

Dennis Hong, DaVinci Robot Scientist

Interview with Dennis Hong



The “Robot Evolution by Intelligent Design” lecture was held by the famous robot scientist Dennis Hong as an International Lecture Series on August 5th. About 500 people, including UNIST students and Ulsan citizens, attended. Dennis Hong, also known as the DaVinci of the robotics field, is a professor at Virginia Polytechnic Institute and State University, and is a head of the RoMeLa research center (Robotics & Mechanisms Laboratory).

Dr. Hong started off with a big smile. He lectured about his robots and his inventions, introducing many robots such as DARwIn, CLIMBER, THOR, and more. He explained the principles

of robotics and how he gets his ideas. Dr. Hong excitedly talked about Robocup, a soccer competition for robots. He showed the trophy that the U.S.A received for the first time and encouraged students to bring the Robocup trophy to Korea. When he made a car that could be driven without a human driver he thought, ‘why not make this car to be driven by the blind? It is not driven by anyone anyways.’ but it was not as easy as he thought. To really understand the blind, he actually lived with them and experienced their life. He came to the conclusion that visually disabled were same as the abled, and realized their absolute right to happiness. Dr. Hong

also showed his very humanistic side. When his ultimate success, DARwIn was requested from all over the world, he made it open source so anyone could access it. Despite the chance of earning millions, he felt that technology was belonged to everyone.

Students were encouraged to ask many questions and lots of interesting discussions took place. The entire audience seemed satisfied with the lecture. “It was interesting to learn about a variety of robots and creative ideas to make robots. I gained respect for Dennis Hong, for developing techniques for humanity, not only for his own profit.” said Moon-kyung Cho, a freshman student. Just like what he is known for, the lecture was very cheerful and informative. Nothing more can be said, than that Dennis Hong is a perfect scientist even with a warm heart.

The lecture is available at UNIST library, and an interview Dr. Hong can be accessed by QR code.



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Q. How do you feel about coming to UNIST?

A. I knew about UNIST, but it’s my first time to come here and it is very impressive. It has been established only 5 years but the amount of publication is surprising, and the vision of the school is also impressive. The school has done a lot of things within a short time. I think UNIST can be top 3 in Korea within 10-20 years.

Q. What is your motivation to make robots that contribute to humans and society, like the car for the blind and THOR?

A. I am a very selfish person. I make those robots for myself. The reason is that I become happy when I give happiness to others. Thus I make robots that can contribute to others happiness.

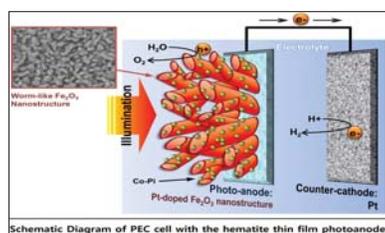
Q. If you could go back to your 20’s, like UNIST students, what would you do?

A. When I was a student, I did what I should do to achieve my dream. So I would do the same thing if I went back to being a student, because I don’t regret my life. Ever since I decided to be a robot scientist when I was 7, I did my best. I studied really hard and I played really hard as well!

Q. You are called as an genius robot scientist. What do you think the definition of genius is?

A. First, I am not a genius. People say that I am a genius but I never thought that I am. I don’t know what the exact definition of genius is, but I think genius is not always a good word. This is because, I try really hard to achieve goal. But if someone says I am a genius, the effort of what I have done is not recognized.

Wormlike Hematite Photoanode Breaks the World-Record for Solar Hydrogen Production Efficiency



A research team from UNIST, South Korea, developed a “wormlike” hematite photoanode that can convert sunlight and water to clean hydrogen energy with a record-breaking high efficiency of 5.3%. This research was published in Scientific Reports, a science journal published by the Nature Publishing Group. The previous record of solar hydrogen efficiency among stable oxide semiconductor photoanodes was 4.2% owned by the research group of Prof. Michael Graetzel at the Ecole Polytechnique de Lausanne, Switzerland. The key to the solar water splitting technology is the semiconductor photocatalysts that absorb sunlight and split water to hydrogen and oxygen using the absorbed solar energy. Hematite, an iron oxide (the rust of iron, Fe₂O₃) absorbs an ample amount of

sunlight. It also has excellent stability in water, a low price, and environmentally benign characteristics. Thus it has been a most popular and promising candidate of photoanode material for solar water splitting over the last two decades. However, hematite has a critical drawback, an extremely poor electrical conducting property. Thus most of the hematite anodes have exhibited very low performance. Prof. Jae Sung Lee of UNIST and coworkers employed a series of modifications to improve the properties of hematite. First, a unique single-crystalline “wormlike” morphology was produced by using a nanomaterial synthesis technique. Second, a small amount of platinum was introduced into the hematite lattice as doping. Finally, a cobalt catalyst was employed to help oxygen evolution reaction. These modifications reduced energy loss due to charge recombination and brought the record-breaking solar-to-hydrogen conversion efficiency.

Public Relations team

Non-Precious Metal Catalysts Outperforming Pt-based One by UNIST Research Team



Researchers from UNIST, Korea Institute of Energy Research (KIER), and Brookhaven National Laboratory, have discovered a new family of non-precious metal catalysts. These catalysts exhibit better performance than platinum in oxygen-reduction reaction (ORR) only with 10 % of the production cost of a platinum catalyst. The finding, described in Nature’s Scientific Reports, provides an important step towards circumventing the biggest obstacle to widespread commercialization of fuel cell technology. Fuel cells have various advantages compared to internal combustion engines or batteries, due to their high energy conversion efficiency and environmentally benign and quiet operation conditions. However, the high cost and instability of platinum catalysts for oxygen reduction reaction at the cathode have critically impeded the extensive application of polymer electrolyte fuel cells. The UNIST research team reported on a new family of non-precious metal

catalysts based on ordered mesoporous-porphyrinic carbons with high surface areas and tunable pore structures.

“Our synthetic strategy for the non-precious metal catalysts included a multitude of advantages that would be favorable to PEFC applications” said Prof. Sang hoon Joo. “First, our synthetic method is amenable to simple and mild experimental conditions. Second, the synthesis of the M-OMPC catalysts could be readily scaled up to a few tens of grams in a single batch. Third, well-developed, hierarchical micro-mesoporosity would be advantageous for efficient transport of fuels and by-products. Finally, the M-OMPC catalysts showed very high surface areas, which could significantly increase the density of the catalytically active sites accessible to reactants.” The research was led by Sang Hoon Joo, professor of the School of Nano-Bioscience and Chemical Engineering at UNIST. Fellow authors include: Jae Yeong Cheon from UNIST; Gu-Gon Park from the Korea Institute of Energy Research (KIER); Radoslav R. Adzic from the Chemistry Department of the Brookhaven National Laboratory.

