

THE GAZETTE OF

CHULALONGKORN UNIVERSITY



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News
Update

CU Listed in the Top 100 Universities in Asia

Chulalongkorn University with its rich academic history is now paving the path to world rankings. QS the international university ranking organization, has recently ranked Chulalongkorn University number 48 in their list of the top 100 universities in Asia. Other universities in Thailand that have made it to the top 100 Asian universities in QS ranking of 2013 include Mahidol University, standing at 42 and Chiang Mai University which ranks at 98.

Besides being recognized as an increasingly fine University not only in Asia, but globally, Chulalongkorn University has been ranked by subject with 12 disciplines from 30 individual subjects, according to QS World University Rankings by Subject 2013. Its academic excellence was cited specifically in the fields of Chemical Engineering, Civil Engineering, and Structural and English Language, as well as Literature Studies, for all of which it ranks in the 51-100 segment of the top 200 international universities ranging from 30 individual subjects. Among the other subjects Chulalongkorn University offers that are included on the list are Chemistry, Environmental Studies, Pharmacy, and Modern language, for which rank in the 101-150 segment. Biological Science, Communication and Media Studies,



Mechanical Engineering, Material Science, and Medicine, are four additional majors that are offered by Chulalongkorn University, and in those fields it placed in the 151-200 segment.

What do these rankings mean? They are highly significant for prospective students during the decision-making process for university applications. They also provide a reliable way for students to compare and locate the universities that best fit their interests and desired field of study. We hope that next year Chulalongkorn University will climb even further in the rankings!

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100th Anniversary of Chulalongkorn University's Faculty of Engineering



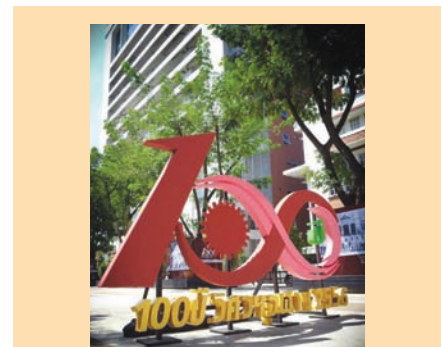
All the present students and alumni join together to sing their faculty song.

It has been a century since Chulalongkorn University's Faculty of Engineering was established. On the 1st of June 2013 the Faculty held a celebration to mark the centennial of its inauguration. At this event, alumni and current students joined forces to organize activities that included presentations of academic work and a blood donation event to earn merit for His Majesty the King.

Veerasak Kositpaisarn, the Head of the Engineering Alumni Association, stated "On this historic anniversary, we can all acknowledge that Thailand has advanced swiftly in the field of education. Our alumni have become

powerful stimulus to the country and to the mechanism that drives the country's progress. For several years, the Association has taken on a role as nerve centre for networking alumni, and has been responsible for organizing and supporting a number of activities in the Faculty."

A large number of alumni attended the ceremony, which included a forum on the topic, "Looking into the future" held by alumni who have expertise and experience in economics, finance, investment, building, property, energy and IT.



Chula's Faculty of Engineering has been a part of Thailand for 100 years.

(Photo by Faculty of Engineering)

Traffic near the Victory Monument in Bangkok, Thailand.

COVER

Urban Heat Island Effect in Bangkok



Top view of Bangkok landscape, Thailand



Dr. Sathon Vijarnwannaluk
Department of Physics, Faculty of Science

Life in Bangkok gets tougher every day: rain, traffic and heat are always on the menu. More alarmingly, as the rainy season moves forward we are reminded of 2011's disastrous flood, which submerged 36 of the city's 50 districts and its nearby provinces for weeks, not to mention the billions of US dollars of damage and the incalculable toll on people's psyches all over the country. Still, we tend to look at these problems as separate issues rather than as a single entity, despite the fact that all of them are tightly connected.

A press conference was held recently in Bangkok on a phenomenon known as the 'Urban Heat Island' in Bangkok, a situation in which the metropolitan center is significantly warmer than

The main cause of UHI effect, however, lies in the character of Bangkok's urban environment itself. Almost all buildings in the city are made of concrete, whose ability to hold heat is relatively low. It releases the heat absorbed during the day at night.

suburban and rural areas. This seems simply to be the result of the strong prevalence of energy-consuming activities by the city's population.

The heat island required a long period of time to form, and its impact is powerful. According to **Dr. Sathon Vijarnwannaluk of the Department of Physics, Faculty of Science, Chulalongkorn University**, the urban heat island or UHI has been an environmental issue in Bangkok since the end of 1980s. It did not become troublesome, however, until recently. In 2010 the Bangkok temperature, more noticeably at night, barely decreased in winter whereas there were heavy rains and extraordinarily warm nights in summer. This was due to urban activities and an environment that produces heat that rises and spreads over the metropolitan area, resulting in the higher temperatures in Bangkok as compared to its surrounding provinces.

The most obvious examples of heat-generating features of Bangkok life are the use of air-conditioning set at low temperatures for long hours and the running of car engines for long periods of time during severe traffic jams. Air-conditioning systems reduce the indoor temperature through

the convection of indoor heat to the outdoor air, while automobiles burn fuel and release large quantities of heated vapor, averaging 50 degrees Celsius, into the air. The figure is alarming as a preliminary survey points out that Bangkok has over one million cars running on its roads all day and night.

The main cause of UHI effect, however, lies in the character of Bangkok's urban environment itself. Almost all buildings in the city are made of concrete, whose ability to hold heat is relatively low. It releases the heat absorbed during the day at night. This is part of the reason why Bangkok's nighttime temperature decreases only slightly from that during the day, and there is little drop in temperature during most of the so-called "winter". Moreover, the green areas of Bangkok are shrinking, which means that there are always fewer trees to help absorb the waste heat that we are producing.

