E:VISION

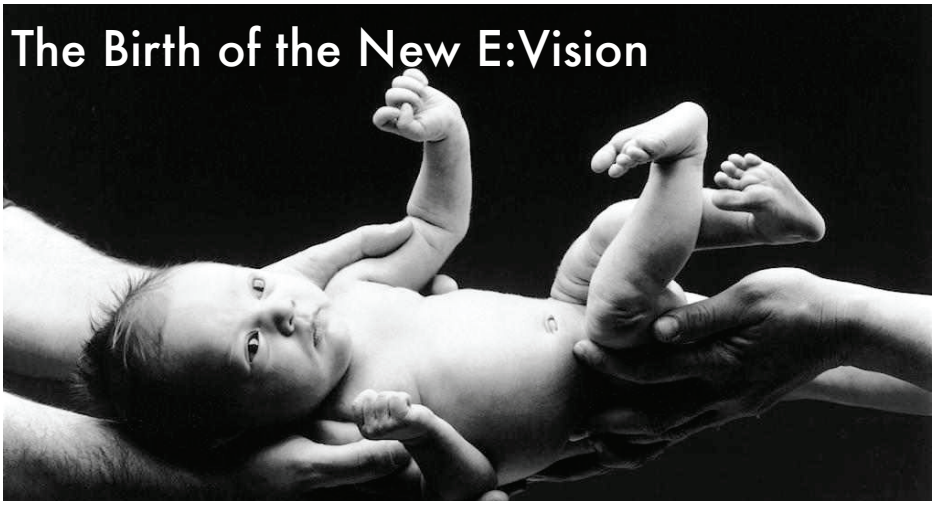
Summer 2007 - The Magazine of the English Engineering Education Program (e^3)

WHAT'S INSIDE:

KNOW MORE ABOUT e^3

Our new home from this October

The Birth of the New E:Vision



Letter from the e³ Head...

By Yoshiaki Fujii

Do you know Inspiratory Muscle Training (IMT)? This is a training method for athletes to gain power and endurance by working out the inspiratory muscles. In IMT, you will hold a device in your mouth and breathe for 30 times in the morning and in the evening. The device adds resistance, which can be adjusted to fit your muscle strength, when you breathe so that your inspiratory muscles get stronger. Stronger inspiratory muscles give you more oxygen when you exercise. A scientific research showed that the time for 40 km time trial by bicycle was reduced by 4.5% after 6 weeks of IMT.

By the way, as you may know, EGPSEE will be replaced by e³ this October 2007. EGPSEE was operated by a voluntary committee, which was chaired by me. But the Graduate School established a new official committee for e³ this year. The official committee makes important decisions and is directly under the Dean. The head of the official committee is Prof. Tsunekawa, one of the Vice Deans, and the members are professors from all divisions in the whole Graduate School and Ms. Werawan.

A working group (WG) which takes care of the various things for the operation of e³ was created. The WG is under the official committee and consists of representatives from the subject groups. I was chosen as the head of the WG. All of the representatives are enthusiastic about education and hot discussions are carried out in every meeting. On the other hand, e³ has a new officer in the person of Ms. Mifue Shimamura who is working as an assistant to Ms. Werawan. I don't really think that Ms. Shimamura should work only as a part-timer because she is so intelligent and fluent in English. Anyway, the WG warmly welcomed her and I hope all of you will love her.

I suppose the inspiratory muscles for e³ is significantly improved. It supplies e³ much more oxygen. However, although some of the professors have a lot of experiences in teaching abroad in English, most professors in mechanical and material engineering are new in this aspect. At first, some new problems in operating e³ may arise. Let the WG know the problems, of course, not only of the new subject groups but also of the conventional subject groups. The WG is making efforts to improve the education in the English Program and will continue to do so. I strongly appreciate your cooperation.

Worrying about the abnormal weakening of Japanese yen.

Content

What's in this issue?

The e³ Magazine

E:Vision Summer 2007

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Special Feature:

e³ - another step towards internationalized engineering education

By Werawan Manakul Ueda

When the Graduate School of Engineering started the *"Tokubetsu Eigo Course"* or the "Special English Course" in 2000, it was called the "English Graduate Program in Socio-Environmental Engineering" or EGPSEE in English. The application submitted to the Ministry of Education, Culture, Sports, Science and Technology (MEXT) in 1999 to obtain an approval that, if granted, would come with a fixed number of scholarships says that students enrolled in the program will receive all educational instruction in English. Given the fact that a student's education does not start and end in the classrooms alone, the word "English" in the program's name and the promise the university gave to MEXT and students enrolling in the program have brought about numerous attempts to ensure that the program adheres by its name and its pledge to MEXT.

If we were to look at the so-called English-medium graduate programs at other Japanese universities or even at our own Hokkaido University, none calls itself an English graduate program. They are either "special" or "international" programs.

EGPSEE started with 12 MEXT scholarships and 7 subject groups. Each subject group consisted of 6-7 courses pulled from 14 research groups in the Socio-Environmental Engineering Group in the Japanese program structure.

The double peak concept at that time required a master's student to earn 12 credits from his/her primary field and 8 credits from the secondary field. (All courses carry 2 credits each.)

When the Information Science and Technology Group split to become a separate Graduate School, the Graduate School of Engineering restructured the remaining Divisions. Although the number of faculties remained unchanged the three original Divisions in the Socio-Environmental Engineering Group split up to become

Table 1 EGPSEE structure (October 2000- March 2004)

Division	Japanese Research Group	EGPSEE	
		EGPSEE Subject Group	No. of courses
Environmental and Resources Engineering	5	ERE-1 ERE-2 ERE-3	7 6 6
Structural and Geotechnical Engineering	4	SGE-1 SGE-2	8 7
Urban and Environmental Engineering	5	UEE-1 UEE-2	6 8

six Divisions. Initially EGPSEE planned to remain as it was, i.e. with the 7 subject group structure. However it was found out at the last minute that the restructure did not only touch upon regrouping of Divisions, it also did on the number of required courses in the primary and secondary fields. The original requirement of 6+4 was changed to 8+2. Five out of the 7 subject groups had less than 8 courses and were not ready to offer new ones. Grouping the existing courses Division-wise showed that only 2 out of the 6 Divisions would be required to offer additional courses and fortunately these two Divisions agreed to. As a result in 2005, when the restructure of Graduate School of Engineering took place, EGPSEE changed its structure from 7 subject groups to 6 Divisions.

To provide students with more courses to choose from, in 2006, EGPSEE introduced a system in which courses offered by other Divisions were borrowed and given recognition as the borrower's original courses. The combined number of courses (original plus borrowed) in the Division is equal to the number of courses available in the Japanese.

In 2006, MEXT announced the abolition of all the existing 70+ special programs offered by Japanese universities including EGPSEE and invited new applications. I proposed shrinking the program so that it consisted of only qualified professors, quality courses and laboratories. My proposal was shelved. Instead the Dean and Vice Deans preferred to expand the English program. Their ultimate aim is for all the Divisions in the Graduate School of Engineering to join the English program one day in the future.

