Session B:
Fostering and Recruiting Internationally
Competitive Human Resources
Internationalization of Education: POSTECH Experience

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ABSTRACT

POSTECH was established in 1986 as Korea’s first research-oriented science and technology university. Implementing the founding philosophy of educating a small number of bright students in a research-oriented environment, POSTECH has in its short 20-year history, become the top university in Korea and one of the leading science and technology universities in Asia.

In recent years, the idea of internationalization of education has been the subject of much discourse for universities world-wide. Universities are continuously seeking ways to internationalize their campus and curriculum to provide students with a global frame of mind to answer growing demand for talented, globalized individuals.

POSTECH, in its effort, has pursued providing students’ opportunities to participate in outbound programs, recruitment of international students and other international activities on campus to enhance their university experience.

With POSTECH’s aim to become one of the world’s top 20 research-oriented universities by the year 2020, internationalization is a key strategic policy which the university will aggressively pursue.
POHANG UNIVERSITY OF SCIENCE AND TECHNOLOGY

February 2007

www.postech.ac.kr

Thinking of Science, the Nation and the Future

Internationalization of Education : POSTECH Experience

1. POSTECH Overview
2. Internationalization of Education
3. Conclusion & Suggestions

POSTECH Overview

- Founded in 1986
- First research-oriented university in Korea
- 1,638,135 m² Land area
- 325,362 m² Building area
- Faculty: 229
  - Researcher: 698
  - Staff: 206
- Student: 2,822 (Graduate 1,505)

POSTECH Vision 2020

- World-class research-oriented university (World's top 20 by 2020)
- Foster science and technology manpower with creativity, progressiveness, global leadership
- Continual generation of research achievements with high academic and industrial impact
- Selection & concentration
- Interdisciplinary cooperation
- Globalization

Founding Principles

1. Education
2. Research
3. World-class faculty
4. Globalization
5. Financial resources

Accentuate strengths of small-class sized research universities

Thinking of Science, the Nation and the Future
I. POSTECH Overview

II. Internationalization of Education

III. Conclusion & Suggestions

International Network

POSTECH Overview

60 sister universities in 15 countries across the world

International Policy

Internationalization of Education

1. Exchange Program (Semester and Year-long Program)
   - In participation with approximately 20 overseas partner universities
   - 1989-2006 Outgoing Students: 290

2. Summer Session Program (Summer)
   - Courses or language training through summer programs in overseas universities
   - 2004-2006 Outgoing Students: 299

3. Language Training Program (Summer & Winter)
   - English language training program for early entrance students
   - 2001-2006 Outgoing Students: 299

4. Cross Strait Symposium
   - Tri-party symposium for graduate students of POSTECH, Busan National University, & Kyushu University
   - 1999-2006 Participants: 228

Internationalization of Education

Education

- Train elite students with global background

Research

- Create world-class research outcomes

Infrastructure

- Globalization of administration & infrastructure

Action Plan

1. Expand int’l education program
2. Global leadership program
3. Recruit int’l students
4. Expand English lectures

Expand Int’l Education Programs

Internationalization of Education

Attract int’l research centers

Recruit int’l faculty/researchers

Invite world-renowned scholars

Build int’l complex

Research infrastructure

Information infrastructure

Korean-English bilingual campus

Strengthen int’l research cooperation

Expand English lectures

Expand int’l education program

Train elite students with global background

Global leadership program

Recruit int’l students
Expand Int'l Education Programs – Planned

- **Study Abroad Program (Semester and Year-long Program)**
  - To expand outgoing students for semester & year-long program (students’ need)
  - Solve the imbalance problem of exchange student numbers
  - Student Limit: 10 (annually)
  - Cost: Pay tuition fees (negotiable)
  - Credit Transfer: Same as exchange program
  - Partner University: U of Minnesota, UC Berkeley, U of Columbia and etc

- **Internship Program (Summer and Winter)**
  - Internship or Research Program at overseas universities
  - Exchange students among member countries through IAESTE*
  - Student Limit: 20 (annually)
  - Cost: Living Expenses & stipend (negotiable)
  - Credit Transfer: N/A
  - Partners: University, Company, Research Institution

*IAESTE: The International Association for the Exchange of Student for Technical Experience

Global Leadership Programs

- **Global Leadership Programs for POSTECH Students**
  - Annual Student Camp by 17 AEARU member universities
    - 1997-2006 Outgoing Students: 64
  - Bang Doshie Global Expedition
    - Funded with an endowment from Ms. BANG Doshie
    - 2000-2005 Outgoing Students: 46
  - Study Tour for Student Leaders
    - Visit several universities and research institution abroad
    - 2004-2005 Outgoing Students: 28

Recruit International Students

- **Int'l Student Recruiting Activities (Degree-seeking)**
  - Activity
    - Study Fair: Shanghai, Peking, Hanoi, Delhi
    - Recruiting Visit: Fudan U, SJTU, Zhejiang U, USTC, HIT, Tsinghua U, Peking U, USTB, Nanjing U
  - Recruiting Visit & Provide English Test: HUT, HUS
  - Networking Convention: POSTECH-Partner Universities Networking Convention (PNC) 2005
  - DM: Prospective Students (Campus News, Research Accomplishments, PR Materials, and etc)
  - Department Visit: Promotional Faculty Group Visit