Dr. Surajate Boonya-aroonnet, head of the Hydro and Agro Informatics Institute's Hydro Modeling Section, explained that UHI usually occurs in cities near the coastline, specifically when the air temperature in the north of the city

Cover Story



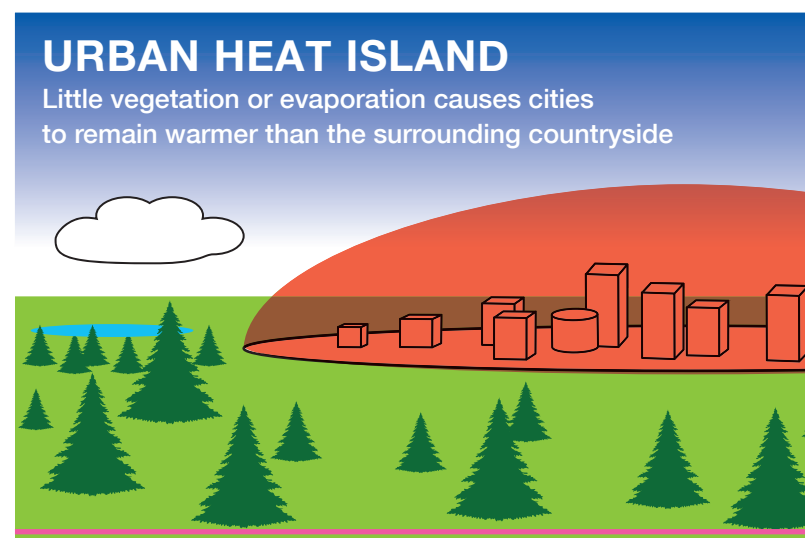
Clouds accumulate at certain spots and disappear after heavy rain.

“**An urban heat island** works like the electronic fan above mall entrances. It keeps the temperature inside the building stable and indifferent to the air outside. It prevents the air inside from circulating outside, which contributes to the increase of air pollution in long term.”

is significantly different from that in the south and the monsoon is coming in from the sea.

The hourly temperature report from Rangsit Klong VII telemetry station, which operates under the control of the Hydro and Agro Informatics Institute (HAI), showed that the temperature around northern Bangkok rose during 2-3 June 2013. At another telemetry station in Samutprakarn province to the south of Bangkok, the report showed that, on the contrary, the temperature dropped during the same period. The city's temperature, together with the monsoon that arrived from the Gulf of Thailand, resulted in a concentration of clouds over the city area around noon on 3 June 2013 and on the afternoon of that day it rained heavily in the northern part of Bangkok. This was an example of a rain pattern which is hard to predict and manage when it comes to the city's problematic drainage in the time of floods.

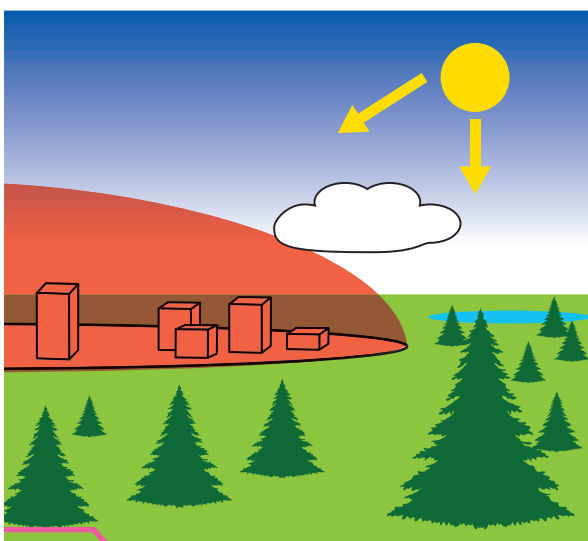
Over the past four to five years it has often rained only in certain parts of Bangkok. Observations have shown that there are two basic patterns of rainfalls in the city. In the first, clouds accumulate at certain spots and disappear after heavy rain. In the second, rain moves



from the suburbs to the city center. The percentages of the two rain patterns among rainfalls overall are 70% and 30% relatively. Dr. Surajate said that there are two causes of the increasing percentage of rainfalls that originate within the city: the rising temperature in the city center and presence of tiny dust particles, especially those from vehicles.

The rainfall on 3 June 2013 occurred because warmer air over Bangkok's downtown, specifically Rachadhevi, Silom, and Sukhumvit, met with humid air over northern Bangkok, causing the temperature to rise from 37 to 42 degrees Celsius and triggering a thunderstorm around Don Mueang Airport. As a result, several flights were unable to land according to schedule. This was only one of the visible beginnings of the effects of the urban heat island phenomenon in Bangkok.

Precipitation is on the rise in Bangkok; moving up from 10-20 millimeters to 20-40 millimeters per day. Another obvious result following heavy rainfall due to UHI is the rise of the water level in the city's canals by 15 centimeters. Apart from drainage problems, rain and thunderstorms also cause dangerous damage to electrical poles, billboards, and trees, not to mention crucial obstructions to air traffic as happened on 3 June. In addition, people must take extra precautions to avoid being injured by lightning. It is vital to stay in shelters like cars and buildings and not to be unprotected in open space or near trees. The use of electronic devices should be avoided as they trigger ion vibration in the air.



The red zone shows the city area that is affected by UHI.

To slow down the effects of Bangkok's UHI, Dr. Sathon gave some clear and simple advice:

1. Consume less energy by reducing the use of air-conditioning.
2. Use public transportation instead of private vehicles.
3. Increase green areas in the city; for example, plant more trees and build small parks on the top of skyscrapers.
4. In designing buildings be mindful of their heat absorption properties and try to avoid the use of glass, which reflects heat.

These guidelines will not be new to most of us. Each day we are bombarded with information about green policy, global warming, and saving-the-earth projects. The contributions that we can make on a daily basis are easy and simple. We can start by adapting our routine little by little and move on to participate in community projects, workplace policies, and social organizations. Little by little, Bangkok and our planet earth are sure to feel the positive change, too.



Pollution is one of the dominant factors causing UHI as it blocks air circulation and increases the area temperature.