Public Relations team

New Catalyst Replaceable Platinum for Electric-Automobiles



Korean researchers from UNIST, S. Korea, developed a novel bio-inspired composite electrocatalyst outperforming platinum.

This research work was published on June 25, in the journal *Nature Communications*. The research team from UNIST, S. Korea, developed an inexpensive and scalable bio-inspired composite electrocatalyst, iron phthalocyanine with an axial ligand anchored on single-walled carbon nanotubes, demonstrating a higher electrocatalytic activity for oxygen reduction than the state-of-the-art Pt/C catalysts as well as an exceptional durability during cycling in an alkaline media.

The UNIST research team led by Prof. Jaephil Cho, dean of the Interdisciplinary School of Green Energy of UNIST, demonstrated a new strategy to rationally design inexpensive and durable electrochemical oxygen reduction catalysts for metal-air batteries and fuel cells.

The resulting material, bio-inspired FePc-Py-CNTs catalyst has shown outstanding durability and electrocatalytic activity for ORR in an alkaline media, offering better performance than a commercial Pt/C catalyst. Compared to other unpyrilyzed metal macrocycles catalysts, this bio inspired FePc-Py-CNTs catalyst has achieved a much longer cycle life, reaching more than 1,000 cycles in a durability test.

"I believe the FePc-Py-CNTs catalysts is a technologically promising candidate for practical applications in metal-air batteries and alkaline fuel cells," said Prof. Cho. "The origin of the enhanced performance for these bio-inspired catalysts in an aromatic macrocycle, provides important insight into the rational design of metal macrocycle catalysts for other applications such as solar harvesting and catalysts for other redox reactions."

The fellow researchers include Ruiguo Cao, Ranjit Thapa, Hyejung Kim, Xiaodong Xu, and Prof. Noejung Park from UNIST and researchers from Pohang Accelerator Laboratory (PAL), Los Alamos National Laboratory and Georgia Institute of Technology.

Public Relations team

Two in One Solution for Low Cost Polymer LEDs and Solar Cells

Considerable improvement in device performance of polymer-based optoelectronic devices is reported by researchers from UNIST. The new plasmonic material, can be applied to both polymer light-emitting diodes (PLEDs) and polymer solar cells (PSCs), with world-record high performance, through a simple and cheap process.

The contrary demands of these devices mean that there are few metal nanoparticles that can enhance performance in PLEDs and PSCs at the same time.

Most semiconducting optoelectronic devices (OEDs), including photodiodes, solar cells, light emitting diodes (LEDs), and semiconductor lasers, are based on inorganic materials. Examples include gallium nitride for light-emitting diodes and silicon for solar cells.

The material prepared by the UNIST research team is easy to synthesize with basic equipment and has low-temperature solution processability. This enables roll-to-roll mass production techniques and is suitable for printed electronic devices.

"Our work is significant also because it anticipates the realization of electrically driven laser devices by utilizing carbon dot*-supported silver nanoparticles (CD-Ag NPs) as plasmonic materials," said Prof. Byeong-Su Kim, Interdisciplinary School of Green Energy (ISGE). "The material allows significant radiative emission and additional light absorption, leading to remarkably enhanced current efficiency."

The team demonstrated efficient PLEDs and PSCs using surface Plasmon resonance enhancement with CD-Ag NPs. The PLEDs achieved a remarkably high current efficiency (from 11.65 to

27.16 cd A⁻¹) and luminous efficiency (LE) (from 6.33 to 18.54 lm W⁻¹).

PSCs produced in this way showed enhanced power conversion efficiency (PCE) (from 7.53 to 8.31%) and internal quantum efficiency (IQE) (from 91 to 99% at 460 nm). The LE (18.54 lm W⁻¹) and IQE (99%) are among the highest values reported to date in fluorescent PLEDs and PSCs, respectively.

"These significant improvements in device efficiency demonstrate that surface Plasmon resonance materials constitute a versatile and effective route for achieving high performance polymer LEDs and polymer solar cells," said Prof. Jin Young Kim (ISGE). "This approach shows promise as a route for the realization of electrically driven polymer lasers."

The fellow researchers include Hyosung Choi, Seo-Jin Ko, Yuri Choi, Taehyo Kim, Boram Lee, and Prof. Myung Hoon Song from UNIST, and researchers from Chungnam National University, Pusan National University, and Gwangju Institute of Science and Technology.

This research was supported by a WCU (World Class University) program through the Korea Science and Engineering Foundation funded by the Ministry of Education, Science and Technology, the National Research Foundation of Korea Grant, the Korea Healthcare technology R&D Project, the Ministry of Health & Welfare, Korea and the International Cooperation of the Korea Institute of Energy Technology Evaluation and Planning (KETEP) grant funded by the Korean government Ministry of Knowledge Economy.

Public Relations team

New Leader Rules the School of Technology Management

An interview with Prof. Kooyul Jung

On the 7th floor of the TMB, there is a man who is busy doing his work. This busy man is Kooyul Jung, the new head of the Technology Management School. Let's look closer and find who he is.

Q. What made you come to UNIST and what was your first impression of UNIST?

A. I wanted to find a challenging job that I can do. As a head of the Business College at KAIST, there was not much I could do since it had already grown a lot. UNIST, as you know, is developing fast and I want to contribute to the School of Technology Management. I think UNIST is really active and students are studious.

Q. How was your time at university?

A. My time at university was full of wandering. Externally, in the 1970's, there were a lot of demonstrations. The schools were closed for almost half of the year. Internally, I didn't like what I studied. When I entered university, my major was chemistry but I felt it didn't suit me. I wanted to learn something

more related to society. That's why I decided to change my major to business and that was successful.

Q. How would you define business?

A. Business is a study about growing leadership and cultivating insight; leadership that can handle people and insight that can give direction to others. These two comes from having good knowledge of many things. This way, a person who majors in business can respond to changes creatively.

Q. What do you suggest UNIST students should do in college life?

A. Spend your time wisely. Read a lot and work a lot! You need to read different genres of books: philosophy, history, et cetera. Reading books will help you get some fresh ideas. Do some inside and outside activities. Get some exercise. Psychological and physical activities will make you overcome your limitations.

Q. There are many students who have difficulty in choosing between getting a job and entering graduate

school or choosing their majors. What do you suggest?

A. I want students to choose what they want to do. Don't just follow trends. Trends always change. You need to look at the wider picture of life. Of course, you must put in time to think about what you are actually interested in. In order to make an informed decision, you need some help; getting some advice from seniors, going to job fairs or graduate school presentations, and so on.