Recruit International Students

- **POSTECH-Partner Universities Networking Convention 2005**
  - **Purpose**
    - Invite partner universities' administrators
    - Introduce POSTECH campus, education environment and degree program
    - Exchange ideas and future cooperation
  - **Participants**
    - 12 from 10 universities in China and Taiwan
    - Fudan U, HIT, Nanjing U, NTU, SJTU, Peking U, Tsinghua U, USTB, USTC, Zhejiang U
  - **Main Program**
    - Campus tour, degree program introduction and department visit
    - Meeting with President and home university alumni Networking and discuss future cooperation
### Korean-English Bilingual Campus

<table>
<thead>
<tr>
<th>Internationalization of Education</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Korean-English Bilingual Campus</strong></td>
</tr>
<tr>
<td><strong>Provide Online Information in Korean/English</strong></td>
</tr>
<tr>
<td>POVIS (POSTECH Vision Information System)</td>
</tr>
<tr>
<td>POSTECH website</td>
</tr>
<tr>
<td><strong>Provide Offline Information in Korean/English</strong></td>
</tr>
<tr>
<td>All text books are in English</td>
</tr>
<tr>
<td>PR materials, guidebook and official documents</td>
</tr>
<tr>
<td>Signboards and placards</td>
</tr>
<tr>
<td><strong>Improve University Administrators’ English Proficiency</strong></td>
</tr>
<tr>
<td>One of the important requirements for promotion</td>
</tr>
<tr>
<td>Provide overseas language training and experience</td>
</tr>
<tr>
<td>POSTECH Language Center</td>
</tr>
</tbody>
</table>

### Build International Complex

<table>
<thead>
<tr>
<th>Internationalization of Education</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>POSCO International Complex</strong></td>
</tr>
<tr>
<td>• Purpose: Aid POSTECH in expanding cooperative relationships and enhancing competitiveness among global universities</td>
</tr>
<tr>
<td>• Expected completion: July 2007</td>
</tr>
<tr>
<td>• Area: 20,491 m² (6 ground, 2 basement levels)</td>
</tr>
<tr>
<td>• Main facilities: conference area (convention, accommodation &amp; board, convenience facility)</td>
</tr>
</tbody>
</table>

### POSTECH Vision Accomplishment

<table>
<thead>
<tr>
<th>Conclusion &amp; Suggestion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Word-class research-oriented university</strong></td>
</tr>
<tr>
<td>World’s top 20 by 2020</td>
</tr>
<tr>
<td>Best 10 research accomplishments by the year 2010</td>
</tr>
<tr>
<td>Top 1% gifted youths to 0.1% global leaders</td>
</tr>
<tr>
<td>2006 New Leap (20th Anniversary)</td>
</tr>
<tr>
<td>Interdisciplinary Cooperation</td>
</tr>
<tr>
<td>Globalization</td>
</tr>
<tr>
<td>Selection &amp; Concentration</td>
</tr>
</tbody>
</table>

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I. POSTECH Overview

II. Internationalization of Education

III. Conclusion & Suggestions
Association of East Asian Research Universities, AEARU
17 Universities in East Asia from China, Hong Kong, Japan, Korea and Taiwan
Activities: 10 science & technology workshops and 2 student camps annually

Main Activities
- Student & teacher exchanges
- Joint development of study program
- International intensive program
- Thematic networks between departments & faculties
- Languages courses
- AEARU credit transfer system

For more information contact
POSTECH International Affairs Office at
iao@postech.ac.kr
ISSUES AND CHALLENGES FACING RITSUMEIKAN UNIVERSITY’S POLICIES
FOR INTERNATIONAL STUDENTS
~ Focusing On the Recruitment of and Support for Incoming Students ~

Kiyoko TANAKA
Assistant Administrative Manager,
Office of International Education at Kinugasa Campus
Ritsumeikan University

ABSTRACT

1. Transformation of Ritsumeikan University’s Exchange Programs in the Past Two Decades

A) Increase in the Number of Partner Schools and International Students
With the goal of globalizing the whole campus under the slogan of “Ritsumeikan University Open to the World” the number of universities Ritsumeikan University (RU) has formed exchange agreements with and that of international students has grown significantly since the opening of the Faculty of International Relations in 1988. Whereas the number of institutions RU had agreements with was only 4 in 4 countries in 1986, it has grown to 260 in 51 area/countries in January 2007. Likewise, the number of degree-seeking international students and that of non-degree short-term international students (students attending RU for 1 or 2 semesters) increased from 60 to 818 and from 6 (from 4 universities in 3 countries) to 124 (from 59 universities in 16 area/countries) respectively during the period between 1986 and October, 2006.

B) Advantages of Student Exchange
Student exchange has a number of positive effects not only on international students seeking educational opportunities in Japan, but also on Japanese students who are given opportunities to interact with these students from different parts of the world, as well as the university itself. The mere presence of international students heightens the awareness of the world for domestic students. Student exchange also has the effect of revitalizing research as well as of strengthening networks among universities around the world. RU is currently working toward the goal of accepting a total of 2,200 international students, including degree-seeking, short-term non-degree-seeking and study tour students, by 2010, which is part of RU’s larger drive to create a “multicultural campus”.

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2. Recruitment of and Support for International Students: Where We Stand and Where We are Heading

A) Recruitment of International Students
As part of its recruitment efforts, RU has participated in the annual Japan Education Fair hosted by the Japan Student Services Organization, held in Japan and overseas, where Japanese universities promote their schools and recruit students from overseas. RU also recruits international students through general admission tests, held twice a year, and a special examination designed for students nominated by Japanese-language schools in Japan.