Five new Divisions responded positively to the Vice Dean's invitation to join the English program. On the contrary one existing Division bowed out as a Division leaving the decision to join or not to join the program with its individual faculty. At the same time some professors in another Division chose to discontinue offering their courses making it impossible for the Division to remain on

Table 2 EGPSEE structure (April 2005-September 2007)

Division (same as in Japanese program)	No. of original courses	"Borrowed" courses between Divisions (effective 2006)	No. of original and borrowed courses in EGPSEE	No. of courses in Japanese program
Field Engineering for Environment	8	7	15	15
Engineering and Policy for Cold Regional Environment	9	2	11	11
Architectural and Structural Design	8	4	12	12
Human Environmental System	8	6	14	14
Built Environment	13	-	13	13
Solid Waste, Resources and Geoenvironmental Engineering	12	4	16	16

Table 3 e3 structure (Oct 2007-)

Division	Subject Group	No. of original courses	No. of borrowed courses	No. of original and borrowed courses in e^3	Japanese program
Field Engineering for Environment	Field Engineering for Environment	8	7	15	15
Engineering and Policy for Cold Regional Environment	Engineering and Policy for Cold Regional Environment	8	3	11	11
Architectural and Structural Design	Human Environmental System, Architectural and Structural Design	13	1	14	n/a
Human Environmental System					
Built Environment	Built Environment	13	-	13	13
Solid Waste, Resources and Geoenvironmental Engineering	Solid Waste, Resources and Geoenvironmental Engineering	12	4	16	16
Materials Science and Engineering	Materials Science and Engineering	10	-	10	15
Energy and Environmental Systems	Mechanical and Intelligent System Engineering	8	-	8	n/a
Mechanical and Space Engineering					
Human Mechanical Systems and Design					
Quantum Science and Engineering					

its own. Furthermore among the five new Divisions, only one Division will offer courses enough to stand alone as a primary field. The English program once again faced a similar problem it did two years ago hence had no choice but to return to the subject group format.

To avoid having to change the name of the program in the future after new Divisions join, we decided to simply name the program "English Engineering Education" or **e³**. MEXT approved our application with an allocation of 14 scholarships. I have covered the background leading to the establishment of the English Engineering Education or the **e³** program. I will now tell you why I think **e³** is a step towards internationalized engineering education.

Although my idea of shrinking the program so that it contained only quality courses and qualified faculty was not accepted, the concept of quality courses was. In November 2006 a Quality Assurance Working Group was established.

QAWG's first task was drawing up a guideline for preparing a syllabus. The guideline requires course instructors to clearly describe the sequence of the course content, references, grading method, etc. This practice is considered standard internationally but it is not so in the Japanese graduate curriculum. With the blueprint laid out the next step is to make sure that what is written in the syllabuses is actually followed. Students will play and important role in this matter as they are expected to provide candid opinions.

In early 2007 an official committee to deal with the **e³** program was established. In the past EGPSEE was governed by a group consisting of two representative members from each subject group/ division. Since the group was not recognized as an official committee, decisions made there must be approved by committees in the Japanese program. Despite the fact that many issues in the English program should be dealt with differently, they were viewed under the same way as the Japanese program. As a result they should not differ from what is being practiced in the Japanese program.

The newly established *"Tokubetsu Eigo Course Iinkai"* or "Special English Course Committee" chaired by the Vice Dean for Academic Affairs recognizes English and Japanese as its official language. Recognition of English as an official language for an official committee is unprecedented in Japanese national universities. Furthermore the committee's official Working Group (**e³** WG) chaired by the EGPSEE head conducts its meetings and keeps its records totally in English. Can you imagine a meeting where 8 of the 9 members are Japanese carries out its discussion totally in English? This is what is happening at **e³** WG meetings.

As matters **e³** WG deals with concern the **e³** program and its students, **e³** WG members agree that it is more practical and efficient to have matters, rules and regulations concerning **e³** discussed and recorded in English rather than having them recorded in Japanese and translated later. As a member and secretary, I can say that some of the issues deliberated in the **e³** WG became an issue because they are looked at not from a Japanese perspective but an international one.

The role of the QAWG whose aim is to raise awareness of quality education among teaching staff and lay the groundwork for quality assurance measures in the **e³** program is taken over by the **e³** WG. It agreed that a laboratory's homepage is one of the indicators as to how ready a laboratory is to accept international students. All laboratories were then advised to update or create their homepage in English before a certain deadline. Laboratories that failed to comply would be marked as "unable to accept students" on the **e³** website.

e³ will officially start in October 2007 with 16 new students. It is in a much better and freer situation than EGPSEE. An increase in the number of Divisions and faculty brings in fresh air and ideas which is vital for a program to remain competitive. In my opinion, the most significant change is the establishment of an **e³** official committee that enables the program to operate more freely and outside the long established framework of the Japanese program. One of the first signs of internationalization that you will soon see is how the names of international students appear on the university documents. Instead of *katakana*, the names will be shown in *romanji* (English) and, if necessary, also in *kana*. A small yet a big step towards internalization for a Japanese university with 131 years of history like Hokkaido University.

Werawan is our second Mom and is our active program officer.

Special Interview:

"Never lose an opportunity of seeing anything that is beautiful, for beauty is God's handwriting -- a wayside sacrament. Welcome it in every fair face, in every fair sky, in every flower, and thank God for it as a cup of blessing."

- Ralph Waldo Emerson

Getting to know Mifue

By Richard Diaz Alorro

When my beloved sensei, Prof. Tsunekawa, told me that Ms. Werawan finally got an assistant, I was glad (at last she will have someone to share some of her workloads). But when he said that the assistant is beautiful and advised me to go to Werawan san's office to see her, I was ecstatic and hurriedly went down to 4th floor. And there I met her…for the first time.

It was June 1, 2007, her first day at work. She was dressed in an ordinary denim and shirt yet she exuded an inexplicable radiance. Yes…my sensei was correct. She is indeed gorgeous. She is smart, confident and eloquent, yet a child at heart. She is the kind of girl who is a let's sit and talk a while type yet would eventually end up in a whole day conversation.

I picked up the words of the famous poet, Ralph Waldo Emerson, about beauty to convey my appreciation to a lovely lady and warmest welcome to the newest addition to our happy family. I had this opportunity to interview and ask her several questions. Let us wander over the threads of words of her answers, and know her more.

What is your complete name?
Mifue Shimamura

Where is your hometown?
Kobe, Japan. I moved from Kobe to Sapporo last March 2007

Where and when did you finish your bachelor's degree?
Kobe City University of Foreign Studies, 2005

What is your major?
American Literature (interesting right? Now maybe you know why she is very good in English)

How and where did you learn English?
I studied at school, and by watching movies and reading books

What do you usually do during your free time? Hobby?
Watching movies, reading, cooking (hmmm…maybe we should ask her to cook sometime during one of our parties), hanging out, bowling, karaoke

Let's talk about favorites. What is you favorite…
Color – Pink
Food – Mexican, Chinese
Music – Nothing way too loud or heavy-metal. I like Kirk Franklin.
Movie – Love stories, romantic comedy, comedy (she loves to laugh)

How about your talent?
"singing" (let us listen to her golden voice some other time)

Have you been to other countries? What is the best place so far?
I've been to Australia, Vanuatu, USA (San Francisco, Los Angeles, Hawaii, Nevada). I think the best so far was San Francisco!

How about some work experience before joining e³?
I worked as a receptionist to complete resident for non-Japanese people called THE ENTENTE in Kobe from 2005 to 2007

What do you want to do in the future?
In the future, I want to do something for kids or children without parents or relatives to take good care of them. That's my dream.

What made you decide to accept the job offer in e³?
I have always wanted to work at schools because people who are learning something are very inspiring! I enjoy working here at Hokudai and seeing people study so hard. It makes me want to study harder! And the students are very nice :)

Any message for e³ students?
I haven't met some of you but I am thrilled to work here at Hokudai. Hope to know you all better through events.

And lastly, are you still single?
Not anymore. I got married last November 2006 in Kyoto to Zachary Poyner, a Christian missionary from Virginia, USA (So guys, she is not free anymore. But even though tied by heart, she is always free to help us with our academic needs.)

FEATURE: The myth of Japanese acceptance of plagiarism

By Prof. Greg Wheeler

Plagiarism has been an issue numerous professors at Hokkaido University have had to confront over the past several years. In the past year alone, no fewer then three professors, recognizing this is a topic I am currently researching, have related experiences they have had with their students copying almost word for word articles and passing the material off as their own original work. It is considered a serious enough problem, in fact, that there has been talk about introducing the topic into the English II syllabus, an online course that all first-year students take during their first semester at the university.

