

Opening Address

「広島大学とアジア諸国との研究・教育ネットワーク構築の試行とその評価」
於：スラバヤ工業大学

Yang terhormat: Bapak-Bapak dan Ibu-Ibu

Dalam rangka pembukaan “Japan-Hiroshima week” yan kedua ini,
perkanankanlah saya membuat beberapa catatan tentang hubungan antara Indonesia,
Universitas Hiroshima dan saya pribadi.

Mr. Chair man

Ladies and gentlemen

On the occasion of the opening of 2nd Japan-Hiroshima week, it is my great pleasure to make some remarks on the relationship among Indonesia, Hiroshima University, and myself.

1. My First Visit to Indonesia was 1970,

When I came to Jakarta on my way home from Australia.

I brought the letter of introduction with me to Prof. Siviabessy from Prof. Ratcliffe, the professor of chemical engineering, University of New South Wales.

When I was connected to University of Indonesia, Prof. Siviabessy of Atomic Energy was on line. Bahasa Indonesia came to me and I asked reception desk to help my conversation. Chemical engineering professor Siviabessy was his wife and she died in Garuda accident when she went to chemical engineering meeting in India.

It's my great regret, I lost my chance to visit the Chemical Engineering Department, at that time.

2. Foreign Students granted by Japanese Government

First foreign students who were sponsored by the reparation of Japanese Government were studying in shipbuilding department.

In 1973, Monbusho, Minister of Education in Japan started granting system for foreign students invited by each university. Hiroshina university expected to have extra 10 students by using this system. I wrote letters to the several universities in Indonesia, Malaysia and Thailand.

No professor gave me any answer because letters were designated to the universities, not to the professors themselves. Looking back to my case, when I went to the U.S., contact was made by professor to professor.

So, if we plan to accept foreign students, we have to know the professors who take care of students. And we made up our mind to have the plan to visit Indonesia.

To do so, we gathered as Indonesia lobby to prepare to apply Government subsidy for aiding scientific researches as Overseas scientific investigation. The name of the project was “Investigation

Researches on Technology Transfer". Fortunately, our project was chosen to get Monbusho grants. We, Professors Sasaki, Yoshida and I, applied LIPI to get the license to study and stay in Indonesia.

3. ITS in 1975

August 11th, Monday. We took a bus, called vemo (you suppose to know), going to ITS (Surabaya Institute of Technology). And we paid 10 Rp for 3 persons. On the bus, Professor Yoshida spoke to the lady, sitting by his side, with her baby. That was his conversation lesson for Bahasa Indonesia. Professor looked at her baby and said "Chantic !", then suddenly she said "Mau ini". Professor was nearly to have the baby.

We met Rector Zaki and Dean Oedjoe at Rector's office. Firstly, they helped our home problems from LIPI to put police station and governor office. 3 sheet of questionnaire papers were all Bahasa Indonesia and translated into English. It took over 2 hours to fill in.

The number of students in ITS at that time Was Ch.E. and E.E. 470, M.E. and C.E. 650, Agri.E. 400, Maht a Sci. 150 Total 2790. 20% of freshmen graduated and one of the highest salaries was paid by Ajinomoto, Chawan Merah 100,000 Rp, compared with University Asst. 25,000 Rp.

Dr. Nonot came to our department, Hiroshima University in Feb. 1977, as a Research student and stayed until March of next year. He advanced to graduate school and got his PhD March 1983. He was the student granted by Japanese government. Mr. Shogo Yamamoto, some of you remember his name, got his master's degree working with Dr. nonot and came to ITS keeping his assistant position in Hiroshima University.

Next year he became one of staffs of ITS and he continued his work staying in chemical engineering department until he came back to Japan. Now he is working for Toyo Engineering Co.

(August 13, Wednesday Visited alak in Bali)

I have been studying distillation and much interested in its history. You know, alak is the products of distillation and I supposed alak in Bali distilled by old type apparatus. We visited Mr. Mataka, the master of Youth Training house in Bali, introduced by Counsel Kiichi Terada in Surabaya. He introduced us to Mr. Nyoman Buleleng Taira who knew alak in Bali. He had the title of "National hero" in commemoration of his distinguished service for the independence war. He brought us Jl. Abian Timbul Gang Ulunsuan. It was the place where the alak was produced. The apparatus was the one which I was looking for.

OHP shows it. On the fire, still of 30cm diameter is boiling Tod to produce vapor. Collected vapor goes through water bath and condenses inside of the copper tube to produce alak. This alak was judged as the excellent whisky by Professor Matsui in Fermentation Lab. Hiroshima University, of course he is the authority of Japanese sake.