B) Assistance for Degree-Seeking International Students
Degree-seeking international students receive a number of financial and living assistances from the university and their Japanese peers through tutoring and entertainment activities throughout the year. As part their financial assistance, these students receive partial tuition reductions as well as a partial refund of health insurance premiums, a scheme supported by the Ritsumeikan University Parents Association for Student Education Assistance.

C) Assistance for Short-Term Non-Degree International Students
RU accepts short-term non-degree international students twice a year, in April and September. For these students, RU offers small group intensive Japanese language courses divided into 5 levels, Japanese traditional arts courses taught by the celebrated leaders of Kyoto’s traditional arts and courses taught in English. Moreover, RU is providing short-term international students with various living and study assistances by providing them with affordable housing options as well as consultation in Chinese, Korean and English by native speakers of these languages.

D) Challenges Facing RU’s Exchange Programs
International students generally have good academic records. The number of international students who find jobs at first-rate companies after graduation has increased sharply in recent years. RU is confident that the international students who attend RU have a great potential to excel in the societies they are from as well as in the larger world. However, RU still faces a number of challenges that need to be addressed, such as problems related to the shortage of housing and the courses taught in English, transfer of credits between RU and students’ home universities, and a lack of
scholarship funds for qualified students. Moreover, employment rates and internship participation rates for international students remain low.

3. Challenges in Recruiting Highly Competent Students

A) Difficulties in Recruiting Competitive Students
Japan has entered an era in which the number of students wishing to attend a university almost equals the number of spots available in the existent universities. Therefore, the competition among universities in securing competent students has become more severe than ever before. In that respect, it would hardly be sufficient to rely on the existing entrance examination system to recruit internationally competitive students.

B) Future Tasks
In order to attract the best students, RU needs to improve the quality of classes offered to students, support cutting-edge research and expand economic assistance to qualified students. Moreover, RU needs to take full advantage of the rich educational and cultural history of the greater Kyoto area (where both Kinugasa Campus and Biwako-Kusatsu Campus are located), the highly effective career planning and internship services and the diverse curriculum offered to both undergraduate and graduate students at RU. Only by offering the most attractive educational and living opportunities to students would RU be able to attract the most competitive students in this era of severe competition among universities.
ISSUES AND CHALLENGES FACING RITSUMEIKAN UNIVERSITY’S POLICIES FOR INTERNATIONAL STUDENTS
~Focusing on the Recruitment of and Support for Incoming Students~

Kiyoko TANAKA
Assistant Administrative Manager
Office of International Education at Kinugasa Campus, Ritsumeikan University

~OUTLINE~
Recruitment of and Support for Incoming Students

- Transformation in the Past Two Decades
- Where We Stand and Where We Are Heading
- Challenges in Recruiting Highly Competent Students

~Advantages of Student Exchange~

- Contribution to international human resource development
- Benefits for Domestic Students
- Revitalization of Research
- Strengthening of Networks

~Increase in the Number of Degree-seeking International Students~

Past Two Decades
Transformation in 20 years

<table>
<thead>
<tr>
<th>Year</th>
<th>Graduates</th>
<th>Undergraduates</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>100</td>
<td>200</td>
</tr>
<tr>
<td>2002</td>
<td>150</td>
<td>250</td>
</tr>
<tr>
<td>2003</td>
<td>200</td>
<td>300</td>
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<td>2004</td>
<td>250</td>
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<td>2007</td>
<td>400</td>
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<td>2008</td>
<td>450</td>
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<td>2012</td>
<td>650</td>
<td>750</td>
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<tr>
<td>2013</td>
<td>700</td>
<td>800</td>
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<tr>
<td>2014</td>
<td>750</td>
<td>900</td>
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<tr>
<td>2015</td>
<td>800</td>
<td>1000</td>
</tr>
<tr>
<td>2016</td>
<td>850</td>
<td>1100</td>
</tr>
<tr>
<td>2017</td>
<td>900</td>
<td>1200</td>
</tr>
<tr>
<td>2018</td>
<td>950</td>
<td>1300</td>
</tr>
</tbody>
</table>
Transformation in 20 years

Increase in the Number of Short-term Non-degree International Students

Past Two Decades
Goal of Creating Multicultural Campus

International Students
Degree-seeking International Students
Short-term Non-degree International Students

By 2010

Programs for Degree-Seeking Students
- Core Ethics & Frontier Science
- Degree Programs offered in Japanese
- Economic Development
- Regional Policy & Planning
- International Technology & Management
- Global Cooperation Program

Degree Programs offered in English

Enrollment in September

13 Graduate Schools: Japan-based, Enrollment in April

Graduate Programs for international students

Graduate Programs

Where We Stand

Sep. 1995 - Global Cooperation Program
- International Technology & Management
- Regional Policy & Planning
- Economic Development
- Core Ethics & Frontier Science

Sep. 2000 - Core Ethics & Frontier Science

Graduate Schools: Japanese-based, Enrollment in April

Where We Stand

660
83
400
1140
816
124
83
2200

2000
500
1000
1500
2000

2000
500
1000
1500
2000

Enrollment in the Number of International Students

Transformation in 20 years

by Two Figures
Recruitment of Degree-seeking International Students

Participation in Japan Education Fair hosted by JASSO (in Tokyo, Osaka, Pusan, Seoul, Taipei)

Visit to Japanese language schools

General admission tests (twice a year)

Special exam designed for students nominated by Japanese-language schools

Recruitment Efforts

Where We Stand

Assistance for Degree-Seeking International Students

Partial tuition reduction

Partial refund of health insurance premiums

Various scholarships

Student loans for university expenses

Financial Assistance by RU

Where We Stand

Assistance for Degree-Seeking International Students

Percentage of Scholarship Recipients

For self-paying students (474 students in 2005)

Self-paying International Students

Percentage of Scholarship Recipients

Self-paying International Students

Partial Tuition Reduction

For self-paying students (474 students in 2005)
### Assistance for Degree-Seeking International Students

#### ~Living Assistance~
- Pre-entrance Orientation Camp
- Tutoring
- Entertainment Activities
- Consultation

### Assistance for Short-Term Non-Degree International Students

#### ~Living & Financial Assistance~
- 4-day orientation
- International House I & II
- Consultation in Chinese, Korean and English
- Scholarships
- Full access to the university facilities: library, internet, gym, medical center, etc.