Q. Have you had any difficulties as the head of the Technology Management School?

A. I don't really have many difficulties since I haven't worked for a long time. I'm frustrated, however, that people from outside don't know there is a business school in UNIST. It is a problem awaiting a solution to this school for being the top business school in Korea. This is a mission given to me to solve.

Q. What goal do you think the School



of Technology Management should set?

A. Briefly speaking, the School of Technology Management should target at fostering 'creative global business leaders'.

Q. Lastly, could you say a few words to undergraduate students of Technology Management?

A. We will do our best to achieve our school's goal, so I want students to actively participate in what the school does.

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Extension of Student Union Building

More spaces for students' activities



The number of students in UNIST has increased since 2009, the year when the first freshmen arrived. In 2012, every grade on campus was finally filled. Accordingly, the space for students' activities is getting scarce.

'Infinite Beat', the 3rd student union introduced a bill to the 'Central Student Community Council' to solve this problem. They decided to develop the idea of making use of inefficient space around the 2nd floor terrace in the student union building to be extended upward. Consequently, they settled an appointment with President Moo-je Cho bringing a finalized version of the pre-blueprint for the extended building. It was approved by him in April and the final blueprint was decided in October.

The whole building process will be completed before the freshmen of 2014 enter

campus. The whole size of the extension will be 2 floors from the 2nd floor to the 3rd floor upward based on the terrace located on the 2nd floor. 16 NEW rooms will be available for the regular societies. 4 among them are as big as the existing society rooms which are only available by reservation, and the others are the same size as the existing usual rooms. Especially there is one special biggest room as large as a lecture room in TMB, which is sufficient for almost 30 students. This room will be equipped with a beam projector for the students to hold meetings or prepare for job interviews.

Moreover, one of the things that you should notice is that this will bring new office rooms for each school department student union. It's expected that the student union and each school union will get together in the same building finally.

Sung-hwan Kim, the president of the student union, said "This is a very meaningful moment for the students to get enough space for extra-curricular activities. Also, the whole process from identifying the problem to enacting the solution was democratic and mature"

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E-sports in UNIST and the World

Everybody's heard of Real Madrid, Barcelona, and Manchester United. They are famous football teams. Now, let's see if anybody's heard of Najin Sword, CJ Entus Frost, or KT Rolster. What are they? They are famous E-sports (Electronic sports) teams. E-sports are basically an organized video game competition. E-sports are a new type of sports that emerged first in 1972. Now, in the 21st century, it has become a really popular event. Some examples of these games are Starcraft, Warcraft, and League of Legends. League of Legends (aka. LOL) is Especially popular these days. Currently, around 70 million users play LOL worldwide. Just by looking at the users, you can tell that it is currently one of the hottest games in the 21st century.

As you can see, LOL is a hot topic. In fact, the first UNIST LOL championships took place in the library computer room at UNIST recently. Now, let's look at the reason why the LOL championships were made. Arranged by the UNIST Club union, the LOL league competitions were added in order to acknowledge e-sports as an official sports culture, along with other conventional physical sports such as football or baseball. Also, it had an advertising effect for people who didn't know about these e-sports.

Now that we know about the UNIST LOL championships, let's look behind the curtains, seeing how the UNIST club

union prepared for the championships. The club union borrowed the computer room for about 10 days, thanks to the library information service team and the student support team. The prize money and other necessary fees needed for the preparation of the tournament were obtained using the entry fee of the 24 teams and the club union fee.

However, there were some complaints from some of the teams participating in the UNIST LOL championships. The championships were supposed to take place in the library computer room, but for some of the early games, the club union wasn't able to borrow the computer room yet. So, some teams had to meet up personally with the rival team and play the game with their own computers.

In the UNIST LOL league competition, 24 teams competed for the prize of, 200,000 won. The entry fee for each team was 20,000 won, and if a penta-kill (5 kills in a short time) occurred during the match, an additional 50,000 won would be distributed to the team. As of September 21, 2013, six teams were left. Now, three teams per league team will compete in the semi-finals, deciding the winner by best out of three matches. Then, the finals will take place, decided by the best out of five matches. So, currently nobody knows who the final winner will be.

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Internationals or Outsiders?

International students are having hard time becoming a part of UNIST

Have you ever had any international students as your team member in any classes? Also, do you know that English Commons Zone in UNIST is actually for all, not for only internationals? However, Koreans are hardly seen there, and it naturally became a rendezvous for foreign students.

The number of international students in UNIST is gradually increasing and they're from everywhere, from Ghana to Germany. However, it seems UNIST and the internationals don't blend with each other even though UNIST aims at joining the ranks of top "global" universities. The discord is everywhere, distressing every inch of their campus life.

Firstly, quite a few international students pointed out the contest posters or the instructions are all in Korean except for the title. The contests are for everybody in UNIST but international students don't feel they belong to the university when this kind of things happens. Also, English cannot be found on the dormitory bulletin board such as an announcement for the leadership project. They can't even get information clearly though they asked for a help since some officers in UNIST can't fluently deliver the instruction in English.

UNIST cafeterias don't help them either. Most international students don't eat at the UNIST cafeteria. Since all three menus taste the same, with similar main dishes and diets coming out just few days later. They want to enjoy distinctive cuisines with diverse themes, not the "international" menu which is not international at all.

Nevertheless, the worst problem is the English-unfriendly environment. The offi-

cial languages of UNIST are both Korean and English. However, many Korean students and even some professors feel uncomfortable with at least trying to speak in English. Korean students, usually, are reluctant to be in the same group with internationals in classes since they don't prefer talking in English. Besides, some professors give lectures in Korean when there are few or no international students. There was an incident once when one professor gathered all the international students in one group, broke it up since the internationals complained, and announced that he would give an extra credit for Korean groups taking internationals as their team members. What's that supposed to mean? With these reasons, international students often drop the courses or take another for the international students only.

UNIST gave a positive impression for the international students at first with the emphasis on an English-friendly environment in addition to the scholarship. However, they're having a hard time feeling in tune with UNIST and mostly they feel like outsiders here. Some hope for specific solutions such as the poster in both Korean and English, or more Korean language courses. UNIST seriously needs to figure out these internal problems for those who would like to be the part of the university. Otherwise, UNIST might be a university with the goal of becoming world-leading institution with no international students in the nearer future.

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The Chamber of Secrets in UNIST

Have you ever imagined a secret door, a secret chamber hidden inside your home, filled with mysterious objects? When you were young, everybody probably had their imagination spin off with wild fantasies of these adventures. Now, you are in UNIST, a very real, very mature place. Is there any secret room of mysteries in UNIST?

