

E-VISION

The magazine of the English Engineering Education program (e3)

2009
Autumn

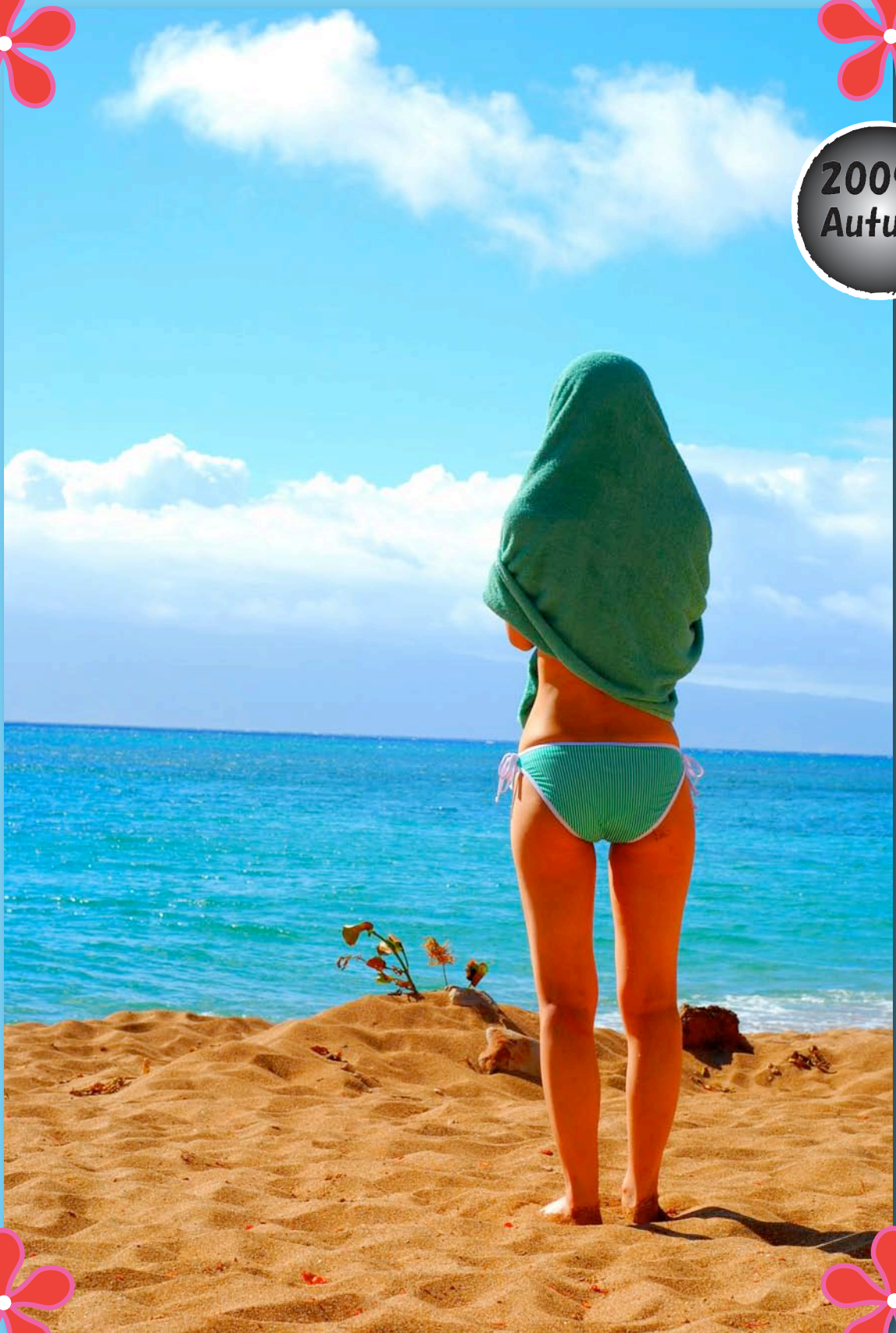


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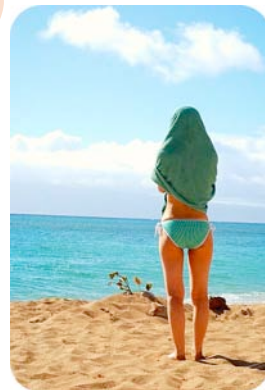
Nikol

Editor's note:

by Tomoo Tsuyuhara (Editor-in-chief)

Thanks to everyone's cooperation, E-vision 2009 autumn has been finally published. I hope you'll like this and get to know about e3 members by picking up this magazine. Again, thanks for all the people who worked on this magazine

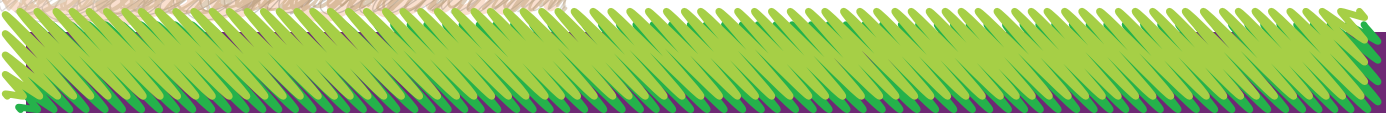
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about the cover

Last semester, we asked for pictures of "best summer sight". According to a poll results taken in the last graduation party, Mifue Shimamura's picture won the most votes.

She is the assistant to the director of e3 program, and always be helpful to us.



Nihongo and Me

by Werawan Manakul



I had been excited since yesterday. Although I have lived here for almost two decades, today I would cast my vote for the general election in Japan for the first time. It was not because I had no interest in Japanese politics but I did not have the right to vote until I have naturalized and become a Japanese citizen recently.

After waking up I practiced writing the names of the candidate and the political party I was going to vote in kanji. I could not afford making any mistake as my first ever vote might be crucial in deciding whether Japan would see a new government formed by the Democratic Party of Japan (DPJ), the main opposition party. For more than half a century since 1955, with the only exception of about 10 months from 1993 to 1994, Japan has been ruled by the Liberal Democratic Party (LDP). Now you see why I was so excited. As we would be away on the actual election day of 30 August, we would cast an early vote at the ward office. On the way to the ward office with my husband in the driver's seat, I, a brand new Japanese citizen, was ready to show my kanji prowess in the ballot sheets. But we recognized from the posters along the way that the given name of my choice candidate is written in *hiragana*!

Soon after I came to Japan I started learning *nihongo*. It was fun to learn new words written in *hiragana* and simple grammar. But when *katakana* and *kanji* started marching in and grammar got more complicated with *wa*, *ga*, *wo*, *ni*, *he*, etc., fun gradually evaporated. Thai and English, my first and second language, use alphabets and share a similar grammatical structure. My brain has been formatted to understand the meaning as the sentences are spoken. For example, we say *chan rak tuer* (chan=I, rak=love, tuer=you), not *kimi wo aishiteru* or you are being loved.

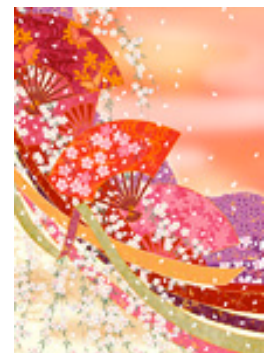
I did not mind learning *teineigo* or polite language but I remember refusing to learn *sonkeigo* or respectful way of saying some-

thing that is totally different from sentences used in daily life. My belief was that to respect or not to respect someone comes from your heart and is shown through the tone of your voice and physical appearance – not the different sets of words.

As life got busier with work, time to spend on learning *nihongo* simply disappeared and my written *nihongo* has become rusty.

Then came a time when I had to prove my *nihongo noryuku* or Japanese language ability. One of the requirements for naturalization was an essay on why I wanted to become Japanese. It had to be written, of course in Japanese, by hand. I started by typing first and after edited by my husband, I printed it out in large fonts. It took me more than two hours to finish “copying” that 2-page essay and I am proud to mention here – without a single mistake. On the submission day I added a short title and I think you can guess what happened. Yes, I made a mistake. Thanks to a well accepted belief that human beings make mistakes, the Justice Ministry might have taken it as a proof that I am an ordinary human being.

To enjoy my remaining days in Japan, I plan to seriously study *nihongo* after retirement. As culture and language are inextricably linked, I want to be able to understand why people think or behave in such a way. And most importantly, I would like to enjoy reading Japanese literature, including manga in its original language.



Writer:

Dr. Werawan is the coordinator of e3 academic office of the Graduate School of Engineering in Hokkaido University.

What is internationalization?