### Study in Kyoto Program (SKP)

- **Intensive Japanese Language Track**
  - Small group Intensive Japanese Language Courses
  - Courses taught in English
  - Japanese Traditional Arts Courses
  - Introductory Japanese Language Courses

- **Japan and World Perspectives Track**

Enrollment in April & September, 1-2 semesters

### Issues Facing RU’s Exchange Programs

#### Degree-seeking
- Lack of Scholarship Fund
- Lack of Networking Opportunities
- Low Employment Rate
- Low Internship Participation Rate

#### Short-term Non-degree
- Shortage of Housing
- Lack of Courses Taught in English
- Transfer of Credits
RU's Advantages

- Rich educational & cultural history of the greater Kyoto area
- Highly effective career planning & internship services
- Diverse curriculum
- Active extracurricular activities
- More than 100 year's history

Future Tasks

Education

- Improving the quality of classes
e.g. Teaching, Bridging the gap between research & education, Diversity of courses in English, Class evaluation
- Starting new courses
e.g. Additional Japanese language courses, Internship program for short-term international students
- Creating a internationally compatible system
- Support for cutting-edge research

Student Support

- Support for Job Placement
e.g. Support for Career Seeking Activities, Encouraging Internship participation
- Alumni Networking
e.g. Organizing Alumni, Strengthening the overseas offices
- Expanding Financial Assistance
e.g. Securing Scholarship Funds
- Securing New Housing

Thank you for your attention!
If First & Best,
it’s surely KAIST!

KAIST/UNESCO Program for Human Capacity Building

Globalization

Relatively young university (founded in 1971), but gained rapid international fame. Wants to go further in globalization

- Increase the number of foreign faculty
- Increase the number of foreign students
- Implementation of dual degree programs
- All lectures given in English for Freshmen
- Setting up bilingual campus
- Internationalization KAIST culture

Evaluation & Achievement

- Asian Ranking by ASIAWEEK *
  1999 & 2000: First in "Best Universities in Asia in Science and Technology"
- World Ranking by the THES**
  2004: top 37th in ICT*** field
  2005: top 42nd in Technology field
  2006: top 82nd in Science field
- World Ranking by CACM****
  2006: First in System & Software Engineering
- Scientific Citations per Paper
  Technology = 1.92  Science = 6.67

* ASIAWEEK: a journal published by the CNN in Hong Kong
** THES: The Times Higher Education Supplement
*** ICT: Information and Communication Technology
**** CACM: Association for Computing Machinery

Budget 2006

Approx. 327 Million USD

- Donation & Other Income
- Government Subsidy
- Research Grants

Global Budget for International Activities:
2.6 millions USD for overall, half million = a USD for office running
Faculties & Staffs

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professors</td>
<td>296</td>
</tr>
<tr>
<td>Associate Professors</td>
<td>72</td>
</tr>
<tr>
<td>Assistant Professors</td>
<td>52</td>
</tr>
<tr>
<td>Full-Time Instructor</td>
<td>1</td>
</tr>
<tr>
<td>Professors Emeriti</td>
<td>38</td>
</tr>
<tr>
<td>Research Professors</td>
<td>34</td>
</tr>
<tr>
<td>Adjunct Professors</td>
<td>26</td>
</tr>
<tr>
<td>Part-Time Professors</td>
<td>168</td>
</tr>
<tr>
<td>Teaching Assistant &amp; Graduate Instructors</td>
<td>ca. 2,500</td>
</tr>
<tr>
<td>Admins &amp; Supports</td>
<td>324</td>
</tr>
<tr>
<td>Total</td>
<td>687</td>
</tr>
</tbody>
</table>

More than 1000, the number of faculty to make the ratio faculty to student be 1:6 in near future.

Enrollment 2006

Total: 7,336 students

<table>
<thead>
<tr>
<th>Degree</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>BS</td>
<td>3,021 (41.2%)</td>
</tr>
<tr>
<td>MS</td>
<td>2,089 (28.5%)</td>
</tr>
<tr>
<td>PhD</td>
<td>2,226 (30.3%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>females</td>
<td>663 (22.0%)</td>
</tr>
<tr>
<td>non-Korean</td>
<td>72</td>
</tr>
<tr>
<td>BS</td>
<td>408 (19.5%)</td>
</tr>
<tr>
<td>MS</td>
<td>295 (13.3%)</td>
</tr>
<tr>
<td>PhD</td>
<td>78</td>
</tr>
<tr>
<td>total</td>
<td>1,366 (18.6%)</td>
</tr>
</tbody>
</table>

Number of non-Korean students: 500 by the year 2010

Globalization

Types of Cooperation:

- Student Mobility
- Student OJT and Research Internship
- Joint Degree Programs
- Joint Research Programs
- Export of Know-How in Educational Engineering
- Student Placement & Scholarship Programs
- Value-added International Activities

Globalization

Students are the client, as well as the product of KAIST
Globalization

International Relations for Students is one of the high value added educational process whose basic philosophy is as below:

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Experience</th>
<th>Human Networking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Culture &amp; Systems</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Industrial culture</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Language</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>

Non-movers can also be internationalized by the presence of massive incoming foreigners, and lectures in foreign language.