A Green Future

for a Lasting World



The AC21, also known as the Academic Consortium for the 21st Century is an international graduate summer school program that was founded by Nagoya University in Japan back in 2002. Recently celebrating its 11th anniversary, the program was held in Bangkok at the two member Universities of AC21 in Thailand - Chulalongkorn University and Kasetsart University between May 31 and June 4 with the theme **“Green Science and Technology for Sustainable Future”**.



AC21's keynote speaker, Dr. Ryoji Noyori giving his opening speech on "Science Shapes Your Future".

The consortium's main purpose is to bring together the new generations of the 21st century to exchange ideas and assist each other in projects to enhance the progress of science. It also offers a rich opportunity for students from AC21 member countries to meet and work cooperatively. The nations associated with the AC21 include Japan, Australia, France, China, Germany, Laos, the United States, Indonesia, South Africa, and Thailand. This broad geographical range brings in a diverse spectrum of graduate students to absorb new knowledge and make loads of friends while having fun.

The opening ceremony took place at Chulalongkorn University with Prof. Pirom Kamolratanakul,

M.D., President of Chulalongkorn University, Associate Professor Dr. Siree Chaiseri, Vice President for Academic Affairs at Kasetsart University, and Dr. Michinari Hamaguchi, President of Nagoya University (AC21 General Secretariat) giving the honorary opening speech, while the rest of the events were held at the Kasetsart campus.

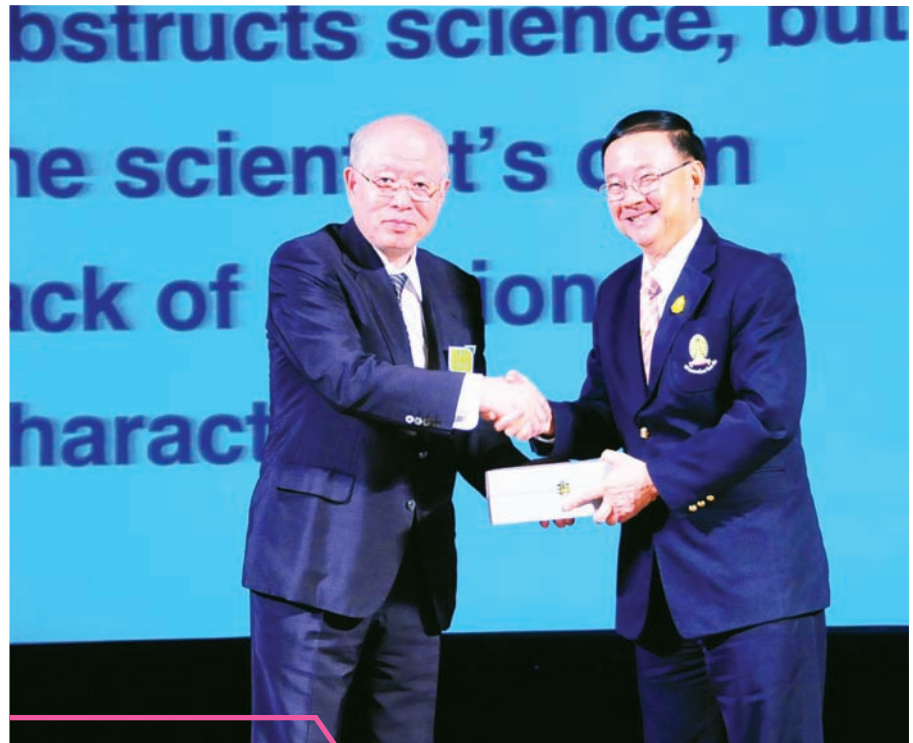
It was a pleasure for Chulalongkorn University to welcome Dr. Ryoji Noyori, 2001 Nobel Prize Winner in Chemistry, to join us as a keynote speaker at the conference. Under the topic, "Science Shapes your Future", Dr. Ryoji Noyori spoke about clean energy technologies, global warming, and agriculture management in terms of resources and food.

During a private interview, Dr. Ryoji Noyori, spoke excitedly about the aspects of science and technology in which he has distinguished himself. His eyes sparkled when asked to explain to a non-science major student what green chemistry is all about. He said, "The term 'green' refers to science that is competitive and adaptable in nature. It is compatible with nature. Many science-based technologies are too artificial and consume too much energy while also producing waste. We need to learn how to minimize and conserve energy. People in Thailand think of science from a perspective different from the one shared by Europeans or Americans because of a culture and surrounding environment that is different. Today, many of the world's people and nations expect developments in Asia. In the past, science was developed in the West. But this is the age of the Asian nations."



Nicholas Lahr, a graduate student from the University of Freiburg, Germany

When asked to give an example of how today's society is causing damage in terms of green development, he answered, "Well, now we are facing many kinds of problems that threaten the existence of humankind, such as inadequate water, energy and health care, biodiversity, etc. To solve them we have to develop new technologies while at the same time linking the old science with the new." Dr. Ryoji believes that as humans, we will not be able to survive this century without collaboration between the East and the West. We need to depend on each other and especially to develop technologies that have never been seen before. Because we are the new generation, we are the ones who need to develop new, innovative science and technologies.



CU's President, Professor Pirom Kamolratanakul, M.D., presents this year's special keynote speaker, Dr. Ryoji Noyori, with a token of appreciation from Chulalongkorn University.

Ultimately, Dr. Ryoji Noyori is encouraging the people of the 21st to create new things but also never to forget to look back at the old ideas, because experience with basic science will lead to new technologies. In the future, it will be an important part of economic growth in a world that is constantly-changing. The 20th century was an era of competition in war and economy, but the 21st century needs to be a century of collaboration and cooperation, he feels, if a civilized society is to be sustained.

Nicholas Lahr, a foreign graduate student from the University of Freiburg, Germany, was



Dipti Wankhade, an Indian graduate student from Kasetart University

enthusiastic about AC21 because its theme fit perfectly with his studies in renewable energy management. Besides being able to learn more about green mobility during the conference, Nicholas was also excited about coming to Thailand.

Dipti Wankhade, a graduate student from Kasetart University, remarked that the topics interested her greatly as her major was in tropical agriculture. She described the program as a helpful opportunity to come together and meet people from different faculties around the world. Being able to listen to other people's opinions and to absorb new ideas was the most exciting part. She believed that by the end of the conference she would be able to take heaps of new knowledge and a lot of good memories back to India with her.