Unfortunately, there are no such things in UNIST. However, there are some quite useful additional services and hidden functions that people don't know about in UNIST. The first service is the internet web disk on the UNIST portal page. Many software programs that are useful in academic life are not free. Hangul and Microsoft Office are examples. However, in the internet disk, all of this software is free. Hangul, MS office, DevTools, Vaccines, and even Windows and Linux OS are available from the portal web disk. You just have to log into the portal site, then click on 'inetDisk' in 'info services'. Then you will have the entire arsenal at your disposal.

The second service is inside the UNIST library. The library is a common place to read and borrow books, and study at UNIST. However, many people don't know that the library also supports many information-related services. For example, if you go to the library website and 'suggest a purchase' in 'services', you can request the library to buy books you need and put them on the bookshelves. Of course, you have to give credible reasons why, since the librarian will evaluate your suggestion. Another useful service is also in the UNIST library. On the counter of the second floor of the library, to the left of the elevator, you can borrow various DVDs. Not only documentaries and lectures, but also famous American and British dramas such as 'Sherlock' are available. Also there is a DVD room inside the library, with comfy sofas and big TV screens, so you can watch the borrowed DVDs inside the library.

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UNISTAR'S Favorite Restaurant

Have you heard of Anchangsal-Gukbab?



When you are tired from all the assignments, quizzes and exams, a nice to release stress is by having a bowl of your favorite food. Here is a guy who always goes to eat a bowl of hot gukbab and a plate of suyuk when he feels tired. Kim Dayeon is in the Division of General Studies, and a regular customer of Jangteo-Gukbab located in Samsan-Dong. He introduced it as having the most delicious gukbab and suyuk in Ulsan.

The dish is called 'SuyukBaekban' which means a meal with a bowl of gukbab, suyuk, and side dishes. Dayeon said "There is something special in their gukbab compared to others".

When it was served, we notice something different. Other gukbabs are a very oily and greasy soup with a bowl of rice. However it was nothing like anyone had expected. Dayeon said "This plain tasting soup is one of the main reasons why I like here that much."

The special one is called anchangsal-gukbab made of anchangsal which means "outside skirt." Outside skirt is a cut of beef with a very light and clean taste, different from pork belly. Also it is a very rare cut and that's why usually it is hard to find in other restaurants' menus. He said "The soup tastes truly deep and clean, so whenever I am tired and depressed I come here to relieve all the stress."

The suyuk is also special. Usually people eat it with Kimchi, but here, the suyuk doesn't require any other things. He said "Once I ate the suyuk here, I was totally hooked on the unique flavor of it and could not go to other restaurants! It was perfectly delicious as it is." It tastes like garlic chicken somehow. The owner said "The very nice sauce is made of crushed garlic, pear and pepper. It's really good".

The owner added that his mother ran the restaurant for 20 years before he inherited it a few years ago. It became popular, so now they have opened more than 10 stores in Ulsan. He told the secret of his success. "I go to the market every single morning, and use only handpicked ingredients that have been produced domestically." said the owner. Moreover, he explained his management philosophy saying, "The most important thing is our customers have to have a good feeling when they leave." He said that if UNIST students come and visit the restaurant he will give them 1000 won off!

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Kusama Yayoi Exhibition Held in Daegu, Sold Over 150,000 Tickets



Kusama Yayoi, the famous Japanese artist, has a tour exhibition in her eighty's, titled 'A Dream I Dreamed'. The tour starts from Daegu and will move to other major Asian cities, such as Seoul and Taipei, with the motif of net and dot patterns.

She started as an artist when she was 23 years old. Her reputation has grown worldwide since she developed her art in New York in 1957. Her works represent the obsession and illusion that reflect the exploration of her inner world.

Daegu Art Museum organized her exhibition from July 16th to November 3rd of this year. This exhibition includes 118 pieces of her recent works, including her trademark sculptures and the newest series of paintings with familiar themes such as dots, eyes, balloons, and pumpkins. Kim Seong-min, a visitor, said "Because of the title and the matter, I felt like I was in a fairy tale." And added "Ladders to heaven' is the most impressive piece among them."

The exhibition is especially popular with the young due to the cheap price and some

activities. Kim Jeong-ha, a visitor who wasn't previously interested in artistic works, said "It's very cheap and fun. There are lots of fun activities I could experience. I didn't realize the art was easy to come across. I felt I got closer to the art."

According to Moon Hyun-joo, in the public relations department of the museum, the number of people who have attended this exhibition will soon be over 200,000. Compared to the whole attendance of last year, around 150,000, this has been the largest audience the museum ever had. Thanks to this exhibition, the museum has been able to raise its fame on a national and world scale. Kim Hae-sook, a citizen of Daegu, said "Many people around me recommend it, so I'm planning to visit it soon."

The admission ticket is 5000 won for and adult and 2000 won for a child. Closed on Monday. For more information, visit www.daeguartmuseum.org or call 053)7-90-3070~1.

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Play in Ba-bo Intersection

Ulsan, Ulsan University, and UNIST students decided to make the cultural basis for the youth. They established the "Play in Ba-bo Intersection" project. Now 'I love Ulsan' at Ulsan University, 'Enactus UNIST' at UNIST and the Institute of Ulsan Culture Industry have planned the project and are carrying it out.

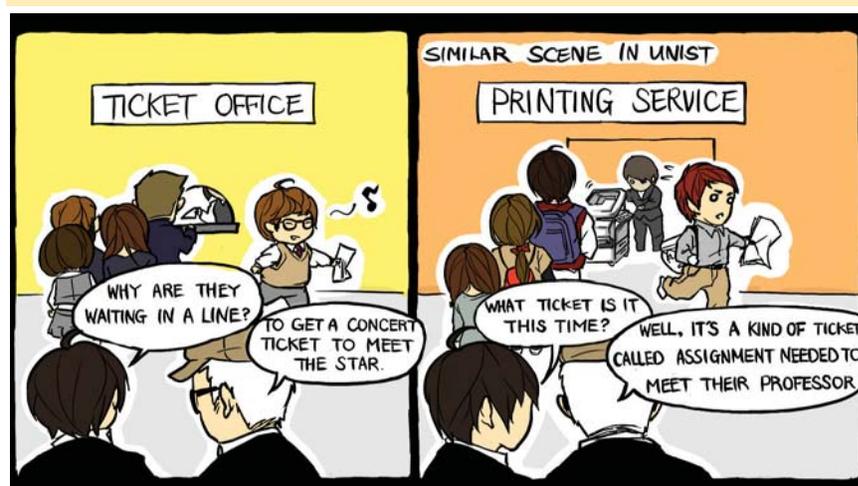
The ultimate purpose of "Play in Ba-bo Intersection" is to decorate Ba-bo intersection to continuously be a center place for youth culture, like Hong-dae street in Seoul. They are planning to proceed with the cultural work for youth in Ulsan until February 2014. Their present objectives are two. One is advertisement of "Play Ba-bo Intersection". The other is making proper spaces for young people to enjoy.