Philosophy

Training of students in an environment of international teamwork to meet challenge of scientific, technological and human cultures that are different from their own:

- to develop their capability of adaptation to the international scientific and engineering environment
- to develop their capacity of innovation in science and technology
- to develop the autonomy and opening of their vision to the new frontier
- to provide them with chance to create natural friendship
- to give a true international dimension to KAIST by establishing a truly internationalized educational environment
- to create true bilingual campus
- to extend world widely the zone of influence of KAIST through “Training of Trainers”

Conditions

Project FFF: Fifty Foreign High School Graduates
Conditions:
- Not older than a year
- English speaking
- Excellent school records
- Profile of future leader of the country
Benefits

Scholarships

<table>
<thead>
<tr>
<th>No.</th>
<th>Item</th>
<th>amount (US$)</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tuition</td>
<td>15000</td>
<td>exemption</td>
</tr>
<tr>
<td>2</td>
<td>Parent Trust Fund</td>
<td>2000</td>
<td>exemption</td>
</tr>
<tr>
<td>3</td>
<td>Medical Insurance</td>
<td>410</td>
<td>proxy payment</td>
</tr>
<tr>
<td>4</td>
<td>Allowance</td>
<td>3600</td>
<td>paid 300$/month</td>
</tr>
<tr>
<td>5</td>
<td>Settling-in Allowance</td>
<td>2500</td>
<td>paid 200$/month</td>
</tr>
</tbody>
</table>

First year: 23410, balance: $2965/year
Second year and after: 20715, balance: $2955/year

Note: Tuition fees vary according to students' academic performance of the previous year. Monthly allowance of 300$ covers largely boarding & lodging fees.

KAIST-UNESCO COOPERATION

UNESCO’s Worldwide Network

- over 220 countries
- all delegation in one place
- good cooperation with educational authority
- easy help from educational specialists

KAIST-UNESCO COOPERATION

Cooperation Work

- selection of target countries
- coordination with national commission
- announcement among students
- face-to-face interview
- evaluation and pre-selection
- admission panel

Result of Operation

<table>
<thead>
<tr>
<th>Country</th>
<th>Applicants</th>
<th>Admitted</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Azerbaijan</td>
<td>8</td>
<td>4</td>
<td>50</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>1</td>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td>Brazil</td>
<td>1</td>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td>Chile</td>
<td>1</td>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td>China</td>
<td>8</td>
<td>5</td>
<td>62.5</td>
</tr>
<tr>
<td>India</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Iran</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>14</td>
<td>2</td>
<td>14.3</td>
</tr>
<tr>
<td>Pakistan</td>
<td>1</td>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td>Romania</td>
<td>7</td>
<td>1</td>
<td>14.3</td>
</tr>
<tr>
<td>Rwanda</td>
<td>4</td>
<td>1</td>
<td>25</td>
</tr>
<tr>
<td>South Africa</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>9</td>
<td>2</td>
<td>22.2</td>
</tr>
<tr>
<td>Ukraine</td>
<td>11</td>
<td>6</td>
<td>54.5</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>13</td>
<td>4</td>
<td>30.8</td>
</tr>
<tr>
<td>Vietnam</td>
<td>24</td>
<td>18</td>
<td>75</td>
</tr>
</tbody>
</table>

Total: 105 | 47 | 44.8
Accomplishments

Direct Outcomes
- time saving
- cost saving
- students of highly motivated and qualified
- promotion of KAIST
- sustainable cooperation
- zone of influence
Tohoku University's Strategy for Human Resources

Hideaki Hirayama
Director, International Exchange Division
Tohoku University

ABSTRACT

Tohoku University enacted Principles of Strategy for International Exchange on 8 March 2005 and we have established GOC (Global Operations Centre) on the first day of June 2005 supported by the Ministry of Education, Culture, Sports, Science and Technology.

The Centre will be an administrative headquarters for all matters related to international exchanges, and will serve to devise and put into action a united set of strategies in all faculties.

The Center is aimed to create an environment for academic staff to make Tohoku University as an internationally competitive university with highly acclaimed world-class research and education and to ensure the university is well-equipped to maintain a position of excellence in the global academic community.

Last year, Tohoku University introduced a Double Degree Programs with French Grandes Ecoles and Joint Educational Program with Tsinghua University in China to promote exchange of well-selected students with Prominent Educational Institutions overseas.
Sendai is a capital city in the Northern part of Japan.

- **Location of the City of Sendai**
  - In the North-East of Japan
  - Distance from Tokyo: 350km
  - Travel time from Tokyo (by bullet train): 1h35m

- **Population of the City**: 1,025,647

Sendai is surrounded by natural beauty:

- Matsushima, a picturesque seacoast.
Founded in 1907 as the 3rd Imperial University

Lu Xun ("Rojin"), entered Tohoku U. in 1904

Dr. Albert Einstein visited Tohoku University on Dec. 3, 1922

Chika Kuroda, the first woman. Tohoku U. admitted a female student for the first time among all the national universities in Japan in 1913.