Overall, the Academic Consortium is a valuable conference for all interested graduate students not only as a place to learn personally, but also as a source of new ideas to take back to their countries. It serves as a forum of exchange to encourage participants from many nations to work together to create and maintain a sustainable environment, to support and promote the use of new technologies that will conserve energy, and to fuse traditional and innovative science in a way that will provide the solutions needed to produce a greener and more ecologically stable planet.

Fuel Oil from Waste Plastic and Waste Tires

An Innovative Method to Help Industry and the Environment

Exponential worldwide growth of the manufacturing sector over the past decades has generated towering mountains of waste, especially plastic and old tires, which poses an urgent challenge to mankind in its effort to protect the health of the natural environment. The sheer quantity of waste of this kind also reflects our voracious use of petroleum. Not only plastics, but innumerable other polymer-based products that we use every day - containers, vehicles, kitchenware, and fabrics - are also petroleum-derived.

We can respond to this challenge easily by using a simple hierarchy of waste management strategies called 3R - the R's stand for Reduce, Reuse, and Recycle - but in the end there will still be waste. An optimal solution suggested by **Associate Professor Dr. Sirirat Jitkarnka, an expert in the field of Reversed Petrochemistry from The Petroleum**

Overall, the use of this approach and its results demonstrate conclusively that it is the most efficient way to manage waste of this kind, as it can help economize many kinds of resources while recycling waste to improve the environment.



Assoc. Prof. Dr. Sirirat with her tire-to-fuel project model



Assoc. Prof. Dr. Sirirat explains her eco-friendly project.

In practice, this process generally yields a gas product, liquid fuel and char as its primary products. The liquid can be refined into different fuels such as benzene, diesel, and fuel oil. The quality of the gas and oil generated by this process is dependent on three variables: 1. pyrolysis conditions such as temperature, pressure, the

and Petrochemical College of Chulalongkorn University, is the PGL Process.

What is the PGL Process? This time the letters stand for Pyrolysis, Gasification, and Liquefaction, a trio of technologies that can recover usable resources from waste tires. Here we will focus on pyrolysis, as it plays a pivotal role in producing petroleum.

Its name derives from the Greek roots "pyr" meaning, "fire" and "lysis" meaning "separating". Its definition is given as the chemical decomposition or thermal cracking of organic substances - sometimes using a catalyst to heat the carbon-based materials- at high temperatures (typically around 400-800 degrees Celsius) in the absence of oxygen. In pyrolysis, the polymer waste is not incinerated, instead it is broken down into utilizable finished products.

time used in heating, and the system used in feeding in raw material; 2. the type of the reactor, which can have an effect on heating time and the duration of the refining process, and, 3. the characteristics of the raw material used, including size and shelf life.

This novel approach benefits us in various eco-friendly ways. It provides environmental sustainability through conserving and yielding renewable energy, cushioning the greenhouse effect, controlling and minimizing land use of waste, particularly urban waste, and, of course, improving air quality. Without this emerging technology, in the near future we would have to go back to using natural materials such as banana leaves to wrap up our food as we currently use mostly plastic bags, bottles, etc. manufactured from petroleum. It also helps to reduce the risk of dengue fever as mosquitoes breed in water that accumulates in waste tires.

Not only does it decrease negative effects on the environment and on our health, it

also plays a part in reducing costs in a way that benefits industry. It encourages high investment because it reduces operational costs and provides cheaper fuel oil for the furnaces of industries that require it.

Since 2001, when oil prices skyrocketed, thousands of entrepreneurs in Thailand have become aware of the advantages of turning plastic waste into fuel. The technology has been introduced in small-scale enterprises and factories in various provinces nationwide, including Bangkok, Samut Prakarn, Pathum Thani, Nakhon Pathom, Ratchaburi, Chiangmai, and Saraburi. The fact that tires and plastic can be transformed into oil increases their own value. The processes used in these factories, however, must be monitored to determine their eco-friendliness as ensured by such factors as use of emission control systems and waste disposal. The solution is to keep raw materials properly in the inventory, to ensure adequate ventilation, to treat wastewater before it is returned to environment etc.

From Mangosteen Peel to Hygiene Mask



Prof. Dr. Pitt Supaphol from the Petroleum and Petrochemical College, Chulalongkorn University



The Germ Guard is a hygienic mask that contains a mixture of compounds extracted from mangosteen peel.

Living in the city, we are surrounded by pollution, dust, and germs that confront us everywhere and are almost impossible to avoid. They are a major factor in the spread of diseases, especially tuberculosis and others that affect the respiratory system and are caused by bacteria that we breathe in. The particles of dust that bear these pathogens are too tiny to be seen with the naked eye.

In response to this problem **Prof. Dr. Pitt Supaphol from the Petroleum and Petrochemical College of Chulalongkorn University and the head of the research team, has worked hand-in-hand with Assist. Prof. Poonpilas Hongmanee, Mahidol University; Assoc. Prof. Dr. Sunit Suksamrarn, Srinakharinwirot University; Assoc. Prof. Wasana Sukhumsirichart, Srinakharinwirot University; and Ph.D. students, Pongpol Ekabutr and Piyachat Chuysinuan, at the Petroleum and Petrochemical College, Chulalongkorn University** to develop a product that will help reduce the spread of germs. The group is supported by the **National Research Council of Thailand (NRCT)** in the research and development of this product, which is known as the Germ Guard.

The Germ Guard is a hygienic mask that contains a mixture of compounds extracted from mangosteen peel.

The mangosteen, the queen of Thai fruits, is rich in various nutrients that many people may not know about. While the white inner sections are famous for their juicy and delicious texture and taste, the outer shell is also valuable for the medicinal properties of the substances that it contains.

Researchers have used a special process to extract some of the components from mangosteen peel, and in that way obtained a concentrate that contains both tannin and xanthenes, both of which have the ability to create antioxidants and to kill certain types of bacteria.

