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## International Exchange Center

The International Exchange Center was established in June, 2004 to achieve the long-term vision of the Kyoto Institute of Technology (KIT): to become an international technology university. An overview of the center's activities and future goals is shown below.

# Promoting Fruitful International Exchange with Clear Strategies and Support

**KUNUGI, Shigeru**

Director of the International Exchange Center  
Vice-President

The International Exchange Center was established when KIT had been incorporated. The center is responsible for all matters related to international exchange. It has three main divisions: the Academic Exchange Division, the Student Exchange Division, and the Accommodation and Public Relations Division.

The center was created to integrate and centralize all of the university's international exchange strategies. For example, before the center was set up, we did not have well-organized international exchange programs that were common to all departments. Each department had its own programs and conditions. Moreover, the methods of promoting our programs and recruiting students were not standardized for a long time. Since the affiliations with foreign institutions depended on individual faculty members, like a person-to-person relationship, these affiliations often ceased and became a nominal partnership after either coordinator transferred to another university.

To solve these problems and achieve better international exchange in the future, we established the International Exchange Center as a central organization that would play a key role in planning clear strategies for each division and support a substantial increase in student and professor exchanges.

A year and a half have passed since the foundation of the center. One of our biggest achievements has been the launch of "the Training for Research Innovation Program" for graduate students. The program was designed to develop students' scientific skills and practical communication abilities by studying at our foreign partner institutions. The program offers students two options. One is to experience assisting a supervisor in lectures for two weeks. The other is to work on independent research for one to six months. As of November 2005, 13 graduate students have participated in this program. I believe that they gained a lot from this program and will apply what they have learned to their future studies and careers.

The center has also re-organized its cooperative relationships with foreign institutions. Since the center was founded, we have concluded agreements for academic exchange with four new universities. KIT now promotes academic and student exchange with 39 universities and institutions in total.

In the area of student exchange, we are working hard to improve the quality of short term exchange programs involving credit transfers. To reach this goal we are making efforts to improve students' English skills. For example, we have successfully set up an English training program at the University of Leeds in the UK. Furthermore, we are promoting the rebuilding of English education programs in each faculty. From the end of this semester, a computer-based English learning network can be accessed on campus and from students' homes.

In a very short time, the center has already made great progress. In the future, we will continue to strive for fruitful international exchange based on carefully developed strategies and support.



Vice-President Kurugi discussing academic exchange at KIT with the President and the Dean of the Faculty of Architecture, Stuttgart University of Applied Sciences, Germany.



## Macromolecules and Behavior of Living Systems.....

**TRAN-CONG-MIYATA, Qui**

Professor  
Laboratory of Polymer Molecular Engineering,  
Department of Polymer Science and Engineering,  
Faculty of Textile Science

The concept of "macromolecule" was proposed for the first time in 1926 by Hermann Staudinger and was eventually established in 1936 after a decade of scientific debates between the "macromolecule-believers" who believed in the existence of a very large molecule resulting by covalent bonding, and the skeptical "colloid-believers" who firmly relied on the already established concept of "colloids". The later which are composed of many small molecules assembled not by covalent bonds, but by specific interactions such as electrostatic or hydrophilic-hydrophobic interactions in aqueous environments, is one of the central topic of chemistry (colloid chemistry) in the end of 19th century. The concept of "macromolecule" was only established in 1936 after a series of experiments on viscosity of cellulose performed by H. Staudinger's group at the University of Freiburg. Since this establishment, polymer science has been extensively developed along the two main streams: polymer synthesis and physical properties characterization.

