

UNIST VISION 2030

Proclaim the leap for world top 10

To develop a global university of research, through specialized fields of high-tech new material, secondary battery - graphene.

UNIST (Ulsan National Institute of Science and Technology, President Moo Je Cho) held the 'UNIST Vision 2030' proclamation ceremony in the Main Administrative Building auditorium on October 20th. The long-term vision for the university was proclaimed: "Develop a university which raises the competitiveness of the nation and contributes to a rich life for human beings' through creating global research products." The Minister of Education, Science and Technology, Ju-Ho Lee, guests, faculty, staff and students participated in this ceremony.

At the welcome speech, President Moo Je Cho said, "No university in the world can be the best in every field. Even Harvard or MIT aren't the best in every field. UNIST will be a global leader by specializing in the high-tech new material, and next generation energy fields through selection and concentration."

Minister Ju-Ho Lee, who gave a congratulatory address in this ceremony, said that UNIST will take the lead in converging research which assures creativity and independence. Also he promised active support to UNIST in the quest for a top 10 position through means such as 100% English lectures, and a successful interdisciplinary education and research program.

UNIST has been open for three years, and has contributed greatly to the improvements in research as it performed in important national research projects like World Class University (WCU), Science Research Center (SRC) and so on.

The Ministry of Education, Science and Technology announced the 'Science and Technology University Specializing and Promoting Plan' last July. This made public their plans for supporting especially UNIST's high-tech new material field (energy / bio / machinery parts), secondary battery, and graphene research. UNIST has continuously met expectations to improve in researching capability.

UNIST set a goal to become a top domestic, and a "world top 100 science and technology university" by 2017. As well, it will turn into a "world top 20 university" by 2020 (the time when the world class results came out). They have made a research and education infrastructure for being the global leader of science and technology.

The ceremony consisted of mentioning the history and importance of UNIST, a film, a reading of the declaration of vision, a promising performance, congratulatory video messages from important people, a memory orchestra performance, students' congratulatory performance, and a second orchestra.

Kwon, Keunyeong
Choi, Jieun



Welcome speech, President Moo Je Cho



The Ministry of Education, Science and Technology Ju-Ho Lee

Making a transparent chemical sensor on the bumpy shard of a beetle

The invention of a new technique that compounds a whole electric circuit in one step.



Prof. Jang-Ung Park
(Nano-Bioscience and Chemical Engineering)

A new technique that compounds a whole electric circuit with graphene has been invented under the initiative of a national researcher.

This collaborative research by Professor Jang-Ung Park (UNIST, 34), Doctor Seoung-Woo Nam, and

Professor Charles Lieber (Harvard University) has been conducted with the aid of "General Researcher Support Program" promoted by the Ministry of Science and Education (Minister Ju-Ho Lee) and Korean Research Foundation (Chairman Se-Jong Oh). The result of the research has been reported in an online article (November 21st) in "Nature Materials" a sister magazine of the world's most creditable scientific journal "Nature". The title of the paper is "Synthesis of monolithic graphene-graphite integrated electronics".

Professor Park's team has developed a technique that synthesizes a whole electric circuit chemically in one step by using graphene, which is different from the existing semiconductor chip based on the layer-by-layer fabrication steps.

The electric circuit compounded

through this method is transparent, thin and flexible because it is made of only graphene type ingredients of atomic layer width.

Until now, the manufacturing process of semiconductor chips has been done in a multi-level process in which metals and semiconducting materials pile up, forming a shape on top of a flat surface composed of rigid and brittle materials.

The technique developed by Professor Park's team builds the graphene-based electric circuit and the sensor in a one-step synthesis process instead of the existing complicated process. Graphene is a nano-substance composed of a layer of carbon atoms arranged in a honeycomb crystal lattice. If graphene layers are stacked, they become graphite. Professor Park's team constructed an electric circuit composed of graphene

and graphite by controlling the number of layers during synthesis. They have proposed a new concept of synthesizing an electric circuit in a one-step process rather than the existing multi-level process to make semiconductor chips.

Furthermore, the research team has made it possible for electric circuits to float in the water surface, and to attach easily to insects' shells, coins and other

curved surfaces, an impossible feature for chips manufactured in the traditional way.

Professor Jang-Ung Park has expressed his thoughts about his research: "This research can reduce the unit cost of production with its simple process of compounding the electric circuit, and it will allow electric circuits to attach to various matter because of its flexible and transparent property."



UNIST's unique research program for outstanding students

The purpose of the UNIST Summer Undergraduate Research Fellowship (U-SURF) is to make a place in which young scientists can participate in high technology research, preparing for the future of high fusion technology with professors. U-SURF offers experiment research which is necessary to help young scientists (junior, senior and master's students) to decide their own way. It also provides a variety of activities to make a human network.

The programs involved are: Energy Conversion and Storage, Technology Management, Environmental Science and Engineering, Life Science, Physics, Mechanical Engineering, Electrical Engineering, Bio Engineering, Urban Infrastructure Engineering, Interdisciplinary Design and Engineering, Materials Science and Engineering, Applied Mathematics, Nuclear Science and Engineering, Nano-Convergence Chemistry and Materials, and Computer Science Engineering.

Usually undergraduate students can't participate in research programs easily. UNIST participates in this program, U-SURF is unique to our school. Also, we have many advantages to take part in: Every student is offered dormitory space, a chance to use high technology machines, a chance to come to UNIST graduate school, and a chance to meet interchange student from University of Michigan. There is also an honor prize awarded to an elite student. I interviewed two interchange students, Garam Jun and Labiba Quaiyum, who participated in the U-SURF program.

Q. What was your motive for participating in U-SURF?

Garam Jun : I had various reasons to participate in the U-SURF program at UNIST. First of all, it gave me a reason to go visit Korea. My parents live in Korea, as well as most of my relatives, and I haven't seen them for a while. Being accepted to UNIST gave me the opportunity to spend the money necessary for the trip to Korea. However, this wasn't the biggest reason; obviously I wanted to participate in state-of-the-art research in Korea. I have been participating in research in the Materials Science and Engineering department here at the University of Michigan for two years. I



wanted to experience something different, something completely new. So I chose to research abroad, and chose UNIST.

Labiba Quaiyum : I have been actively considering the decision to try to go to grad school for sometime now, but to really make that decision I needed to experience research. U-SURF was the perfect solution. It was research experience which was short and sweet, and would help me decide my future. Moreover, the chance to experience a whole new country and culture was very tempting. All in all- U-SURF just added up to be the perfect option for me. And, I am glad to say I am still sticking to my wish to go to Grad School, and the research experience was both fun and enlightening.

Q. In which program did you participate?

G : The research that I did took place in the Organic Photonics and Optoelectronics Laboratory, in the Mechanical and Advanced Materials Department. The research dealt with organic LEDs and organic solar cells, things that have similar qualities to the research I was doing back at Michigan, yet this research also had completely different and new aspects to it.

L : I worked under Prof. Namhun Kim in the Design and Human Engineering Dept. His U-Cim lab focuses on Human in the System (HTS). I worked on a project involving mobile robots. Prof. Kim's vision for the project was to design a communicative or interactive environment for the

ring the situational information to the instances of a mobile robot control.