By Toshifumi Igarashi
Field Engineering for Environment

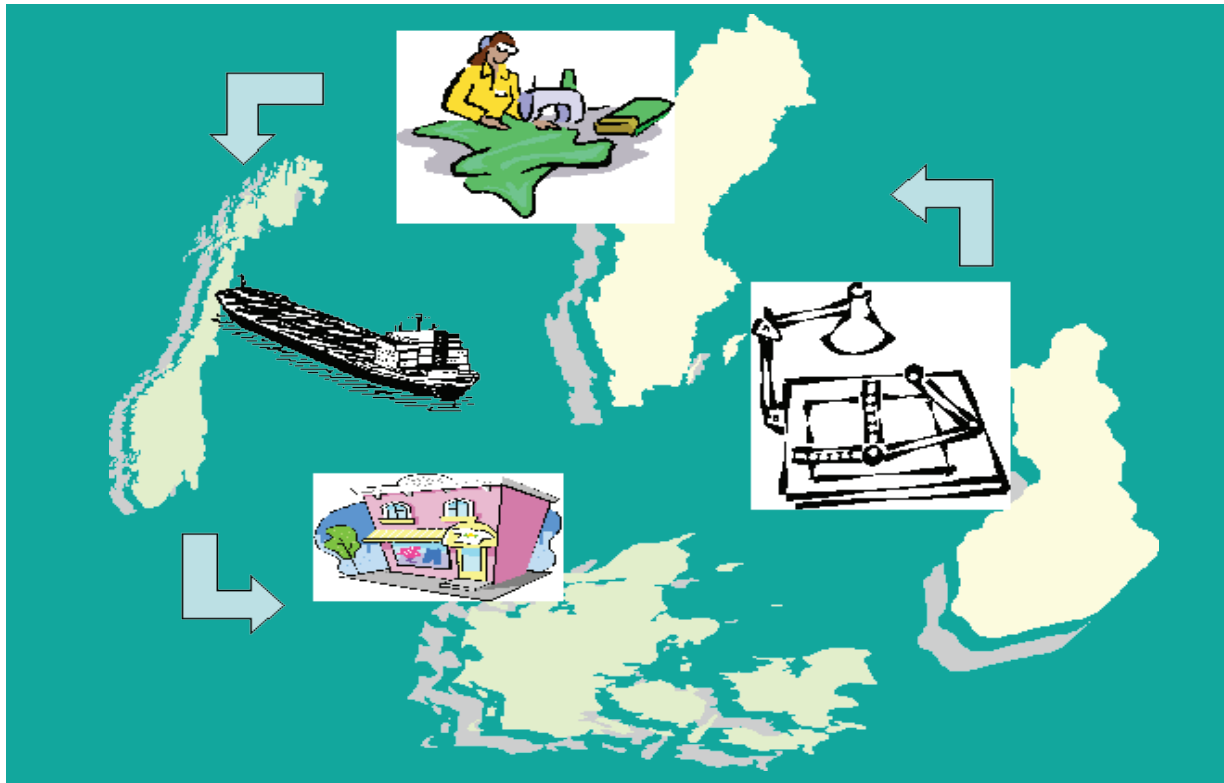


Figure On how to make a good selling product in Scandinavian countries.

With the improvements in telecommunication, computer technology, and transportation system, internationalization is becoming one key issue these days. So what does internationalization mean and who can explain it clearly, which are becoming hot topics nowadays? Is internationalization simply to master English as a medium of communicating and keep in touch with each other or does it have a broader context? I think that its definition is very complicated and would depend on the field, background, situation, and other intangible factors. Internationalization, in my opinion, is to understand the society, history, culture, and features associated with each country. English is only an effective medium of communication.

A Japanese author named Takashi Hayasaka has published funny short stories about internationalization. Here is one example; if, let's say, you are the captain of a luxury ship like the Titanic, and the ship is about to sink, what should you call for the passengers? Here is the intellectual humor of internationalization; you should shout to Americans, "You will be a hero," to British, "You will be a gentleman," to Italians, "You will be a very popular with women," to French, "You are not allowed to dive," to Germans, "It is a rule to dive," and to Japanese, "Everybody else is diving." This story represents a typical character difference in each country.

Globalization is a term similar to internationalization. However, they are different. A typical example about globalization is represented in another story wrote the same author mentioned above. "The dream of American children is to become a soccer player, the dream of Italian children is to become a cartoonist, and the dream of Japanese children is to become a Major Baseball League (MLB) player."

I lived in a small town in Sweden from 1993 to 1995. The town is located among Stockholm, Gothenburg, and Malmo. I heard during the stay that the best method to produce the quality goods in Scandinavian countries involves international of different nations. "The product is designed by Finnish, made up by Swedish, shipped by Norwegian, and sold by Danish." There are similar stories about internationalization and globalization around the world.

Anyway one of the easiest ways to understand the meaning of internationalization is to grasp fully the jokes connected to these topics that were created in each country.

Influence of Atmospheric Nuclear Explosions on Climate Change

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The global-mean surface temperature (GST) has been rising in the last one hundred and several ten years (Fig. 1). The temperature rise stagnated between 1945 and 1964. The difference before (Line A in Fig. 1) and after (Line B in Fig. 1) the stagnation is approx. 0.5K. The stagnation apparently was not simulated well in IPCC AR4 (2008). The 0.5K stagnation cannot be explained by only solar activity since it showed a maximum around 1950. There were no giant eruptions with VEI 6 in this period.

It can be noted that the 0.5K stagnation began in 1945 when the atmospheric nuclear weapons testing of Gadget and the atomic bomb attacks by Little Boy and Fat Man were carried out against Hiroshima and Nagasaki. It lasted for the period in which the succeeding 423 times atmospheric nuclear weapons testing were carried out. The temperature rise began again at the almost the same rate as previously (Line A in Fig. 1) soon after PTBT (Partial Test Ban Treaty) prohibited atmospheric nuclear weapons testing in 1963. It is also known that France and China carried out atmospheric nuclear weapons testing after 1963 with the last one carried out by China in 1980. Detailed investigation should be done in future although the mass of the atomic bombs would be rather small.

Hishida (2001) pointed out that the bombing in World War II and the atmospheric nuclear weapons testing might have influenced the regime shift between 1940 and 1975. However, the author would like to concentrate on the 0.5K GST stagnation between 1945 and 1964 and the atmospheric nuclear explosions. Thompson et al. (2008) suggested that 0.3K GST drop in 1945 was due to the change in method used to measure temperature for SST (sea surface temperature) from engine room temperature (US ships) to uninsulated bucket measurement (UK ships). However, the authors are not discussing the short-term GST drop in 1945 but the stagnation which lasted for 20 years from 1945 to 1964.

It is well known that nuclear wars can induce "nuclear winter" (Ehrlich et al., 1985). The smoke from nuclear wars can reach the upper troposphere and rapidly spread with the jet streams. It can also reach the stratosphere and stay there for several months to years reflecting insolation. The temperature drop from a 3000 Mt nuclear war without smoke from cities is 10 K and lasts for approx. one year in the simulation (Ehrlich et al., 1985). On the other hand, temperature drop from a 100 Mt nuclear war with smoke from cities is simulated as 32 K and lasts for several months. The climate model used in Ehrlich et al. (1985) was a simple one. However, recently, Robock et al. (2007) obtained similar results for cases with only smoke from cities using a modern climate model.

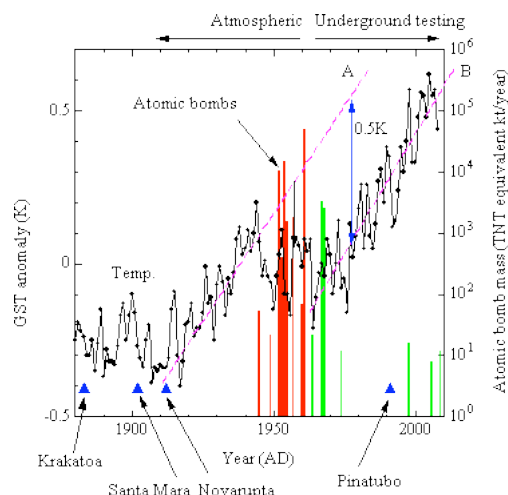


Fig. 1 Anomaly in global-mean surface temperature by NASA (2009) between 1880 and 2008 with the biggest eruptions whose VEI (volcanic explosivity index) is 6 (Wikipedia, "VEI") and TNT equivalent mass (Wikipedia Ja, "Nuclear Weapons Testing") of historic nuclear explosions only.



