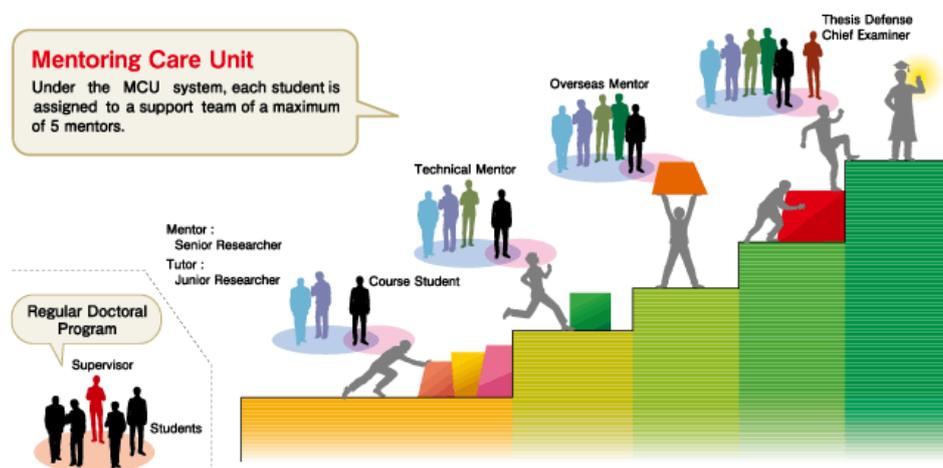


guidance to master’s program students who are under the guidance of their doctoral research advisors, thus giving them experience in providing instruction to others in their specialty area.

**(I) Mentoring and Support System for Students: Mentoring Care Unit**

A mentoring care unit (MCU), comprising a world-class senior researcher (mentor: program leader), a junior researcher (tutor: program assistant), an overseas mentor (advisor on the International Internship) and a technical mentor (supervisor in the Practice School), guides and supports each student consistently. The technical and overseas mentors join the MCU in picking a theme for Practice School and guiding the student’s progress through the doctoral course of study, respectively. The mentor submits bimonthly and end-of-the-semester reports on the development of his or her student’s capabilities to the Academic Affairs Committee of the Green Asia Education Center. A professor cannot act as both a mentor and a chief referee of one student. With such support individual areas of specialization, students can acquire a breadth of knowledge that leads to the development of system landscape ability.

Master’s students attend a serious internship, Practice School, in domestic companies or institutes (domestic partner organizations), to gain experiences in research developments under the guidance of the technical mentors. As the students may have heavy workload in Practice School, mentors conduct interviews with their students and the technical mentors, and provide the necessary support. In their International Internship, the students are supported through partnerships between mentors and overseas mentors, and between the Green Asia Education Center and the administrative office of the Program for Leading Graduate Schools.



**Figure 2-4.** Mentoring Care Unit

**2. Admission Policy and Results**

**2.1. Admission Policy**

In this program, which aims to develop doctoral degree holders with a global perspective that transcends national borders and is based on the fields of resource engineering, material science, system engineering, and environmentology, the goal of course entrance examinations is to select

students who possess not only a fundamental grounding in specialized research fields but also excellent language and communication skills. As such, in the half year between university enrollment and course entrance examinations, all students at the university are made entirely aware of this program's goals and what the program entails. In this way it is possible not only to recruit outstanding and motivated students but also to generate awareness among all students regarding the program's aim of developing an elite group who will go on to make future contributions to society. Furthermore, the course entrance examination should instill a strong sense of responsibility and awareness in the candidates through a series of experiences, such as interviews in examinations.

## 2.2. Domestic Admission: Recruitment of Graduate Students at Kyushu University

### (a) FY 2012

Because this program was adopted in October 2012, we informed students about this program as shown in **Table 2-2**, and we conducted the entrance examination on November 17 (**Appendix 1**). The entrance examination consisted of tests on specialized subjects, a short essay in English, and an interview. Comprehensive evaluations of the candidates were conducted on the basis of their TOEIC scores and grade point averages (GPA) as well as their performance in the examination (**Table 2-3**). Six of the eight applicants passed (**Table 2-4**).