Q. What do you think is the strong point of U-SURF?

G : I believe that the strongest point of U-SURF is that it allows undergraduates to carry out high quality research that could have an impact in the fields of science and engineering. While I have done research at Michigan for two years, I haven't had that much experience with personal projects. At UNIST, I was able to go from start to finish with the research I did; I started with making a solar cell and finished with analyzing data. Being able to do this is something that I feel makes the U-SURF program really amazing. It develops creative thinking as well as the necessary skills for undergraduates who are thinking of pursuing a higher level of education in graduate school. Overall, the U-SURF program is a great program and I hope that more international students will be able to participate in the years to come.

L : I felt that the strongest point of U-SURF was the opportunity to work so closely with a faculty member. In most research positions, you work under a Grad Student. But U-SURF lets you work under a faculty member's guidance. I was very fortunate to have Prof. Kim helping me with my project. He was a great help in explaining the concept of affordance and making sure that I was heading in the right direction with my project.

Lim, Doyeon

Buddies are back

UBB, a program which matches an international student with a Korean student, started again for the fall semester. Although this program existed last year, it had difficulty in shaping the activities. UBB has recently revived as the UNIST International Center was newly formed.

For Korean students, UBB provides opportunities to explore other countries' cultures. For international students, activities are offered to help them adapt to the unfamiliar Korean culture. Buddies guide students around the school campus, introduce information about school life, and participate in public activities for foreign students.

Students selected as a buddy had their first meeting with foreign students before the semester began, where they briefly introduced themselves. UISO (UNIST International Students Organization) gave a welcome party to celebrate international students on September 3rd. They became familiar with one another through this party. They also enjoyed wearing Korean traditional costumes and having Korean foods on



September 28th. UNIST International Center is currently planning to explore Ulsan city during the upcoming vacation.

Compared with other universities' buddy programs, UNIST buddies are required to have responsibility and diligence as UBB has fewer public and compulsory activities. UBB puts an emphasis on independent activities the buddies can enjoy by themselves. The students are encouraged to see a movie together, go shopping, or take a tour to places where students have cultural experiences.

Jo, Shinyoung

Four Undergraduates Won Silver Medal at 2011 iGEM Competition

In the first ever entry to the competition, an undergraduate team from NBC returned home with a Silver Medal from the International Genetically Engineered Machine (iGEM) competition held on October 15 -16th in Hong Kong.

The UNIST iGEM team was comprised of four students Bok-Eun Song, Ee-Seul Shin, Yu-Lim Lee and Jae-Sung Yoo, and led by Professors Sung-Kuk Lee, Cheol-Min Ghim and graduate mentors Vinuselvi Parisutham, Jae-Myung Lee, Seung-Hun Jung and Jung-Min Park.

The Team's project, called "Cho-Co-Late", was to design and construct a novel programmed cell death device which distinguishes between a natural

environment and a bioreactor based on the environmental cues, such as light, temperature, and quorum sensing chemicals.

This year, four Korean teams participated in the iGEM competition, including Korea University (Bronze), Chungbuk National University, and KAIST.

The iGEM competition is the premiere undergraduate synthetic biology competition. Teams are given a molecular toolkit at the beginning of the summer from the Registry of Standard Biological Parts. Working at their own universities over the summer, they use these parts, as well as new parts of their own design, to build novel biological devices.

Lee, Gangsook

Won funding from the Basic Research Laboratory Program



Prof. Hyug Moo Kwon
(Nano-Bioscience and Chemical Engineering)

Could you tell me about your research?

We won funding from the Basic Research Laboratory program, sponsored by the Ministry of Education, Science and Technology. This program supports group research projects within academic departments in the fields of science, engineering, pharmacology and medicine. The title of the project is "TonEBP transcription factor in chronic kidney disease and renal inflammation,

and development of novel anti-inflammatory agent." Four professors in the School of Nano-Bioscience and Chemical Engineering - Do Yoonkyung, Lee Changwook, Nam Dougu, and myself have participated in the project with a total budget of 2.5 billion Won over five years.

The project aims to uncover fundamental knowledge on chronic kidney disease using mouse models, focusing on the TonEBP transcription factor. Cellular pathways of TonEBP will be investigated in specific cell types such as macrophages and dendritic cells. Novel anti-inflammatory agents will be developed by targeting TonEBP. Details of TonEBP action mechanisms will be uncovered at the atomic and molecular levels. As the director, I am particularly proud of this team because its members are truly multi-disciplinary, covering areas of pathophysiology, immunology, bioinformatics, and structural biology.

What is the significance of this research?

Inflammatory diseases such as chronic kidney disease, atherosclerosis, and rheumatoid arthritis impose a great deal of burden on developed countries like Korea because there are no effective therapies despite a high prevalence. My recent studies on patients and animals have revealed that the TonEBP transcription factor is an essential component of these inflammatory diseases. The project is likely to have a major impact not only on chronic kidney disease but also many other

inflammatory diseases in terms of therapy and risk assessment.

What were the most difficult things that you had to confront?

All scientific endeavors are time consuming and demand total commitment on the part of the investigators. In this regard, there have been no particular difficulties.

Who has helped with the research?

In the last 5 years, there have been many collaborators who have made critical contributions. Drs. Andrew Demaine and Afshin Parsa with clinical research, using diabetes patients and normal subjects; Dr. Kim Wan-Uk with rheumatoid arthritis; Drs. Brian Wamhoff and Gary Owens with atherosclerosis and other vascular diseases; and Udo Haster and Eric Feraile helped with inflammation.

Do you have some new plans for further research or other projects?

With this funding, I hope to train UNIST students in the field of biomedical science. My goal is to train the best scientists who will lead the world in the future.

I heard that you are the chief of the UNIST INTERNATIONAL CENTER (UIC). Isn't it difficult to manage both work and research?

Before joining UNIST last March, I had been Professor of Medicine in the USA for 21 years at Johns Hopkins University and the University of Maryland. I hope to use this experience to help

UNIST to become a global institution. Of course, I worry that the UIC directorship might compromise my research efforts. However, I think it would be minimal because the research environment at UNIST is outstanding, including state-of-the-art equipment and well-managed administrative system.

How do you feel about the English-only classes that are carried out at UNIST?

UNIST aims to lead at the global stage. Use of English is an essential component of the global education. We have to learn from the great European countries like Germany, France, and Italy. Even though these countries have longer science histories than England, their top universities have been using English in their science, engineering, and medical schools. They understand that their stage is the world.

Do you have advice for our paper (THE UNIST JOURNAL), which is publishing its second edition?

I believe this paper should be an essential tool and medium for the globalization of UNIST. I urge the entire UNIST community, regardless of your nationality, to embrace this paper and make it a central venue to exchange ideas, and to learn and understand the diversity of the world. I hope your staff understands this with a great sense of mission.

Lee, Taeheo

UNISTARS experienced becoming global representatives

Students win Governor's Prize at International Conference

From September 29th to October 1st, the second UNCCDCOP international imitation UN conference for university students was held at Changwon university, to open the United Nations Convention to Combat Desertification successfully.

The event was supported by Gyeongsang-namdo and the forest government. 130 university students from Korea and 10 international students from China, Australia, Germany, Brazil, and Vietnam participated in this conference.