Hiroshima Peace Memorial (The Genbaku Dome) (World Heritage)



Mushroom cloud

Influence of Atmospheric Nuclear Explosions on Climate Change

Let's compare Tsar Bomba, the largest nuclear weapon ever tested in the atmosphere by the USSR and Pinatubo eruption in 1991, the largest eruption in the 20th century since it is also well known that GST drop is induced by giant eruptions. Energy of Tsar Bomba was 5 orders smaller than Pinatubo eruption (Table 1). However, the maximum height of ejecta is twice that of Pinatubo. For smoke to lower GST, it is very important that the smoke reaches the stratosphere and Tsar Bomba easily cleared this requirement. Ejecta mass of Tsar Bomba is one tenth that of Pinatubo. However, the mass for Pinatubo is magma. Smoke mass for Tsar Bomba can be greater than Pinatubo.

Table 1 Comparison between Tsar Bomba explosion and Pinatubo eruption in 1991

	Tsar Bomba	Pinatubo eruption
Energy (J)*	2.1×10^{17}	1.1×10^{22}
Max. height of ejecta (km)*	60	34
Ejecta mass (kg)	4×10^{11} **	5×10^{12} ***

*Wikipedia Ja, "Nuclear Weapons Testing"

**Calculated by the author based on Wikipedia Ja, "Nuclear Weapons Testing"

***Mass of magma, National Astronomical Observatory (ed., 1997)

Based on the numerical simulation results, temperature drop by Gadget, Litle Boy, Fat Man and the 423 times nuclear weapons testing of a total 545 Mt is estimated as between 0.11 K and 1.3 K. The 0.5 K stagnation is in this estimated range. This indirectly supports the idea that the 0.5K GST stagnation between 1945 and 1964 was induced by the atmospheric nuclear explosions.

The author has not succeeded to find direct evidence that the atmospheric nuclear explosions induced the GST drop between 1945 and 1964. The evidence would be found from, for example, monitoring data for amount and components of particulate matter in the air from before 1940 to present. However, data showing that the amount of radio activity deposit (^{90}Sr , ^{137}Cs and $^{239,240}\text{Pu}$) in Tokyo was at a high level from the beginning of the monitoring in 1957 to 1963 and then decreased to approx. 1/1000 in 1990 and it has kept the constant low level except for the short-term high levels of ^{90}Sr and ^{137}Cs due to the Chernobyl accident in 1986 (Igarashi et al., 2008).

Further research shows distinct peaks of ^{90}Sr concentration in horse and cow bones in Hokkaido, Japan in 1965 and 1966, respectively (Takahashi et al., 1980). There would be some delay for radioactivity to be accumulated in livestock bones. The properties of smoke by atmospheric nuclear explosions are not clarified yet. However, the diameter of the most radionuclides from the Chernobyl accident which were sampled in Tokyo was less than 1 μm (Hirose et al., 1993). This diameter is small enough to stay in the stratosphere for a long time.

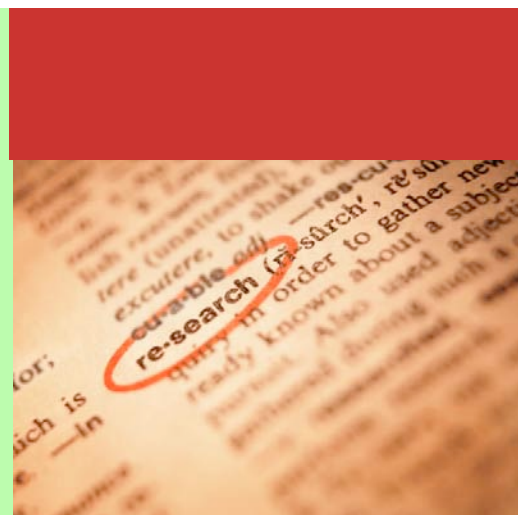
The cause of the radioactivity deposit is undoubtedly the atmospheric nuclear explosions. The author is strongly confident that a significant amount of particulate matters due to the atmospheric nuclear explosions was incessantly sprinkled in the troposphere and the stratosphere between 1945 and 1963 and the particulate matters caused the 0.5K GST stagnation.

The atmospheric nuclear explosions can be regarded as full-scale in-situ tests for "nuclear winter". Future precise analyses will be very useful for accurate estimation of the effects of nuclear wars on global climate thereby improving the accuracy of the global climate models. The accuracy of the simulation on GST in IPCC's AR4 would also be significantly improved by including the particulate matters by atmospheric nuclear explosions in the global climate model.

Ehrlich et al. (1985) also pointed out the possibility of "nuclear summer" which was gradual global warming by CO_2 concentration increase after the temporary "nuclear winter". There is a possibility that we are suffering "petit nuclear summer" if the stagnation was "petit nuclear winter". Those countries which have responsibilities to the atmospheric nuclear explosions should recognize that they might have significantly influenced the world climate. It can also be pointed out that there is a possibility that human beings can control and lower air temperature by, for example, sprinkling detoxified fly ash by transport planes in the upper troposphere and the stratosphere. Deliberate considerations are required before the execution of course.

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ON THE CRISES THAT HIT THE WORLD IN 2009

Masline Makasi



In recent years, social situation around us is changing rapidly. Masline gives us insights about the problem happening in the world nowadays

For many, the year 2009 was a year of mixed blessings. From the very beginning of the year, the global financial crisis made the headlines. While watching the news, it was more common to hear news of job lay-offs, the increase in the number of homeless people, people losing their lifetime's investments and of people being unable to pay off their mortgages. The results were all too visible for anyone to see. Moreover, the trend was the same all over the world, differing only in the level of severity depending on the country.

But what really caused this great depression in the world economy? A number of factors have been forwarded to contribute to this great atrocity since the Great Depression of the 20th century. The crisis is noted to have started when a loss of confidence by investors in the value of securitized mortgages in the United States resulted in a liquidity crisis that prompted a substantial injection of capital into financial markets by the major economic powers. The loss in confidence was due to the overvaluation of financial assets which then stimulated the economy, and gave an illusion that everything was going well, until all this came to a standstill.

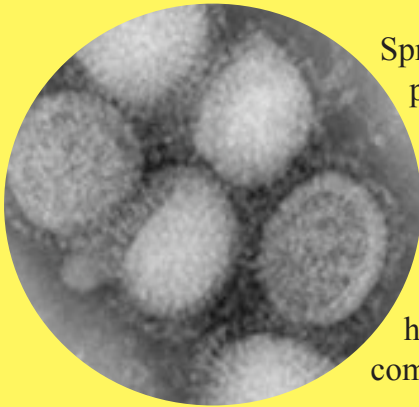


Consumers are now faced with reduced income resulting in a serious plummet of spending habits. The effects of this are far-reaching, even to the point that several governments have had to put in economic stimulus packages to revive the domestic market and encourage spending. Financing of these bills has been done in most cases using taxpayers' money, thus further burdening the consumer who is faced with dealing with the consequences of reduced income, increased mortgage repayments etc. the road to recovery is still a long way to go, but slowly but surely, we will get there.

Then came the “swine flu”! News of this unexpected “guest” came as early as April 2009, but it was only after the World Health Organization (WHO) raised the alert level to Phase 6 (June 2009) that people began to take heed. The new alert level meant the influenza was now a global pandemic. Because of this, major international airports started quarantining every airline passenger with flu-like symptoms.




The reason why the media referred to this as “swine flu” is because laboratory testing showed that the genetic composition of the virus is similar to influenza viruses that normally occur in pigs. “Swine flu” is caused by the H1N1 virus, which is similar to the virus that was responsible for other major flu pandemics such as the Russian flu of 1977-1978. Both influenza trends show a similarity in that both influenzas tend to affect children and young adults below 23 years old mainly. However, the other age groups are not immune either!



Spread of the virus is through coughing or sneezing from infected people and also from contact with virus-contaminated surfaces. The symptoms of the H1N1 influenza are no different from the seasonal flu: coughing, fever, sneezing, running nose, headaches and sometimes diarrhea and vomiting. In spite of all the media hype, the good news is that the flu is not life threatening in most cases, except only when a person has other underlying health conditions, for example, diabetes, obesity, being immune-compromised or having heart disease.

As the winter season is just round the corner, fears of a boom in cases of H1N1 infections are high. There are also fears of the influenza virus mutating and becoming more harmful. Because of this, it is everyone’s responsibility to protect themselves by taking appropriate measures. Regular gurgling and disinfecting of hands will go a long way in curbing the spread of infections. Also, wearing facemasks, uncomfortable as it may be, will be very effective when going to public places.

So much for the global financial crisis, and the influenza- the beauty of all of these is that it shall come to pass SOON! Mankind will learn valuable lessons from these catastrophies and have lots of lessons to pass on to the next generation.