**Table 2-2.** Schedule of Entrance Examination in FY 2012

Date	Contents
October 23	Information session for M1 students
October 31	Due date for submission of Application Form for Admission (three departments, Interdisciplinary Graduate School of Engineering Science)
November 5	Due date for submission of Application Form for Admission (Earth Resources Engineering, Graduate School of Engineering)
November 7	Information session for the applicants and their supervisors
November 12	Due date for submission of the application documents
November 17	Entrance examination
November 20	Appraisal meeting
November 21	Announcement of successful applicants

**Table 2-3.** Evaluation Items on the 2012 Entrance Examination

Items	Contents
Specialized subject	Two specialized subjects
Short essay in English	Expressing his or her opinion (ca. 500 words) about one theme selected from four choices
Interview	Group interview in English
TOEIC score	
GPA score	

**Table 2-4. Results of Domestic Admission in 2012**

Department	Applicant	Candidate	Matriculate
Molecular and Materials Sciences <sup>1</sup>	1	1	0
Applied Science for Electronics and Materials <sup>1</sup>	3	3	3
Energy and Environmental Engineering <sup>1</sup>	1	1	1
Earth Resources Engineering <sup>2</sup>	3	2	2
Total	8	7	6

<sup>1</sup> Interdisciplinary Graduate School of Engineering Science; <sup>2</sup> Graduate School of Engineering

**(b) FY 2013**

In 2013, we started to provide information about the Green Asia Program as part of guidance for the new M1 ones in April, and then we held an information session on July 3 (**Table 2-5**). The entrance examination and the appraisal meeting were conducted in August, and six applicants passed (**Table 2-6**). However, the total number of the domestic and international students who joined the program in October 2013 did not initially attained number of 20; therefore, we continued our recruitment during the second semester, and one more student passed (**Table 2-6**).

**Table 2-5. Schedule of Entrance Examination in 2013**

Date	Contents
July 3	Information session for M1 students
July 16	Due date for submission of Application Form for Admission
August 6	Entrance examination
August 20	Assessment meeting
August 21	Announcement of successful applicants
December 27	Due date for submission of Application Form for Admission (recruiting in the second semester)
January 14	Entrance examination (recruiting in the second semester)
January 16	Appraisal meeting (recruiting in the second semester)
	Announcement of successful applicants (recruiting in the second semester)

**Table 2-6. Results of Domestic Admission in 2013**

Department	Applicant	Candidate	Matriculate
Molecular and Materials Sciences <sup>1</sup>	0+1 <sup>3</sup>	0+1 <sup>3</sup>	0+1 <sup>3</sup>
Applied Science for Electronics and Materials <sup>1</sup>	5	5	5
Energy and Environmental Engineering <sup>1</sup>	0	0	0
Earth Resources Engineering <sup>2</sup>	1	1	1
Total	7	7	7

<sup>1</sup> Interdisciplinary Graduate School of Engineering Science; <sup>2</sup> Graduate School of Engineering; <sup>3</sup> recruiting in the 2nd semester

## 2.3. International Admission in FY 2013

### (1) Recruitment of Overseas Student

Needless to say, the success or failure of this program rests on whether we can recruit excellent course students. After enrolling in the Interdisciplinary Graduate School of Engineering Sciences and Graduate School of Engineering, Japanese course students (10 places available each academic year) have a grace period of six months before the program begins. This means that they can apply after having given careful consideration to the various information relating to the program, and, from our side as program organizers, it means that we can recruit suitable students through transfer course examinations following a sufficient period of generating awareness and canvassing. In other words, this period enables us to judge from students' conduct whether they have grasped the gist of the program in terms of all skills required, including research. Meanwhile, 10 places are available to international students each academic year. These are allocated on the assumption of October enrollment and these students are to begin the program as soon as they are enrolled in the master's program; thereby, making the academic calendar for the international students irregular compared to that of Japanese students. Securing excellent international students should not be limited to core overseas collaborating institutes; rather, the recruitment of such students must entail the use of program contributors' existing research networks.

The 2013–2014 academic year was the first for the program; as such, in addition to our core overseas collaborating institutes, we also visited other associated universities throughout Asia on a recruitment drive to encourage those graduating from undergraduate programs to sit for the examination for this program.

#### Chulalongkorn University (Thailand) [Prof. Nakashima and Prof. Nishida]

From January 13 to 15, 2013, Prof. Nakashima and Prof. Nishida visited to Chulalongkorn University and the offices of the Nippon Steel and Sumitomo Metal (Thailand) Co., Ltd., and the Thai Steel Pipe Industry Co., Ltd. in Bangkok, Thailand. In Chulalongkorn University, they explained to Visiting Prof. Umeda (Emeritus Professor of the University of Tokyo), Assoc. Prof. Gobboon, and Dr. Wangayao about the Program for Leading Graduate Schools as well as the Green Asia Program. Prof. Nakashima and Prof. Nishida consulted with them about acceptance of students and asked them to inform their undergraduate students about the Green Asia Program. At the Bangkok office of Nippon Steel and Sumitomo Metal (Thailand) Co., Ltd., they consulted with Mr. Takeda, Associate Director, and Mr. Itomi, Manager, about the current situations of Japanese corporations in Thailand. Then, Prof. Nakashima and Prof. Nishida visited the Thai Steel Pipe Industry Co., Ltd. with Mr. Takeda and Mr. Itomi to meet with Mr. Hara, President. After touring the factory, they discussed the Overseas Internship with him.