The Germ Guard employs them to help prevent consumers from spreading bacteria while helping them recover from coughs and cold faster. It takes the form of a sanitary hygiene mask that is impregnated with the extracted compounds. This new use for the extracts creates value for the agricultural market. In addition to the value that their produce has as a favorite fruit, it now acquires added value as the source of medicinal substances that find use in the Germ Guard and, perhaps, similar products.

Pongpol Ekabutr explained that the development of the Germ Guard is important for Thailand because of the prevalence of disease in some part of the country. The research team has been able to perform studies of the compounds extracted from mangosteen shells and found that the xanthenes they contain has a positive effect on cells that fight bacteria. They also seem to be able to prevent the formation of cancerous cells.

Scientists begin the research procedure by extracting the chemical components of the mangosteen peel using a special chemical process that causes the desired components to settle out of the mixture, allowing them to be collected easily. After two days, one kilogram of mangosteen peel will yield about 40 grams of xanthenes. At another stage in the research, these are applied to healing pads used to treat burns. Over about year of testing, it was found that when the pads were directly applied to animals that had burn injuries, healing took place more quickly.

The positive results of this research encouraged the team to put the mangosteen

peel-derived compounds to good use by using them into the Germ Guard sanitary hygiene masks. These are made using microfiber, which has an extremely high surface area and is therefore more effective than ordinary smooth-surfaced, film-like material. The innovate mask has been certified and supported by the Nelson Lab in the USA, which found it to be effective in removing about 97.8% of the germs exposed to them.

So what is the difference between a regular hygiene mask and the Germ Guard? Researchers say that when people suffering from tuberculosis or other respiratory disorders cough or sneeze into a regular hygiene mask, the germs that come out are about 3 microns in diameter. When a conventional hygiene mask is discarded after use, the germs it contains remain active and can infect people who come in contact with it. With the mangosteen extract-impregnated Germ Guard, however, these organisms are killed.

The Germ Guard is also environmentally friendly. By switching from regular hygiene mask to the Germ Guard, consumers reduce the volume of masks being discarded into the trash. This in turn reduces that result decreases the amount of mask thrown into landfills where carcinogens and other harmful chemicals bio accumulate amongst the trash, which seep into the soil and underground wells turning it toxic.

Studies involving a group of 100 student test subjects and cleaners at Srinakharinwirot University found no cases of allergic reaction or itchiness after using this new mask. The research team has high hopes that this product can be exported to other countries in Asia, such as Japan and Singapore.



CU students actively engaged in promoting the use of Germ Guard for a friendlier environment.

Award & Honor

CU Professor Appointed as President of Asia Pacific Region of IADR



Assoc. Prof. Dr. Pasutha Thunyakitpisal

At the 91st International Association for Dental Research's (IADR) annual academic conference, held recently in Seattle, Washington, USA, **Assoc. Prof. Dr. Pasutha Thunyakitpisal of the Department of Anatomy at Chulalongkorn University's Faculty of Dentistry** was appointed to the position of President of the Asia Pacific Region Division of IADR. The International Association for Dental Research is a worldwide nonprofit organization that consists of five different regions, while the divisions are divided among one of the regions; the purpose of IADR is to develop and improve the oral health industry while being able to support and help each other with researches. While the Asia Pacific Region Division encompasses several subdivisions, including the Australian and New Zealand Division, the Chinese Division, the Japanese Division, the Korean Division,

the Southeast Asian Division, and the Indian Division. It is a proud moment both for Assoc. Prof. Pasutha and for Chulalongkorn University, as he is the first Thai national to be given this position

Dr. Pasutha, who is also President of the Southeast Asian Division of IADR, holds numerous other posts as well, including Head of the Research Department in Herb and Natural Substances for Treating and Curing Dental Problems, and Director of the Dental Biomaterials Science Program.

In addition, Assoc. Prof. Dr. Pasutha Thunyakitpisal has been nominated to become the President of the 2nd APR-IADR meeting, the annual academic conference between the Southeast Asian Divisions to be held this year between 21 and 23 August here in Bangkok at the Plaza Athenee Hotel, with more than 1,000 participants in attendance.

CU Architecture Student Wins at Contemporary Fashion Contest 2013

Salutations to CU's Faculty of Architecture senior Natadech Teveetiwarak on his excellent performance at the Thai Contemporary Fashion Contest held by the Office of Contemporary Art and Culture, Ministry of Culture. The purpose of this contest is not solely to challenge the young generation to think outside the box and out of their comfort zone, but also to combine the design concepts of traditional Thai clothing with those of modern every-day fashion. It has as its goal the enrichment of Thailand's culture and lifestyle through the location of talented new designers who are not afraid to bring abstract and other original and creative ideas into their work.

Natadech's prize-winning piece was able to bring authentic Thai character into his design while also projecting a chic awareness of contemporary fashion. It is hoped that the unique harmony of the two that he has created will be recognized globally.

Natadech won a grand trophy in recognition of his achievement and 250,000 Thai baht as a bonus.



Natadech Teveetiwarak receives the 'Thai Contemporary Fashion Contest' award.

CU's Faculty of Nursing Awarded for International Nursing Education Contribution

It was another gratifying moment for Chulalongkorn University as the Dean of the Faculty of Nursing, Assoc. Prof. Capt. Dr. Yupin Aunguroch and fellow Assoc. Prof. Dr. Waraporn Chaiyawat received the **International Nursing Education Contribution Excellence Award** from Dalian Medical University in Dalian, Liaoning, China. They were presented with the honor for their achievements in advancing academic cooperation between leading educational institutions to develop and improve the nursing profession.

Assoc. Prof. Capt. Dr. Yupin Aunguroch and Assoc. Prof. Dr. Waraporn Chaiyawat recently met with Prof. Jiang Ping, Dean of School of Nursing at Dalian Medical University to take part in the International Academic Nursing Cultural Festival. Both professors did an impressive job in judging the Nursing English Contest at Dalian Medical University, an event that was organized for undergraduate and graduate students to increase and promote the use of English in the nursing profession. Winners were awarded a scholarship in the form of participation in a short exchange-student program between the School of Nursing, Dalian Medical University and Faculty of Nursing, Chulalongkorn University, which was held between January 20th and February 1st 2013. Altogether, 11 talented students were chosen as Chulalongkorn University's participants.