There were four committees, with topics : the way how connect effectively with the UN Convention on the environment, the role of non-governmental organizations to solve the desertification problem, increasing global recognition of desertification solutions, and the direction of the International Development Cooperation to solve the desertification problem.

In this conference four students, Kim Ji-hyung, Ahn sung-a, Kim su-hyun, and Park ju-yeong, from UNIST won the Gyeongsang-namdo Governor's Prize, by confronting many International Relations Department students splendidly.

Q1 Why did you participate in the conference?

We are all concerned about current events. So the group 'si-eum' which means 'we hear a sound of times' debates on current event problems in ordinary times. Then we saw the poster about the imitation UN conference for university students and our group decided to participate.

Q2 How did you prepare for the conference?

We prepared the conference by studying hard for about two months after we registered. First, we tried to acquire information related to deserts. And we had to study international relations. We needed to know not only a nation's policy, but also the nation's atmosphere because we represented different countries. At the conference, a counterpart asked a concrete question like "Did your country fail with that



policy before?" So we have a responsibility as a representative of that nation, to find out lots of data about it. Finally, we investigate whether our policy about combat desertification would actually help the environment, and apply to the world situation.

Q3 You are science and technology students. Did this cause you any problems, since the conference is related with humanities?

We needed a lot of time studying international relations, political science, and diplomacy because we didn't study these fields before. But we invested in these things harder than other students, and this affected us positively. Also the science knowledge helped us to contradict our counterpart's opinions. In the conference, a counterpart gave some policy using technological terms, but it seemed careless to us. We refuted that policy by our scientific knowl-

edge and the counterpart couldn't say anything. (laughing)

If you are concerned about society or current events, your school department is not important for debating society's problems.

Q4 What made you feel tired in the preparation process?

There is so much information about each nation in the UNCCD official internet site, so it is difficult to find out useful data. Sometimes, we have difficulty in making an appointment with our partner because our schedule is different. But we can get over these things with our partnership.

Q5 You each represented a nation. Which did you represent?

Kim Suhyun: I participated in the first committee,

I represented Korea.

Kim Jihyung: I took charge of the Chile representatives. We chose the nation by drawing lots. I was very perplexed to take Chile. I barely know Chile, and I was not interested at all. But now, I know many things about Chile and I really want to go there.

Ahn Sunga: I was a Chile representative with Ji hyung. Chile was new to me, too.

Q6 What are your future plans?

Kim Suhyun: We will take part in more simulated debates. Also, we will take part in the 'national university student debate' annually. We will prepare debates in English in our club, because we building up to a debate in English, like the simulated debate. And we are preparing a program with a foreign professor in UNIST.

Q7 Finally, what are your thoughts about receiving this award?

Kim Jihyung: I want to be a "T-shaped person", someone who is distinguished in one field and also knows many things in different fields. When I prepared and took part in this simulated debate, I learned many different fields, like natural environment, international relations and so on, not in my major field. And I accumulated various experiences. Therefore, this activity is very meaningful, because I am becoming a "T-shaped person" through this activity.

Kim Suhyun: The English policy within our school became a great advantage in winning this award. If it hadn't been for our school's policy, we would have had a really hard time while preparing for this contest. Because all the meetings were held in English, we had to speak the language in a split-second. Therefore, I am thankful to the school officials who created this policy and to the "Si-eum" club members. In particular, I would like to thank Dr. Kang Sara, a professor School of Urban and Environmental Engineering, for her advice.

Lee, Gangseok

Jo, Hyejin

Study Abroad programs a hit

UNIST supports many students to go other countries

UNIST has 5 international programs to improve students' English ability and offers an opportunity to experience living abroad. The first is the 'student exchange program' in which a student earns credit by studying at another country's university which has a relationship with UNIST. The second is 'culture exchange program'. Through this program, students can go abroad and study in the language education center of another university during short time periods, such as a vacation or for one semester. The third is the Summer Session program. The fourth is the Lab tour program, in which students can visit other countries with her or his friends who have the same interests. Students can look around popular companies, laboratories or universities. The last one is UROP, meaning Undergraduate Research Opportunities Program.

Thanks to university support, 193 students went abroad during vacations since the programs started in 2010. In this summer vacation, 78 students went abroad through UROP, the summer session, the culture exchange program and the Lab tour program. They went to diverse countries like the USA, the UK, France, Kazakhstan and others.

Sujeong Go (21, Advanced Chemical Engineering) who participated in the Gateway program at the University of Manchester in the UK,

said that she felt that she has grown a lot even though her English skills had not improved sharply. Through this program, she made lots of new friends who came from another country. By making foreign friends, she could exchange cultures and learn about different cultures. After finishing her program, she traveled Europe from London to Rome.

She said, "It was wonderful time in my life. The trip in Europe gave me unforgettable memories." She also really wanted to say to thank you for all of the support from the school and others who helped.

Jiyoung Lee (22, Technology Management) who went to the University of Washington in the USA mentioned that one of the great moments in Seattle was USA Independence Day. In the Pioneer Square in the Seattle, she had a chance to talk with lots of other foreigners and took a nap on the grass. The observance of Independence Day includes fireworks. She said she'd never seen that kind of spectacle. The night sky was lit up with fireworks. She said, "I was so lucky to participate in this big event for the USA."

Most of the students who had a chance to visit other countries were quite satisfied with the contents of the program and their experience. Additionally, UNIST International Center faculty is planning to provide more opportunities for students.

Shin, Gawon

The things we didn't know about meal plan:

Talking with manager of dormitory & student's hall cafeteria

It's been three years since the meal plan started. Since the beginning, the meal plan was always a hot potato for the students, the school and the meal supplier "Our Home". It seems that the meal plan has many problems.

First of all, its quality is notorious among students, even though its price is not cheap (two



meals for a day 2,200₩, three meals for a day 1,860₩). In addition, there are restrictions on the amount of side dishes, and while students can choose one of three menus for lunch and two menus for dinner, preferred menus usually sell out as soon as the cafeteria opens. Furthermore, there are only two choices on the weekend, and protein is absolutely lacking.

A student cannot live in a dormitory if they don't have the meal plan.

The manager of "Our Home Unist" has changed three times, and some of these problems are slightly improved but still, students aren't satisfied with their meal plan.

According to the research by Unist Student Dormitory Committee, almost 70% of students hate their meal plan and feel it needs to be improved. Especially, they don't like the side dishes and they want more fruit. However, "Our Home" maintains their position, which is increasing the price. The school doesn't show any interest in this issue, and while students keep saying their opinions, there is nothing they can do with this because they don't have any alternative suppliers to "Our Home".

The Media Center found that this comes from a miscommunication between students and "Our Home", so here we try to make an occasion to understand each other. We made some questions based on students' request to "Our Home" and "Our Home" answered these questions.

Could you tell us about the unit price of the food which provided by "Our Home" and about the price of the other part such as labor cost, rental income and light and water expense?

The menu cost isn't always the same. It is provided between 1,250₩ and 1,650₩. The mean value is about 1,430₩. Usually, the cost of ingredients is 60%, labor cost is 28%, rental income and cost of maintenance (light and water expense) is 7%. For example, for 2 meals provided for a day at 2,200₩, this price includes tax. So by subtracting tax (2,200₩/1.1), in other words, by using 2,000₩ as criteria, we would



see the cost of ingredients at 1,200₩, labor cost at 560₩ and maintenance (light and water expense) at 140₩.