#### Indian Institute of Technology Madras (IIT Madras) (India) [Prof. Nakashima and Prof. Nishida]

From February 21 to 24, 2013, Prof. Nakashima and Prof. Nishida visited IIT Madras. They gave explanations to some faculty members including Prof. R. Nagarajan,

Vice-President in charge of international exchange, and Prof. N. J. Vasa (Department of Engineering Design, and overseas mentor in our program) about the Program for Leading Graduate Schools as well as the Green Asia Program. Prof. Nakashima and Prof. Nishida also consulted with them about acceptance of students and asked them to inform undergraduate students about the Green Asia Program. Then, they visited the laboratories of Dr. I. M. Nambi (Environmental and Water Resources Engineering Division), Prof. R. Sarathi (Department of Electrical Engineering), Assoc. Prof. J. M. Mallikarjuna (Department of Mechanical Engineering), Assoc. Prof. S. M. Shiva Nagendra (Department of Civil Engineering), and Prof. M. Kamaraj (Department Chairman of Metallurgical and Material Engineering) with Prof. Vasa, explaining the Green Asia Program and asking them to inform students about the program. Prof. Kamaraj said that the Department of Metallurgical and Material Engineering was conducting a student exchange program with Nagaoka University of Technology, and that he also wanted to consider the program with Kyushu University.

Malaysia-Japan International Institute of Technology (MJIT) (Malaysia) [Prof. Tanimoto]

From February 24 to 27, 2013, Prof. Tanimoto visited to MJIT, the Kuala Lumpur Office of the Japan International Cooperation Agency (JICA), and the University of Malaya. At MJIT and the University of Malaya, he had opportunities to inform undergraduate students about the Green Asia Program, and to answer their questions. At MJIT, about 200 students attended the information session thanks to the efforts of Prof. Megat, Dean of MJIT. Prof. Tanimoto further discussed the detailed screening process for overseas students with Prof. Megat and Assoc. Prof. Sabariah, Deputy Academic Dean. As a result, they came to the conclusion that the screening corresponding to the virtual entrance examination would be conducted prior to the entrance examination for the Global 30 Project of Kyushu University, and that it might be good to conduct the examination in two stages: the first screening would involve evaluating documents such as the applicant's academic transcript, and the second stage would include tests and interviews for those applicants who passed the first stage. On the last day, Prof. Tanimoto made a courtesy visit to Prof. Zaini, Vice-President of Universiti Teknologi Malaysia (UTM) (a position corresponding to President of a Japanese university), and consulted with him about possible collaboration between UTM and Kyushu University with the Green Asia Program as a core.

Yonsei University (South Korea) [Prof. Teraoka]

On March 9, 2013, Prof. Teraoka visited Yonsei University in Seoul to meet with several faculty members of its College of Engineering: Prof. Yong-gun Shul, Assoc. Prof. Hyunjoo Lee, Assoc. Prof. Hansung Kim (Department of Chemical and Biomolecular Engineering), and Prof. Hong-Goo Kang (Vice-Dean, Department of Electrical and Electronic Engineering). Prof. Teraoka also met with a faculty member of the College of Science, Prof. Kyunghwan Oh (Department of Physics). As Research Prof. Takarabe (Advanced Graduate Course on Molecular Systems for Devices, Kyushu University) had visited there previously, Prof. Teraoka did not have to repeat a general explanation of the Program for Leading Graduate

Schools, and instead focused on the explaining the Green Asia Program. Then, he consulted with them about acceptance of students, and asked them to inform undergraduate students about the Green Asia Program. While there is an inter-university exchange agreement for undergraduate students between Yonsei University and Kyushu University, the exchange agreement with the Program for Leading Graduate Schools has not been completed. Therefore, the two parties agreed to seek the completion of this agreement.

National Chiao Tung University (Taiwan) [Assoc. Prof. Tsutsui]

From March 13 to 16, 2013, Assoc. Prof. Tsutsui visited National Chiao Tung University in Hsinchu. He informed undergraduate students about the Green Asia Program, and he met with Prof. Chongsin Gou (Department of Mechanical Engineering) and other faculty members. Assoc. Prof. Tsutsui asked them to recommend applying to the Green Asia Program to their students. Prof. Gou said that the Department of Mechanical Engineering had not conducted any active personal exchanges with a university in Japan, but he wanted to advance consideration of this exchange possibility after making a more detailed inquiry regarding the program.