For completing these objectives, they will make music events and culture projects for the young. A music band in Ulsan, "Usan-deul -gi- gwi-chan-ah", has also participated in this project. In

addition, they are now planning a live radio program. Its name is "Would you like to eat Ramen?" They will invite music bands in Ulsan and make a special music festival. They will gather and give music bands in Ulsan an opportunity to play music on the Ba-bo intersection. For various culture events, they will not only research the needs of the young and make events but also will publish magazines.

However, the sustainability depends on the reaction of the youth in Ulsan to the infrastructures of culture. Su-yong Kim, the president of Enactus UNIST, one of the heads of "Play in Ba-bo Intersection" project, said "I hope that people become aware of the high possibility that Ulsan can be a cultural city. Above all, the young and university students in Ulsan have to realize their culture and take an active part in it."

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'Kyongnam Bank Dulegil', Innovative Application Launched



'Kyongnam Bank Dulegil', a new smartphone application, was launched last September to help the customers of Kyongnam Bank travel around Kyongnam. The purpose of the app is to reward them. The Dulegil app consists of a total of 54 roads showing beautiful and unexplored regions all over Kyongnam. It was developed by adapting a book, 'Walk the Dulegil of Kyongnam Area'.

People can search for information depending on region, distance, level of difficulty, and theme. The theme course is divided between mountains, local cultures and the ocean. A movement feature called

'Darami', can record exercise time, distance, and how many calories I burned by GPS. "I think it is a very smart application because when I went off track, it notified me. Also, I could know calories burned and it encouraged me" said Yea-ji Kim who is a student in Ulsan University.

In addition, there are financial products which people can only sign up on their smart phones. It offers preferential rates according to the distance explored with the Dulegil app. "I can use it to save money as well as exercise. During that time, I could see beautiful views, earn financial benefits and also exercise at the same time. It is like killing three birds with one stone." said Taheun Kim, a student in Ulsan University.

However, One flaw is that iPhone users may have difficulty managing battery life. However, it can be solved by turning on a sleep mode or power saving mode. "I hope many people use this app if you live in Ulsan." suggested Na-ri Min, an Ulsan citizen.

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Energy Drinks, Are They Alright?

Indiscriminate intake causes side effects

Energy drinks become usual not only in the library but also in bars. People drink them to study all night, play all night or recover the next day. The desire to make the day longer prompted this craze for energy drinks but it has resulted in severe side effects.

People drink energy drinks because of the ingredients in the beverage, such as guarana and taurine. Guarana helps the relaxation of muscles to recover from fatigue. Also, it accelerates blood circulation and brain activity. It has three times more caffeine than coffee. So we can call energy drinks high-caffeine drinks. Taurine is a kind of amino acid. Its effect is muscle recovery, fatigue recovery, nerve stability, and the prevention of geriatric diseases.

Energy drinks' side effects all come from the caffeine. It contains 0.37mg caffeine per 1ml. In particular, caffeine has a stipulated acceptable daily intake. For adults, this is 400mg, for pregnant woman it is under 300mg, and in the case of teenagers it is 2.5mg per 1kg of their

weight. When a teenager drinks 2 cans of energy drinks, this can exceed the acceptable amount of caffeine intake for one day. A lot of caffeine makes people become caffeine and it leads to anxiety and insomnia.

A survey was conducted for 50 UNIST students by The UNIST Journal. The survey shows that main reason students drink energy drinks is to stay awake all night. Some people answered they feel that it is helpful for fatigue recovery. Also, 30% of respondents who consume energy drinks answer they have experienced feeling side effects; fast heart beat, nausea, numb fingers and tiredness after waking.

There are some ways to recover from fatigue without energy drinks. Taking a walk, taking forty winks, or taking a shower can be good solutions to avoid energy drinks. There is a proverb 'Overdone is worse than undone.' Excessive intake of energy drinks makes people devastated.

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Hipsters?



Many people are busy trying to keep up with the trendiest fashion, newest music and to possess the hot item that eagerly attracts people's desire to be the forefront of trends.

In the midst of this society, there is a group of people, a large group indeed that shuns the mainstream culture and defines themselves as intelligent, different and authentic individuals. This group of people has been labeled as 'hipsters'. Hipster does not refer to a type of underpants here, but according to Urban Dictionary, hipster

refers to a subculture of young adults mostly in 20s and 30s that value independent thinking, counter-culture, progressive politics and appreciation of indie rock, creativity, literature and artful wit.

Try searching for 'hipster' in Google and you will easily be able to find distinctive and superficial features of hipsters. One easy way to distinguish hipsters would be by their fashion. Hipsters tend to reject the mass produced fashion items that attract consumers through excess advertisements. They tend to fill their closets with clothes

bought from vintage and thrift stores that smell a bit funny and seem a bit out of style. Their pride in their individual belief is embedded in the fabric of their baggy old checkered shirt, tight skinny jeans and black glasses that sit nicely on their noses. The irony of this is that most hipsters are actually very stylish and fashionable in such ways that invoke people to copy their fashion. Now it is a little ambiguous in terms of defining the real 'hipster fashion' because hipsters aren't 'hip' anymore if everyone else is 'hip' too.

Another hipster personality is that they move away from the popular culture and nurture their own authentic, liberal urbanity. This is related to their love for indie music. Indie music refers to alternative music that consists of artists and bands, which are not part of big record labels but those who produce music on their own, 'independently'. The music is usually unaffected by the popular inclinations of pop music. Hipsters enjoy discovering hidden gem and savoring underground musician's work before anyone else. Hipsters also love coffee, drinking tea, reading, riding bicycles and going on 'tumblr'. They tend to be very knowledgeable in organic food, environmental issues, art, music and they love bantering with their fellow hipster friends.

Various features can be said when describing hipsters but one main thing is how they have an individual set of mind and keep away from following the current trend vigorously. Like hipsters who appeal their individuality with pride, why don't you think about what you really like and express yourself?

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It has been 5 years since the establishment of UNIST. Due to the lack of information of career paths, many students face problems planning their future career. Additionally as over 80% of the first graduates entered graduate school, UNIST students - especially the Management students - are having difficulties getting prepared for job application. We would like to give various advice about pursuing further studies on your major or getting a job. We would also like to hear Senior's advice who went through these things all before us.

Become a Bachelor and a Master at the Speed of Light

Many UNIST undergraduate students are concerned with their courses and career. Some students want to go graduate school to study deeply. Since some companies provide a better salary for a Master's degree than a Bachelor's degree, students go on to graduate school. However, to get a Master's degree, students could study and research for 2 years. If they have trouble studying and writing papers, may take more than two years. UNIST students are worried about the time required to get a Master's degree. Then the "Combined Bachelor's and Master's degree Program" can be the answer for them.