Dr. Niels Bohr and Mrs. Bohr visited Tohoku University on May 2, 1937

Research and Education Organization

Main Library

Arts and Letters

Education

Law

Economics and Management

Science

Humanities

Engineering

Pharmaceutical Sciences

Agriculture

Graduate Schools

Arts and Letters

Education

Law

Economics and Management

Science

Humanities

Engineering

Pharmaceutical Sciences

Agriculture

Location of the Campuses in Sendai City

University Hospital

Institute for Materials Research

Institute of Development, Aging and Cancer

Institute of Developmental Science

Institute of Solid State Physics

Graduate School of Information Sciences

Graduate School of Life Sciences

Graduate School of Environmental Studies

Graduate School of Information Sciences

Graduate School of Life Sciences

Graduate School of Environmental Studies

Graduate School of Information Sciences

Graduate School of Life Sciences

Graduate School of Environmental Studies
Number of Board Members and Staff

As of November, 2006

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>President</td>
<td>1</td>
</tr>
<tr>
<td>Executive Directors</td>
<td>7</td>
</tr>
<tr>
<td>Auditor</td>
<td>2</td>
</tr>
<tr>
<td>Faculty Members</td>
<td>2,699</td>
</tr>
<tr>
<td>Research Assoc. (1,044)</td>
<td></td>
</tr>
<tr>
<td>Lects. (176)</td>
<td></td>
</tr>
<tr>
<td>Assoc. Profs. (641)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>5,145</td>
</tr>
</tbody>
</table>

Number of Students

As of May, 2006

<table>
<thead>
<tr>
<th>Level</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate</td>
<td>10,815</td>
</tr>
<tr>
<td>Master</td>
<td>4,175</td>
</tr>
<tr>
<td>Doctor</td>
<td>2,870</td>
</tr>
<tr>
<td>Total</td>
<td>17,860</td>
</tr>
</tbody>
</table>

Major research projects of Tohoku University

The 21st Century COE Program (13)

- Future Medical Engineering based on Biotechnology
- International Center of Research & Education for Unexplored Chemistry
- System Construction of Global-Network Oriented Information Electronics
- Center for Innovative Therapeutic Development for Common Diseases
- Exploring New Science by Bridging Particle-Matter Hierarchy
- Advanced Science and Technology Center for the Dynamic Earth
- International COE of Flow Dynamics
- Gender Law and Policy Center
- Comprehensive Research and Education Center for Planning of Drug Development and Clinical Evaluation
- System Construction of Global-Network Oriented Information Electronics

Mr. Koichi TANAKA, Nobel Laureate

1959 - Born in Toyama, Japan
1983 - Graduated from Department of Electrical Engineering, School of Engineering, Tohoku University
1999 - Researcher in Shimadzu Corporation
2002 - The Nobel Prize in Chemistry 2002

“The development of methods for identification and structure analyses of biological macromolecules”

Honorary Doctor of Tohoku University
**Citations**

<table>
<thead>
<tr>
<th>National Ranking</th>
<th>International Ranking</th>
<th>Field</th>
<th>Citations</th>
<th>Papers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>Materials Science</td>
<td>25,185</td>
<td>4,554</td>
</tr>
<tr>
<td>2</td>
<td>14</td>
<td>Physics</td>
<td>89,139</td>
<td>9,762</td>
</tr>
<tr>
<td>5</td>
<td>21</td>
<td>Chemistry</td>
<td>53,301</td>
<td>5,919</td>
</tr>
<tr>
<td>4</td>
<td>72</td>
<td>all fields</td>
<td>302,547</td>
<td>36,583</td>
</tr>
</tbody>
</table>


**Global Operations Centre (GOC)**

**Establishment**
Global Operations Centre (GOC) was established on June 1st, 2005 as the base for international strategy of Tohoku University, financially supported under the “Strategic Fund for Establishing International Headquarters in the Universities” Program of the Ministry of Education, Culture, Sports, Science and Technology.

**Function**
This Centre will be the administrative headquarters for all matters related to international exchanges and will serve to devise and activate a united set of strategies in all its faculties.

**Purpose**
The Centre is aimed to create an environment for academic staff in establishing Tohoku University as an internationally competitive university highly acclaimed with world-class research and education and to ensure that the university is well-equipped to maintain a position of excellence in the global academic community.

**Principles of Strategy for International Exchange**

Promote the world's highest standards of research through active participation in an international academic network

Invite and gather the highly motivated, capable and talented individuals from all over the globe and cultivate international leaders who can contribute to the advancement of world development.

Communicate our accomplishments in education and research internationally and contribute them to the international community.

Strengthen the foundations of research and education and increase the university's international recognition to support realization of the three above goals.

**Global Operations Centre (GOC) structure**

[Diagram showing the structure of GOC with various committees and offices]
Agreements on Academic Exchange with Foreign Universities

- In Black: Agreement on the University Level — Total of 91 universities
- In Green: Agreement on the Department Level — Total of 241 departments

(as of October, 2006)

Liaison Office

11 offices in the world

- University of Cambridge
- Moscow State University
- Stanford University
- KAIST
- Moscow State University
- Institute National des Sciences Appliquees de Lyon
- Russian Academy of Sciences
- Harvard University
- Rockefeller University
- Royal Institute of Technology
- University of Cambridge

As of May, 2005

Academic Exchange

FY2004

- Academic Travel Overseas: 3,411
- Visiting Research Fellows from Over seas: 5,146
- Teaching and Academic Staff from Overseas: 107

Number of International Students

TOHOKU UNIVERSITY Sendai, Japan

As of May, 2006

- Undergraduate School: 126
- Graduate School: 778
- Others: 290
- Total: 1,194
Number of International Students
Breakdown by Country and Region