Institut Teknologi Bandung (ITB) (Indonesia) [Prof. Sasaki and Assoc. Prof. Shimada]

From March 17 to 20, 2013, Prof. Sasaki and Assoc. Prof. Shimada visited to ITB in Bandung. They held two information sessions on the Green Asia Program for the faculty members and undergraduate students (respectively) of the Department of Mining and Petroleum, and they also consulted with two faculty members: Prof. Rudy Sayoga and Dean. Prof. Sasaki and Assoc. Prof. Shimada explained the admission examination in detail and described the application documents. Then, they met with Prof. Sayoga to determine the schedule and location for the entrance examination in Indonesia. They interviewed the applicants, pre-selected by the university based on the students' grade reports and English scores. Furthermore, they answered questions about the Green Asia Program and inquired about students' motivations for considering the program.

Vietnam National University–Ho Chi Minh City (Vietnam) [Assoc. Prof. Ohtaki]

On March 18, 2013, Assoc. Prof. Ohtaki visited Vietnam National University–Ho Chi Minh City University of Natural Sciences (VNU-HCM-UNS), where he had an opportunity to provide information about the Green Asia Program and answer questions. About 40 students and faculty members including Prof. Nguyen Thi Thanh Mai (Dean of Faculty of Chemistry), Prof. Nguyen Kim Phung, Assoc. Prof. Nguyen Tuyet Phuong, and Assoc. Prof. Chi Nhan Ha Thuc joined the information session, which lasted for more than an hour and a half. In particular, he was asked many questions about admission and financial assistance. He encouraged students to apply to the Green Asia Program.

Vietnamese Academy of Science and Technology (Vietnam) [Assoc. Prof. Ohtaki]

On March 20, 2013, Assoc. Prof. Ohtaki visited to the Institute for Material Science, at

the Vietnamese Academy of Science and Technology (IMS-VAST) in Hanoi. He met with Prof. Nguyen Quang Liem (Director) and Dr. Vu Dinh Lam (Associate Director), informing them about the Green Asia Program and answering questions. About 40 students and faculty members attended a one-hour information session. While IMS is a graduate school, Assoc. Prof. Ohtaki asked participants to encourage undergraduate students whom they mentor to apply to the Green Asia Program.

Hanoi University of Science and Technology (Vietnam) [Assoc. Prof. Ohtaki]

On March 21, 2013, Assoc. Prof. Ohtaki visited to the International Training Institute for Materials Science, Hanoi University of Science and Technology (ITIMS-HUST). He met with academic staff members including Assoc. Prof. Nguyen Phuc Duong (Vice-Dean), informing them about the Green Asia Program and answering questions. About 20 students and faculty members attended a one-hour information session. On March 22, Assoc. Prof. Ohtaki also spoke with Prof. Nguyen Van Hieu and the students about admission issues and encouraged undergraduate students to apply.

Institute of Atomic and Molecular Sciences, Academia Sinica (Taiwan) [Prof. Teraoka and Assoc. Prof. Nishibori]

On the afternoon of March 19, 2013, Prof. Teraoka and Assoc. Prof. Nishibori met with Dr. Shang-Bin Liu at the Institute of Atomic and Molecular Sciences, Academia Sinica. As this institute has been established within the National Taiwan University in Taipei and is engaged in education, they explained about the Green Asia Program and asked Dr. Liu to inform undergraduate students about the program.

National Science Council, Executive Yuan (Taiwan) [Prof. Teraoka and Assoc. Prof. Nishibori]

On the evening of March 19, 2013, Prof. Teraoka and Assoc. Prof. Nishibori met with Prof. Chung-Yuan Mou (Vice-Minister of the National Science Council and Professor at National Taiwan University) to inform him about the Green Asia Program and receive broader comments about educational cooperation between Japan and Taiwan. The National Science Council in Taiwan is equivalent to the Japan Society for the Promotion of Science (JSPS) and the Japan Science and Technology Agency (JST).

National Synchrotron Radiation Research Center (Taiwan) [Prof. Teraoka and Assoc. Prof. Nishibori]

On the morning of March 20, 2013, Prof. Teraoka and Assoc. Prof. Nishibori visited the National Synchrotron Radiation Research Center in Hsinchu, Taiwan. This center is engaged in education in conjunction with National Tsinghua University and National Chiao Tung University as well as in promoting research. They met with Prof. Shin-Lin Chang (Director), Dr. Hwo-Shuenn Sheu, and Dr. Mau-Tsu Tang to explain about the Green Asia Program and to ask them to inform students about it. Furthermore, they discussed educational cooperation

in the field of synchrotron light, because there is a good chance that Green Asia Program students may become involved in this area of research. The center's representative agreed to consider this possibility.