Author:
Masline Makasi has just finished her master course this summer from the Laboratory of Rock Mechanics.

Entertaining Northern Japan with beautiful sounds of the Indonesian angklung orchestra

by Erianto Indra Putra



As each e3 member has diverse cultural background, we can encounter chances to know different world. In this part, Indra introduces Indonesian instrument and his activity in Japan.

Angklung, made from bamboo pipes of differing lengths and pitch, is a traditional Indonesian musical instrument. The unique part of the angklung is that each instrument makes the sound of only one specific note. An Angklung is played simply by shaking, which produces a sound with a certain note. When someone shakes the instrument, the bamboo tube is "hit", producing a sound. Thus each of the three or more angklung performers in an ensemble will play just one note and together complete melodies are produced.



The angklung originates from the Badui people of West Java, where it was first used to rouse soldiers' spirits. Traditionally, the angklung was used in religious and ritualistic functions; it was played to honor the Dewi Sri, the Goddess of Fertility, in Indonesian's ancient belief. Beside its use in religious and ritual matters, it was also used for the entertainment purposes. However, modernization and arrangement of Angklung into a diatonic tone scale, have made it popular, and it is now well known and played in many international and popular songs. This made the Angklung to spread not only in West Java region, but also outside Indonesia.

Nowadays, angklung can be performed in all genre of music. Musical numbers from classical work to a very well known radio top 40 hits can be played with the angklung it. Combinations between angklung, angklung accompaniment and also with other musical instruments, such as percussion line, bass, or even a piano, deliver angklung to a new level of composition. The new compositions and works of angklung have produced a new term of "Angklung Orchestra", which means that an angklung group can be compared to a full orchestra, in which angklungs are divided into sections, and create harmonious sound through different notes.

Several sets are used when playing angklung in a big group. More than 20 people are needed to form a complete angklung group, where each person holds 2 to 5 single pieces of angklung. Good teamwork is needed, since every player contributes to the tones to form a complete song. They have to harmonize with each other to produce a proper melody. In angklung-orchestra, "togetherness" is the most important aspect of the group.

Entertaining Northern Japan with beautiful sounds of the Indonesian angklung orchestra

Erianto Indra Putra

Popularization of Angklung in Sapporo

Angklung, as a traditional musical ensemble, was introduced by some of the Indonesian students who love to play Angklung at Hokkaido University, naming their group “Angklung-Sapporo”. ‘Angklung-Sapporo’ performed for the first time in the Indonesian-Japanese Cultural Night on the 11th of October 2003. Since then, Angklung-Sapporo has performed annually at the Indonesian-Japanese Cultural Nights.



First performance of Angklung-Sapporo in the Indonesian-Japanese Cultural Night 2003



Showing Japanese elementary school students how to play angklung

Since 2003, Angklung Sapporo has taken part in several performances, such as HUISA bunkasai, where various students from different nationalities participated. Angklung-Sapporo has also actively participated in other cultural events, such as the Toyohira Natsu Matsuri and Fureai Matsuri (2004), Kokusai Shinzen no tsudoi (2006 and 2007), Ebetsu intercultural exchange (2006), Fair trade Odori (2007), JICA-NGO Festival (2004), 50 Years Indonesia-Japan Cultural Exchange in Maruyama Zoo and Sapporo International Night (2008). Angklung-Sapporo is also invited almost every year by NSI (Nusantara-Sapporo Indonesia), Kids Wonderland, Wadaiko Otaru, several cultural club in Sapporo, Chitose, Eniwa, Ebetsu and Otaru Chitose, ward office Kiyotaku, and several elementary and junior high schools in Sapporo to introduce the Indonesian culture.

Besides giving performances in several cultural activities and events, an Angklung workshop was also held in Sapporo Chuo Library on the 5th of August 2009. The workshop introduced the Angklung, and how it can be played. The workshop's participants were also able to practice playing the instrument.

Nowadays, not only the Indonesian students join the Angklung group, but also some Japanese friends who are interested in Indonesian culture. Together with Indonesian and Japanese friends, Angklung-Sapporo performed a beautiful song with the angklung in the Indonesian-Japanese Cultural Night 2006 and 2007, and also in other cultural events mention above. Angklung-Sapporo not only performs the Indonesian anthem (“Indonesia Raya”) and traditional songs like “Bengawan Solo”, “Manuk Dadali” and “Kicir-Kicir”; but also some Japanese famous songs such as “tonari no totoro”, “sanpo”, “nada sou sou”, “kawa no nagare no youni”, “sukiyaki”, “ue o muite” and “furu sato”; and international songs like “besame mucho”, “edelweiss” and “viva forever”. In 2003 there were only 10 members, but now Angklung-Sapporo has more than 30 members, including 7 Japanese friends. Started from this acculturation and performances, it is believed that one day a beautiful angklung orchestra will not only be famous in Indonesia, but also far from its origins, like here in Sapporo, Hokkaido - Japan.



Author:

Indra is a PhD student at the Laboratory of Spatial Morphology

Science reveals an amazing Meditation secret

Writer: Jintana Wongta, Master 2, Water quality control engineering laboratory, Hokkaido University, Japan. Co-writer: Panwong Kunthanawat, University of Glasgow, Scotland, UK.



Human being is composed of two parts: body and mind. We know “how to build a strong body”, but not everyone knows “how to build our mind strong”. For Buddhists, meditation could be one of the answers. Meditation is the mental training designed to help people pay more attention to their present emotions, thoughts and sensations. Buddhist meditation is increasingly being employed by psychologists to help relieving health conditions such as anxious, conflict and stress. However, its advantages may still be questioned by skeptics. Since the past decade, its mystery has motivated scientists to study the science of mediation. Recently, scientific evidences have appeared to support the benefits of meditation.

A group of researchers at the University of California, Los Angeles (UCLA), found out that meditation increases brain cortex thickness. Using high-resolution magnetic resonance imaging (MRI), they observed the significantly larger cerebral and hippocampus measurements in long-term meditators compared to the non-meditators. Increased gray matter in the right orbito-frontal cortex, the right thalamus and the left inferior temporal lobe in the skilled meditators were also found (Fig. 1). As these areas are closely linked to emotion, they are believed to be the neuronal supporting that enables the meditators to have a good control of emotion and allow them to well adjust to whatever life throws at them. According to the result, the group believes that there is a relationship between meditation and emotional control. However, the mechanism by which meditation affects the brain volume is still unclear.

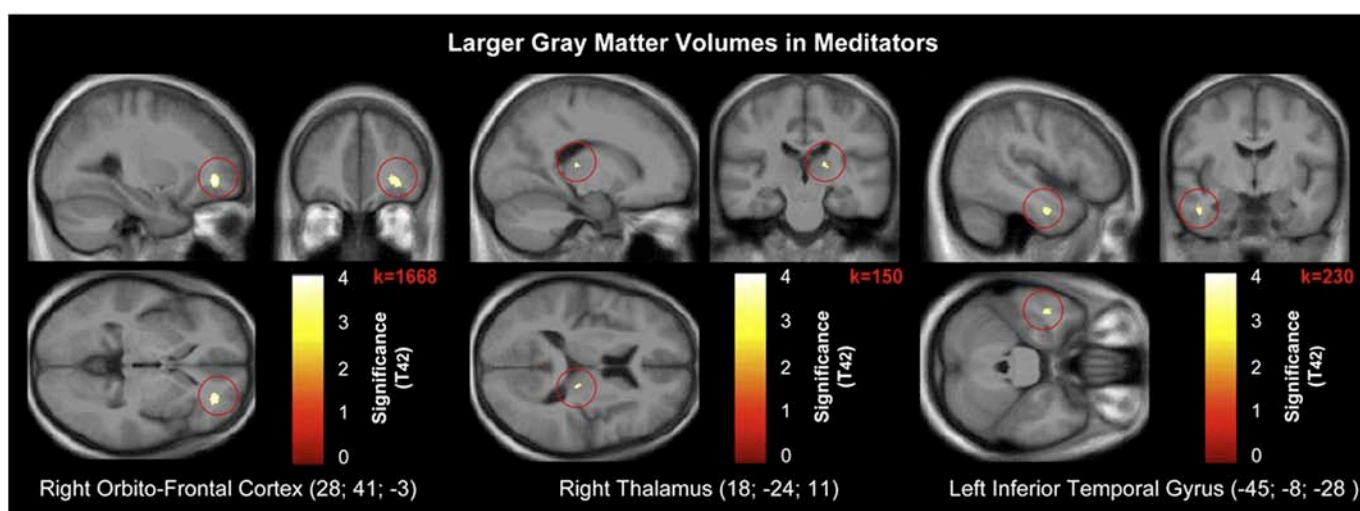


Fig. 1 Larger Gray Matter volumes in meditators. Views of the right orbito-frontal cortex (left panel), right thalamus (middle panel), and left inferior temporalgyrus (right panel), where GM is larger in meditators compared to non-meditators. The color intensity represents T-statistic values at the voxel level. The results are visualized on the mean image derived from the 44 T1-weighted scans of the subjects analyzed, and presented in neurological convention (Eileen et al., 2009).