If UNIST undergraduate students want to go to UNIST graduate school rather than other graduate school, it would be good for them to consider the "Combined Bachelor's and Master's degree Program". It lets students get a Bachelor's degree and a Master's degree faster than the normal time required for graduation. Basically, most universities require students to complete three and a half years for a Bachelor's degree and one and a half years for a Master's. Students can finish the whole course for a Bachelor's degree and a Master's degree in 5 years.

In the case of UNIST, undergraduate students who have been registered more than 2 years and have an average GPA of at least 3.4/4.3 can apply for the "Combined Bachelor's and Ma-

ster's degree Program". To apply for the program, students have to prepare an application, the recommendation of their adviser professor, a study plan, and a certificate of school record. If students have difficulty in getting their advisor's signature, students can submit exchanged emails that guarantee the professor's recommendation. If there are any questions about the required credits or subjects, it is recommended to visit by or contact the corresponding graduate school office, not the undergraduate office.

What are the advantages of the curriculum? Students can reduce the time needed to get both degrees. If they get the degrees in a short time, they will have more time for plans after the master's degree such as studying abroad. In addition, people who get a Master's degree have much higher research abilities, data collecting ability, other careers, and social lives. If they get a job in a company, they have a better chance to take lead projects and their own works than people who earned just a Bachelor's degree. In contrast, what are the disadvantages of the curriculum? To complete a Master's degree in one and a half years, students have to study harder and can't afford to write their articles leisurely. They should research, do experiments, and write their articles at the same time.

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Meeting With Early Graduated Student Interview with Heesung Han



Q. Why did you decide to go to the graduate school?

A. I'm interested in researching and studying. That's why I enter the graduate school and want to study interesting field. Also, my dream is a professor. To realize my dream, I enter the graduate school and research doing my best.

Q. Tell me the opinion about early graduation.

A. The important reason that I graduate earlier than other students is entering the society early with honor. Usually, people think that early graduated students don't have enough time to enjoy and study all day long. It is misunderstood. If you spend your time efficiently, you could have enough time to enjoy. Instead you have to study harder than other students and don't be grieved to many things.

Q. What is your major and research field?

A. My major is magnetic property. Specifically, I will research the spin trionics. Spin trionics field is using the electron spin quantity comparing existing electronics using electronic charge.

Q. What is your future plan?

A. Before graduating the undergraduate school, I want to achieve more and more. In December I'll present at the International Conference on Advanced Materials and Devices. I want to get an award at that conference. Then I want to give a paper during undergraduate student. After graduation, I will concentrate on the research.

Q. Give the advice to your junior about entering graduate school.

A. Experience the various laboratory which you can experience the experiment directly. Thinking about this experiment is appropriate for me. This is very important. Because experiment that you choosing is the whole life work. When you are confused to making a decision, ask the professors and seniors.

Let's Get a Job in the Financial Sector!

A special lecture about financial employment was held on the evening of Tuesday, September 10th. The lecture was organized by Yu-hwon Weon, Human Resources Manager of Samsung Securities. The first half was the financial sector lecture to help overall understanding and the other was a typical interview response strategy.

There are many students who think getting a job is difficult because UNIST students have few helpful seniors or due to the feeling that most students go to a graduate school. However, diverse special lectures at UNIST help students prepare for an employment, whenever they're opened.

The financial sector is divided into the banking sector, referring to banks, and the non-banking sector such as securities firms, or insurance companies. The speaker said major doesn't matter but expertise and responsibility are important. Many people think marketing is important but it's not a primary task when you work in the financial sector.

The speaker said each field requires a proper person for their company. For example, they want a sincere person in the field of the bank. Otherwise, they want one with passion and challenging spirit in the area of security. Leadership is required in the field of insurance. That's because insurance and security companies are in form of outdoor sales so an employee has visit and sell directly.

To join a company, we have to go through a similar process consisting of résumé, personality and aptitude test, and interview. Especially, the personality and aptitude test, such as Samsung's SSAT is different for each company so preparing early is helpful. In other words, you should prepare it case by case.

Lastly, in an interview response strategy part, the speaker said actually companies just want a person who can work together for a long time rather than who is smart or sincere. He finally shared a tip that you should not say "I'm not good at interview." or "I overstrained myself." because it gives a bad impression like lacking in confidence. He recommended that saying captivating word is better than saying "maybe I'll do better on the next one."

"Among the special lectures on job I took this week, this lecture was the most helpful frankly. It was systematic, clear, and understandable with adequate instances. Getting a job in a finance company is not my first priority but this lecture helped me understand how the Korean financial system is structured. Also, my friend getting ready to work in a monetary institution told me it was an excellent opportunity getting close to the general structure of finance. We could get minute tips and advices for interviews and writing résumé. I was really satisfied in overall", said Ji-won Lee, from TM

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UNIST Career Study Group

Group of students aim at the same goal of looking for an occupation

Many UNIST students may not be aware of it, or ever have paid an attention to it, but the UNIST career study group is coming through for the students who are eager to get a job right after the graduation. Launched this July, the UNIST career study group was made under a clear sense of purpose to prepare specifically for the jobs students want, and to have a great relationship with people who share the same goal.

Mainly consisting of juniors and seniors, with few sophomores and graduates, the study group is divided into two teams called the 'General Company Team' and the 'Public enterprise team'. They have a meeting once a week in a lecture room. It usually deals with the personality and aptitude interview, debate, personal presentation, to discuss about current affairs, and preparation of a résumé.

The members in engineering field aim for the several leading companies, such as SK, Hyundai, LG, and so on. Also, others in the school of Technology Management make great efforts for the financial enterprises, or the banks. General companies and public enterprises have a distinctive recruitment process so the 'General Company Team' focuses on a personality and aptitude test such as SSAT or DCAT. Of course, the 'Public Enterprise Team' concentrates on tests for their majors and a discus-

sion.

Great support from university, such as the invitation of guest speakers, one-on-one consulting, study camps, and data or references only for the group members has been a

tremendous groundwork for this study group to systematically get prepared for the future.

Kwang-hoo Oh, the president of this study group, quoted "An ounce of prevention is worth a pound of cure" and emphasized the importance preparing for an experience in advance. People live in ease and believe getting a job will happen sometime in the future but in reality, it's way harder since the shortcomings are found and unexpected things occur often, especially at the interviews. He mentioned, "Participating not only in this study group, but other groups or meetings for the preparation in advance is encouraged." His final goal is to visit UNIST in the near future and have a lecture for the future UNISTARS. That's why he wants members with apparent goals and sincere attitudes, to "enjoy" getting a job.