National Central University (Taiwan) [Prof. Teraoka and Assoc. Prof. Nishibori]

On the afternoon of March 20, 2013, Prof. Teraoka and Assoc. Prof. Nishibori visited National Central University. They met with five faculty members of the Department of Chemical and Materials Engineering, including Prof. Kang-Hwa Lii (Vice-President), Prof. Anthony S. T. Chiang, and Prof. Yu-Wen Chen, to explain about the Green Asia Program and to ask them to inform students about the program. They also had opportunities to inform students about Green Asia Program, give a presentation about related research activities, and exchange opinions. They felt that the students were sincerely interested in studying in Japan.

National Taiwan University (Taiwan) [Prof. Teraoka and Assoc. Prof. Nishibori]

On the morning of March 21, 2013, Prof. Teraoka and Assoc. Prof. Nishibori met with Prof. Soofin Cheng at the National Taiwan University to explain about the Green Asia Program. Furthermore, they informed students about the program, gave presentations about the research activities related to Green Asia at Kyushu University, and exchanged opinions. They obtained assurances that their information would be shared with other faculty members and students, because there were many students at the National Taiwan University, who hoped to study in Japan. Additionally, they proposed other ways of advertising the program and providing briefings to students, as they felt that the chances of recruiting students from Taiwan were good.

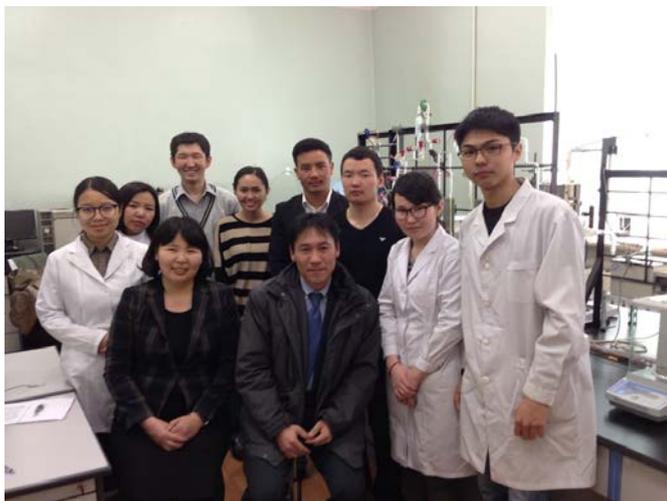
National Chin-Yi University of Technology (Taiwan) [Prof. Tanimoto]

From March 20 to 22, 2013, Prof. Tanimoto visited to National Chin-Yi University of Technology in Taichung, which has devoted special efforts to developing academic-industrial alliances. He informed undergraduate students about the Green Asia Program, and he met with Prof. Mei-Jane Teng (Director of the Office of International Affairs, in charge of international partnerships) and other faculty members to ask them to recommend applying to the program to their students. As this university had a track record of exchange only with Kitami Institute of Technology among Japanese universities, they hoped that a memorandum of understanding (MoU) for the exchange of researchers and students with Kyushu University could be completed. However, this issue was postponed to a future discussion.

National University of Mongolia and Mongolian University of Science and Technology (Mongolia) [Prof. Hayashi]

From March 27 to 31, 2013, Prof. Hayashi visited to the School of Chemistry and Chemical Engineering and its affiliated institutes at the National University of Mongolia, and the School of Materials Science, Mongolian University of Science and Technology, in Ulan Bator (**Photos 2-1** and **2-2**). On March 28, a briefing session was held to provide information

on the purpose of the Green Asia Program and the admission examination at the National University of Mongolia. About 50 students and 10 academic staff members including Prof. B. Ochirkhuyag (Dean) and Prof. D. Monkhoobor (Chair of the Department of Organic Chemistry) joined the session. At the National University of Mongolia, effective utilization of domestic coal has been actively studied, so Prof. Hayashi gave a lecture on technological developments related to high-degree applications of coal at Kyushu University. Furthermore, he visited various laboratories for organic chemistry, inorganic chemistry, analysis chemistry, electrochemistry, and process engineering, and he interacted with staff members and students (see **Photo 2-1**).



**Photo 2-1.** Prof. Enkhsaruul Byambajav and staff members and students of the Coal Research Center (National University of Mongolia)



**Photo 2-2.** Prof. B. Byambagar and staff members of the Department of Chemical Technology (Mongolian University of Science and Technology)

On March 29, Prof. Hayashi visited the Mongolian University of Science and Technology to inform 20 students and 5 staff members including Prof. B. Byambagar (Chair of Department of Chemical Technology) about the Green Asia Program and to deliver another lecture on technological developments related to high-degree applications of coal at Kyushu University.

On March 30, Prof. Hayashi visited the JICA Mongolia Office in Ulan Bator to meet with Mr. Junichi Arai (Executive Planner). He provided information about the Green Asia Program, asked for assistance with student recruitment, and also discussed energy and environmental situations in Ulan Bator. Mr. Arai acknowledged that there was a great need for a project and for the development of human resources to implement green technologies in collaboration between Japanese and Mongolian universities and companies.