There are of course a number of reasons, both intentional and unintentional, for why students plagiarize. Concerning the former, a lack of confidence is often a determining factor; a student may have a written assignment and feels that he or she is incapable of completing the task, and instead submits the work of another, claiming credit for it as his or her own. This is often the case for students who are writing in a language that is not native to them. Motivation for others is that they believe it very easy to plagiarize and are confident they will not be caught. Too late, these students often ultimately discover this is simply not the case.

On the other hand, many students will plagiarize without realizing what they are doing. They may, for example, be unsure of the differences between paraphrasing sources and plagiarizing, and their work may lean toward the latter. Others may write material without realizing that proper citation is necessary for what they have submitted.

"We are told that the Japanese do not regard copying without proper citation as a major offense, and in fact some scholars will go so far as to insist that students are expected to plagiarize."

Whatever the reasons, students from the Western hemisphere recognize that plagiarism is regarded as a heinous offense in academia. Simply put, it is considered a moral breach of academic honesty. As such, any study claiming that students from countries such as the United States believe plagiarism is inherent in their culture would be rightfully scoffed at.

However, this is often exactly what we hear in regards to plagiarism in Japan. We are told that the Japanese do not regard copying without proper citation as a major offense, and in fact some scholars will go so far as to insist that students are expected to plagiarize. According to these researchers, to do so is in keeping with Japanese culture. Be it Buddhist or Confucian influences, or the legendary *sempai* (superior)-*kohai* (underling) relations that supposedly permeate all aspects of Japanese society, there is apparently no shame in copying work that has been previously submitted. According to one researcher, in fact, originality is something regarded with suspicion in Japan: "In Japan, originality is in some ways counterproductive to the notion of community and shared interests. Thus, it is often considered bad form to disagree or to go off on a different tangent. There is nothing to be ashamed about following the well-trodden paths of others when reporting on research."

To Copy
Technology makes us too lazy? Is copying a good choice?

Certainly, even those who believe plagiarism is not considered a moral transgression by Japanese students do feel the students should be taught proper citation techniques. However, they would seem to advocate that Western academics should take a more forgiving attitude toward the Japanese students, recognizing that they are simply doing what is normal in their culture.

It is an interesting theory. However, when informed of this, every Japanese professor at Hokkaido University whom I have mentioned this to has expressed disagreement with the idea that plagiarism is accepted in Japan. Many are worried about the problem as well. This would seemingly contradict the idea that students are actually being encouraged—particularly at the graduate level—to copy the ideas from other sources.

In order to gauge student reactions to plagiarism at the university, in the fall semester of 2006, three professors who teach English composition courses conducted surveys in their first- and second-year English courses. During the course of this survey, students were asked to read and evaluate three paragraphs. They were informed that the first paragraph had been submitted as a homework assignment by a student named Kintaro Takahashi. After reading this paragraph, students assigned it a score from one to ten points (one being the lowest score possible).

Next, students read the second paragraph, which had been created to appear as if it had been published previously in an academic journal. This paragraph, with very few changes, was almost exactly the same as the Takahashi submission. After reading this 'published' work, the students were asked to re-evaluate Takahashi's work.

Finally, students were asked to read one more paragraph, also submitted by Takahashi. This paragraph was very similar in content to the 'published' work, but the vocabulary was changed somewhat. Students were also asked to assign this paragraph a score on the one to ten point scale.

In total, 249 students participated in the survey. For greater detail, one can read Wheeler (2006), but to briefly sum up the results, students were overwhelmingly negative in their reactions toward Takahashi after reading the 'published' work. Although mostly positive in their initial evaluation—the mean score was 7.74, with 1.521 standard deviation—this score fell to 3.79 (St.Dev. 2.988) after the students read the published paragraph. Moreover, the students were scathing in their comments, condemning Takahashi for clearly copying from a journal and trying to pass off the work as his own.

"As almost any cultural anthropologist could attest, for all too many people, 'different', when expressed in cultural terms, almost inevitably evolves into 'inferior'."

Greg Wheeler is a professor at the Institute of Language and Culture Studies.

Interestingly, scores for the final paragraph were almost similar to the initial marks students gave Takahashi (mean 7.10; St.Dev. 2.340). In their evaluations, many students recognized that the content was similar to that from the 'published' paragraph, but did not consider Takahashi to have plagiarized because he had used his own words.

During the spring semester of 2007, the survey was repeated, with minor changes (Japanese instructions were added to lessen possible student confusion, and the third paragraph was said to have been written by Makoto Watanabe). This time, 77 students participated in the survey. Results were similar to those from the earlier survey.3 The mean for the first evaluation was 7.29 (St.Dev. 1.605), the re-evaluated mean after students read the 'published' paragraph was 3.58 (St.Dev. 3.159) and for the final paragraph, the mean was 5.12 (St.Dev. 2.626). Similar to the first survey, students wrote comments expressing dissatisfaction at what they viewed as a clear case of plagiarism upon re-evaluation the first paragraph. Also similar to the first survey were attitudes concerning the final paragraph, which seemed to show that many students did not consider it plagiarism simply because Watanabe chose different vocabulary to express his point.

The results of both surveys indicate that the students at Hokkaido University do indeed disapprove of plagiarism, but perhaps only when they are able to recognize it. That a majority did not understand that the third paragraph was also plagiarized indicates that students lack detailed knowledge on what constitutes plagiarism. This should come as no great surprise. The subject of plagiarism is often not covered at length during a student's junior or senior high school years. Thus, they may often recognize and condemn blatant examples of clear copying—as they did in their reevaluations of the Takahashi paragraph—but not understand the correct methods of paraphrasing an author's ideas, and thus be far more forgiving of works such as the third paragraphs from the surveys. This loose form of plagiarism, often called patch writing, is common in the development of second-language learners of English. Usually, with time and ample practice in writing, students can evolve as writers beyond this stage. If a professor perceives this is the case with an assignment received from a student, he or she would do well not to come down too hard on the student.

In the end, both those who claim plagiarism is culturally acceptable in Japan, and those who believe students are patch writing feel leniency on the part of the English professor is vital. If both sides share this feeling, why, then is it important to distinguish between the two views? One potential problem with the first view is that if a professor believes something is part of a student's culture, not wanting to appear insensitive, he or she may be very reluctant to press the student to change. However, in the back of that professor's mind, the idea may linger that it is culturally acceptable for Japanese students to 'cheat'. Japan once again becomes that 'other' place where things are done 'differently'. As almost any cultural anthropologist could attest, for all too many people, 'different', when expressed in cultural terms, almost inevitably evolves into 'inferior'. For this reason alone, the professor needs to be extremely wary of dismissing matters such as plagiarism as merely differences in culture. The students deserve better than such a simplistic explanation, one founded only on superficial views.

Day, M. (2001). A meshing of minds: The future of online research for print and electronic publication. In J. Barber and D. Grigar (Eds.), New worlds, new words: Exploring pathways for writing about and in electronic environments (pp. 251-277). New Jersey: Hampton Press.

Wheeler, G. (2006). A survey of Hokkaido University students' attitudes toward plagiarism. Media, Language and Culture, 51, 227-242.

ETHIOPIAN MILLENNIUM

by Mintesnot Gebeyehu Woldeamanuel

The calendars of the entire world are based on the work of the old Egyptian astronomers who discovered - as early as three to four thousand years BC - that the solar or sidereal year lasted slightly less than 365 ¼ days. However, it was left to the astronomers of the Alexandrian school to incorporate this knowledge into some sort of calendar; and it was these astronomers who also came up with the idea of leap years.

Subsequently, the Romans under Julius Caesar borrowed their reformed calendar from the Alexandrian science and adopted it to the western world. In due course, the Copts handed this calendar, together with their method of computing the date of Easter, on to their descendant Church in Ethiopia. When Europe converted the Julian calendar to the Gregorian calendar in 1582, Ethiopians stuck with the Julian calendar, which they had been using happily for centuries. Consequently, the seven-year adjustment that Europe underwent in the 16th century never took place in Ethiopia. The Ethiopian calendar remains approximately seven years behind the one used in most of the rest of the Christian world.