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Hyundai Motor Finally Reached the Wage and Collective Agreement



Hyundai motor finally entered into an annual contract of the wage and collective agreement with the Metal Union Hyundai Motor Branch, approved by 55.1 percent of the workers.

Starting from May 2013, the negotiation continued for 4 months until September, 12th, which was longer than usual. This year, the labor union focused on raising the basic salaries and ensuring their health welfare. Kwon Oh-il, the spokesman of the labor union, said "It's ridiculous that the basic salary of a worker with a 24-year career is just around 2 million won per month." Finally the basic salaries reached 97 thousand won by mutual consent. They also raised the accident compensation by 50%. In addition, they requested fair distribution and a guarantee of employment.

During the ne-gotiation, they had partial strikes which cost 1.22 trillion won in lost

production. Moon Yo-ng-mo-on, the president of the union, exp-ressed his disappointment saying "It's our reasonable action to exercise our rig-hts. I know people consider us as the noble workers. However, we deserve to get the money and welfare because we work for more than 3,000 hours on average." Kwon added, "The right is clearly stated in the labor laws that we must have the wage contract annually and the collective agreement every 2 years."

However, although they reached mutual consent this year, the fundamental problem of the relationship between management and labor is still entangled. Moon highlighted the importance of understanding each other and added, "But if the company continues this kind of narrow-minded attitude, it will remain unsolved."

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The First Nuplex in Korea

Synergy effect is expected by Ulsan's environment

This summer, due to the unprecedented heat, the shortage of electricity was severe. Electric power shortages are always a hot issue in summer but every year this problem is becoming more serious. Moreover, existing nuclear power plants are too old to produce high efficiency and often have trouble to produce the energy we need. Meanwhile, Ulsan has found a solution to solve the electric shortage. Ulju-gun announced that a nuclear fusion industrial complex will be established in Ulsan Ulju-gun Seosaeng-myeon region.

Nuplex is a new compound word of nuclear and complex, which indicates an industry group concerning nuclear power. In this Nuplex, there will be companies related to nuclear power plants and nuclear fusion, foundation for nuclear power plant materials and equipment, an innovation center of nuclear fusion IT technology and so on. It will create regional jobs and make regional development by establishing Ulsan nuclear fusion industrial complex. An Ulju-gun official said, "After building the nuclear fusion industrial complex, Ulju-gun will play a role as a pivot city of nuclear power generation."

In Korea it is the first time to establish Nuplex. Ulsan is very good place for a

nuclear fusion industrial complex. In Ulsan Shin-go-ri nuclear power plants 1 and 2 are placed and 3, 4, 5, and 6 are under construction. Also, KEPCO International Nuclear Graduate School (KINGS) and Ulsan National Institute of Science and Technology (UNIST) are nearby to educate about related technology and produce talented students in this field. Furthermore, the research institute is located in Ulsan Technopark and a large number of certificates related to nuclear power plant technology are in Ulsan. Therefore the city can produce a synergy effect much more in Ulsan when Nuplex is built.

Now, Ulju-gun is conducting a study to establish the validity of this Nuplex until the first half of next year. After the study is completed, construction will begin in 2015 and will be completed by 2018. The necessity of constructing a nuclear fusion industrial complex was realized in the past, but due to several accidents at nuclear power plants in other countries it subsided and progress became slower. As Ulsan's surrounding is suitable, its synergy effect is worth expecting and will be the Mecca of Korea's nuclear industry.

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Government Pushes Forward Installing Kinetic Dam by Bangudae Petroglyphs

Tedious arguments of Bangudae Petroglyphs come to an end

The government announced that it would build a kinetic dam, a transparent protection wall, inside Sayeon Dam in Sayeon-ri, Ulsan, to protect the 'Ulju Daegok-ri Bangudae Petroglyphs' from further water erosion.

The Bangudae Petroglyphs were discovered in 1971 and are considered to be masterpieces of pre-historic. About 307 individual drawings, including images of numerous humans, animals, ships and unknown creatures are carved on the rocks. This site has been a UNESCO World Heritage candidate since 2011. It was even introduced in Archeology, a French archeology journal, as the world's oldest drawings perfectly describing whale hunts. This article was entitled 'The Lives of Korean Whale Hunters Carved on the Rocks 7,000 Years Ago'. This National Treasure No. 285, however, has been under the water 4~8 months a year for 48 years.

Protection of the Bangudae Petroglyphs has been delayed due to a conflict of ideas between the Cultural Heritage Administration and Ulsan Metropolitan City. Cultural Heritage Administration wants Ulsan to lower the water levels at Sayeon Dam so that the engravings would not be under the water. Ulsan refused this suggestion, reasoning that it would result in a shortage of Ulsan citizens' drinking water. The city of Ulsan believes building an ecological bank is the solution. This is also not a perfect solution because Bangudae Petroglyphs



could not be registered as a World Heritage site by UNESCO.

To end these tedious arguments, the office for Government Policy Coordination came out meditating the Bangudae Petroglyphs dispute. Through this mediation, the Cultural Heritage Administration and Ulsan metropolitan city consented to the 'Kinetic Dam' project. A kinetic dam is a portable, transparent protection wall around the ancient engravings, so that the water will not reach the artifact. According to the Prime Minister's Office, experts will first test for feasibility and safety before the installation of the dam.

The cost of installing the kinetic dam is estimated to be about 10.5 billion won. The government will cover 70% from the national expenditure, 30% from local expenditure. With the construction of the kinetic dam, the Banguedae Petroglyphs should be protected as everybody has hoped for a long time.

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Course Registration Catastrophe

8:59am. The most intense time of the day where one second changes everything. The time you wake up, the group of people you will see, professors you will absorb knowledge from and of course, the courses you will take next semester. You may think it is quite absurd to call this frustration a 'catastrophe' but course registration is connected to more serious things than just your time table.

Registering for course you require to graduate college seems like such a simple thing to do. However story behind is that over thousands of students compete for the same major course, which are compulsory for graduation. If a student misses a click even by 0.0001 seconds, then God knows when they will be able to finish their degrees.

In order to be the 'early bird that catches the worm' some students even develop their own programs that enable thousand clicks per second just to increase their chances of registering the course. These programs are banned by many universities in Korea as they may inhibit other innocent students from clicking that one button they need. Other traditional methods are checking the Internet server time to accurately log in and register and logging on to two computers to increase the probability of getting the goal.

The most unfortunate phenomenon that sprung from this would be the hot business deals that wait for students. Sales for courses of different universities are actively made online and the most surprising thing is that despite the exorbitant price of the courses on sale, desperate students purchase the deals. These deals are made because the courses students take can critically affect their GPA and consequently the quality of their resume they will hand in.