From the viewpoint of synthetic polymers, the typical functions of living systems such as self-adjusting, self-adapting and/or self-generating would be the ultimate goals for designing specialty polymers. Despite numerous studies carried out in the past seventy years, it is still not possible to endow these functions for polymer. This would be one of the ultimate goals for research of polymer materials science in the 21st century. As a first step, we started tackling the problem by finding a generic way to design and control the spatial ordered structure in polymer. The primary approach is applying the so-called "principle of competition between antagonistic interactions" to multi-component polymeric systems. This principle has been widely known in the field of developmental biology (Cf. J. Murray, "Mathematical Biology", Springer, 1989). As a result of this competition, a variety of ordered structures emerges at different length scales in living systems such as spots on the skin of leopard of tiger. We have applied this principle to polymeric systems by coupling chemical reactions to phase separation of

polymer mixtures. It has been found that these competing processes lead to the emergence of a variety of ordered structures in the mesoscopic length scales (J.A. Pojman and Q. Tran-Cong-Miyata Eds., "Nonlinear Dynamics in Polymeric Systems", American Chemical Society, 2004). On the other hand, structures with high hierarchies are abundant in Nature where all the kinetic processes proceed non-uniformly over a very long time-scale ranging from billions to millions years. By using the same principle, one could design materials with controllable structural hierarchy. With the above-mentioned principles, one can hope that artificial materials with some functions comparable to those emerging in living things could be designed.

Regarding the International Relations between Kyoto Institute of Technology (KIT) and foreign universities and institutions, I think that we need to send more KIT students to foreign countries at the early stage of the undergraduate program by using some specific programs supported by KIT. These projects will help KIT students to have a broad view about things happening outside Japan, in both advanced as well as developing nations. Through the communication and comparison with students at their same age in these foreign countries, KIT students would be much more motivated and could also realize the "must-do" when they come back to Japan. Regular organization of International Symposia at KIT on several specific research topics conducted by KIT faculty members would be a key to push KIT into the "world-class" institution.

Concerning foreign students coming to KIT for study, constant training in Japanese language and reasonable scholarships would be crucial for their study. In addition, some sorts of language tests such as "Japanese TOEFL" for the ability of their Japanese language would help them achieving great success. This is also a good way to gain good reputation for KIT in foreign countries where these students come from.

# Kyoto in Autumn and Early Winter

## Blazing leaves and pure-white snow

The seasons of Kyoto are all magical. However, the spectacular turning of the autumn leaves and the first snows of winter are the favorite time of year for many. Some would even say that the fall and early winter season is more beautiful than the blossoming flowers of spring.

The area around Arashiyama and Saga, home to KIT's Saga Campus, is one of the best places in Kyoto to enjoy the bright leaves of autumn. The mountains in the background, especially Mount Ogura, are ablaze with red maples, and the ancient cultural attractions of the district attract countless tourists from all over the country.

Arashiyama and Saga have been celebrated by aristocrats, artists and poets since Kyoto was first founded in the late 8th century. One traditional poem or *waka*, in particular, is very famous.

*Ogura yama Mine no momijiba  
Kokoro araba  
Ima hitotabi no Miyuki matanan.*

If the exquisite maple leaves on Mt. Ogura have a heart,  
please listen to me: stop falling and stay red forever.

Composed by Fujiwara-no Tadahira, a court noble, the poem was included in the *Ogura Hyakunin Isshu*, a Heian-period (794-1185) anthology of 100 *waka* by 100 great poets. Though this poem was composed more than 1,200 years ago, it still touches the heart of the Japanese people as it perfectly expresses the sublime autumn beauty of Arashiyama even today.

Soon after the last autumn leaves have fallen, the upper slopes of Mt. Hiei, looming high to the east of KIT's Matsugasaki campus, are covered with the first thin blanket of pure white snow and winter begins. Winter in Kyoto is often described as 'freezing cold' because the city is surrounded by mountains. Yet this season also has its charms: the air becomes crisp and very clear. Explore the Old Capital in winter, walk down small streets and lanes, and discover the wonders of this season.





## Remembering My Early Days in Japan

Dr. Kong Li

President  
SHENZHEN Koyii Nanomaterials CO., LTD

I arrived in Kyoto on October 7, 1988 from China. It was the first time I had ever traveled abroad and my first experiences in Kyoto were impressive. I arrived during a three-day university holiday and I did not know anyone in Kyoto, so there was nothing for me to do but wander around the city. During those first three days I remember that I was very impressed by how neat and peaceful Kyoto was.