Asia 998 82.7%
Europe 74 6.2%
Africa 31 2.6%
Middle and Near East 45 3.8%
North America 22 1.8%
Central and South America 29 2.4%
Oceania 5 0.4%

Total: 1,194

Number of Tohoku University's Students Sent Abroad
Breakdown by Region

North America 44
Europe 20
Oceania 50
Asia 199
Central and South America 29

Total: 1,184

How to foster students' interest with the global academic community actively

1. Participation in Conventional Exchange Program
   - Short-term (within one year exchange with partner universities)
   - Double Degree Programs with French Grandes Écoles
   - Joint Education Program with Tsinghua University
   - Collège Doctoral Franco-Japonais (with French government)

2. New Joint Educational Initiatives with Prominent Educational Institutions overseas
   - Double Degree Program with Tsinghua University (China)
   - Joint Educational Program with Tsinghua University

3. Providing of Scholarships and practical language training courses (some significant issues still to be resolved)
Broader-Based Global Exchange

Double Degree programs with French Grandes Écoles
(Écoles Centrale Group, INSA-Lyon)
to be expanded to other major universities in EU

Joint Educational Program with Tsinghua University
to be expanded to other key universities in China

Grandes Écoles and other universities in EU

Tohoku University
Sendai, Japan

Agreement for Educational and Academic Cooperation
with Écoles Centrale Group

The 100th Anniversary of Tohoku University in 2007

Sendai, Japan

The 100th Anniversary of Tohoku University in 2007
Target Goal

Tohoku University is aiming to become a "World’s Leading University" amongst the top 30 in the world.

Akihisa Inoue
President and Academician
Tohoku University
International Academic Exchange
at National Tsing Hua University

Shih-Lin Chang
National Tsing Hua University, Hsinchu, Taiwan 300

ABSTRACT

To achieve academic excellence and broaden educational spectra, international academic exchange is one of the main focuses on which almost every university has put on a lot of efforts. At Tsing Hua University in Hsinchu, Taiwan, the international academic exchange program has been the major task of the Division of International and Continuing Education, which is under the Office of Academic Affairs. In this presentation the missions and strategies of this international program will be described and the current status be reported. Issues and challenges in promoting and pursuing international academic exchange will be also addressed.
Outlines

Missions
Statistics of international students
Statistics of exchange students
Strategies
Future goals
Issues and suggestions

2004-2006 Profile of International Students

<table>
<thead>
<tr>
<th>Year</th>
<th>Bachelor</th>
<th>Master</th>
<th>Doctoral</th>
<th>Total Graduates</th>
<th>Students at NTHU</th>
<th>Ratio of International Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>25</td>
<td>47</td>
<td>53</td>
<td>1025</td>
<td>10500</td>
<td>10.5%</td>
</tr>
<tr>
<td>2005</td>
<td>28</td>
<td>47</td>
<td>53</td>
<td>1060</td>
<td>10500</td>
<td>11.7%</td>
</tr>
<tr>
<td>2006</td>
<td>33</td>
<td>47</td>
<td>53</td>
<td>1041</td>
<td>10500</td>
<td>14.6%</td>
</tr>
</tbody>
</table>

Goal: Increase 50 international students per year and reach 3% ratio in 2010

Issues and suggestions

Missions
- Achieve academic excellence internationally
- Train outstanding students with global view
- Encourage students to study abroad
- Recruit more international students
- Enhance teaching and research excellence

Achieve academic excellence recognized internationally

Statistics of International Students

Shih-Lin Chang
National Tsing Hua University, Hsinchu, Taiwan

2. 01, 2007

National Tsing Hua University
Statistics of International Students


Students in summer sessions are included.

Strategy: Develop Dual Degree Programs

National Tsing Hua University
- Physics
- Materials Science and Engineering
- College of Electrical Engineering and Computer Science

Linkoping University (Linkoping Institute of Technology)
- Master’s Program in System-on-Chip for Communication and Media (SOCWARE)
- Master’s Program in Materials Physics and Nanotechnology

Strategies

- Develop dual degree programs
- Scholarships for studying abroad
- Scholarships for international students
- On-line application system
- International programs specifically for exchange students
- Establish facilities to teach courses in English
- Establish offices for international affairs
- Establish programs for international students
- Tuition waive for exchange students

Department / Institute

National Tsing Hua University
- Physics
- Materials Science and Engineering
- College of Electrical Engineering and Computer Science

Linkoping University (Linkoping Institute of Technology)
- Master’s Program in System-on-Chip for Communication and Media (SOCWARE)
- Master’s Program in Materials Physics and Nanotechnology
**Strategy:** Develop Dual Degree Programs

**Degree Plan and Requirements**
- **Study Abroad:** First semester of senior year
- **Study Period:** 2 years
- **Degree Requirements:** Complete undergraduate courses in NTUH
  - Take graduate level courses and thesis in Linkoping University
- **Degree Awarded:** Bachelor of National Tsing Hua University  
  Master of Linkoping University

**Strategy:** Scholarship for Studying Aboard

**NTHU Scholarship for International Exchanges**
- **Objective:** Students gain global view and international experiences
- **Qualification:** Sophomores
- **Quota:** 8 students per year
- **Study period:** One year

**Strategy:** Scholarship for Studying Aboard

**MOE Taiwan Merit Scholarship**
- **Objectives:** Students enhance research experiences, skills, and/or knowledges
- **Qualification:** Undergraduate and graduate students
- **Study period:** 3 months to 1 year
- **Visit labs and/or take non-degree courses**