Assoc. Prof. Capt. Dr. Yupin Aunguroch (in the Middle) is spotted diligently working to enhance the academic cooperation between CU's Faculty of Nursing and Dalian Medical University.

During the conference there were keynote speakers from three different countries. Representing Thailand, Dr. Yupin discussed the topic, "Nursing Education in Thailand and the Faculty of Nursing at Chulalongkorn University while Dr. Waraporn spoke on the subject, "Thai Nursing: Road of an Independent Profession". From the United States of America, Prof. Dr. Mary L. Fisher, Vice Chancellor, Indiana University explored "Health and Nurse-Physician Collaboration" in her presentation, and Japan sent a representative from Takeda Hospital Group to discuss "The Needs of Nurses in Japan". The approximately 300 attendees eagerly took part in the activities offered, which included talks about studying and working at various places like the School of Nursing at Dalian Medical University, the First

Hospital in Dalian, and the Disaster Management Center: Light of Life at Beijing, China, all of which promote good study and working habits.

All in all, Dr. Yupin and Dr. Waraporn have entered an agreement with two other institutions, the School of Nursing at Dalian Medical University and the School of Nursing at Indiana University with the goal of enhancing the exchange programs for students and professors, creating an ambitious study program, and promoting research studies between the three institutions.



Faculty of Arts Student Places First at the 12th Chinese Bridge-Language Contest



Chula Arts student Sututta Petchrungsan awarded first place at the Chinese Bridge Contest by Mr. Guan Mu, Chinese Ambassador to Thailand

Let's offer our sincere congratulations to a very talented Arts student, Sututta Petchrungsan, who was the winner at the 12th annual Chinese Bridge-Language Proficiency Competition held by the Embassy of China. This oratory contest, a competition between undergraduates from various universities, took place on June 17, 2013 at the Ratchada City Hotel, Bangkok. The Faculty of Arts nominated Sututta based on her outstanding ability to use the Chinese language. As a representative of Chulalongkorn University and the faculty of Arts, she fully justified the confidence of her professors and classmates when she took first place in the competition and received an honorary award from Mr. Guan Mu, Chinese ambassador to Thailand.

In addition to the glistening trophy she received, Sututta was also the selected candidate to represent Thailand at the International Chinese Bridge competition that will be held in China, together with a scholarship grant for her to use towards her Master's degree at the University of Beijing. It is always exciting news for Chulalongkorn University when a talented student Sututta Petchrungsan wins a distinguished award.

Old Mobile Phones Wanted!

CU's Handshake with Nokia Helps Save the Earth



Representatives from the school administration board, Nokia Cooperation and the Center bring their old mobiles to recycle.

It is estimated that in 2013 alone about 15 million mobile phones will be sold in Thailand, whereas, according to the Pollution Control Department (PCD) of the Ministry of Natural Resources and Environment, over 10 million phones will become part of Thailand's e-waste by 2015.



A volunteer from the Center explains the process and significance of mobile phone recycling to students.

When think of mobile phones as seductively cool and flashy devices that come out too often for us to be able to keep up, but often forget that they also become electronic waste that piles up in enormous quantities. It is estimated that in 2013 alone about 15 million mobile phones will be sold in Thailand, whereas, according to the Pollution Control Department (PCD) of the Ministry of Natural Resources and Environment, over 10 million phones will become part of Thailand's e-waste by 2015. Aware of the urgent need to find an effective solution to this problem, **Chulalongkorn University's Center of Excellence for Environmental and Hazardous Waste Management** started a campaign during 2013 called "**Chula Loves the Earth**" that invites people to dispose of their old mobile phones in a way that takes account of what will become of them, and of how they will affect the environment of the planet we inhabit.

In an effort sponsored by the Nokia Cooperation, each old mobile phone lying unused in a drawer will be exchanged for US\$2 (about 62 baht), which

will be collected and passed on to support various public developmental projects of the Chaipattana Foundation, a non-profit organization founded through an initiative of His Majesty King Bhumibol Adulyadej. Over the past two years the campaign has been warmly welcome by the public, with 2,857 old mobile phones and over 4,200 supplementary gadgets such as batteries and headphones received via the campaign boxes at numeral points and by post.

These electronic devices are then delivered to Nokia Cooperation, who put them through a recycling process. Finding a home for e-waste that would otherwise take forever to eradicate relieves our planet of a great environmental burden. The components of most mobile phones are 40% plastic, 20% nickel, 20% other metals such as aluminum and gold, and 5% other non-metal materials. The main component materials - plastic, metal and ceramics - are 100% recyclable. Nickel, cobalt and lithium from mobile batteries can also be reused. Most importantly, recycling old mobile phones significantly helps reduce global warming, as the recycling process consumes less energy than extracting the ores of the metals involved through mining.

Suthathip Chitwivat, a research assistant at the Center, explained that the campaign is currently in its third phase and that it has met with gratifying success thanks to collaboration with the media and with public organizations. "Chula Loves the Earth" is publicized through leaflets, posters, cut-outs and exhibitions at Chulalongkorn University and a number of schools in Bangkok and the surrounding area. The recycle boxes are dispatched

to various highly trafficked points, for example, in front of CU Book Centers, the ground floor of Chamchuri Square, Wannasorn Tutoring Center, The Stock Exchange of Thailand, Mega Bangna Shopping Center, etc. Moreover, campaign volunteers have been heartily welcomed by students and teachers, who have participated enthusiastically in the booth activities and brought their old phones to put into the recycle boxes. Those at Chulalongkorn University Demonstration Primary School, Triam Udom Suksa School, Mater Dei School and Sitabutr Bumrung School, to name just a few, have given avid assistance to the project. Apart from recycling mobile phones and supplementary devices, "Chula Loves the Earth" is also holding an "Application Contest for Sustainable Society" to promote creativity among young app programmers in Thailand in developing practical mobile applications to help improve our health, society and environment.

