for science and engineering courses are decreasing. This fact coincides with the recent survey carried out by the Japan’s Prime Minister’s Council for Science and Technology, which shows that Japanese in their twenties are losing interest in news related to science and technology.

日本での留學生活を振り返る —国際化と留學の意味—



キム テイル
金 泰一

工学部建築系教室高田研究室
博士課程3年

日本に来てもう5年目。5年間の留學生活を振り返ると、私にとって日本での留學は何だったのか、何を学んだのか、改めて考えてみたいと思います。そこで私は留學（生活）を「国際化」というキーワードに関連して考えてみたいと思います。まず留學の目標です。私は、日本に留學をして、そしていろんなことを学びにきたのでありますが、一時帰国した時、ある会合で日本の文化について話をしてほしいと言われ、困ったことがありました。といいますのは、私は日本に留學に来たときに、日本の文化を学ぶために来ているという意識が全然なかったのです。これをきっかけに

日本の社会や文化について関心を持ちはじめました。通信技術の発達や輸送手段の高速化に伴い、国家と国家の距離が最も近くなり、人々との交流が最も頻繁に行われつつあり、現代社会は「国際化社会」と言われております。この国際化社会の中で留学の意味や留学生としての役割が問われつつあります。要するに、留学生は単なる専門的な知識を習得した専門家の存在というよりも、むしろ民間レベルでの国際交流を促す潜在的存在として留学生自身の自覚が求められています。とはいえ、留学先の国の文化について語ることでない者が果たして国際化に耐えられるとは考えにくいといえるでしょう。私たち留学生が日本で学ぼうとしている学問というのは、日本の文化を土台にして

発展してきたものであります。そういう点で、私たち留学生は、国際化という点については、まずその国の文化を知って頂かないと、国際化への交流はできないと思います。

また私たちは国際化というと、何か先進文明を吸収すると思いがちですが、まず近い国から国際化を進めて行くべきではないでしょうか。私たちはそういう近い国や地域に対して、相手の国や地域の文化とか、人、政治、経済というものを十分に理解をして、そして国際的交流へ一歩踏み込むように努めることが大事ではないかと思います。我々留学生は国々を結ぶ存在として、大きな役割が期待されている今日、留学目標の着地点をより広く、そしてより遠く置くべきでしょう。

What and Where is International Hall?

Nobuyuki YOSHIDA

Lecturer,
Department of Civil Engineering

"Have you ever heard of International Hall? Yeah, I have but I actually don't know what it is."

This is a brief introduction to the International Hall for those who have not taken advantage of it. The International Hall was established in August 1989 for the purpose of encouraging international exchange among engineering staff and students. It is located on the first floor in the west part of Engineering Building No. 3.

The Hall has an international exchange office and a seminar room. The lounge is equipped with audio-visual aids and some foreign and/or domestic magazines. The seminar room is often used as a lecture room for a Japanese language course for foreign students and for an International Course for foreign graduate research students.

The Hall is open from 9 a.m. to 5 p.m. from Monday to Friday and is closed on weekends and National Holidays. Counseling services are provided to foreign students and Japanese students who are thinking about studying abroad; they are provided once a week in the international exchange office by the staff members listed below. The counseling times are posted on the bulletin board in the lounge. The staff members are making a special effort to make the social and academic lives of foreign students comfortable and enjoyable here.

If you have not ever visited the Hall, please drop in any time. It will certainly provide you with a good opportunity to meet students from various countries and allow you to develop new friendships. If you have any questions, please do not hesitate to

ask one of the staff members or stop by the international exchange office.

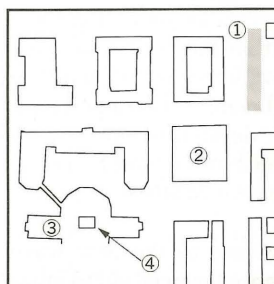
Kenjiro SUZUKI, Professor, Mechanical Engineering Dept.

Junya MATSUKI, Lecturer, Electrical Engineering Dept.

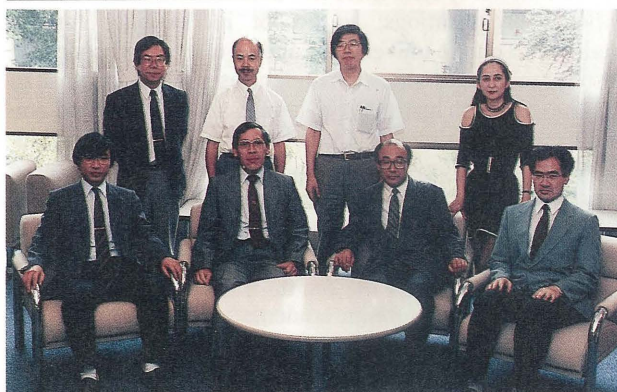
Tadanao MAEDA, Lecturer, Architecture Dept.

Yoshiki CHUJO, Lecturer, Polymer Chemistry Dept.

Nobuyuki YOSHIDA, Lecturer, Civil Engineering Dept.



① International Hall
Bldg. No. 3
② Bldg. No. 8
③ Administration Bldg.
④ University Tower



国際交流日誌 (平成5年4月1日～9月30日)

- 4月20日(火) 中華人民共和国 西安交通大学 蔣徳明学長他3名来訪
- 22日(木) タイ国 King Mongkut's Institute of Technology Thonburi, Dr. Dech Budcharoentong 工学部長他6名来訪
- 5月13日(木) フランス国 Grandes Ecoles 一行
Institut National Polytechnique de Grenoble,
Prof. Jean-Marc Dolmazon 交流学院研究所所長他8名来訪
- 19日(水) 中華人民共和国 浙江大学 唐普発副学長他5名来訪
- 26日(水) 日本學術振興会「総合工学」学術交流連絡協議会(於 芝蘭会館)
- 6月7日(月) 工学部国際交流委員会
- 7月9日(金) ケニア国 Jomo Kenyatta College of Agriculture and Technology,

Dr. R. W. Michieka 学長来訪

- 7月22日(木) 大韓民国 韓国科学技術大学 Prof. Shim Hong-Ku 学生部長及び学生17名来訪
- 28日(水) シンガポール国 National University of Singapore, Prof. Huang Hsing Hua 副学長(理・教授)来訪
- 8月5日(木) 大韓民国 ソウル大学校 Prof. Ki-Jun Lee 工学部長他1名来訪
- 9日(月) 工学部長及び関係者一行、「総合工学」学術交流事業計画打合せのため、マレーシア及びシンガポールを訪問(15日まで)
- 9月8日(水) 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 他1名来訪
- 27日(月) ドイツ国 University of Ulm, Prof. Eberhard P. Hofer 副学長来訪
- 29日(水) 工学部国際交流委員会

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