How about the 'skipping-meal-rate' (the number of students expected who don't eat).

The rate of skipping a meal has a big difference between weekday and weekend, morning and evening. First, weekday morning's skipping-meal-rate is more than 20% but lunch and evening's own is smaller than 10%. Meanwhile, on the weekend, there are slightly difference among the morning, lunch and evening. But the skipping-meal-rate is between 30%~40%.

What is the amount of food that has been prepared?

There is no definite answer to this question. We just prepare about 10%~15% more food than we think will be distributed. It can be considered as 'left food'.

The meal plan period is not completely the same as the scholarly curriculum. For example, last semester, the meal plan period was until Friday while the curriculum ended 3 days later, on Monday.

The last week is an exam period, and many students finished their final exam by Friday, so we decided to set the meal plan period until Friday to reduce student's loss for skipping meals. And for the students who stayed until Monday, we provided food from Saturday to Monday.

We thought that the meal plan schedule has some problems. For instance, at Chuseok, many students are not in the dormitory, and they don't eat meals in the cafeteria, but "Our Home" includes Chuseok. It doesn't make sense.

Even though at Chuseok, most students don't eat meals in the cafeteria, some do. That's why we include Chuseok in the meal plan, and fixed costs also contribute when this happens. It is inevitable.

In the case of Chuseok or weekends when the 'skipping-meal ratio' is relatively high, students who don't take their meals are dissatisfied with their loss. We already know that OurHome offers special menus as the solution, but many students feel that it is not enough to compensate for our high 'skipping-mealratio'. It means that quality and quantity of the foods are not satisfying for many people. How do you think about this?

For this question, I really want to insist my opinion. You can think the special menu doesn't have appropriate quality and quantity when consider the high skipping-meal ratio. But we expended more money than your expectation. For example, we expended more than 9,000₩ per student in ingredients cost for the pork belly special menu last semester. Of course, the material cost for this semester was not that high, roughly about 5,500₩. And, it's not only for offering the special menu for a limited time. We recognize the skipping-meal ratio, and reflect it in daily meals. As I already said, our material cost range is 1,250~1,650₩. Since we set 1,200₩ (this is for 2-meals per day student, this cost will be lower for 3-meals per day student) you can easily understand that you can enjoy this, better meal (in terms of material cost) partly due to the skipping-meal ratio. So I hope you don't think we are just taking all the profits for skipped meals.

Students are upset with the menu. First of all, "Our Home" doesn't reflect students' preference, and the nutritional balance is imperfect. After three years, we guess that

"Our Home" has data about students' preferences but it seems that it doesn't affect the meal plan. In addition, how do you think about the students' point about nutritional imbalance?

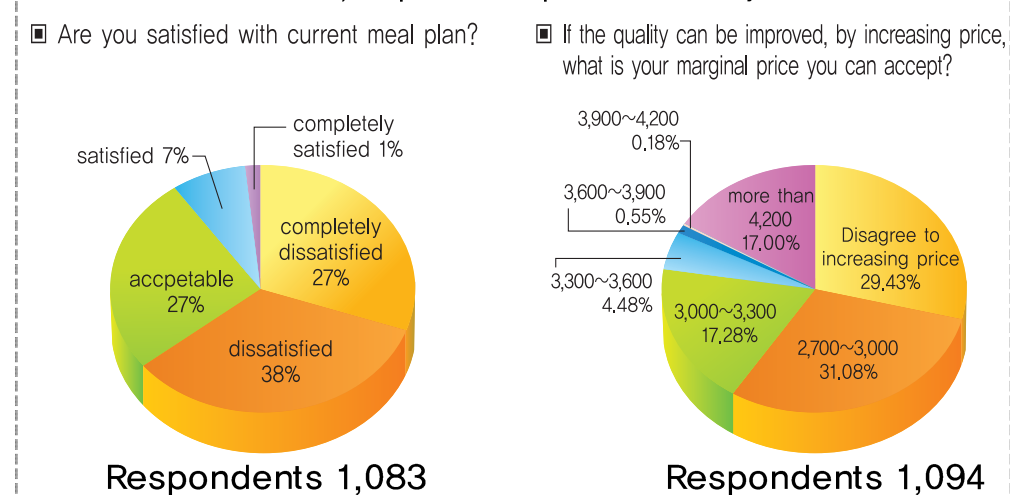
About students' preference, we think that there is no menu that will be "every students' favorite". According to this, the number of students who aren't satisfied with the daily menu has been growing. Furthermore, the menu which students want are including meat and instant food. These foods cost a lot and have imbalanced nutrition so it is not appropriate for student meal.

Instant and frozen food have a high ratio in the meal plan. This causes a nutritional imbalance and adds calories. Are you going to fix this menu?

No we can't. Those menus are the students' favorites, and if we decrease this ratio, students will complain about this. This is so evident, so it is hard to fix those menus.

Jung, Kyunghun
Lee, Teahae
Min, Hyungcheol

On the while, There was an simple survey about meal plan for who uses meal plan (students who live in dormitory). The survey was planned and done by USDC(Unist Student Dormitory Council). Thanks to effort of USDC, we publish the part of the survey here.



New symbol of UNIST, Media Tower

UNIST has installed a new 'Media Tower' at the entrance to campus, as an information delivery system to encourage communication, and complement or replace existing placards. The giant, 8x7.6m LED screen was placed with consideration of its visibility and its visual balance with the campus buildings. Furthermore, they are designing a plan for constructing an integrated multi-broadcasting system in the near future, which will uphold the reputation for being a high technology campus.



Using placards and printed matter for promotion has a lot of problems. In the case of the placards, they defile the appearance of the campus, and it can be hard to see the contents. In addition, they are expensive and cause damage to the environment because they are single-use. Paper promotion also not an effective way to promote, since its target might be only specific people who receive or see the paper. The media tower can address those problems effectively. Firstly, the media tower can increase the promotional effect because it is intended for unspecified individuals and can arouse their interest optically. Secondly, it is economical since it can cover many changing contents. Like this, the media tower can improve the information delivery system and interactive communication. So, the prestige of UNIST which aim for campus life based on high technology would be increased.

The media tower also will become a symbol of UNIST as the center of the integrated multi-broadcasting system. The School predicts a connection between the media tower and a

kiosk, and also internet broadcasting. When it is ready, announcing quick notices will be possible with an instant ticker or an emergency broadcast. Students can save many steps to check for important academic notices or other information.

Haisol Nam, a junior in the Interdisciplinary School of Green Energy, said, "When I did a task in the Lab, I was sometimes disturbed by the noise which occurred from friction between a placard and the wall. But now, I can concentrate on my task without noise, thanks to the media tower."

Another junior, Semin Oh, who belongs to the School of Nano-Bioscience and Chemical Engineering (NBC) said, "Whenever I walked on the street between the Natural Science building and Main Administration building, I used to feel deserted. But the media tower can fill the space with attractions and remove the lonesome feeling, so, I really like the media tower."