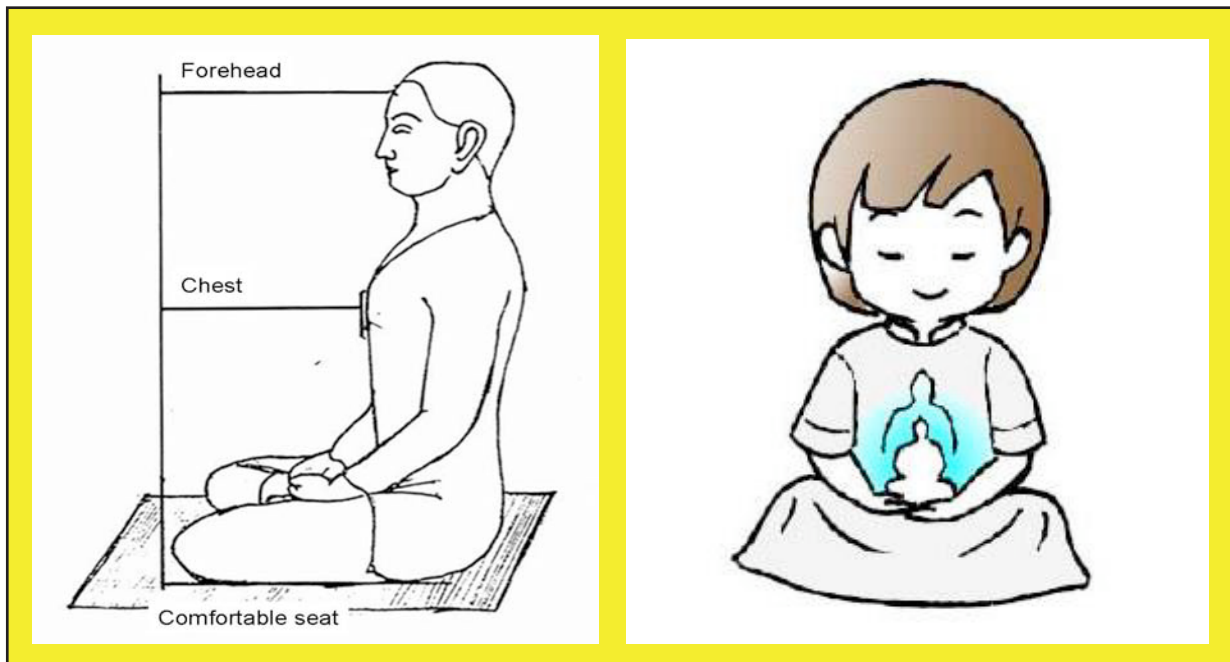


Fig. 2 Buddhist meditation posture. When we practice meditation we need to have a comfortable seat and a good posture. The most important feature of the posture is to keep our back straight but not tense. Then we gently turn our attention to our breath and letting its rhythm remain normal.

In addition, meditation helps reducing uncontrollable fear and anger by affecting the interaction between the prefrontal cortex and the amygdala. The prefrontal cortex is the part that makes us stop and think about things, also known as the inhibitory centre. It takes a long time to make decisions, but is very good at analyzing and planning. The amygdala, on the other hand, makes rapid judgments about a situation and has a powerful effect on our emotions and behaviour, linked to survival needs. When people face unexpected fear, for example, someone sees a tiger leaping out at him, the amygdala will first stimulate a flight response (running away). After passing through the amygdala, sensory information is then sent to the prefrontal cortex, where the consciousness assessment of the danger takes place. Scientists suggested that a skilled meditator may be able to intervene before a flight response takes over, and perhaps even redirect it into more constructive or positive feelings. This is because a skilled meditator is able to enhance the activity of left prefrontal cortex, the region of positive emotion. According to the report, the capability is stable over time. This is based on the Electroencephalography study of meditating monks.

Originally, meditation is a spirituality/religion-related practice. In Buddhism, it has been known to improve mental strength for more than 2000 years. Nowadays, what scientists have found is that the mentally trained person is neurologically different from the untrained one. Therefore the advantages of the meditation are not only just a spiritual experience of individuals but also a scientific fact. This could be a good reason to start practicing meditation.

I personally believe that the positive thinking, speaking and reacting to one another are the keys to peace among us humans. Meditation definitely improves our positive potentials. So, let's do meditation to make yourself and the world a better place.

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A trip to Ningbo – China

By Upaka

E-VISION: 2009 AUTUMN



Busy time for registration



Me and local organizers

It was the last winter and I had to walk to the sub-way station in early morning, since I couldn't catch a taxi. Even though it was snowing to Sapporo-Japan, Ningbo-China wasn't, but it was with low temperatures (fortunately plus).

The “World Scientific and Engineering Academy and Society” (WSEAS) had its multi international conferences at The Zhejiang Wanli University, Ningbo China from 10th to 12th of January 2009. There were five international conferences: “Computer Engineering and Applications (CEA'09)”, “Circuits, Systems, Signal and Telecommunications (CISST'09)”, “Mathematical Biology and Ecology (MABE'09)”, “Fluid Mechanics (FLUIDS'09)” and “Heat and Mass Transfer (HMT'09)”. I was able to put my face to the “Fluid Mechanics” by writing a technical paper which is related to my research work on “Hyporheic interactions”.

The trip itself was bit hard for me from the starting. There are only few flights to Ningbo, China from Sapporo and even though there are few, the transits were not easy. Travel counter at North Cafeteria, Hokkaido University helped me to organize the travel to Pudong, Shanghai instead of Ningbo. On 8th I reached the Pudong air port around 16:30 hours and I was searching some information about the Hotel. The information desk provided me some details and asked me to take the bus to “People's Square”. I got down at the exact place with the kind help of the bus conductor and was searching for a taxi to go the hotel at Shanghai urban area. Unfortunately, the taxi driver couldn't understand English and he was driving around the area to find the hotel, since I had the hotel name in English. At last we found the place at around 21:00 hours.

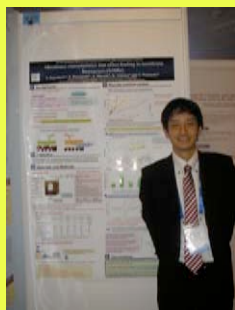
On 9th morning I took the rapid train to Ningbo. The web sites provided me lot details of conference site and I asked the hotel reception to translate the important information to Chinese characters. It worked well.

On 12th morning I came back to Shanghai. I was with two ideas whether to take the same path as I did from Shanghai to Ningbo or to travel with a new way. I thought I should be challenged and chose the new path, which was from bus, but through the longest sea bridge (Hangzhou Bay Bridge, 35.673 km). Finally, on 13th I flew back to Sapporo through Nagoya.

Though the traveling was bit hard for me, the conference was very valuable and I deserved it well. I had the chance to meet world-class researchers not only in Fluid Mechanics but also from other disciplines from USA, Russia, China, Europe and Asia. It was very good for networking and exchanging the research ideas. The chairperson for my session was Professor Milivoje M. Kostic from Northern Illinois University, USA. I was praised for my presentation and finally I was awarded the best paper award in the conference for the Fluid Mechanics. Even though I already have several papers on my name, this conference is very important for me because of several reasons, including the best paper award for the conference and the first conference which was held out side of my home country and Japan as well.

Conference in Beijing

by Tomoo



Olympic stadium



The Great Wall in dense fog...