After returning to Japan, Prof. Hayashi received twelve types of brown coal found in Mongolia from Prof. Enkhsaruul Byambajav, School of Chemistry and Chemical Engineering, National University of Mongolia; all 12 types can be used effectively (**Photo 2-3**). Kyushu University has scholarship systems, such as the Kyushu University Friendship Scholarships, by which it can accept a short visit by an overseas undergraduate student. Therefore, the utilization of such systems could enable the university to accept high-performing students from the National University of Mongolia and the Mongolian University of Science and Technology, and they can conduct researches related to the effective utilization of natural resources in Mongolia. Motivation and interest in the Green Asia Program can be enhanced by providing such educational support to undergraduate students. Additionally, these coal samples can be used as educational tools for students not only from Mongolia but also from southeast Asia, where effective utilization of low-grade coal has been a key issue facing their industries.



**Photo 2-3.** Samples of Mongol Brown Coal

## (2) Entrance Examination

During screening for fall 2013 enrollment, the first round was based mainly on the GPA scores and English abilities of students, using documents submitted by applicants through our website (**Appendixes 10 and 11**) and grade transcripts. Those who passed the first round received a visit from a member of the program's teaching staff, who administered a written examination, short essay, and interview as the second round of screening. Those who received an informal offer of a place in the program passed the final stage by submitting a separate application for the Global 30, the university's regular fall entrance examination (**Table 2-7**). At this stage, students were required to pay an examination fee.

**Table 2-7.** Results of International Admission in 2013

Department	Applicant	2nd Screening	Matriculate
Molecular and Materials Sciences <sup>1</sup>	19	10	8
Applied Science for Electronics and Materials <sup>1</sup>			
Energy and Environmental Engineering <sup>1</sup>			
Earth Resources Engineering <sup>2</sup>	5	5	1
Total	24	15	9

<sup>1</sup> Interdisciplinary Graduate School of Engineering Science; <sup>2</sup> Graduate School of Engineering

## 2.4. International Admission in 2014

### (1) Basic Recruiting Strategy

The recruiting of international students, not only at Kyushu University but also at other most Japanese universities, has relied on personal networks of professors. The admission process, including the circulation of application forms as well as the matching of applicants and professors, tends to occur within a limited circle.

In contrast, most universities in Europe and North America have aggressively recruited excellent students from all over the world based on strategic policy development using various procedures such as highly attractive website alike tourists information and other promotions supported by overseas branches of universities and education ministries of governments.

As a message released by Mr. Shimomura, Minister of Ministry of Education, Culture, Sports, Science and Technology (MEXT), the competition to recruit excellent young talent from developing countries among universities in Western nations has become tougher every year, and Japan is lagging behind such countries because of the lack of strategic policy.

Under these circumstances, the admission of international students to the Green Asia Program was carefully planned to be a pilot project for the strategic admission of international students in order to increase the quality, quantity, and diversity of applicants as well as to promote the reputation of Kyushu University.

Meanwhile, the educational foundation of the Green Asia Program spreads across three departments of the Interdisciplinary Graduate School of Engineering and Sciences (IGSES) and one department of the Graduate School of Engineering (GSE), and the admission schedules of the two graduate schools are different. Accordingly, the timeline for the admission process including application submission, screening, and identification of successful applicants was divided into two

groups, A and B, as shown in **Table 2-8**.

**Table 2-8.** Schedule for Admission of International Students

Research area	Resource engineering	Materials science System engineering Environmental engineering
Department and graduate school	Graduate School of Engineering - Department of Earth Resources Engineering	Interdisciplinary Graduate School of Engineering Sciences
Application form	Distributed application form individually from the office between September 19 and November 4, 2013	Distribution of application form was suspended temporarily. It was posted again in the <u>mid-December 2013</u> .
Closing date for receipt of applications	The Green Asia website stated, "Applicants are required to contact the Green Asia office first until November 4, 2013. Further process and availability will be informed individually."	<u>The current deadline (January 10) was extended to February 10, 2014.</u>
Screening	First screening based on submitted documents took place from November 11 to December 20, 2013. Second screening, consisting of wiring test and interview, was held in students' home countries between December 15, 2013 and February 2, 2014. The second screening was finalized on April 8, 2014.	First screening based on submitted documents was finalized on February 26, 2014. Second screening, consisting of wiring test and interview, was held in students' home countries between March 17 and March 31, 2014. The second screening was finalized on April 11, 2014.