Kwon, Hyuneui

UNIST Cheerleading festival LaonNuri

The first festival was successfully came to an end

Friday, October 8th, the first Cheerleading Festival 'LaonNuri' was held in the open air theater at UNIST. The recent cheerleading event was hosted by the UNIST cheering squad UNICH, together with the POSTECH cheering squad CHEERO. At 8pm, many people came together in the open air theater, as the cheerleading festival was advertised and prepared successfully. To being, UNICH performed to the song 'spring waltz', followed by 'versailles's rose', the 'hahaha song', the 'Rage of the winter-Rhapsody of fire' and so on. After UNICH, POSTECH's cheering squad, CHEERO, performed a celebrity performance. Finally, UNICH taught everyone UNIST's cheering song.

After the performance, we interviewed Im Sowon, leader of UNICH, and Lee Donghyun, leader of CHEERO.

Please tell us about UNICH

Nice to meet you. I'm Im Sowon, the leader of UNICH. UNICH was founded in March 2011. We have performed at school festivals, freshman orientation, and other performances since we were founded. Before this, UNIST didn't have a cheering culture, so we want to make a cheering culture and give energy for Unistars.

What is your motivation of creating the



cheerleading festival?

The reason we prepared a cheerleading festival is because it's a chance to get along with each other. And we wish students to become lively. Also, it increases school's status through outside advertisement.

Did you have any difficulties in preparing the first cheerleading festival?

Because we are a school club, we cannot support enough money for school, so we had trouble in making money. Problems were discovered as we prepared the festival for the first time, but we are happy because many people came and enjoyed the fruits our efforts.

The festival's name is LaonNuri, what does it mean?

We selected this name through an in-school contest exhibit. 'Laon' means "happy", 'Nuri' means "world", so LaonNuri means "happy world".

How do you feel about the performance with CHEERO?

CHEERO is our role model. We learned many things from them, so we are happy to perform together. We want to thank them for coming to UNIST.

How can you develop the cheerleading festival for the future?

Because this was the first time, only a few people knew of its existence. From now on, we wish this festival will develop and the number of visiting people increases, along with the support and attention. We hope LaonNuri will be the main festival in Ulsan.

Please, introduce us to CHEERO.

Hello, I'm Lee Donghyun, leader of CHEERO. CHEERO was founded in 2002 to

cheer on POSTECH in a POSTECH-KAIST match. Now we participate in the POSTECH-KAIST match. Pohang festival, freshmen orientation and so on. Also, we are the squad that strives for uniting Postechians.

What were your first feelings when you came to UNIST? And, how to you feel about your performance with UNICH?

When we first came to UNIST, all the students were lively and the buildings are wonderful. Last year, we contacted UNICH, but we had no chance to perform together. This time, we are happy to perform with UNICH through this festival. We want to have more interchange with UNICH.

How can the cheerleading festival develop in the future?

First, we congratulate UNICH on their successful cheerleading festival. Thank you for inviting us to UNIST. From now on, LaonNuri will be a festival that all Unistars can enjoy and it will become specific to the culture of UNIST. The first festival was successful. Next time, we expect new cheering songs and more variety performances.

Does POSTECH have a cheerleading festival, like LaonNuri

Before the POSTECH-KAIST match, we had a final rehearsal in POSTECH. At that time, we performed our cheering song. During cheering orientation, we teach freshmen to our cheering song and perform cheerleading stunts.

The first cheerleading festival 'LaonNuri' was a success. Through this cheerleading festival, unistars feel that we are one, and a specific cheering culture will be made. Next time, a more developed performance is coming. This time, not only Unistars, but local residents will also enjoy the festival.

Jin, Wooyoung



UNIST-Ulju-gun Science Academy Mentoring Camp Complete Ceremony



This summer, UNIST held a free science academy mentoring camp to inspire hopes and dreams and to put power into the improving academic ability of the students living in Ulju district of Ulsan. Eighty mentees were selected from 3 middle schools located in Ulju district, and 20 mentors were selected by UNIST. Mentors taught mathematics and science came through a competition of 6 to 1 to get this volunteer. During the four week (from July 18th to August 19th) period of education, the students took part in English, Mathematics, Science, and Physical education classes, reading time, free study and extracurricular activities such as a special lecture by the astronaut San Go and an experiment with robots.

Each mentor took care of four mentees living together all day long. One student from Bumseo middle school said "It was really good to see how university students study as I lived with my mentor around the clock." His parents were also satisfied with that fact. One of parents of a Gooyoung middle student said their son liked his university student-teachers because they are different from his middle school teachers. They felt that this mentoring camp was a good opportunity for their son. Also, the student said "It was good to meet

other middle school students from Beomseo or Chunsang". Some of mentors, however, said they had a few hard days because they could not have their own private lives. On August 19th, the camp held a closing ceremony in the Technology Management Building. Along with the camp participants, mentors and their families, many celebrities attended the UNIST-Ulju-gun science academy mentoring camp ceremony. They were the president Moo Je Cho, the vice president Moo Young Jung, the Chief Information Officer Jin Hyoung Im, the Ulju-gun governor Jang Yeol Shin, the Ulju-gun Gang Gil Boo, the president of Ulju-gun assembly In Sik Choi, and principals of Gooyoung, Beomseo, and Chunsang middle schools. The ceremony included a congratulatory message from Moo Je Cho, president of UNIST. He celebrated the successful mentoring camp at UNIST, and said "I think it was good chance to inspire dreams of becoming a scientist who will drive our future." Awards were presented to the 8 most excellent students. After the awards ceremony, the UNIST-Ulju-gun science academy mentoring camp was completed by taking a commemorative photograph together.

Kim, Bada

Young scientist visits UNIST!

Explorer or E@U, is a special program for high school students, which ran this summer for three days, July 25th ~ 27th. The E@U program allows high school students to experience research education with UNIST professors and admissions officers.

Only 312 students, who are evaluated and selected based on an essay, teacher recommendation letter and a transcript of school records, can participate in this program. Sophomore students in international high schools, academic high schools, and foreign language schools can apply for the program. Students from every city took part in the program, though most were from Seoul area, Busan and Kyungnam.

The content was composed of experiencing 7 lectures for career exploration, a mock interview, mathematics and science lectures in English, a line tracer competition with seniors, physics biology chemistry labs, a lab and school tour, and watching club performances.

These programs give students a chance to know about UNIST, and help high school students to find their interest. The person in charge

of E@U said "The '2011 Summer Explorer @UNIST' program gave a big help to the student's, to explore their careers by experiencing top level of lectures and education with great professors. They had an opportunity to experience high technology, lectures to find their interest, and a mock interview for outstanding high school students."

Bae Su Yeon(18, Samchuck Girls Highschool) said "E@U helped me to find my way and information to enter the university. I was assured that I'm interested in science and engineering by the lectures. It was great that I could try experiments with undergraduate students. They gave me a lot of advice. The most interesting activity was the mock interview. I'm always afraid to talk in front of people, but through the mock interview, I could find my problems and gain confidence. One thing that I feel sad about is that the time is too short to learn everything at UNIST. If I have chance to participate in this camp again, I would be happy to join"

Lim, Doyeon

Surprising communication of 18 minutes!