Ethiopian calendar retains the old Egyptian system whereby the year was divided into twelve months of thirty days each plus one additional month of five days (six days in leap years). Ethiopian dates therefore, fall 7- 8 years behind western dates and have done so since early Christian times. This discrepancy results from differences between the Ethiopian Orthodox Church and the Roman Catholic Church as to the date of the creation of the world and the birth of Jesus Christ. The Ethiopian Orthodox Church believes that Christ was born exactly 5,500 years after the creation of the world which they then equate to 7BC. Some experts believe that they are probably nearer the true date than the Gregorian calendar. Each Ethiopian year is dedicated to one of the four Evangelists according to the cycle: Matthew, Mark, Luke and John. The year of St. John is Leap Year, and therefore always has six days in the thirteenth month of the Ethiopian calendar.

Based on the above historical accounts, Ethiopia will marks its Millennium on September 12, 2007, which is Meskerem 1, 2000 in Ethiopia.

Minte is an alumnus of our program. He finished his PhD in transportation engineer in Sept. 2007.

FEATURE: Mission of CEED and its interesting programs

By Prof. Toru Noguchi

Center for Engineering Education Development, CEED, was established in April 2005 to develop and provide educational programs for graduate students in the School of Engineering and School of Information Science, which are more practical and concordant with the needs of industry and global society. Students can acquire abilities to apply scientific knowledge in practical engineering problems, leading to a wide range of comprehensive practical skills that are not taught in classrooms and research works in university laboratories. CEED consists of three programs: the Industry Collaboration Program, the International Relation Program, and the Continuing Education Program. The CEED programs are supported by a special budget of Monbu-Kagaku-sho (Ministry of Education and Science) lasting five years. Details of the program are as follow.

Internship education is a core program of CEED. It has four sub-programs: (1) long-term overseas, (2) long-term domestic, (3) short-term domestic, and (4) accepting overseas students. Long-term internship, both overseas and domestic, should be longer than about one month and students are required to join some projects, researches, surveys, designs, production, and others. Students can learn how their classroom/laboratory experiences are applied to the business and activities in the companies or research institutes. Especially in overseas internship, students must live in totally different culture, customs and language, just like what EGPSEE students are doing here. The experience is invaluable although the period is not long enough.

Short-term internship is within two weeks, to experience working in companies or other organizations including government institutions. The experience might be very significant because most of the Japanese students know only classroom theories, but do not have any ideas about working (not as a part -time job) in companies. Until the 1970's, internship in companies used to be a compulsory course for engineering students in Japan. However in the 80's, these internship programs disappeared from the curriculums in Hokkaido University (HU), mainly because most of the undergraduate (UG) students go to graduate schools, and research work in the laboratories was regarded as more important than company experience. This resulted in the lack of industrial sense of the students and CEED programs compensated for it, although the number of students was limited. CEED gives financial aids to enthusiastic students for their travel expenses. Accommodation and living costs are expected to be paid by the host organization. Two credit units are given to long-term internships, and one to short-term ones. The routes to find host organizations are: a) adviser professors, b) IAESTE (International Association for Exchange of Students for Technical Experience), c) developed by CEED, d) Career Center, HU, and d) public offer through internet, etc.

"They are expected to be outstanding engineers and researchers, and contribute to our society and to the world in the near future."

Overseas internship, in the fiscal year of 2006, 28 students including 4 foreign students

CEED is
Friendship and engineering

joined overseas internship in 15 countries: US, UK, France, Germany, Finland, Norway, Netherlands, Belgium, Swiss, Poland, Hungary, China, Indonesia, Nepal, and Korea. The internships were hosted by production companies, research institutes and universities.

Long and short-term domestic, in 2006, 29 students joined domestic long-term internships in companies including Hitachi, Mitsubishi, Toshiba, Toyota Hokkaido, some government institutions and others. Unfortunately, companies accepting foreign students are quite limited, and in 2006, no foreign students experienced internship in Japanese companies. The main reason seems to be business confidentiality. CEED is promoting internship of foreign students in Japanese companies because it must be a significant experience both for engineering training and for understanding this country. Adviser professor route might be the most effective. There was an example of a foreign student who joined a one week internship in a company near Sapporo. In 2007, another good example is going to be successful. In 2006, 22 students experienced short-term domestic internships.

Internship seminar, annual internship seminars are held in October and November, twice for overseas internships (all students are required to present) and once for domestic one (outstanding students are selected both from long term and short term programs). Students present their valuable experiences, projects they joined, daily life and weekend events, and every other interesting stories with humor and beautiful slides. Half of the students returned from overseas present in their improved English.

Accepting foreign internship trainees, in 2006, 13 internship trainees from France, Canada, Holland, Iran Germany, China and Korea stayed here from one month to 6 months. They joined some research programs in the laboratories, that provided a good opportunity to collaborate with foreign students, leading to good educational effects, as well as, achieving better research performance. CEED supported their accommodation and living expenses for a maximum of two months. In 2007, more than 20 internship students are coming here. Students volunteer committee had just began its activity to treat them with some help of CEED. Anybody who wants to enjoy international friendship are welcome to join the movement.

Special lecture for bringing up creative engineers, it is quite important for engineering students to know contemporary trends, problems and the future visions of technology in various engineering fields. In this lecture, outstanding engineers are invited, and they talk about their experiences in various projects. Students can learn how the basic science and engineering ideas are applied to actual projects and contribute to society. The students also realize the importance of broadmindedness, leadership and various abilities required from engineers as well as the importance of career design. In 2007, top engineers from 10 companies including Mitsubishi, Hitachi, Toyota, and Canon were invited to talk on the main theme "Energy and Environment", and they discussed with students on global warming and other energy problems. 72 students, 4 are UGs, joined the course. The lectures are all in Japanese, but we welcome foreign students as well, you can feel and touch the warm heart of engineers at the forefront.

International Relation Programs, as you all know well, proficiency in English communication of Japanese students,(and professors as well,) are poor or insufficient with only a small number of exceptions. International Relation Program aims at improving the English ability, and also promoting international understanding of graduate students.

Practical English in Science and Engineering, graduate students are requested to write research articles and to make academic presentation in English. Prof. Ono in Tokyo University gives a 15-hour lecture in the first stage. In the second stage, every student is required to arrange a 10-minute presentation with Powerpoint (PPT) format slides, and native English instructors help them to improve their skills, to make slides clearer, to attract audience, to overcome the discussion as well as, to teach English expressions. In 2007, 46 students including one Chinese student joined the course, with full financial support from CEED.

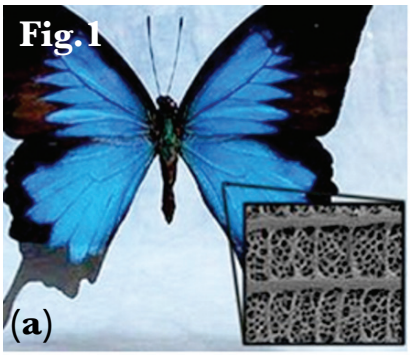
Brush-up English course consists of more fundamental lessons to improve conversational English, and 40 students joined the class with half of them is supported by CEED.

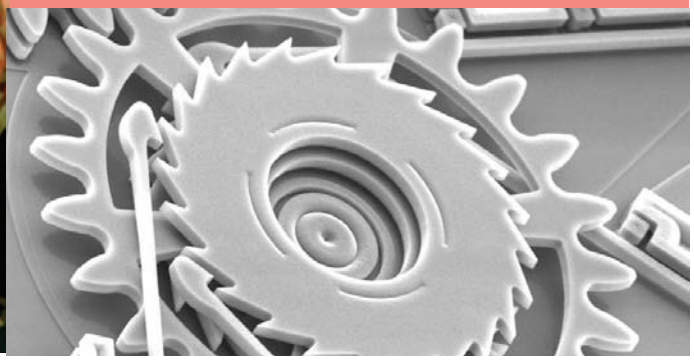
Student programs of international exchange, CEED supports the events planned by students to promote international exchange of Japanese and foreign students. In 2006, three out of five proposals were approved. International forum was held with presentations and posters on research projects, introduction of students' mother countries and cultures. International ski tour and live concert music entitled "There is no Border in Music" were also very successful with 24 and 50 participants, respectively.