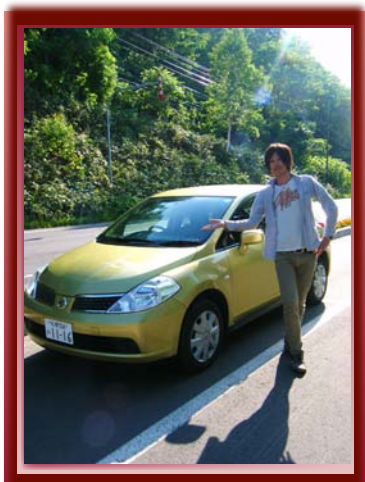
The Forbidden City

I attended the International Water Association (IWA) Membrane Technology Conference in Beijing this summer. First of all, I would like to thank my supervisor for giving me such a great chance to interact with overseas researchers and to enjoy the conference. The awareness of water issues has been rising, particularly membrane technology, which is greatly considered due to its high quality and mass water producing ability. Since Beijing is suffering from water shortage, membrane treatment is considered to be a key technology to solve the problem. In the conference, I did a poster presentation, and explained my study to many attendees, which earned me a "Best Student Poster Award". In fact this was the first conference in my student career, and it helped a lot to stimulate my motivation towards my master study. In addition, making friends in the conference was not difficult because we could share same interests through our study topics. I realized that "research" crosses boundaries as "sports" do. Though I am going to work at a private company after my master course, I considered this experience as the most precious in my entire academic career.

Apart from the conference, I also enjoyed a little sightseeing in Beijing. China is a country that I have wanted to visit for a long time. Chinese food and historical places were the most interesting for me. The Forbidden City, an old palace in Ming and Qing dynasty, magnified my impression about the power and magnificence of China. The cityscape of Beijing metropolis was overwhelming: Olympic stadium, cluster of high-rise buildings, and of course, large population and heavy traffic! A few disappointing things were the air pollution of Beijing's sky and bad weather when I made my visit to the Great Wall. Due to dense fog, we couldn't get the best views from the Great Wall. However, this visit made me more and more intrigued with Chinese culture and history. And of course, it gave me a motivation for my master study!



Writer:
Tomoo Tsuyuhara is a M2 student at Laboratory of Engineering for Sustainable Sanitation.



MY BUSY AND FUN LIFE BEING A STUDENT, TUTOR, AND STORE MANAGER

by Shohei Maeda

To our joy, we have a new member from this semester. His name is Shohei Maeda: such an active, cool man! Let's peek into his daily life and his principles!

Hello everyone! My name is Shohei MAEDA. I'm Japanese. I belong to the Laboratory of Engineering for Maintenance System, Division of Built Environment. First of all, I am very glad to enter an English course this term. So I'd like to tell you about myself.

I am Evdon's tutor since spring of this year. But actually I cannot speak English well. The reason why I took this tutor position is to improve my English by communicating with him. Another reason is that I want him to spend a comfortable and happy life while in Japan. And the reason why I wanted to enter the English course is also to improve my English skills. I wanted to have the chance to speak English by interacting in an English-language environment. Fortunately, I will have an opportunity to go and to study in the US next year. I will stay in the other side of the world for several months because my research is a joint research with North Carolina State University. Therefore, it is indispensable for me to speak English. There are also a lot of international students in our laboratory. I recognize them for their effort and quality of work. I am very glad to work with them.

I have another important life besides the university life. It is my life in Starbucks. I have been working part-time for a long time in Starbucks. I work there for several days in a week. There are lots of tourists; talking with them is one of my pleasures. So this became my motto: "To provide an uplifting experience that enriches people's daily lives".

I am now managing the store as a supervisor. Therefore, the ability to coach other employees and to develop their skill is necessary. Besides being a tutor and a store manager, I also had the chance to take charge as a teaching assistant for some undergraduate students' class last semester. All of these are useful for my research activities in the university and my life in the future. That is why I have lots of things to do everyday.

However, the purpose of all of these is to get the sense of fulfillment and accomplishment.

My research might start soon in full scale and my life will become much busier. But I want to challenge myself at everything to get new lessons and values. At Starbucks



At Starbucks

Finally my bases in life are described as follows!

Be welcoming;	offer everyone a sense of belongingness.
Be genuine;	contact, discover, and respond.
Be knowledgeable;	love what you do. Share it with others.
Be considerate;	take care of each other and our environment.
Be involved;	in e3, in Starbucks, in my community.

Make friends.
Make a difference.
Make someone else's day.

I travel abroad at least once a year to expand my views. Sometimes it is necessary to take a rest and relax!!!

So, let's go outside!!!!



Travel in Paris

The Struggle for Life and the Miracle Story of ISAMU

by Erianto Indra Putra

This is the story of the early stages of our youngest son's life, Isamu Naufal Hayatsaqif. For us, he is a miracle. The strength and spirit that made him overcome his critical condition from the early stages of his life have opened our eyes, heart and mind, and have made us believe that prayers can overcome any difficulty. Let me share this great experience with you.



Isamu was born in very a special way. He was born in our home at a very premature age of 23 weeks and 5 days gestation, with the help of only his parent. It was Monday, 13th of October 2008 around 2 pm when I found my wife groaning in pain in our bed with her hands holding her abdomen tightly. Just a few minutes after, blood gushed from her groin which was shortly followed by cranied fetal before the newborn baby came out. Our bedroom then became a silent witness of the birth of Isamu. There were no other people in our home at that time, besides me, my wife and our daughters.

It was really beyond my imagination when I held my baby for the first time. He was so light and small – his weight was only 672 grams; his length of 31.5 cm was, not even as long as my left and right palms put together; his feet and hands were just the same size as my finger; and his head was like the size of my hand's fist. He was so calm at that time; he didn't breath, nor cry, nor move any of his hands or legs. At that time, I thought that I would lose my baby. But as a Muslim, I have to believe that our God, Allah SWT, will give His best destiny for him. Then our first prayer was sent that afternoon for the life of my very tiny, precious baby.



Then Allah granted our prayers. An ambulance came in just five minutes to save the life of our be-

loved. The paramedics started to give first aid to my wife and our newborn baby, and rushed them to Sapporo City Hospital.

Time seemed to move so fast that day. We didn't know the condition of my baby until the doctor explained to us late that evening. Our hearts seemed to be torn when the doctor explained his condition. He suffered sever premature syndrome: extremely low birth weight, neonatal asphyxia, hypothermia, respiratory distress syndrome and neonatal chronic lung disease; this very critical condition caused Isamu to stay under intensively monitoring in Neonatal Intensive Care Unit (NICU) for at least 4 months.

The days that followed became a new life for us. Everyday we visit my baby in his incubator, touching his hand, and praying for his health and recovery. My Sensei and all of our friends never failed to give their big support to us to help us get through this trying moment



of our life. And we felt that Allah helped us so much during that time; He made the last winter less harsh with less snow which made it easier for us to go to the hospital by bicycle and sometimes on foot. The distance between my apartment and the hospital is around 4 km.

However, Isamu who was fighting for his life, experienced much hardship than all of the sacrifices we made in visiting him every day. Few days later, other severe symptoms came up: patent ductus arteriosus, severe pulmonary and brain bleeding. These brought Isamu to a very severe and critical condition for weeks. Retinopathy of prematurity was the other story that made our little son face two laser operations to save his eyes.



But then again, his determination to live prevailed despite all of these symptoms. And Allah showed His miracle once again 4 months after his birth when the doctor declared that Isamu could get through his severe situation and be freed completely from all of premature syndromes mentioned above.



Isamu left hospital on the 13th of March 2009 after passing his first five months in Neo-natal Intensive Care Unit (NICU). In total, he spent 105 days in the incubator, the rest was spent in the preparation room. It was amazing to see how the baby developed in the incubator, outside of his mother's womb. However, after having experienced this, we realized more that the only place most suitable for the baby's development before his birth is in his mother's womb. This brings to us clearer evidence that God has created and planned everything perfectly.

Isamu is now getting bigger and healthier. His weight is more than 7 kg and his length is around 70 cm. This miracle baby can now grab everything near him, roll-over and smile at everyone. Compared to his extraordinarily small figure when he was born, he is a lot bigger now - from less than 700 g to more than 7 kg, from only 31.5 cm to more than double. This made us believe that Allah is showing His love to our son.

Finally, again we have to thank Allah, our God, who really gave His love and miracle for Isamu to overcome all of his severe condition. We are truly satisfied and thankful to the Japanese medical system and to all of the doctors and nurses for their love and intense care for Isamu during his stay in NICU. And we have to thank also the Japanese insurance system. At the time we left the hospital, we have to pay nothing for Isamu's hospitalization. It was totally free; it seemed unbelievable for us even until now.

We really don't know what would have happened to our baby and how much we would have had to pay had we faced the same situation in my country, Indonesia; probably the story would be different. We believed that Allah has created Isamu's destiny here and planned perfectly for every single pixel of this story for us.

We do hope that Isamu will stay healthy and continue to grow normally. Hopefully, someday when he is big, we can take Isamu back here to Sapporo, the place where he started his struggle for life and became victorious.