Suthathip also said that the center is currently discussing the next phase of the campaign with Nokia Cooperation. The idea is to link each participant in the mobile recycle campaign to a newly planted tree via GPS (Global Position System) technology. The concept is nice and simple: "*You help the earth by returning e-waste to recycle; you get a tree planted in your name in return. The profit is tangible but immeasurable. The tree not only helps the earth, it also encourages us to think of the cause and effect of each of our actions. Recycling of course contributes a great deal to the planet, but a small change we make in the direction of caring about the environment brings benefits to all of us in the better of the air we breathe*" Suthathip said.

On Commencement Day with Kate Vlady

Chulalongkorn University held this year's commencement ceremony on July 12th. HRH Princess Maka Chakri Sirindhorn represented HM King Bhumibhol, attending the event to confer their academic degrees to all graduates including **Kate Vlady, a recent American post-graduate from the Southeast Asian Studies Program**. She was happy to describe how it felt to receive her Master's Degree and, of course, how she felt about becoming a CU student.

GZCU: Speaking of Chula, why did you choose the Southeast Asian Studies here?

Kate: *Because for over a decade I have been interested in the region, the social and cultural aspects of SEA, the people, history, etc. I have a background in International Relations and a Master's to specialize in SEA seemed very appropriate for my interests. I have a deep love for Southeast Asia, Thailand in particular, so when the time came to choose a university I realized there would be no better way to study the region than by living in the region during my studies. I have traveled extensively around Southeast Asia and since my first visit in 2002, Thailand was the place that captivated me the most. Therefore I decided to come over, visit the department and the university, and I immediately knew the Program at SEAS Chula was a perfect fit for me, since I would be able to live in Southeast Asia while studying. The program not only offers great*



Kate and her friends enjoying the view during a field trip.

teaching in the classroom but it also organizes various trips in Thailand and the region, a wonderful complement to the studies. I chose Chula because the SEA Studies program was the best option in the region, and because living in Bangkok and learning with local professors would be, and it was, an important and unique addition to the experience of a Master's Degree.

GZCU: How did it feel to attend the Master's commencement ceremony and to receive the degree?

Kate: *It was such a wonderful experience; everything, from the preparation process to the actual day. I began having goose bumps from the moment I started rehearsals, and also when I ordered my gown and when I went to Chula to take the first photos.*

I believe the word that better fits the Commencement Ceremony is "incredible". All day long we were surrounded by friends, professors and other students who shared every part of the event with us. The acknowledgement the students receive for their achievement was incredible. The event itself was just beautiful; the ceremony is a mixture of elegance and fun. My favorite part was the prayer at the end of the event; sitting there with the other students, the first moment we were all together, almost 2400 graduates, offering our efforts and our diplomas to the founder of the University, King Chulalongkorn, that was the most memorable experience I've had in a long time. But in general, the whole process and the whole event were worth every second.



A trip to Indonesia organized by SEAS Chula



Kate Vlady, radiant in her CU graduation gown

Graduating from Chula, a school I've come to love so much in the past 2.5 years, gives me so much satisfaction. It's all been quite emotional for me. I love Chula and I love the SEAS program so I am very proud to be part of the alumni.

GZCU: How do you find the study atmosphere at Chula?

Kate: *Each program is different but for me studying at Chula was the most memorable experience I've had in a long time. Everything, from the pink buses to the different cafeterias, canteens, libraries... I loved it here. The atmosphere is great. The University is full of life, there are always events and so many things are happening. Chula is very well equipped with amazing libraries, great classrooms, internationally recognized professors and a variety of students from different parts of the world. I did my BA in a big university in Mexico, yet I never really felt the student life until I began studying at Chula. Particularly in the SEAS Program, they provided us with the best opportunities to learn inside and outside the classroom. We met reporters, politicians, writers and a variety of professors from different backgrounds. Being a student in Chula was so much fun; again, a unique experience that I recommend to anyone who has the chance to come here to study.*

GZCU: What is your plan for the future?

Kate: *I am currently working and studying Thai language in Bangkok with the prospect of applying in a couple of years for the PhD Program in Thai Studies, so clearly, I want to come back to Chula to learn more.*

Event

CU's Halal Science Center Pushes Forward Halal Food Standards and the Halal Industry of Thailand



The Opening ceremony of Halal Bangkok 2013 was attended by the Halal Department (the Central Islamic Council of Thailand), the Islamic Council of Bangkok, the Halal Science Center (CU) and Halal Bangkok representatives.

During 26-28 April, 2013, Chulalongkorn University's Halal Science Center joined the exhibition "Halal Bangkok 2013" at the Royal Bangkok Sports Club (RBSC) to promote Thailand's potential in Halal Science.

"Halal Bangkok 2013" was organized cooperatively by four organizations, the Halal Affairs Department, the Central Islamic Council

of Thailand, the Islamic Council of Bangkok, Chulalongkorn University's Halal Science Center and Halal Bangkok team, on the theme, "Thai Halal products are of the world's best". The exhibition emphasized the idea of integration between the Islamic religion and Halal science and technology. The objective was to enhance knowledge of Thailand's Halal industry among the Thai public,

ASEAN countries and the world market. In addition, the exhibition raised awareness of the development and potential of Thailand's Halal science and technology to help make the quality and high standard of Thai Halal products recognized worldwide.

"Halal Bangkok 2013" marked a new standard in the presentation Halal culture and products as well as the culture and lifestyle of the Muslim community in Bangkok, while also helping to stimulate growth in the economy and the Halal Industry of Thailand.



Asst. Prof. Dr. Winai Dahlan, the Founder Director of CU Halal Science Center, gives an interview to the press at the exhibition.

ASEAN Student Leaders Forum 2013

A Big Step Forward in Consolidating the ASEAN Community

The Student Government of Chulalongkorn University (SGCU) convened the forum, "ASEAN Student Leaders Forum 2013" during 21-25 June 2013, following up on the first event of its kind, which was held with great success last year at Nanyang Technological University in Singapore.