E-learning program is a powerful method for students outside of the school, as doctoral (DC) students in companies, to take a course and get new knowledge and results of contemporary research without attending the classes in the university. It also helps the students in school to review or prepare for their classroom studies. Continuing Education section is developing effective e-learning systems by collaborating with Graduate School of Information Science. In 2006, 13 courses in Information Science, 10 courses in Engineering and one common course are available. "Microbiological Engineering" and "Environmental Biotechnology" by Prof. Okabe, "Life and Water" by Prof. Uchida and "Information Media Environment" by Prof. T. Yamamoto, and others are in English. Anybody who wants to use these e-programs can simply contact CEED, ceed-con@eng.hokudai.ac.jp and ask for an ID number.

With these programs, many students enjoy various opportunities to improve their abilities, practice engineering science, collaborate with industries, improve their English communication skill, have overseas experiences and promote international understanding, leadership and activeness on everything, all of which are not obtained in the classroom. The total number of the students who joined CEED programs in 2006 total to almost 300. They are expected to be outstanding engineers and researchers, and contribute to our society and to the world in the near future. Please visit CEED office (Room L-200) anytime, staffs are waiting for you.

Prof.Noguchi is the head of CEED and always supports our community.





"Nanotechnology is a general term for the study of anything with a length scale between 1 nanometer (nm) and 1000nm, where 1nm is one billionth of a meter or 50,000 times smaller than width of a human hair."

FEATURE: Optic to the small scale:
An introduction to nanotechnology

By Tim Kelf

In recent years there has been an explosion of interest in the field of nanotechnology. Along with this, much has been written about the potentials and dangers of science on the nanoscale. In this article I will briefly outline the work in which I have recently been involved, and in so doing, hopefully provide a glimpse into the meaning of this buzz word from the perspective of a scientist.

Nanotechnology is a general term for the study of anything with a length scale between 1 nanometer (nm) and 1000nm, where 1nm is one billionth of a meter or 50,000 times smaller than width of a human hair. This, by definition, therefore encompasses all of chemistry and much of biology, as well as fields like computer engineering and optics. Clearly a stricter definition is really required, and so it is often said that nanotechnology represents the overlapping regions between the pure sciences. Traditionally there has been little interdisciplinary collaboration, and it is this new found willingness to bring together people and ideas from different backgrounds which has brought nanotechnology into the spot light as an exciting new area of science.

There are many reasons why this science is of such interest, but one of the most important is how things on the small scale interact with light. This has been my area of research, and so is what I will concentrate on here.

When a structure is of a similar size to the wavelength of light, strange effects begin to become apparent, as indicated in figure 1a, b. Here, a butterfly's wing and piece of opal are shown. Both are colorful, but these colors come purely from structure rather than any chemical effect. The structure of the wing is very regular and built in such a way that it perfectly reflects all blue light, while transmitting all other colors. The opal on the other hand has a more random structure, and so reflects different colors at different places. What is most important here is that not only does the structuring have to be of equal size to the wavelength of light, but it must be well ordered to produce a strong effect.

Another optical phenomenon is show in figure 1c, d. Here a picture of a classical piece of Roman glasswork is shown illuminated both from outside (c) and within (d). The change of color depending on the lighting is quite striking, and yet now there is no structuring. At very high magnifications it is found that the piece contains tiny particles of metal only 3nm in size (an atom is around 0.1nm). Clearly this is a very different effect from that of the butterfly, and the reason is that light also interacts strongly with free electrons. Normally electrons are locked in orbit around atoms, but in metals they become free to move through the material – the strength of the interaction with light becomes clear when you look in a mirror, here the free electrons do not allow the light to enter the material, and so force it to reflect back the way it came. The exact physics of all this gets quite tricky, but it is important to appreciate that metals interact with light because of the sea of free electrons within them. In the case of the cup there is a second important factor. At the nanometer scale quantum mechanics begins to become important. Loosely speaking quantum mechanics can be summed up by saying that everything is a wave, and so the

electrons on the surface of the metal act in this way. Like waves on a sting, only certain numbers of oscillations will 'fit' around the edge of the particle, as indicated by the red/blue aura around the sphere in figure 2a, and these special frequencies will interact even more strongly with the light. The strength of this effect is summed up in figure 2b, which shows a number of vials, each with a suspension of metal coated spheres. By tuning the thickness of a metal coated sphere (from vial to vial), certain frequencies of light will be totally absorbed, leading to a change in color of the liquid, again it should be stressed that this is a very strong effect since only a low concentration of particles is needed to radically change the observed color. The effect of surface electrons acting together like a wave in this fashion is known as a surface plasmon, and the study of this is plasmonics, a field of research in its own right.

The above examples demonstrate that nanostructuring occurs quite frequently in nature. In the case of the butterfly, the structure is actively built, and has been refined over millions of years. Our current level of technology is insufficient to grow such complex structures so instead we take a different approach.

There are essentially two techniques to make nanoscale object, known as 'top-down' and 'bottom-up'. The computer industry is the archetypal example of top-down processing. Here, expensive facilities are used to make exactly one sort of computer chip. This technique can mass-produce vast numbers of identical chips, but the procedure is difficult and expensive to setup and once operating there is no chance of even the slightest alterations. The bottom-up approach tries to find ways to allow nature to help in the process. This leads to a reduced amount of control over the final outcome, but, as will be shown, can be used to make some elegant individually tailored structures at almost no cost. Nanotechnology very often deals with this bottom up approach, and while way behind top-down processing is progressing quickly to the stage where simple devices can now be produced.

The technique used for the following research is that of nanotemplating. Here metal is cast through a nanoscale template to form a new structure. This idea is quite simple, and is depicted in figure 3. From experience you will know that if marbles are placed in box they will line up into a hexagonal array. The same rule is true at any scale, and nanospheres are very easy to produce and use, so form a good starting point for many of today's structures. If an array of nanospheres is placed on a surface then using an electroplating technique gold can be grown around them, forming a cast. The neat part about this technique is that the thickness of the gold layer radically alters the shape of the final structure. As shown in figure 3b, it is possible to make smooth dishes, sharp spikes and enclosed cavities all from one template. And so with this degree of control it is possible to make very well ordered metal structures on the same scale as light, providing the means to carefully study the effect of optical interactions.

As an example, a sample with graded thickness is shown in figure 3c, here the sample has shallow dishes and encapsulated voids at the other, and features every other possible geometry in-betweens. Now it can be seen that by changing the shape of the structure we can alter the color of the gold surface, in a similar way

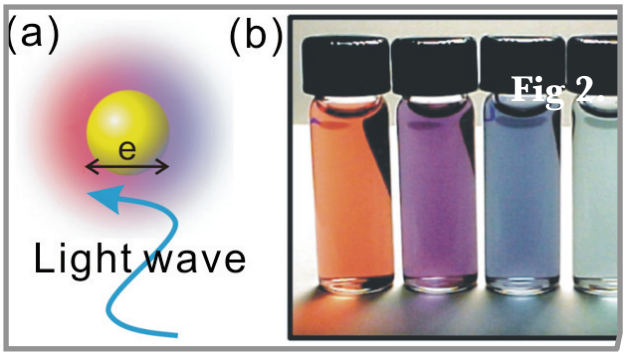


Fig 2.