Interview

by Adriano



Yamada Sensei completed his PhD in Hydrometeorology in 2007 at the Faculty of Engineering of Tokyo University. Following his graduation, Yamada-sensei spent 2 years as a hydrometeorology researcher at NASA, in the United States. He came to Hokkaido University this April 2009 as an associate professor of the River and Watershed Engineering Laboratory in the Division of Field Engineering for Environment. From his office at Faculty of Engineering he conceded us this interview.

Being from Yokohama and having graduated in Tokyo, why did you choose to live in Hokkaido?
Hokkaido is a beautiful land, one of the most beautiful in Japan. It has many mountains and rivers, and the coast. I also grew up in this place, and I like winter sports, like skiing, snowboarding and sledding.

Why did you decide to do a PhD? And why did you choose hydrometeorology?

Hydrometeorology is a topic that's very related to my experiences as a child. I grew up observing water, often playing in mountains, beaches, rivers and the seashore. I wanted to learn about meteorological phenomena. And also, I want to increase the depth of my knowledge with research colleagues and students, with discussion and research activities.

Could you please tell me in a few words about your experience in NASA.

NASA has many satellites used to investigate what is going on on the Earth. At the same time we need to know the future conditions of weather, hydrometeorology, flooding, etc. I researched how to combine satellite information and climate modelling to achieve better understanding.

Being a newcomer to Hokudai, what plans do you have?

As a researcher, I want to research rainfall, snowfall, river flow and water resources as a whole, including water resource simulation and observation. Personally I want to practice sports like skiing, surfing, and so on.

What would you recommend for graduate students?

I hope students are interested not only in their own research field, but also in other related fields. Discussion among researchers and students from different fields is a very fruitful experience for graduate students.

As not so long ago you were a student, in few words, what can you highlight the difference between being a graduate student and a professor?

As a professor you have more responsibility in educational and academic activities. But at the same time I really enjoy it.

What memory would you highlight from the time you were a graduate student?

At an International conference I joined in the US, I brought a draft copy of a paper I was working on. I showed it to a very famous researcher, after which, we exchanged several emails discussing equations and ideas. Later, I had a chance to visit his house to complete the paper. As a result, it got me the chance to work at NASA after completing my PhD.

The e-vision committee would like to thank Yamada Sensei for this interview.

Questions for new e3 students

by Evdon and Liu



What do you think of Japan?

We asked some new e3 students (that includes us) of what do they think and feel about Japan, before coming and now that they are already here. To square things of, we also asked new e3 Japanese students how they feel about their country and English. So here they are.

Q

1. What did you expect before traveling in Japan?
2. What was your first impression upon arriving in Japan/Hokkaido?
3. What do you enjoy best while studying and staying here in Japan?



**name: Liu Chuanxin country: China
Laboratory of Advanced Materials (D1)**

1. It is said that there are cold winters with strong snow and cool summers with different kinds of flowers. So I thought it would be a beautiful place.
2. I had an illusion when I arrived at Sapporo. Because four hours ago when I left my hometown it was spring, however, when I landed this new land it was still winter. The whole world was covered with snow. This also told me it is a cold place.
3. I like this new academic environment. I will enjoy my life and my study in this school and this country.

**name: Evdon Luzano Sicat country: Philippines
Laboratory of Engineering for Maintenance System (M1)**

1. The first thing that came in my mind before traveling to Japan is the cold season, so I expected it to be very cold.
2. My first impression when I came was the very cold atmosphere and it is even colder than what I have imagined.
3. I just enjoy working in the lab, learning the Japanese language, learning new things and going to different places.



**name: Eni Sugiarti country: Indonesia
Lab. of Advanced Materials (LOAM) (M1)**

1. I expected that it would not be easy for Muslims to get HALAL foods, and the cold season especially at Sapporo.
2. Since it is my first time here in Hokkaido, my impression is very comfortable and beautiful city. I also liked the campus even more; its location is the best environment for studying and having an enjoyable life.
3. The friendly, relaxed atmosphere that always surrounded me, the amazing people I met, and the beautiful places I have visited.

**name: Leng Bin country: China
Laboratory of High Temperature Energy Materials
(Research student)**

1. I expected that the living expenses would be much more expensive than my country.
2. I was surprised to see so much snow here. The farms in campus and muddy road near my dormitory also made me feel that Sapporo is much like a countryside place than a city
3. I really enjoy the beautiful scenery around Sapporo and the cool weather here in summer.



Questions for new e3 students by Evdon and Liu

name: Sebastian Ignacio Charchalac Ochoa country: Guatemala
Laboratory of Engineering for Sustainable Sanitation (M1)



1. I expected a complete different place, food, weather, and people. I haven't been disappointed so far.
2. I thought: "Cold place!" and "I don't understand anything!". But I also noticed that Sapporo is a beautiful and quiet city. And that Japan is a very good place to live, even that customs are so different.
3. I enjoy meeting people from all over the world, and share our cultures. I also enjoy getting to know first hand an interesting culture as Japanese in many ways.

name: Asiful Hoque country: Bangladesh
Laboratory of Engineering for Sustainable Sanitation (D1)

1. This is my first time to come in Japan. I was excited to come in Japan as heard that Japan is a developed country in Asia. I imagined many things about Japan, such as everything is organized and well oriented.
2. . I came to Sapporo through Osaka. So I completed all my formalities related to immigration over there. At first I met with Japanese people at Osaka. I heard that Japanese people have a smiling face. I realized that is true.
3. . During the first few days of winter, I enjoyed the snow. In the laboratory I am enjoying the use of modern equipments.



name: Adriano Coutinho de Lima country: Brazil
River and Watershed Engineering (M1)



1. A new life experience
2. Too cold!!!
3. Everyday is a new experience.

name: Hideki Hirose country: Japan
Hydraulic Laboratory (M1)

How do you describe Japan?

1. Japan has rich and diverse nature. We can receive benefits from nature. Sometimes nature bring serious damage but basically Japan is very safe, comfortable and a convenient place.

What made you decide to join the e3 Program ?

2. I had a hope to work internationally. So I decided join e3 to improve abilities for that.

How do you find the international students in the e3 program?

3. They are good at English. They gave me warm welcome to e3.



name: Aguru Tanaka country: Japan
Laboratory of Engineering for Sustainable Sanitation (M1)



How do you describe Japan?

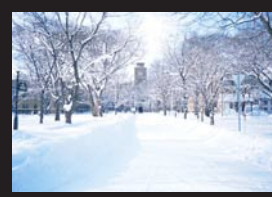
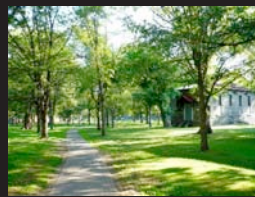
1. **Sushi, Sashimi...tastes good.**

What made you decide to join the e3 Program ?

2. **Interacting with people from different culture is fun.**

How do you find the international students in the e3 program?

3. **They are very kind and they treat me in kind way.**



Personality Check

by Evdon



Author:

Evdon Sicat is a M1 student from Engineering for Maintenance System Laboratory.



Have you ever wondered how well you know yourself? Sounds intriguing eh? Perhaps we can take a look at how well you know you by answering some fun questions. At the end of the quiz you'll find out what your personality has to say. Ready? So get some paper and pencil and write down your answers. Look at the results on the bright side. Answer the questions the fun way. ☺



Answer the questions. Write the letter of your choice and check what your answers indicate at the end. Do not peek!

1. Do you think that falling passionately in love is for fools?
a. No b. Yes
2. If someone will give you fifty million yen to dump your sweetheart, you would
a. Dump him/her without a second thought b. Refuse the offer.
3. Your beloved partner has a body odor, which you cannot stand. What will you do?
a. Say nothing to your partner and carry on as if all is ok. Praise him/her instead.
b. Tell him/her by sending an anonymous note/email/call.
c. Sit with him/her quietly and tell about it. You even get them a nice cologne/perfume.
4. Do you choose your new outfits alone or with someone else's help?
a. Yes, alone. b. No, with someone else's help.
5. You are wearing a new outfit. You observe yourself in the mirror for
a. A minute or so.
b. 5 to 15 minutes and find out how the outfit enhances your image.
6. When you look at yourself in the mirror:
a. You find many appreciable things about your body and appearance.
b. You curse your fate for your looks and body.
7. Do you always have a good night's sleep and wake up refreshed?
a. Yes. b. No.
8. Do you have a habit of saying words like "thank you, sorry, excuse me etc."
a. Yes. b. Not really.
9. Do sad scenes in movies can make you cry? a. Yes. b. No.
10. If you find someone treating his pet in an abusive way would you object?
a. Yes. b. No.

Personality Check by Evdon



So what do your answers have to say about your personality?