TEDxUNIST to be held on December 3rd

TED is a nonprofit organization with the slogan "Ideas Worth Spreading". TED is the abbreviation of "Technology, Entertainment, Design". It started as a conference about these three fields, but it now also discusses fields such as Environment, Arts, Science etc. A TED conference is a time of communication in which

celebrity like Bill Gates, or Al Gore in the TED conferences. Anyone can give a lecture in public, if he or she has an idea that suits the slogan. Due to TED preconceived notions that only celebrities have something to say have been broken, and there is a new awareness that everyone can share their ideas. If you want to become a leader

is not an organization. It is an event that is organized independently of the program. To hold a TEDx lecture, we have to receive a license from TED.

Currently there are many TEDx events in Korea. TEDxMyeongdong held the most events in the world. UNIST is also preparing to hold a TEDxUNIST lecture on December 3rd.

These are the interview with the students who are in charge of TEDxUNIST.

Q1. What was the motive of starting the TEDxUNIST?

A: Could I say I was charmed with the slogan of TED? I planned to spread great ideas, such as TED's slogan, to the students of UNIST and other people. I would like to make an opportunity for the students to meet various people.

Q2. How did you make this team?

A: I think that just studying and doing assignments is not good. Sharing ideas is better than that, and I want to engage students more and more through this event. So we held the presentation party to share our ideas. We prepared food, the place for the party, and invited student speakers. Then one member was invited to TEDxBusan and we went to the event. We felt that this was similar with our party. Of course, we were impressed with TEDx. We wanted to do this event. Finally we made this team.

Q3. How is the current situation of

the TEDxUNIST?
A: To hold a TEDx, we need to get the license. But it was delayed, due to the new rules which were made this year. Originally, we had been performing three things at the same time: finding guest speakers, finding sponsors and obtaining the license, but now, we are concentrating on getting the license to solve the problem.

Q4. What TED lecture do you recommend for students to listen to?
A: I'll introduce a lecture in each field; Technology, Entertainment, and Design. First, there is 'The thrilling potential of Sixth Sense technology' with Paranav Mistry. He didn't use expensive equipment, but the idea was creative.

Second is 'The magic of truth and lies (and iPods)' by Marco Tempest. He used the Apple iPhone, which most UNIST students have, as a magic tool. I think grafting the iPhone into magic was interesting. It was a TED-like feeling.

The last lecture is 'The beauty of data visualization' with David McCandles. He made the information visual so we can understand more data than before. It was amazing! We sent mail to him and then he replied. At that time we were happy.

Q5. Have you ever participated in TEDx? If so, how was it?

A: We have participated in the TEDxBusan and the TEDxHaewoon-

dae. Even though they were both TEDx, the two events were definitely different. Each TEDx was unconventional and unique. After we participated the TEDx together, I really wished to do it ourselves, because it was similar to the presentation party we held. And there were many impressive guest speakers, too. At the TEDxBusan, the audience acted with one heart and mind. Turning this TEDx into role models, we would like to make a time to unite the UNIST students together. To the end, the TEDx caught my fancy in the point that students can talk on equal terms with the speaker and communicate with them.

Q6. Are there any difficult problems in preparation?

A: I think liaising for a sponsor is difficult, because TED is a nonprofit organization, so we can't make a profit for them. So it's hard to solve the financial problem.

Q7. Who will be come to UNIST for TEDxUNIST?

A: There are Hur Chan, Park Siyong, Jeong Sanghoon and so on.

Q8. After the lecture is held, what effect do you think it may have on the community?

A: UNIST's students can grow by communicating with more various people. And perhaps UNIST can be better known to others.

Kim, Siin



experts or ordinary people share ideas with others. Although they have just 18 minutes to communicate, many people cry, laugh and open their minds through the TED talks. The way of communication in TED is a new thing that we couldn't experience before.

who communicates globally, join the world of TED.

The 'X' in "TEDx" means it is an 'independently organized TED event'. TEDx is a program that helps when people hold a lecture. TEDx is different from TED because it is voluntarily held by a school or business member. TEDx

We can hear easily a lecture by a

The student's endeavor to develop app for blind people

The Voice of Sullivan Wins The Triple-Crown in the National Social Venture Contest

"Sullivan's voice", the student project team of UNIST has won the grand prize(The Ministry of Employment and Labor Award) in the general idea category of the 2011 National Social Venture Contest. This contest held for the third consecutive year has been organized by the Ministry of Employment and Labor and the Korean Social Business Agency, and has been sponsored by the Ministry of Science and Technology, the Small and Medium Business Administration, SK, and Deloitte. UNIST "Sullivan's Voice" team, composed of 8 people in total (Team leader: Lee Ki-Hyuk sophomore, team members: Kim Woo-Joong junior, Kim Yun-Kyung junior, Lee Jung-Min sophomore, Kim Hyun-Woo freshman, Lim Dong-Hyun freshman, Jung Sul-Ki freshman, Baik Ji-Youn freshman), has attracted great attention for winning 3 major prizes of the contest, such as "the Ministry of Employment and Labor Award(30 million won prize)", "SK Innovation Award(5 million won prize)", "Deloitte Sponsorship Award(5 million won prize)", and so on.

"Sullivan's voice" started due to the social trend that smart phones are widely used, yet are inconvenient for blind people.

The aim of this project is to reduce the discrimination and overcome the isolation felt by blind people. Many people use smart phones, and there are lots of information that is visual, so it became very convenient. On the other hand, it alienated people who can't see those things.

The voice of Sullivan is going to run an application for both disabled people and abled people. For visually handicapped people, the team made only the four menus in order to minimize the potential for mistakes and sustain the interface intuition. If you go to 'audio menu', team members: Kim Woo-Joong junior, Kim Yun-Kyung junior, Lee Jung-Min sophomore, Kim Hyun-Woo freshman, Lim Dong-Hyun freshman, Jung Sul-Ki freshman, Baik Ji-Youn freshman), has attracted great attention for winning 3 major prizes of the contest, such as "the Ministry of Employment and Labor Award(30 million won prize)", "SK Innovation Award(5 million won prize)", "Deloitte Sponsorship Award(5 million won prize)", and so on.

"Ask anything" is also an audio service that becomes the eyes of blind people. Up to now, the knowledge sharing system has been achieved through text messages, for normal people. "Sullivan's Voice" is founded on the senses of touching and hearing for seeing-impaired people. The knowledge is shared and transmitted through the voice and the screen shows at most four choices allowing the north, south, east or west movement of the finger to perform any function.



Furthermore, because the application is based on Crowd Sourcing, if enough users are secured, fast and easy answering will be available, and it will attract voluntary participation from people, stimulating communication between handicapped and non-handicapped people.

"Asking about the region" is a cus-

tomized system that uses the regional information. The regional information system of "Sullivan's voice" connects a handicapped person and a non-handicapped person. For a non-handicapped person, that person chooses their region of interest during registration, and it is connected to a handicapped person

through audio and GPS service. It will allow visually-impaired people, who feel restricted to familiar places due to their blindness, to go by themselves to even unfamiliar places by obtaining quick and accurate regional information.

Chung, Belinda
Baik, Jiyeon

Opening of Ulsan Science Museum

It was overcrowded since the opening "Where are amenities?"



Last March 30th, there was an opening ceremony for the Ulsan Science Museum, the nation's largest science museum, in Ok-dong. It has been built to the tune of 35 billion won, which involves a donation of 24 billion from Lotte president, Shin Kyuk-Ho, and Ulsan Education Office's 11 billion.