"Well mostly these things are just of scientific interest; however there are some possible applications."

to the particles shown in figure 2b. Again the reason for this is similar to the effect of the spheres, only now we are looking at the inverse. However there are two differences. Firstly, the spheres are randomly positioned where as the dishes are carefully arranged in an organized fashion. Since ordered structures interact more strongly with light, this leads to a stronger coupling between the surface and light. Secondly the dish act to focus the light so there will be regions of much higher energy within each of the dishes.

So what is the purpose of all of this? Well mostly these things are just of scientific interest; however there are some possible applications. The first is concerned with future communications systems. The current generation of internet systems use optical fibers to transmit data all over the world at the speed of light, however, every so often this data needs to be directed, and so the light has to be converted back into an electrical signal, read to see where it should go, moved the correct place and then converted back into light so it can continue its journey. This is the major limitation with modern communications, and so 'all optical' solutions are being developed. Currently the favored techniques involve the movement of tiny mirrors but another possibility is to utilize the close link between electrons and light that is displayed on structured metal surfaces. In the first step of this process a structured surface can be used to efficiently couple light out of the air and linked with waves of free electrons. Then a means of controlling and storing these waves must be developed. This represents the problem at the current time, but there is much active research to try to find solutions. Perhaps this idea is quite farfetched at the current time, however there is a very different field of device where nanostructured metals are now finding applications, and that is in molecular detection. In many different scenarios it is important to identify very small numbers of molecules, such as finding explosive or detecting bacteria. The problem is that most detectors use light, but molecules do not interact very strongly with light because of the poor coupling. Here is where metals can help because molecules interact strongly with electrons, so a structured metal surface can be used to couple light to electrons, and then the electrons couple to the molecules, then the reverse process occurs until light is reemitted from the surface. While this process appears needlessly complex it has

the advantage that most of the work is done passively by the surface. Also, as mentioned above, since dishes concentrate the light, the effect is further enhanced. So the final sensor can simply be a piece of structured metal; but when illuminated with a laser, and the reflected light carefully detected, it becomes possible to 'see' if very small numbers of molecules are on this surface.

The picture of nanotechnology I have described above is quite different from nanorobots that are talked about from time to time. In some ways I have kept the discussion this way to emphasize the difference between science and the media. While there are more exciting examples throughout the science, often researchers get carried away explaining all the possibilities of their work, and then this is turned around to show the dangers. The current reality is that we are a long way from the control over the nanoworld required to make such exciting devices, but if we simply tried to make such things we might not find many new and interesting possibilities. To this end much of the current research is aimed at trying to understand all the new effects which appear at the nanoscale, and then consider what new possible applications there might be. Perhaps the greatest achievement the field has had to date is to unite scientists from all fields of research and fuel a growing trend of knowledge sharing and collaboration. It is certainly that it is these attributes which will shape much of the research in the coming years.

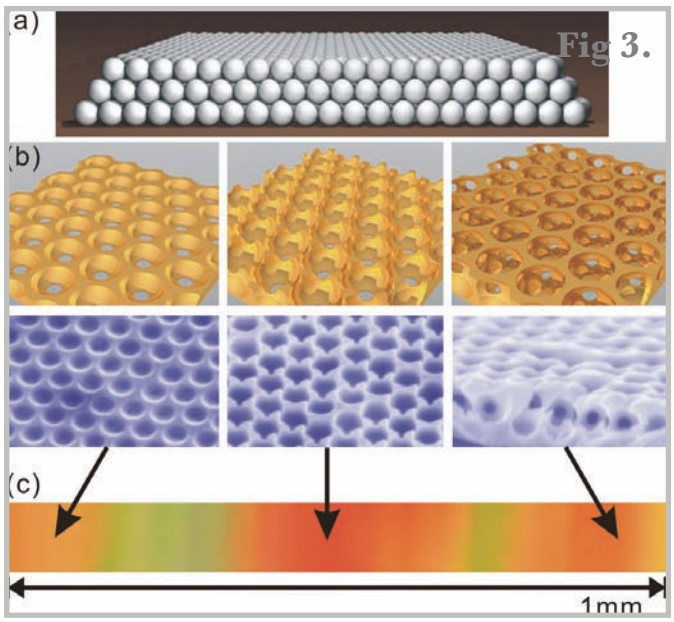
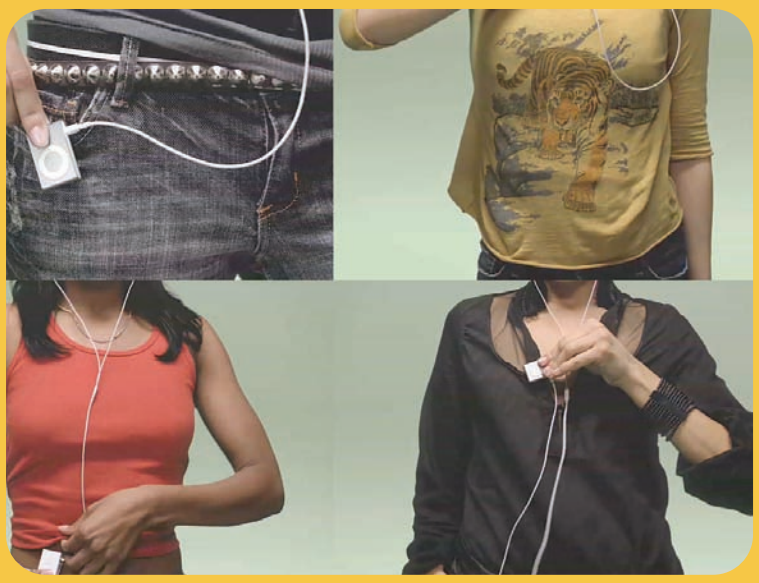


Fig 3.

Tim is our friend from England who always joins our activities. He is currently a PostDoc researcher at the laboratory of applied physics.

EDITOR'S CHOICE



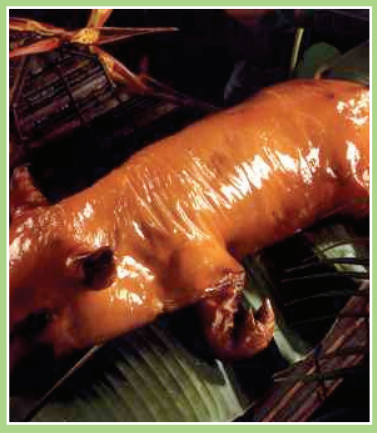
If you would ask me about MP3 player, I shall recommend iPod from Apple. Apple has several products and most of them are popular. As I mentioned somewhere, I am an Apple fan and am always looking forward to any new technology from this company.

I have decided to get myself on iPod 5 years ago to improve my English via Podcasts. It was a 4th generation iPod. However, I felt that sometimes it was a little bit bulky. Thus, I decided to get an iPod Shuffle, a small iPod but full of MP3 function.

With a capacity of up to 240 songs, you can clip it on your sleeve or belt. With up to 12 hours of battery life, iPod Shuffle may keep rocking even longer than you do.

IPOD SHUFFLE

RECENT ARTICLE:



Carlito is a master course student from the Philippines and is studying in terrestrial field engineering.

CHOLESTEROL AND VEGGIES, ANYONE?

By Carlito Baltazar Tabelin

I have been in Japan for almost a year now. Although I enjoy eating Japanese food like sushi, sashimi and ramen (yasai and tatsutamen at the shokudo because these are the only ones I like best and I missed the Filipino food that I used to eat when I'm under stress (studying is really stressful especially before the final exams; I guess all of you will agree with me). So in this article I will introduce two different food; one is I think quite unhealthy and expensive (in the Philippine standard of living) but very delicious and the other one is very healthy, cheap but would not appeal to younger people (younger people don't eat veggies right?).

Lechón (Tagalog: Litson) is the Spanish word for suckling pig inside. Lechón is often cooked during national festivities (known as fiestas), the holiday season, and other special occasions such as weddings, graduations, birthdays and baptisms, or family get-togethers. The lechón is usually the highlight and the most popular dish of these events. It is usually served with a liver-based sauce. However, in some cases, it may be served Chinese style with steamed buns and a sweet plum sauce.