The first person I met at KIT was Yoshii Sensei. He was in charge of matters related to international exchange students. I still remember clearly his warm smile and how he kindly and carefully explained things to me, in the exchange student common room, about the university and the graduate school entrance exams. The short time I spent with Yoshii Sensei on that first day immediately dispelled any worries I had that the Japanese were strict people.

During the next six years, Yoshii Sensei helped me in many ways. I still remember one story that a senior international exchange student told me about Yoshii Sensei. In Japan, people call professors "sensei" which is an honorific title that can be translated as teacher or master. Other staff members at school are called by their last name to which the term "san" is added. Yoshii Sensei told the senior exchange student to call him Yoshii-san but not "sensei" as he was not a professor. However, in China we call people we respect "teacher." All of us called him "sensei" because we respected him very much for all the help he gave us and for the fact that he saw things from our perspective without any prejudice towards us as foreigners.

The person whom I came to admire the most during my six years of study at KIT was Professor Kiyotsukuri. He was a very dedicated and gifted researcher and he taught his students with much enthusiasm. I will never forget one of his classes. He was asking students so many questions that one international student left the room to get his Japanese dictionary. Professor Kiyotsukuri was someone that everyone respected and admired. Even though he was ill, he took the time to check my master's thesis. I can still recall what his face looked like on that day. Another occasion I remember was when we went drinking and I asked him, "Which is more delicious, Chinese sake or Japanese sake?" His answer was very interesting. He said, "For Chinese dishes *moutai* [Chinese sake] is the best choice, and for sashimi Japanese sake is the best."

When I was in the second year of my master's degree, my wife came to Kyoto and started her master's. This gave me an opportunity to get to know Professor Araki and Professor Tanaka, who were her supervisors. Professor Araki had been a dean of the Faculty of Textile Science and was such a gentle person. Professor Tanaka had experience living in the United States and was also a very kind person. My wife studied under those two professors for 3 years and finished her master's degree. Now she is working in a Chinese university and she often says that her studies and experiences in Kyoto help her do her job better.

Ten years have passed since we left Kyoto. The world has changed a lot during that time, especially the situation in China. I was able to understand Japan and the Kyoto Institute of Technology from the many experiences I had more than ten years ago. The time I spent in Kyoto is one of my most treasured memories. The knowledge I acquired at the Kyoto Institute of Technology has been very helpful in my current job and in establishing good relationships with Japanese companies. I will never forget my time in the beautiful city of Kyoto.

## Life with New Challenges

Hua Thuy Trang

Division of Applied Science for Functionality  
Graduate School of Science and Technology

It is said that life like a road is not smooth. Life is always referred to a difficult path which is similar to climbing a tough mountain. After conquering one of them, the next one, which is higher and more difficult, is always waiting ahead. This series of continuously process however, keeps and pushes us building strength of will to take them as a challenge and successfully crossing them one by one.

I worked as a lecture in Hanoi University of Technology (HUT) in Vietnam. At that time, there was an opportunity for me to participate in a program by ASIA SEED (Asian Science and Education for Economic Development), which was part of the Peaceful Friendship Exchange Plan by the Japanese Government.

This program provides preliminary Japanese proficiency training for graduated students from ASEAN countries and supports them further study in graduated school in Japan National universities. Studying Japanese language was like climbing a very tough mountain for me not to mention further the study in graduate school in Japan.

The efforts have been rewarded. In April, 2004 I was accepted in Kyoto University of Technology (KIT) as a research student. In the laboratory, the content of the research is polymer science, which is more complicated and demanding compare to my existing knowledge. Yet, the opportunity to study and pick up various knowledge about polymer structures analysis and the accessibility of various machines in the laboratory make me really excited and happy. I always remind myself the phrase "do not give up whenever you confronts with any difficulty". Because it is always made possible when you have faith in yourself and perform the best even though there is only a small step at one time.