Ulsan Science Museum has been built to provide places for experiences and exhibits that help improve curiosity and interest for science to cultivate creative talent.

It was already crowded in the early morning. Actually, there are on average 1500 visitors per day. As entrance fee is free for all visitors, it is contrasted with paid admission of the Gwacheon National Science Museum that has been opened in 2008.

On the first floor, 'The Space of Time' displays the making process of Lotte brand snacks, with an animation to help children understanding easily. Also, there is a segment that can snap pictures with characters.

'The Space of Meeting' on the second floor is divided into three segments those are 'The Nature of Ulsan', 'The Meeting of Science' and 'Science Play for Children'. To help understanding dynamics, 'Science Play for Children' arranges the water table that gives parents and children a chance to experience the principles of the water pump, the waterwheel and the bucket directly.

'The Nature of Ulsan' displays Ulsan's ecosystem with many miniatures and explanations. Among the exhibitions, the reproduced miniature of Moo-jaechi swamp has become popular on that floor. Moo-jaechi swamp, located in the Samdong village in Ulju district, was designated as 'Ramsar Swamp' in 2007. When people step on this



swamp, it is rolled because of the sediment that consists of water and uncorrupted plants.

The third floor display continues onto the fourth floor through 'The Space of Thinking', which is for students aged eleven to nineteen, just as the first and second floor are for the lower grades of elementary school. Actually, there is an exhibition about that we learned in the college curriculum. Therefore, Guides are on standby near the exhibitions to help explain them. The displays that deal with the principle of science easily and funny (Pythagorean theorem, light and mirror, scientific study of cognition, etc.) don't suffer by comparison with any other science museum.

On the fifth floor 'The Space of Research' arranges what we learned from our high school classes, like the periodic table, gyroscope, polarization, etc. In particular, the virtual automobile simulation game, made to aid understanding of the periodic table atoms, is the most popular with children. Even adults show an interest in the display that looks into a tomado's principle of generation. At the end, there is broad lounge for waiting parents.

'Byeolbomi-Astronomical Observatory' on the sixth floor will be completed with the installation of a refractor in November, and it can be used after making a reservation through the museum home page (<http://www.usm.go.kr/>).

Mr Lee, a man visiting the science museum with his three children, said, "It's a pleasure to see the Ulsan Science Museum because in the past, we didn't have any chance to experience science with children in Ulsan. Today, my children enjoyed seeing the displays and understood the fundamentals of science easily. But, there are no amenities around so it was inconvenient and it should be improved later."

Indeed, there is only one lounge, for eating a packed lunch, on the first floor in a separate building, but there aren't any convenience stores or restaurants. If Ulsan Science Museum manages a food court like Gwacheon National Science Museum did, visitors will be able to more fully enjoy the exhibitions.

Although it usually takes a whole day to go through a science museum, it only took about 3 hours to see the Ulsan Science Museum. The parents visiting the science museum with their children and a packed lunch on the weekend feel light on their feet.

Kwon, Hyeri

Old meets new in fusion concert "Forging new traditions through Ta-Rak"



There was a fantastic fusion concert from NAEDRUM, Sunsook Lee, Hyesook Kwon

and POSSI CREW on September 28th, in the UNIST gymnasium. The concert was called '2011 Sympathy 打樂 Concert'. 打樂(Ta-rak) means beating and enjoyment. The concert was composed of Samulnori, a Korean traditional percussion quartet with Korean traditional dance, together with a B-boy performance. The Samulnori performance was dynamic and really fun. The Korean traditional dance boasted a graceful and beautiful figure and the B-boy performance was fantastic. These three things mixed well together. They showed that a performance does not have to be bound only to tradition, but can encompass various genres together. It was

successful at getting a response from the audience.

The concert started with NAEDRUM. Their group dance, called 'Pongpongpong' was moderate and perfect. 'Hwasunmu' made us feel as if we could smell flowers. 'Moosok fantasia' was dreamy. 'Samulpangoot' was impressive because of the twirling Sangmo which is a hat with a spindling fabric. Also there were 'Love song' among 'Chunhyangga' and a flashy B-boy dance performance. The final number was 'Fusion Pangoot' which is a meeting of B-boy performance and Samulnori, and the concert came to an end. Even though the concert was over, NAEDRUM and POSSI CREW continued their performance surrounded by the audience.

Below is interview with NAEDRUM and POSSI CREW.

Q1. How did you come to mix B-boy dance with Samulnori?

A(NAEDRUM) We started the '打樂 Concert' about 4 years ago. Even now, we are modifying this concert. Actually, at first it was not large scale like now, but we wanted to show the audience more and more. And then we thought we needed something different. We'd already known POSSI CREW those days. So we decided to make a composition between B-boy dance and Korean traditional dance. We made our own small name with 'Fun & Pan'. 'Pan' means the outdoor stage of Korean traditional dance.

Q2. What is the effect from joining Korean traditional dance and B-boy dance?

A(NAEDRUM) At first, the strong point is that we can get closer to the audience. Korean traditional dance is unfamiliar to people. But if we perform with a B-boy team, people are more comfortable than before. These two dances are mixed not unnaturally, but to make synergy effects by conflicting with each other. But it has some dangers. If we mixed together without sympathy, it could go a strange way. By respecting mutual tradition, good music can be made.

A(POSSI CREW) Samulnori is a Korean traditional thing but B-boy dance comes from the west, so it is difficult to mix together. People generally think that a tradition will be difficult and boring. But if the tradition makes some harmony with a fantastic performance like B-boy dance, people can accept it more easily.

Q3. What do you want to deliver to the audience through this concert?

A(NAEDRUM) We want to break the prejudice about a tradition. Young people think the tradition is difficult but we want to say NO. We hope that people feel like our concert is like a popular singer's concert. So please respond like you respond to a popular singer. We want to approach the audience as familiar Korean traditional music. In addition, we participated in the 'World Music Festival' last year. We were invited to Australia by foreign marketers who were at that show. It called 'Australia World Music Expo(AWME)'. It is to show traditional music from all over the world. 30-40 countries participate this Expo, and we will go as the representatives of Korea this November.

A(POSSI CREW) We want to show that oriental things are never boring, and it can be expressed in various way. Actually these days, B-boy dance is common. So we tried to find something new rather than common B-boy. We are trying to make a cultural icon. Our purpose is that we show people something new.

Kim, Bada
Kwon, Hyeri

All the Business of the First Students Councils, □ Go Together □



tions check and deliberate with each other.

'Date with Students', an event indicating the direction of the student body and accepting feedback from other students, has done with many things to help make UNIST more convenient for students, such as the installation of ATMs, and the extension of the lunch hour.

Students Council has run various projects with substantial benefits for students. For instance, UNIST doesn't have a variety of means of transportation. That's why they are trying to reduce the cost of using a taxi. Also, through an agreement with market, they have been planning a Vitamin Festival where students can purchase good quality fruit for cheap.

After a term of two years and three months as student body president, Sujin Pyo has stepped down from the front lines.

When UNIST was founded in 2009, Pyo was elected president by a student vote, and along with many officers, has strained every nerve to help the Students Union become recognized as the representative of the student body.