Another version of lechón, called lechón kawali, involves boiling then frying pieces of pork. Leftover lechón in the Philippines is easily recycled into another delectable dish, called Paksiw na Lechon. Paksiw na Lechon involves cooking the left-over lechon by boiling it in vinegar making the meat moist and the skin very soft. Lechón was originally introduced to the Philippines as a part of Spanish cuisine and can be found in many Hispanic countries. Other historical evidence traces the origin of lechón to Chinese immigrants

Pinakbet or pakbet is a popular Ilocano dish, from the northern regions of the Philippines, although it has become popular throughout the archipelago. The vegetables used in this dish include native bitter melon, eggplant, tomato, ginger, okra, string beans, lima beans, chili peppers and various Filipino vegetables like parda, winged beans, and such. A Tagalog version usually includes calabaza or squash. Most of these vegetables are easily accessible, and are grown in backyards and gardens of most Ilocano households. As its name suggests, it is usually cooked until almost dry and shriveled, however, the flavors of the vegetables are emphasized and accentuated with the help of bugguong. In some cases, lechon, chicharon, or other meats (most commonly pork) is added. It is considered a very healthy dish, and convenient in relation to the harsh and rugged, yet fruitful Northern and Ilocos regions of the Philippines. The history of this dish is derived from such. As of the writing, a new variation of this cuisine has been introduced by the Ilocanos, its called pinakbet pizza. They say it's really delicious, so when I go home I will definitely look for one (hopefully I can afford it).

TRAVELOGUE: UNITED KINGDOM

by Richard Diaz Alorro

England was on the list of countries I would like to visit. But I never expected to step foot on the largest and most populous constituent of the United Kingdom so soon. Thanks to the International Symposium on Bio- and Hydrometallurgy 2007.

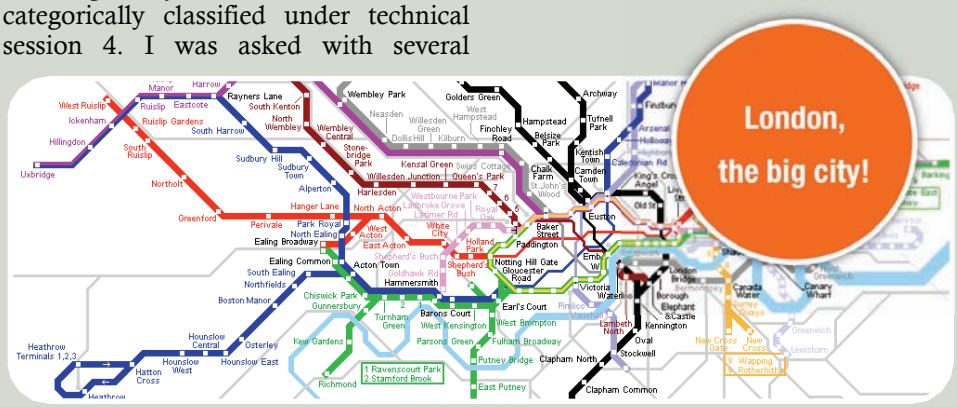
The conference was held at Fallmouth Beach Resort Hotel in Fallmouth, Cornwall. The journey from London to the south-western part of England was never boring. The 5 hours trip on board the First Great Western train offered me the pleasure of seeing England's rapeseed fields and farmlands and the beautiful countryside of Somerset and Devon before entering the remote county of Cornwall. Cornwall was refreshingly warm, serene and lovely. I stayed in a hotel with the Fallmouth beach as the view from my window.

The International Symposium on Bio- and Hydrometallurgy 2007 was the 3rd Minerals Engineering International (MEI) conference on bio and hydrometallurgy, and the first to be held outside South Africa according to MEI. It was attended by 52 delegates from a record 24 countries, and was truly an international gathering of scientists from around the globe. Forty five papers were presented over the two days, 14 in poster sessions, and 31 in the following technical sessions: (1) Bio and Hydrometallurgical Treatment of Ores, (2) Treatment of ores by Hydrometallurgical Methods, (3) Bio and Hydrometallurgical Treatment of Wastes, (4) Treatment of Wastes by Hydrometallurgical Operations.

I presented our paper entitled, "Carrier-in-Pulp Method as a New Hydrometallurgical Route to Reject and Recover Heavy Metals from MSW Melting Fly Ash" which was categorically classified under technical session 4. I was asked with several questions by two professors from South Africa and Japan. Being the lone participant from Hokkaido University and without the other co-authors with me, I felt quite nervous at first but was relieved and became confident when they were satisfied with my answers. After my presentation, I received heartwarming comments from the moderator of the session and from other delegates for a very nice presentation.

The conference did not only give me an opportunity to learn many things relevant to my area of study but also offered a chance for me to meet the famous author whose book in minerals processing we use since I was still an undergraduate student in the Philippines. I finally met Dr. Barry Wills who is fortunately, also the chairman of Minerals Engineering International and the Editor-in-Chief of the Minerals Engineering journal. I had his signature signed in the book which I had painstakingly carried from Japan to UK.

Before coming back to Sapporo, I had an opportunity to go around London. I stayed in a junior suite room in Radisson Edwardian Hotel in Leicester Square (thanks to a Filipino friend for the generosity and hospitality). I was able to see London even for the very limited time. I was able to visit the British Museum, the home of the famous Rosetta stone and other finest collections from ancient Greece, Rome, Egypt, Asia and other parts of the world. A visit to London would never be complete without seeing the world-renowned Big Ben and the Houses of Parliaments, the Westminster Abbey (the traditional coronation and burial site for English monarchs), the Buckingham Palace (the official London residence of the British monarchs), the London Eye (the world's largest ferris wheel), the Tower of London and the Tower Bridge, the West End of London (home of entertainment and theaters), and other interesting places. Truly, London is a city where the ancient and the modern meet; a melting pot of culture.



RECENT ARTICLE:

"My five days sojourn in England seemed to be an endless parade of wonderful memories. If only I had the luxury of time and money, I would have stayed longer to experience more of its grandeur. But we have many duties to fulfill and work to do. I came back to Sapporo on May 5, 2007, jet-lagged and tired but overwhelmed and filled with gladness for the wonderful experiences and learnings in life. No matter where we go or what we do, one thing is for certain, that learning comes in many dimensions. It is not confined to the four corners of our classroom and the chapters of our books. Our everyday experiences, the people we meet, and the places we visit enrich our lives and provide an avenue for learning. The world has so much to offer for us to learn. Explore the world and never cease to learn."

Richard is the SU president for 2006-2007 and is doing research in mineral processing.

RECENT ARTICLE:

Timo is an exchange student from Finland who have joined our activities.

I should first introduce myself. I am Timo Niura, a 24-years-old student from Tampere Polytechnics from Finland. I was very lucky to accidentally hear about the chance to come with an internship to Japan: I was just walking in the corridor of my school, and two of my teachers were speaking behind my back: "-Maybe he could go". I got interested and asked them about what they were speaking about. They were talking about a possibility to go to Japan as an intern. I answered that I will take the chance the same evening, after I talked with my family. That is the fortune how I come to Japan.

Before the travel I was kindly helped and informed by my Professor Funamizu. As well I got a lot of help from Shiro Amano, a student who was as intern in my school at Finland. I must thank them a lot because it was very easy to travel to Sapporo, when everything was already arranged for me. My apartment was very near to the school and Sapporo station, about 5 to 10 minutes walk. Very ideal place to live! Sapporo is a logically built city, pretty easy to get familiar with the streets and locations. I also visited Nagoya and Tokyo, but Sapporo was the city I liked the most.

What is biotoilet?

I am from the countryside, from a municipality with 3000 inhabitants, so just sometimes I missed silence and peace. But after all living in a huge city was a nice experience.