## (2) Methodology

### a) Carefully designed website for the recruiting purposes

Prior to revising the English website of the Green Asia Program, we reviewed the English websites of many G-COE programs of Japanese universities. In spite of the widely known fact that English websites are an essential tool for the effective advertising in this age of globalization, most of the sites are surprisingly not well tailored to potential international applicants. Some sites are simple translations of Japanese website for Japanese visitors, and others are full of missing links.

Under these circumstances, the student affair committee of Green Asia program decided to organize a special task force consists of not only Japanese but also English Native and a Bangladeshi academic staff. Based on the survey about the websites of the recruitment of international students of several universities of UK and US, the new English website was designed as shown in **Figure 2-5**. Not only the key features of Green Asia program, but also various practical issues, such as how to submit application submission, financial support and standard living expenses are described in detail. In addition, the online system for submitting application documents is provided.

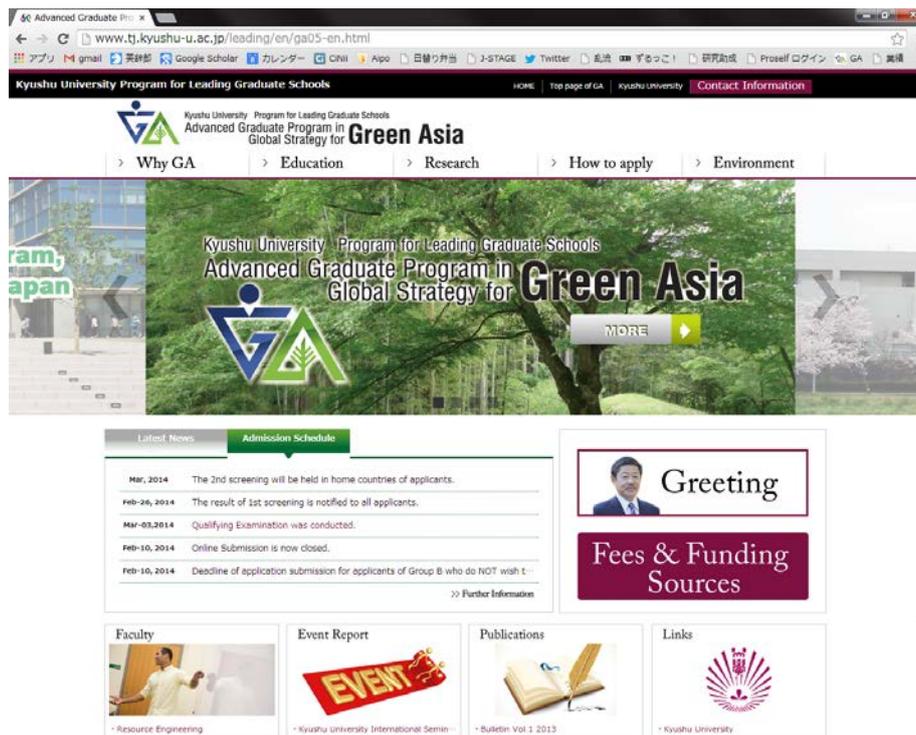


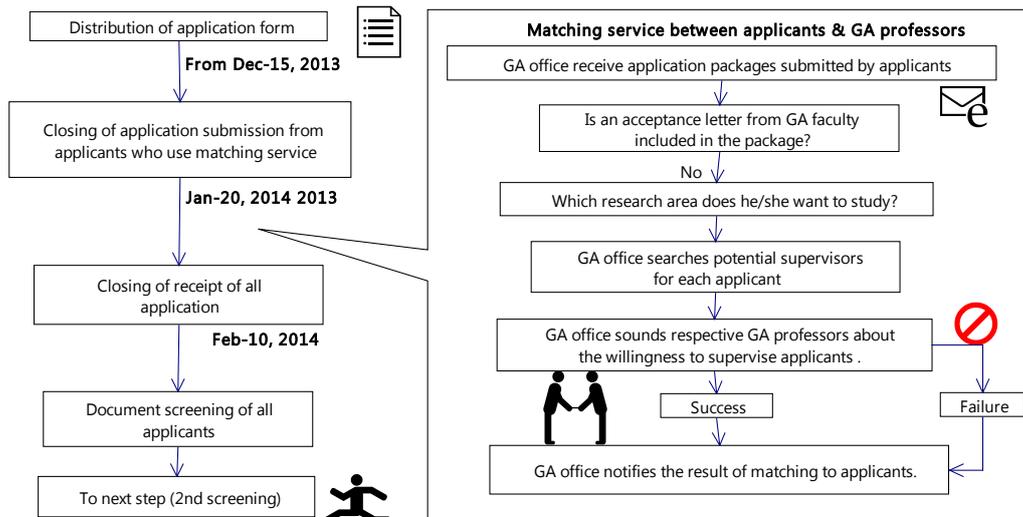
Figure 2-5. New English Website for the Admission of International Students

b) Matching system between applicants and potential mentors

Similar to the ordinary admission process for international students at Kyushu University, at the time of application submission, applicants are requested to submit an invitation letter from a professor at Kyushu University, who is willing to supervise him or her.