**Strategy:** Scholarship for Studying Aboard

**Objective:** Academic exchanges between Taiwan and China
- **Qualification:** Sophomores or juniors
- **Quota:** 60~70
- **Study period:** 6 weeks in summer session
- **NTHU establishes the exchange program of undergraduate research with the following 10 universities in China**
  1. Peking University   6. Zhe-Jiang University
  2. Tsinghua University 7. Harbin University
  3. Fudan University     8. Xian Jiaotong University
  5. Soochow University  10. Shandong University
Strategy: Scholarship for Studying Aboard

- Taiwan Scholarship 2006 Recipients: 37
- Scholarship of International Cooperation and Development Fund (ICDF) 2006 Recipients: 23
- Scholarship of Taiwan International Graduate Program (TIGP) 2006 Recipients: 19
- Tsing Hua International Student Scholarship 2006 Recipients: 59

89% of international students receive one of the scholarships.

Strategy: On-Line Application System for International Students

Strategy: International Programs

NTHU cooperates with ICDF and Academia Sinica to establish programs in English:

<table>
<thead>
<tr>
<th>ICDF</th>
<th>NTHU</th>
<th>Academia Sinica (TIGP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>International MBA in Technology Management (IMBA) (funded in 2003)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>International Master Program in Information Systems and Applications (Computer Science) (IMPCS) (funded in 2004)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemical Biology and Molecular Biophysics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Molecular Science and Technology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nano Science and Technology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computational Linguistics and Chinese Language Processing</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Strategy: International Programs

Number of Students in ICDF’s Program

<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
<th>IMBA</th>
<th>IMPCS</th>
<th>IMPISA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>4</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>7</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>7</td>
<td>IMPISA is renamed as IMPISA</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>
Strategy: Courses Offered in English

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>Courses Offered in English</th>
<th>Number of Courses Offered (Professional Courses)</th>
<th>Ratio of Courses Offered in English (Professional Courses)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006 Spring Semester</td>
<td>142</td>
<td>1363</td>
<td>10.4%</td>
</tr>
<tr>
<td>2006 Fall Semester</td>
<td>158</td>
<td>1385</td>
<td>11.4%</td>
</tr>
</tbody>
</table>

- Incentive for offering courses in English (one of three)
  - Financial support for TA's
  - Financial support on teaching materials
  - 50% more course credits

Strategy: Tuition Waive and Scholarship for Exchange Students

- Application deadline: six weeks prior to the study
- Study period: fall semester, spring semester, and/or summer session
- Students from sister universities can waive tuition and credit fees
- Exchange student scholarship

Strategy: Offices for International Affairs

<table>
<thead>
<tr>
<th>Office</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office of Research and Development</td>
<td>* MOU and agreements with sister universities and research institutes</td>
</tr>
<tr>
<td>Division of Academic Cooperation</td>
<td>* Guest visits</td>
</tr>
<tr>
<td>Office of Academic Affairs</td>
<td>* Admissions for international students and exchange students</td>
</tr>
<tr>
<td>Division of International and Continuing Education</td>
<td>* Documents for visa applications * Scholarships for studying abroad</td>
</tr>
<tr>
<td>Office of Student Affairs</td>
<td>* Provide assistance in living, international student activities, and etc.</td>
</tr>
<tr>
<td>Division of Overseas and Foreign Student Affair</td>
<td>* Scholarships for international students</td>
</tr>
</tbody>
</table>

UCIA
University Center of International Affairs
Goals

- Number of International Students Reaching 3%
- 15% of Courses Taught in English

Achieve Academic Excellence Recognized Internationally

Issues and Suggestions (1/6)

- Not many people are familiar with NTHU, which limits the number of international applications.
  - Aggressively attend education fairs and visit foreign universities to recruit international students.
- Tuition and living expenses in NTHU might be expensive for international students from developing countries.
  - Provide scholarships and part-time jobs for international students.

Issues and Suggestions (2/6)

- Students from some countries are difficult to obtain Taiwan visa.
  - Ministry of Education should help international students to resolve any visa problem.
- Only 10% of all courses are offered in English.
  - Provide more incentives for professors to offer courses in English and also more learning tools for local students to get used to English.

Issues and Suggestions (3/6)

- Mathematics and science backgrounds of some admitted international freshmen are not comparable with the backgrounds of local students.
  - Design mathematics and science evaluation sheets for international applicants to answer voluntarily.
- Courses in listening, speaking, reading, and writing Chinese language for international students are needed.
  - Establish more such courses to help international students to fit in Taiwan culture and the campus life.
Issues and Suggestions (4/6)

◆ The required General Education courses such as History, Constitution, and Sociology are very difficult for some international students.
  ➢ Revise course requirements such that international students can take Chinese language courses instead of the General Education courses.
◆ Dormitories do not have sufficient facilities to accommodate different cultures and living habits of international students.
  ➢ Build or remodel dormitories in the consideration of international students.

Issues and Suggestions (5/6)

◆ Most documents and University regulations do not print in English.
  ➢ Require all documents and regulations to have English versions.
◆ Few living and travel information such as food menu and directions are created specifically for international students.
  ➢ Encourage local students to collect materials and establish web sites that provide information for foreigners.

Issues and Suggestions (6/6)

◆ Tuitions of foreign universities may not be affordable for our students.
  ➢ Establish more sister universities with MOU that offers tuition waive for our exchange students.
◆ Our students do not have strong motivation to study aboard.
  ➢ Encourage students to study aboard by providing more scholarships, English learning courses, and international fairs.

Thank you