Problems that come from course registration are not only present in universities in Korea. UC Berkeley manages this problem by dividing registration schedules in majors, so different majors register on different days. Other Korean universities such as Seoul National University and Yonsei University also divide the registration schedule by grades.

In a society like this, you must compete for everything. It seems like these days students must compete vigorously for courses despite paying thousands of dollars for college, even before entering the real world.

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Social Responsibility for UNIST Students

Prof. Hyomin Kim (Division of General Studies)

In our times, the public seems to fear too many things - radioactive contamination, vaccine side-effects, GM (genetically modified) foods, mad cow disease, and high-voltage power lines. The list can go on. As students majoring in science/engineering, you might wonder: why can't the public keep calm and listen to what experts say? Why can't the public just trust that science/engineering will eventually provide solutions?

Unfortunately, the age of technological optimism, famously phrased by Vannevar Bush as "science, the endless frontier", is waning globally. When the outbreak of human vCJD (variant Creutzfeldt-Jakob) occurred in 1996, the British government's and scientists' early assurance of food safety resulted in strong public distrust later. Many people feel uncomfortable about the rapid progress of biotechnology and information technology. The public do not blindly trust the promise that scientific/technological progress will ultimately trickle down to their socio-economic well-being. They question all authorities including scientific expertise. Then, how will scientists and engineers sur-

vive in a crisis of trust?

This was the question tackled by a select committee of the House of Lords in the Parliament of the United Kingdom in 1999. The committee, composed of scientists, engineers, social scientists, and politicians, wrote a report titled "Science and Society" starting with a problem statement: Society's relationship with science is in a critical phase. What was the solution? In sum, the report encouraged scientists and engineers to move out of the laboratory and into the community. Ten years later, a partnership between science/engineering and communities has become a global trend.

Here is one example. The Turtle Roadway Mortality Study is a citizen science project in Massachusetts which aims to minimize road-associated mortality in turtles during their migrations. Volunteers contribute information on turtle crossing hotspots and wildlife roadkills. Importantly, citizens do not simply play the role of research assistants collecting data; they also participate in designing research plans, interpreting data, and applying the analysis to make policy

suggestions related with road construction.

What is the social impact of such exercises? Citizens learn through their own experience that science and technology work both as destructors and protectors of the environment and communities. They also learn that naked observation alone cannot lead to meaningful policy suggestions; rather, extensive data should be analyzed in ways that require complex theories as well as sophisticated methodologies and instruments.

Finally, through these experiences citizens can also learn that some decisions need to be made allowing for a margin of error.

Here we can understand that encounters between scientists/engineers and the public are not limited to a light version of science education. Recent public outreach programs increasingly emphasize empowering citizens to understand the process of science/engineering along with its inevitable limitations. With a well-designed program, citizens can understand that science/engineering is not an answer sheet for a problem but a course of action to construct a reliable enough way of

representing and improving the world.

That perspective, not citizens memorizing the chemical structure of amino acids, will turn a crisis of trust into new opportunities for scientists and engineers. Citizens who understand the strengths, limitations, and relevance of science and engineering in their lives will construct an innovative and sustainable form of science-friendly culture. I hope UNIST students, prospective scientists/engineers, take the responsibility of meeting this crisis of trust in a proactive manner. Take genuine interest in public and community affairs. Think of effective forms of science-citizen encounters. To quote Bill Gates, "As we look ahead into the next century, leaders will be those who empower others".



Two Keys to Staying Happy

Eugene Smart (School of Technology Management, Junior)



The life of a UNIST student may not be as perfect as we all perceived it to be. It's an adventure whereby we sometimes feel happy and excited about the things happening in our lives, and we sometimes get depressed, or stressed out due to the problems and challenges we face. Studying at UNIST can be exciting, but a daunting experience as well. We are usually confronted with challenges that dampen our mood. Break-ups, homesickness, difficulty in adjusting to a particular culture, difficulty in speaking English or Korean, low GPA, fear of losing one's scholarship, just to mention a few, are some of the problems or challenges that we may face as UNISTARS, which steal our joy and keep us from enjoying life. Nevertheless, it's perfectly possible for us to enjoy a happy life while we have problems. I like to think about problems as challenges. In every problem we encounter, there is always an opportunity to learn something new. Generally in life, we will always be confronted with challenges everywhere, and in any activity we engage in. Thus, if we decide to wait until we have no problems in life to be happy, then we will almost never be happy in life. "Happiness is not based on our circumstances, but on a decision we

make" (Joyce Meyer).

Learning how to focus on good things is one sure way to stay happy. What we focus on is what we magnify in our lives. Thus, if we tend to focus more on our problems, we magnify them. What we continuously think and talk about is what we consciously become aware of in our lives. We often focus on what we don't have, what people aren't doing, and what we are not, which is negative, and unhealthy. If there is a problem that needs to be dealt with, deal with it, but don't focus on it. Try to think about the possibilities in your life, and not the problems in your life. If you have a choice to think positive or negative thoughts, why would you want to think negative thoughts? Focusing on the wrong things steals your joy and happiness. We cannot be thinking inferior thoughts, and expect to have a bright day. We need to make a decision to enjoy life irrespective of what we have or what we don't have, and one way to do that is to focus on the good stuff and worry less about the things we don't own.

Another sure way to stay happy is to worry less about what we cannot do, and give our very best in what we can do. We often worry about things we cannot do anything about. We allow it to control and rule us. We cannot do anything about something we cannot change. Why worry about it if you cannot do anything about it? It's perfectly natural for us to worry when we encounter a difficulty, however, it becomes a problem when we worry too much, whereby it begins to control and rule us. The key is to focus on your core strengths, and make the very best use of it. I personally used to spend a lot of time trying to turn my weaknesses into strengths and dwelling on rejection and fear of failure. This stole my joy and my happiness. I realized that, we can enjoy everything in life even in its imperfect state. As students, we tend to worry a lot about our studies, stress out due to the amount of assignments, homework, and quizzes we need to complete, how

everything isn't going perfectly as planned, and how we wish things could change. But one thing we must realize is that, we spend the greatest part of our lives (time, energy, money) in school managing all of the stress and worries of school. Thus, I made a decision several years ago that, if I have to spend the next few years of my life managing all of these things, I am going to have fun doing it! This is because worrying and stressing about it would not solve the challenges that come along with education, it is rather going to steal your joy, happiness, and all the delight you could have had doing it. Worrying can be likened to a rocking chair, it keeps you busy but you end up doing nothing. One downside about worrying too much is that, the more you worry about things you cannot control, you begin to develop hatred for it, and the more you hate something, it makes it even harder to control, and less enjoyable. Stay focused on the good things in life, worry less about things you cannot control, and learn to celebrate the little victories you experience in life, and with that, you will be a step forward to enjoying a more happy life.



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