My experiment was to research about the efficiency of biotoilet. Biotoilet is heated to evaporate the moisture inside it. In this case efficiency was meaning that how much of energy from heater is going to evaporating the moisture (I will rather write: *"In this case efficiency is measured in terms of heater 's energy requirement to evaporate the moisture*"). I was also collecting the information of moisture content of sawdust in biotoilet. It is important for proper use that biotoilet's sawdust matrix is not too moist. My task was also to take care of conditions of biotoilet, and ensure that it is a pleasant place to visit by cleaning it.

The experiments that I was supposed to do were not very hard. I was mainly working with excel sheets, and collecting data in there, as well as collecting data from the moisture content of biotoilet. Usually difficulties come with the problems with language. Sometimes it was hard for me to understand technical English words, and that's why there were several misunderstandings. But all the time I got very kindly help for all my problems from my teachers or from other students. I really appreciate the help, even I sometimes felt me as bothering other people. Mainly because I didn't have so much knowledge about the things I was working with and Japanese students seemed all to be so hard working and well educated.

It was interesting to see how the biotoilet was working in Hokkaido University. In Finland lot of people have own summerhouses. Summerhouses don't have electricity or water in many cases, so different kind of a biotoilets are used and could have more potential use in Finland. Generally I found that living in Japan was not so hard, even if I didn't know the language. The prices were cheaper in restaurants than in Finland, so it was easy to survive with low budget. Also my friends were helping me a lot with things, especially when Japanese language skills were needed.

The biggest problem I found in my stay was the time difference between Finland and Japan. It was so hard to stay in contact with my family, when time difference was 6 hours. But actually three months was short time for me, though for people at home it was a long time, which caused problems for all of us.

After all I am very happy about my exchange program. Mostly I am satisfied since I could touch Japanese culture and meet so many nice and friendly people! I think this internship was a very rare chance; maybe otherwise it would have been never possible to travel so far and meet so many nice people. Sometimes it is important to travel far, to see the things that are important in homeland; and it is always good to learn about new cultures. But the things that I will miss the most from Japan are the friends. I must thank them, as well as all people I met during my stay, from that I had very pleasant stay in Japan. Thank you all!

MY TOWN EBETSU

By Keisuke Iwata

Time to know...
Nopporo brick

'Ebetsu' means 'the river shark living' in Ainu language. Ebetsu is located in the center of the Ishikari Plains and adjacent to Sapporo, Kitahiroshima, Iwamizawa, Tobetsu, Nanporo and Sinsinotsu, blessed with rich, natural surroundings. The train ride to Sapporo on Hakodate line takes only about 20 minutes. The topography is basically flat but it is about 100m higher than Sapporo downtown so we can see the wide and beautiful view. Ebetsu has not only been grown as a bed town of Sapporo but also have some unique characteristics in itself due to geological features.

Ebetsu's brick has been well known since the late 1800's as 'Nopporo brick', and Ebetsu remains to this day as the only city in Hokkaido that has continued to have a brick industry for over 100 years. Houses, public facilities, schools, parks, walkways, monuments and many more structures have used bricks in their designs.

The Ishikari Plains consisted of clayey layer which can be used as the material of bricks. Maximum of 20 million bricks were made per year when it was at its' most prosperous. The Hokkaido government office building, Sapporo beer factory, Tomakomai Oji paper factory and brick buildings in Otaru city has been made from Ebetsu bricks.

Coals had been used to fire bricks (Now fuel oil is used to prevent damage caused by smoke). Coals were transported from Yubari city by Yubari rail way. Not only coals but also people came and went by the train. That's why the Yutetsu bus (Yubari Railway bus) is still running in the Ebetsu city.

Ebetsu has grown with the brick industry. Actually, in my young age, I could see a big and tall chimney made from bricks in the window of my class room at junior high school. There was a brick factory but we already lost it now - it changed to the big shopping center. I think if 'the Brick Tower'was still there, it must have been one of the symbols of Ebetsu.

The rich, ground Ishikari River runs along the north-eastern side of Ebetsu. Ishikari means 'Meandering' in Ainu language. Ishikari River used to meander along the Ishikari Plain. That is one of the reasons why we have a clayey layer. And also, Hokkaido Nopporo Forest Park, the world's largest virgin forest park on level land is along the south-western area. This area has about 40 kilometers of trails, resting facilities, 6 ponds and is well-used by the Ebetsu citizenry.

If you visit Ebetsu, please enjoy the big natural resources. Not only the Forest Park, but also the small parks with promenade, ponds and fireflies. Concerning bricks, many valuable buildings had gone with the big growth of the City. It is a common problem for towns and cities in Japan. Now people are trying to preserve and utilize old brick facilities to keep the unique characteristics of Ebetsu city. If you can enjoy the scenery with brick and nature, you have to visit Ebetsu.

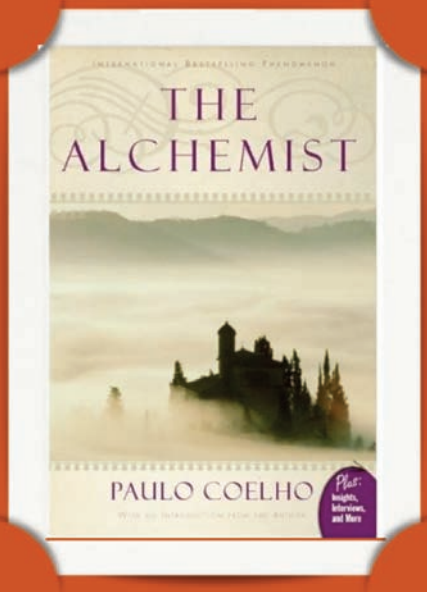
RECENT ARTICLE:

Keisuke is one of the active Japanese students in our community. His research is about hydraulics.

EDITOR'S CHOICE

The Alchemist

By Paolo Coelho



Do you have a dream? If you have one, do you still follow your dream? This book will help you to look for your real dream!

First published in Brazil, and later to 55 languages. It is becoming one of the best selling books around the world.

COMMUNITY UPDATE

Hakodate Time

By Werawan Manakul Ueda

We arrived back at the university around 4pm yesterday. After getting off the bus, Kado sensei told us that this was the last trip for this university bus that provided us a comfortable and safety journey to Hakodate. The bus had been in service for 35 years.

Thanks to Kado and Ozawa sensei we were able to enter designated national historical buildings to learn about the architectural concept and design adopted during the early days of Hakodate, one of the first Japanese ports opened to international trades. The blend between western and Japanese architecture of these old buildings is interesting. When talking about the new building, the 2002 AIJ award winning Mirai or Future University is a new concept. One could hardly imagine that such an enclosed yet open structure is in fact a university where 1,100 students and 70 faculty carry out their teaching and learning activities.

Besides being blessed with clear weather that enabled us to see one of Japan's most beautiful night views from Mt Hakodate, the choice of food Yayoi selected for us was excellent. The two outdoor lunches were such a relax. I ate whale meat burger and kani (crab) tempura for the first time during this trip and really enjoyed it. In fact many of us did many things for the first time during the trip, e.g. trying to tell our teammates through action, not words, what kind of animal we were talking about, drinking glass after glass of water after losing the card games during the first night, the following night was eating the left over burger? Although I did not join the card games, I could hear laughters coming from the next room where the games were going on.

New Comers
(APRIL 2007)

Arief Setiawan Budi Nugrono, **Indonesia**

Division of Engineering and Policy for Cold Regional Environment

Erianto Indra Putra, **Indonesia**

Division of Human Environmental System

Md Ataur Rahman, **Bangladesh**

Division of Built Environment

THE PHOTO CONTEST...

Thanks to all participants! A big prize goes to the winner of this issue's theme, *'Our University'*.

For the next issue, we would like to invite and challenge you again with your camera and macro function...

with the theme... **'Flower'**

'Our University'
By Warangkana Saengsoy
Photo Contest Winner

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