4. Plan of the 7 chairs for Engineering Science (1975)

was made to educate and research fluid dynamics, thermodynamics, dynamics of solid, material science, electronics, transport rate theory, engineering science. The department was expected to have 7 professors 7 asst. professors and 14 assistants as academic stuffs. 7 PhD 14 masters and 40 undergraduates were suppose to be accepted every year. This department would be situated at any university in Indonesia. 7 professors belong to Hiroshina university as financial consideration. After 15 years, this department was to be transferred to that university. That my plan did not come true according to ny nenorandum in 1975.

5. Inviting professors from Indonesia

December 1976, Professor Muchijin Akip, Sriwijaya University was invited to Chemical Engineering department for 4 months granted by President Iijima, Hiroshima University.

Professor Siantri, Dean of Engineering, University of Sumatera Utara was invited to Civil Engineering department for 12 months granted by JSPS (Japan Society for the Promotion of Science) program.

6. Science Council of Japan

visited Indonesia in November 1984. We visited University of Indonesia, Bogol Institute of Agriculture, Gaja Mada University and Sriwijaya University as the member of the science council of Japan. We had a chance to see Prof. Dr. Habibie, minister in charge of research and technology at that time and he told us "The number of foreign students shows the status of each country. U.S.A. 67,000, West Germany 25,000, Dutch 10,000 and Japan 2,000. West Gemany was appreciated because of (1) non visa, (2) less expense than Indonesia (3) no language problem".

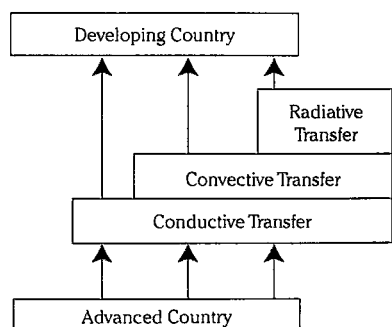
As I mentioned why we visited LIPI,

7. Technology transfer was our object.

Now Technology Transfer as heat transfer analogy.

This was published in the paper of Ch.E., Japan and three transfer methods discussed:

- (1) Conductive technology transfer may be understood by the case such that foreign qualified students (FQS) are playing role as introducers of the advanced country.
- (2) When FQS are considered to be students of the advanced science and technology, these students are the media of convective technology transfer.
- (3) If FQS contribute to the promotion and advancement of science and technology to add new



knowledge, they are expected to have activities in radiative technology transfer.

The technology of the Lead chamber sulfuric acid process was transferred conductively. And convectional technology transfer occurs when the technology of the convective step in the sense is available after overcoming the conductive technology transfer. The LeBlanc process was transferred convectively by the contribution of foreign qualified students (FQS).

I would say that the ammonia process was transferred radiatively where convective step of technology was available to start radiative step technology. A high level of FQS contributed to this kind of technology transfer.

8. I would like to speak of Mazda Foundation as one of directors.

Scientific aids of Mazda foundation have been run more than 10 years and they were provided 267 items for university professors, amounting to ¥475,000,000.

Mazda Foundation was held seminar on "Scientific and technological exchange between Japan and Asian countries on November 8th, 1994.

Considering the discussions in this seminar, it is required cooperative relations between Japanese universities and Asian universities must be established and the aid for the establishment of this relation is urgent issue.

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Therefore, the following programs were put into practice:

1. 1994 : Studies on Perspectives of Science and Technology for the 21st Century and their Corresponding Engineering Education Initiative.
2. 1995 : Seminar on Urban and Traffic Engineering and Geotechnical Engineering in Delta Area
3. 1996 : Pilot programs of joint research and educational cooperation in engineering and their evaluation.

Now, these programs are converged together as "Trial construction of Network on research and education between Hiroshima University and Asian countries and its evaluation." This is the project which drives me to come to Surabaya and may be connected to JSPS program next year.

Finally, I would like to conclude my remarks with my sincere hope. Akhir kata, saya ingin menutup catatan ini, dengan harapan that the forum will contribute forum ini dapat menyumbangkan not only to strengthen our mutual understanding tidak hanya saline pengertian yang kuat diantara kita, but also to promote the academic research progress.

tetapi juga untuk meningkatkan program penelitian dibidang akademik.

Thank you for your attention.

Terimakasih atas perhatian Bapak-Bapak dan Ibu-Ibu.