In effect, this request often requires multiple emails from applicants to many professors, but most Japanese professors do not reply to these inquiries. In order to avoid such miss-communication and to attract excellent candidates, we have constructed a centralized matching service between professors and candidates who have no personal connection with professors. **Figure 2-6** shows the flow of the matching service.

Before distribution of the application form began, the task force conducted a questionnaire-based survey of relevant faculty about their research areas and their ability to accept international students. After the Green Asia Program office received application documents, Green Asia clerical staff first scrutinizes the documents carefully for completeness. After that, two foreign Green Asia professors evaluate the documents from various viewpoints such as the reputation of the university from which the applicant graduated, academic scores, fluency of English essay, referee report written by two academic people on the applicant, and summarize their estimation of all applicants. The application documents and the estimation report of two Green Asia professors are delivered to relevant Kyushu University professors according to the research areas which the applicant selected.



**Figure 2-6.** Flowchart of the Matching Service between Applicants and Supervisors

### c) Intensive advertising

The advertisement of the Green Asia admission process was conducted in three ways: (1) a web directory service for students seeking graduate schools (“Find a Ph.D.”), (2) distribution of fliers and posters at associated overseas universities, and (3) presentations aimed at recruiting students from several Asian universities. As for the third method, professors of the Green Asia Education Center as well as IGSES and GSE visited Singapore and Vietnam.

### d) Careful and fair screening

Thanks to the drastic changes in the admission policy, students from universities in various countries could access admission information. Therefore, the careful inspection of applicants was essential so as to exclude applicants with forged academic transcripts or those with insufficient academic ability or English ability. In terms of the evaluation of applicants, the review system conducted by two foreign Green Asia academic staff works effectively. They have sufficient knowledge and experience of the education of international students, as well as of overseas academic trends, and their advices and suggestions regarding all the application documents have made our screening process more objective. Furthermore, the matching system provides a situation in which documents submitted by one applicant are evaluated by several professors in the research areas where the applicant wants to study.

## **(3) Results**

### a) Applicants for the Interdisciplinary Graduate School of Engineering Science

Forty-five applicants submitted the application documents, but before the first screening process, 10 of these were excluded due to incomplete or late submissions. Next, we evaluated the academic scores, English ability, essay writing, referee reports sent from two academics, and reputations of the home institutes for all 35 applicants. We selected six excellent applicants (categorized as “PASS+”) and a larger number of good applicants (categorized as “PASS”) in this first screening. The “PASS+” group was required to take an online interview with at least three

professors of IGSES. In contrast, applicants classified as “PASS” took tests of two subjects, essay writing, and interview in their home countries.

#### b) Applicants for Graduate School of Engineering

Thirteen applicants from four countries submitted the application documents, but before the first screening process, three of these were excluded because of the mismatch of expertise between them and GSE. Next, we evaluated the academic scores, English ability, essay writing, referee reports sent from two academics, and the reputations of the home institutes for all 10 applicants. As all 10 applicants showed sufficient ability, we visited their home countries individually to conduct the examination and interview. Three excellent score applicants from three different countries passed the second screening.

### **3. Education Policy and Results**

#### **3.1. Education Policy**

After starting the Green Asia Program, we applied for the establishment of “Global Strategy for Green Asia” Course in the Interdisciplinary Graduate School of Engineering Science and the Graduate School of Engineering, and it was approved on November 1, 2012. While the Green Asia Program is a five-year program integrating master’s and doctoral courses, a student who passes the qualifying examination (QE) can earn a master’s degree. The requirements for completing the course and passing the QE are as follows.

##### **(1) Requirements for Doctoral Degree**

Course students can obtain a doctoral degree after (1) being affiliated with the doctoral course (including the master’s course) for five years or more, (2) earning at least 77 credits including those listed below, (3) being engaged in sufficient research work under proper supervision by his or her mentor, and (4) passing both the review of his or her doctoral thesis and the final qualifying examination.

1. Practical English: 4 credits
2. Industrial Systems: 4 credits
3. Internship: 5 credits
4. International Exercise: 16 credits
5. Research: 18 credits
6. Social, Environmental, and Economic Systems: 12 credits
7. Special Subjects: 18 credits

##### **(2) Qualifying Examination**

In addition to the conditions set forth above, course students must (1) be affiliated with the master’s course at least two years, (2) earn at least 40 credits including those listed below, and (3) pass the qualifying examination that checks the student’s ability to conduct the research work included in the doctoral course.