1. a. You are passionate. Carry on because one day it will make a big difference in your life.
b. You're a less passionate person. You judge everything and then proceed.
2. a. Whoa! You're really going to do that? This means you're a greedy, selfish person.
b. Definitely you wouldn't do that. You're not selfish and greedy.
3. a. If dishonest men/women were named, your name will surely be there.
This is really bad. Remember honesty is the policy.
b. You maintain a balance. You are dishonest when you know it will be beneficial but your conscience makes you think twice before doing a dishonest act.
c. You are a honest person. You set an example for family and friends. Keep it going.
4. a. You are very self-confident; this is an appreciable quality. Good for you.
b. You are not confident enough. You need a boost in your confidence level.
5. a. You're not a narcissistic person; it may imply that you are simple.
b. Hmmm, behaving this way in front of the mirror is quite narcissistic.
6. a. You have an optimistic outlook on life. You tend to look at everything positively and don't worry about negative results. This will bring you opportunities.
b. You are pessimistic; you are very worried about things that will happen.
Try to be positive and you'll see you'll do wonders.
7. a. You are not happy right now. Something must be bothering you.
b. You are happy and satisfied with what you have at the moment. That's great.
8. a. Hey, you are a very nice person. Keep it up.
b. You are not that nice. Why don't you give it a try?
9. a. Your heart rules over your head. You are emotional.
b. Your head rules over your heart. You are more practical than emotional.
10. a. You are more compassionate than cruel.
b. You are more cruel than compassionate.
Cares are little and you'll definitely feel better, you'll see.

Score Summary:

0 to 5 a's

Your personality needs a BIG make over. Try to change these negative traits and you'll find out that these changes will bring out the best in you.

6 to 8 a's

You possess the quality of a good person, that's why everything seems to be on the right track though sometimes things are not on their bright side for you.

There are still things that need some improvement in your persona, find them and try to improve, and in the near future success will be at your hand.

Summer Educational Trip 2009: e³ Goes to Central Hokkaido

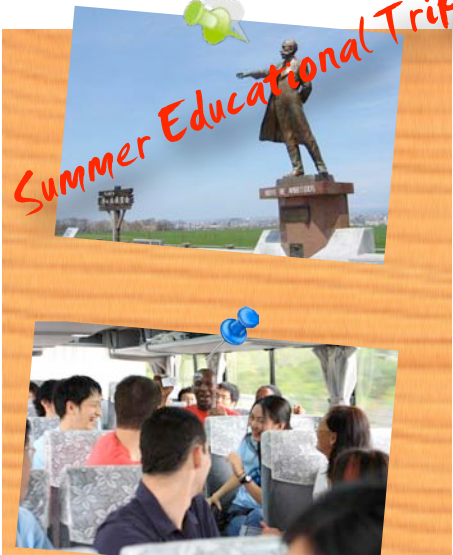
By: Richard Diaz Alorro, D3

Laboratory of Mineral Processing and Resources Recycling

Learning is not confined within the four corners of the classroom and the pages of the book. By going outside, seeing different places, visiting companies and other institutions, meeting people, and embracing the natural environment, we get to know more about the world. Last August 27-29, 2009, e³ students and friends took a break from laboratory activities and explored Central Hokkaido through a summer educational trip organized by the field trip committee of the e³ student organization (ECO). The three-day activity was coordinated by Prof. Tetsuro Yoneda and Assoc. Prof. Tsutomu Sato of the Laboratory of Environmental Geology.

The field trip which was participated by 33 e³ students, sensei, staff and friends, was highlighted by visits to a recycling company, landfill and waste management site, geological formations, and zoo. On the first day, the group was warmly welcomed at the Nomura Kohsan Co., Ltd. (Itomuka Mine), where a presentation and facility tour on the recycling of used dry-cell batteries and fluorescent lamps were conducted. The group spent the night at the log houses of Sounkyo Camp Site and enjoyed the barbecue party. On the second day, the group visited the different geological formations of Sounkyo and the Daisetsuzan National Park area and the Asahikawa Landfill and Waste Management site. On the final day, the group enjoyed the different animals of the Asahiyama Zoo, one of the largest zoos in Japan, and Touma Cave where stalactite and stalagmite formations can be seen.

After the field trip, the participants went home exhausted yet filled with new learning experiences, new-found friends and wonderful memories. Truly, e³ summer trip is an experience to remember.



Bring out the artist in you!
- Self-introduction through personalized name tags



At the Nomura Kohsan Co. Ltd. (Itomuka Mine)



Itomuka staff explains about recycling plants' facilities



Yoneda sensei tells something about the Asahikawa landfill

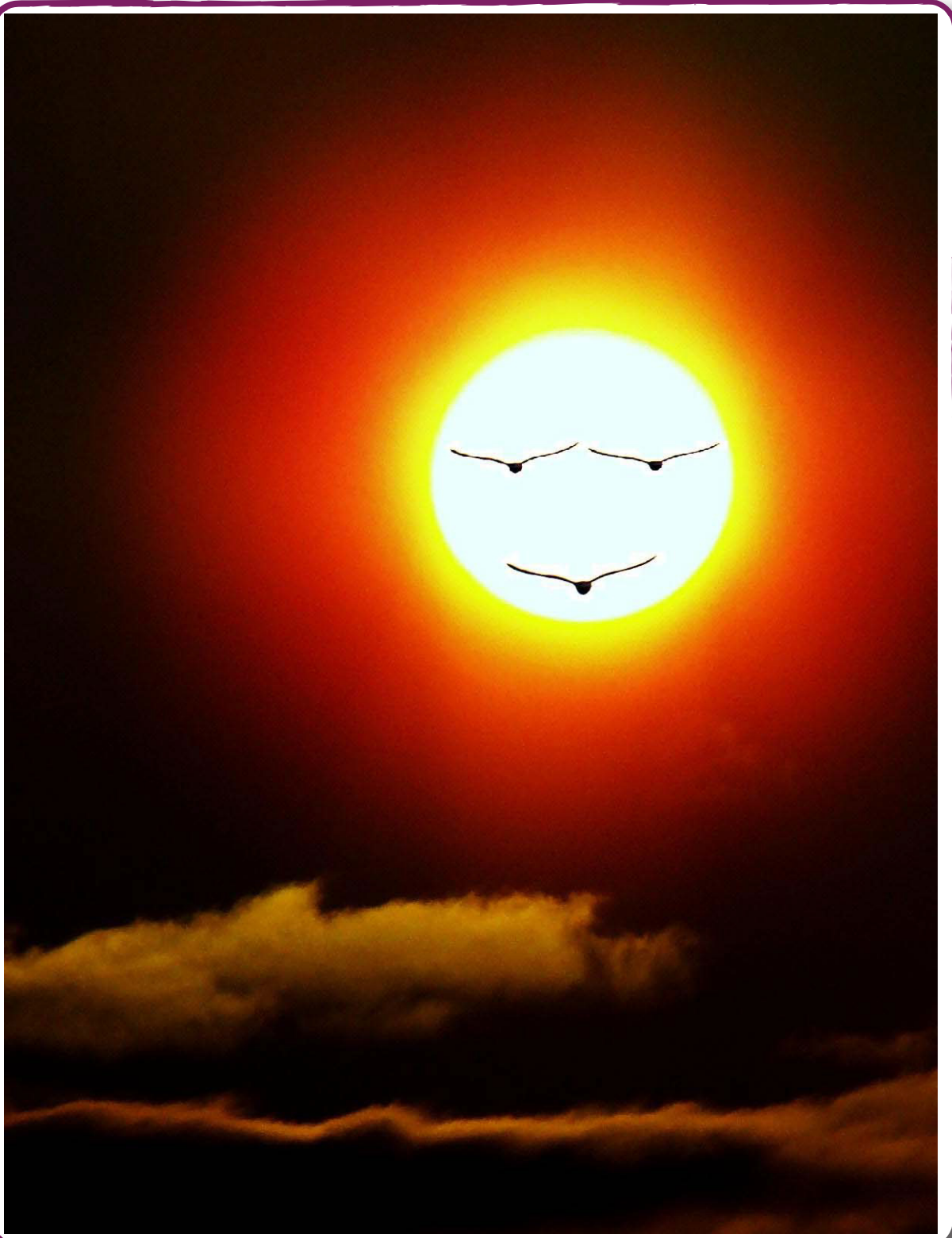


The group poses in front of the basalt formation at the Sounkyo Area



In front of the National Friendship Hotel landmark





"Best summer sight"
by Guizani: D2 student
at the Laboratory of
Engineering for
Sustainable Sanitation

E:VISION MAGAZINE

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