Now, UNIST has recognized it and asks the Students Union for their opinions concerns. In addition, each department and the chancellor, have sought ways to improve this school together, including regular meetings with students passing on complaints.

Students Councils No. 1, with the motto "Go Together" was the foundation of all business, which helped the No. 2 and No. 3 Students Councils to be recognized as student representative bodies.

As with any organization, the absence of hierarchy puts the organization into chaos. Because of this, Sujin Pyo, and many officers, configured the Presidency with various committees with work in progress, and an organization chart of the most important local governments has been completed.

This means that the Students Foundation of governments at UNIST was settled, and at the same time, there is significant progress being made towards transparency as the institu-

In addition, the Spring Festival has been planned annually by the committee, to unity between the students and induce various clubs to participate in booths, providing an opportunity to show off their talents and welcome new members.

Students Council No.1 did not downplay the interuniversity exchanges and has laid out several projects. UNISTADI-UM has been held annually among KAIST, POSTECH and UNIST by competing in sports. During vacation, UNIST has sponsored volunteer activities by helping science students go to elementary schools and do some exciting experiments with elementary students.

'Go Together' Students Councils No.1 organized self-governing bodies at UNIST and has done everything it can to deal with student complaints. In addition, to prevent the isolation of UNIST, they think it is important to promote interuniversity exchanges, and has performed several projects for the welfare of the dot as a student.

The president of Students Councils No.1, Sujin Pyo, and many officers, retired at the end of two years and three months on the front lines, but the next Students Councils, who will share the vision of the first, should complement the work done to extend students' welfare with their efforts and plans.

Lee, Sangmyon



Prof. Jinsook Choi
(Division of General Studies)

Fighting? No, Enjoy!

How to be a Creative Engineer

Imagine robots working in a lab. Robots don't have to be creative because they do what they are told to and they just work hard. But I think Nobel Prize winners, Steve Jobs, Bill Gates or anyone else who is inspirational to UNISTARS do not seem to work like robots.

A Brazilian soccer physical trainer that I got to know in Ulsan told me that in Brazil, soccer players are expected to be 'creative' on the ground. And in order to be creative, they have fun in playing the game. They say, 'divertise!' (enjoy!) right before every game starts. In contrast, Korean soccer players tend to be too serious about games, as if they are going off to a war. Yes, each soccer game is a war. You can lose the game, then you are in trouble, and you can even get hurt, sometimes you may get injured so that you cannot even continue playing soccer any longer. What would that be if it is not called a 'war'? So, when we see a sports game in Korea, the players get together right before starting the game and say "Fighting!"

I see a similar scene everywhere in Korea. Maybe this attitude is not just applied only to the sports games after all. To be number one, to be world top ten, or to receive a nobel prize, Koreans say "Fighting! We can do it!" We know that this is how the Korean economy became highly developed after the Korean war that had destroyed almost everything. We had to restart all over again. The impetus to rebuild our country came from the spirit of "fighting!", because we had to compete with North Korea in the 60s, with Japan in the 70s, and finally to go for world top ten.

But now that we have reached a cer-

tain level of economic development and truly compete with first world countries, we need a different model. Right now what we need is 'creativity'. Top universities around the world already started to emphasize 'creativity' in their education in the 90s, because that is the only way they could survive and go forward when it is impossible to distinguish yourself in this hyper-globalized world where almost the same hardwares are shared. But in order to be 'creative', you cannot just say "Fighting! Let's become creative!" because creative thinking is that which leads to making products that can be differentiated from any other products. Do we want to continue making the same product, or something different than the rest of the world? If we choose the latter, then we need to think differently, and if we want to think differently, we need to be allowed to be imaginative and creative instead of working like a robot. One is no longer motivated only by carrots and leash at some point. True motivation and passion come when one can enjoy what he or she is doing. Imagine that your products will improve our life, and make people happier. Then we can even enjoy difficulties that we face in our work. Imagination and creativity are the building blocks of a great product still to be invented that nobody has ever thought of.

Then I think we should be able to enjoy what we are doing rather than 'fight!'. UNISTARS are young, dynamic, and full of potential. In order to fully utilize their potential, they need to learn how to enjoy work and be proud of their work.

UNISTARS, divertise (Enjoy)!

tostijin@gmail.com

On the □ Quarter System □



Hyuckjae Choi

As Newton's third law tells us, every action is followed by a reaction and every initiative faces an opposition. The more radical the initiative is, the more intense the opposition will be. In other words, people inherently dislike change because it always takes energy to adopt new things. This is especially true when the change is big.

UNIST has recently announced its 'big' plan to implement a new curricular system called the 'quartersystem'. In brief, implementing a quarter system means replacing the current two semesters with three quarters. You can take more courses in one year within the quarter system than within the traditional system. There are pros and cons for the adaptation to the new system.

To talk about the advantages, students can earn their Bachelor's degree in three years and save 25% in tuition. This looks quite intriguing because today overpriced college tuition is one of the hot social issues. Furthermore, the quarter system provides students with more options for

their futures. For example, if a student wants to study here for two quarters and spend the rest of the year studying abroad, that is completely fine in the new system.

On the other hand, there are some concerns about the implementation of the quarter system. First, it seems possible that the quality of education could drop, due to a shortened course schedule. It means students should finish certain courses in just two months where it is even difficult to finish them in three months.

In addition, management problems, like an increase in costs, will occur. Since the uncertainty of when and how many students will take certain courses in a certain quarter is now much greater, UNIST will have to offer more sessions of the same course with more instructors. That not only will increase the cost of hiring more instructors but also increases the inefficiency of managing the curriculum.

To conclude, implementing the 'quarter system' could be beneficial in that it will decrease the tuition and the time needed for earning college degrees, and students are given more career options, but it is also possible that it may be harmful due to lowered quality of courses and inefficiencies causing higher management costs.

However, since the decision has already been made, UNIST should make the most of it the policy and implement it correctly, so that it extinguishes all the worries and complaints. I hope that UNIST will be successful in the 'transplantation' by maximizing the benefits while minimizing the potential problems.

hjchoi_89@naver.com

- Lee Tae-Hee lemony77@unist.ac.kr
- Kim Si-h sinjaewan@unist.ac.kr
- Lee Sang-Myon panic205@unist.ac.kr
- Kim Ba-Da sea1017@unist.ac.kr
- Shin Ga-Won shingawon@unist.ac.kr
- Baik Ji-Yeon jbo0325@gmail.com
- Lim Do-Yeon phklady@unist.ac.kr
- Jin Woo-Young jmw91@unist.ac.kr
- Jo Shin-Yeong sssing@unist.ac.kr
- Chung Belinda bchungbaek@unist.ac.kr
- Kwon Keun-Yeong test_go@naver.com
- Jung Kyung-Hun lete1914@nab.com
- Min Hyung-Cheol m890823@unist.ac.kr
- Choi Ji-Eun jeun9524@hanmail.net
- Kwon Hyun-Eui lanvh@unist.ac.kr
- Jo Hye-Jin be605@unist.ac.kr
- Kwon Hye-Ril kh7159@unist.ac.kr
- Lee Gang-Seok 9582903@hanmail.net

u-journal@unist.ac.kr

Toward A World-Leading University