The conference, organized around the theme, "Toward the ASEAN Dream", was held on the 9th floor of the Maha Chakri Sirindhorn Building, Chulalongkorn University President Professor Pirom Kamolratanakul, M.D., presided over the opening on Saturday, June 22, 2013, after which former Prime Minister Abhisit Vejjajiva delivered a speech on the subject, "The Importance of Students in the Establishment of ASEAN", in which he highlighted both the economic and socio-cultural importance of the establishment of the ASEAN Community.

The objectives of this five-day forum are to encourage student leaders from 26 universities to share innovative ideas and experiences.



Prof. Pirom Kamolratanakul, M.D., presents a memento to former PM, Abhisit Vejjajiva.

This shared knowledge can be a key element in solving problems and promoting the integrity of the region's youth. The interaction also serves to prepare Thai students for ASEAN integration by 2015, as well as to build more effective collaboration among student leaders in each region, contributing in that way to the fulfillment of the ASEAN Dream of "One Vision, One Identity and One Community".



Student leaders present their ideas on the role of ASEAN students in the future.

The conference encompassed a variety of activities, including a conference discussion among ASEAN students, a parallel conference of vice presidents, an excursion, social development activities, a mini-tour at Chulalongkorn University and a reception for 170 participants including Chula students and student leaders from 25 AUN member universities. Brunei will host this ASEAN youth leadership forum next year.

“CU First Date 2013”

Welcoming New Chula Freshmen

On Saturday, May 11, 2013, the Student Government of Chulalongkorn University (SGCU) held an event on the theme, “CU First Date: the First Page of our Memories” to welcome new incoming Chula students. The event took place in front of the main auditorium near the statues of King Rama V and King Rama VI.

Assoc. Dr. Tanit Tongthong presided over this all-day event, delivering a speech about how impressive it is to become a Chula student and encouraging new students to make friends among their fellow freshmen and also with juniors and seniors in the convivial and exciting atmosphere of the activities that the seniors had arranged.



On the evening of “CU Freshmen ‘56: 1-2-3” the newcomers are up and dancing.



Joyful freshmen raise their hands as they enjoy the day's activities.

(Photo by CU Photo Club)

There were subsequent freshmen welcoming events such as an initiation ceremony “CU Freshmen ‘56: 1-2-3”, at which there were not only activities created by the seniors but also live performances put on by the famous bands Armchair, Better Weather, and Flure. These concerts were held from 25 to 27 May for the express purposes of giving new “nisis” or freshmen a warm welcome and to get friendships and unity among them off to a happy start.

The ‘CU Open Badminton 2013 Inspired by ThaiPBS’ Tournament



ThaiPBS representative (left) and Professor Pirom Kamolratanakul, M.D., President of Chulalongkorn University, on live broadcast of the tournament on its final day.

During 10-16 June 2013, the ‘CU Open Badminton 2013 Inspired by ThaiPBS’ tournament was held at the CU Sports Complex with the aim of bringing together top players of all ages to compete for prizes which included HRH Princess Maha Chakri Sirindhorn Trophy as the top prize.

Assoc. Prof. Dr. Parinya Luangpitak-Chumphon, Faculty of Medicine, Chulalongkorn University, the tournament chief, said that this was the second open badminton tournament hosted by Chulalongkorn University, and the first co-hosted by ThaiPBS (Thai Public Broadcasting Service). There were 11 levels based on the age of the competitors. The categories were men’s doubles, men’s singles, women’s doubles, women’s singles, and mixed doubles. Winners of the youth singles aged up to 18 years old and the open singles were awarded Her Royal Highness Princess Maha Chakri Sirindhorn Trophies. The total sum of all the awards was over 700,000 baht.

In addition, competitors in the youth singles matches aged up to 18 years old who ranked among the top three in each discipline also acquired increased eligibility to be admitted to study at Chulalongkorn University as talented athletes. The project called Chang Puak (White Elephant) has

aimed for years to develop national sports competency of Thailand while also providing opportunities for higher education for students who are not only academically qualified but also versatile in extracurricular activities.



Oranate D. Caballes (Richy), CU freshman in Faculty of Sports Science and actress, enthusiastically practices and joins CU team for the tournament.

Snapshots

CU Commencement Day 2013



Thumbs up for the joyful finale of years of successful study at Chula. (Photo by Klongsaeng)



Juniors form a circle around new graduates while singing them a song. (Photo by Klongsaeng)



New graduates pose for a photo that they will cherish in the future. (Photo by Ormchai Bugsabong)



Kate Vlady proudly displays her Master's Degree from the SEAS Program at CU.

This year's commencement ceremony took place on July 11th and 12th. A big crowd of new graduates together with their friends and family as well as present students and professors were there to take part. The happy mood came not only from the celebrating, but also from the sense of accomplishment all of the students felt at having successfully completed their study at this prestigious university. Here are some photos that show the high spirits everyone felt at the ceremony.

Seminar on "Thailand Health Service System and Qualified Research"

Date: 29 July 2013

Host : Faculty of Medicine, Chulalongkorn University
Tel: (66) 2256 4000 (3641) Email: contact@trc-hs.org

International Logistics Conference: "ASEAN Logistics Connectivity: Challenges and Opportunities"

Date : 30-31 July 2013

Host : Transportation Institute, Chulalongkorn University
Tel : 66) 2218 7444 (47,50) Email: tri-conference@chula.ac.th

Seminar and Workshop: "Extraordinary Speech and Personality Program (ESP)"

Date: 3-4 August 2013

Host : Department of Speech Communication and Performing Arts, Faculty of Communication Arts, Chulalongkorn University
Tel: (66) 2218 2205
Contact: www.facebook.com/scat.fanpage

International Academic Conference: "Roles of Public Health Science Towards ASEAN Community"

Date : 1 October 2013

Host : College of Public Health Sciences, Chulalongkorn University
Tel : (66) 2218 8230
Contact: <http://www.cphs.chula.ac.th>

Calendar of Events