As the result of best efforts, I was able to enroll in the Doctor's course in graduate school at KIT in April, 2005. I am now working on the research regarding polymer structures analysis. By stepping forward, I immediately encounters with another higher and tougher mountain. However, looking at it, I can't help but have the challenging feeling which I wanted to conquer just by taking a step further. Looking back, I would like to express my gratitude to my advisor, Professor Itoh Takashi, and my fellow friends in the Lab. Not just limited to the research, they have been very helpful with my Japanese language, sharing with me the Japanese culture and custom which are all very precious experiences for me. In addition, KIT is such a good environment for the study as well as the research. The most important thing is KIT has been very supportive environment to the international students which makes them feel at home.

I think all human beings have strong will to conquer various mountains. In the meanwhile, there are these "knowledge-mountains", which had been conquered in the past, in present, and will be conquered in the future. I am also ready to make my best effort to conquer this new "knowledge- mountain". Perhaps it is not only for me, but contributing what I gained- the new knowledge for KIT in Japan as well as for HUT in Vietnam. I sincerely hope that a strong tie of co-operation, relationship and understanding between KIT and HUT will be bound during this process.



## Annual News on International Exchange

今年の国際交流

## Events 行事

2005

Apr. 5

**Entrance Ceremony 入学式**

On this day, 805 undergraduates and 470 graduates entered the university, including 46 international students.

学部には805名、大学院に470名が入学しました。うち外国人留学生は46名です。

May 13

**Welcome Party at KIT International House**

国際交流会館新入居者歓迎パーティー

A welcome party, attended by 51 new KIT students and 5 people from neighborhood, was held.

入居者51名と周辺住民5名が参加して、交流を深めました。

**Aug. 9-10 The First Student Study Tour 第1回外国人留学生実地見学旅行**

28 international students and 4 Japanese students traveled to Fukui and Ishikawa Prefecture.

外国人留学生28名と日本人学生4名が参加して、福井県、石川県を訪れました。

Sep. 26

**Graduation Ceremony 学位授与式**

8 students graduated from graduate school. 5 out of 8 were international students.

大学院8名が卒業しました。うち外国人留学生は5名です。

Oct. 3

**Entrance Ceremony 入学式**

16 students entered graduate school. 7 out of 16 were international students.

大学院に16名が入学しました。うち外国人留学生は7名です。

**Nov. 4-11 KIT Promotion in Thailand 日本留学フェア参加及び協定大学訪問(タイ)**

Staff members promoted KIT in Bangkok and Chiang Mai to recruit students from Thailand, and visited Chiang Mai University and Rajamangala University of Technology Thanyaburi.

本学教職員がタイ(バンコク、チェンマイ)で外国人留学生募集の広報活動を行うとともに、チェンマイ大学とラジャマンガラ工科大学を訪問しました。

Nov. 26  
-Dec. 1**KIT Promotion in Vietnam 日本留学フェア参加及び協定大学訪問(ベトナム)**

Staff members promoted KIT in Ho Chi Minh and Hanoi to recruit students from Vietnam, and visited University of Natural Sciences, Vietnam National University — Ho Chi Minh.

本学教職員がベトナム(ホーチミン、ハノイ)で外国人留学生募集の広報活動を行うとともに、ベトナム国立大学ホーチミン理科大学を訪問しました。

Dec. 18

**Year-end Party at KIT International House**

国際交流会館主事主催の年末パーティー

2006

- KIT International House Party hosted by KIT President (scheduled)

国際交流会館学長主催交流パーティー(予定)

- The Second Student Study Tour (scheduled)

第2回外国人留学生実地見学旅行(予定)

**International Planning Division 国際企画課**

This division deals with all the administrative aspects of the International Exchange Center. Please feel free to contact us.

国際企画課は、国際交流センターに関するすべての事務を担当しております。皆様からのご連絡を課一同お待ちしております。