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**MINUTES OF MEETING
BETWEEN
THE JAPANESE FINAL EVALUATION TEAM
AND
THE AUTHORITIES CONCERNED OF THE GOVERNMENT OF THAILAND
ON
THE JAPANESE TECHNICAL COOPERATION
FOR
THE ASEAN UNIVERSITY NETWORK/SOUTHEAST ASIA ENGINEERING
EDUCATION DEVELOPMENT NETWORK (AUN/SEED-NET)**

The Japanese Final Evaluation Team (hereinafter referred to as “the Team”) organized by the Japan International Cooperation Agency (hereinafter referred to as “JICA”), headed by Mr. Toda Takao, conducted an evaluation study from May 13th to May 30th, 2007, for the purpose of the joint final evaluation on the ASEAN University Network/Southeast Asia Engineering Education Development Network Project (hereinafter referred to as “the Project”).

During its visit to the member countries of the Project, the Team had collected relevant data and information, and had a series of meetings and workshops with the authorities and organization concerned.

Based on the above mentioned data and information, the Team had a series of discussion with the Thai authorities concerned. As a result of the discussions, the Team and the Thai authorities concerned agreed on the matters referred to in the document attached hereto.

Bangkok, May 30th, 2007

Mr. Toda Takao

Leader

Japanese Final Evaluation Team,
Japan International Cooperation Agency (JICA),
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Secretary-General

Commission on Higher Education (CHE),
Thailand
Chairman of AUN Board of Trustees

ATTACHED DOCUMENT

Attachment 1: Summary of Findings

Attachment 2: Joint Final Evaluation Report

Summary of Findings

1. Conclusion

As a result of the final evaluation, which carried out comprehensive information collection and analysis, as well as discussions with the stakeholders, **it is concluded that the Project has proved its significant value and achievement**, and that it is **most appropriate to advance to the next phase of the Project** based on the achievement up to the present, in order to further promote human resource development in engineering field which is indispensable for the sustainable socio-economic development of the ASEAN region.

The current status of the achievement of the Project Objective and the Project Output is as follows:

2. Project Objective

The Project Objective: “Educational and research capacities of Member Institutions (MIs) are improved through the active exchange of resources among them and the collaborative relationship with Japanese Supporting University Consortium (JSUC).” is deemed **mostly achieved** by reason that their educational and research capacity have been enhanced as a result of the Project, although the degree of attainment varies depending on MIs.

3. Outputs

The Outputs: “(1)Faculty qualifications are upgraded through acquisition of graduate degrees; (2)Host graduate programs are enhanced; (3)Joint activities and human linkage among the MIs are strengthened; and (4)Information dissemination system, activity management system and communication network are established.” are also evaluated as **achieved good result**, though the degree of benefit and attainment differs depending on status of HI and non-HI. It is also appraised however, that there still **remains substantial needs** for Output (1) and (2), and **challenges of sustainability** for Output (3) and (4).

4. Challenges to be tackled at the next phase

Notwithstanding that the Project has mostly achieved its Project Objective and Outputs, it is considered necessary to continue the support for the AUN/SEED-Net. This is because there remains considerable necessity for human resource development (especially among CLMV countries) and necessity for establishment/strengthening of MI’s graduate schools (not only at HIs but also at non-HIs), as well as much rooms for improvement for sustainability in organizational/institutional and technical aspect of the Project framework and activities. By implementing the next phase of the Project, it is expected that AUN/SEED-Net will be further developed, based on the foundation built during the current phase, into a sustainable framework for human resource development in engineering field in ASEAN region, and will be able to ensure larger effect and impact not only to MIs, but also to non-MIs, industries and communities, etc.

5. Other Important Issues

(1) Enhancement of recognition and reputation of AUN/SEED-Net

- It is necessary to enhance the recognition and reputation of the AUN/SEED-Net among related government (ASEAN countries and Japan), universities/research institutions, and industries, in order to enhance its sustainability and impact on society in the region.
- It is recommended that related stakeholders – MIs, governments of the member countries, the AUN/SEED-Net Secretariat, and JICA to promote the significance and achievement of the AUN/SEED-Net in every appropriate occasion available. An idea could be to hold a general overview meeting for the achievement of the AUN/SEED-Net in the near future, inviting representatives from each government organization.
- Significance of the AUN/SEED-Net to be shared includes: contribution to sustainable socio-economic development of ASEAN through human resource development in engineering field; and contribution to build foundation for integration of ASEAN in 2020, by forging strong human linkage among ASEAN countries.

The detailed result of the evaluation is described in the Joint Final Evaluation Report attached hereto as the Attachment 2.

**ASEAN University Network/Southeast Asia Engineering Education
Development Network (AUN/SEED-Net) Project**

Joint Final Evaluation Report

May 2007

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List of Abbreviations and Acronyms

1. General Terms

ASEAN	Association of Southeast Asian Nations
AUN	ASEAN University Network
GDP	Gross Domestic Product
HEDS	Higher Education Development Support
HI(s)	Host Institution(s) (definition: Institution that hosts a designated engineering field)
IT	Information Technology
JICA	Japanese International Cooperation Agency
JSU(s), JSUC	Japanese Supporting University(ies), Japanese Supporting University Consortium
MI(s)	Member Institution(s)
Non-HI(s)	Non-Host Institution(s) (definition: Institution that does not host a designated engineering field)
ODA	Official Development Assistance
PDM	Project Design Matrix
SC	Steering Committee
SEED-Net	Southeast Asia Engineering Education Development Network
SI(s)	Sending Institution(s) (definition: Institution that sends students to study under graduate degree program)

2. Member Institutions under AUN/SEED-Net

BUU	Burapha University
CU	Chulalongkorn University
DLSU	De La Salle University
HCMUT	Ho Chi Minh City University of Technology
HUT	Hanoi University of Technology
ITB(BRU)	Institut Teknologi Brunei
ITB(INA)	Institut Teknologi Bandung
ITC	Institute of Technology of Cambodia
KMITL	King Mongkut's Institute of Technology Ladkrabang
NTU	Nanyang Technological University
NUOL	National University of Laos
NUS	National University of Singapore
UBD	Universiti Brunei Darussalam
UGM	Gadjah Mada University
UM	University of Malaya
UP	University of the Philippines
USM	Universiti Sains Malaysia
UY	University of Yangon
YTU	Yangon Technological University

1. Introduction

1.1. Background

The concept of the AUN/SEED-Net, or ASEAN University Network/Southeast Asia Engineering Education Development Network, had evolved from the initiative of the former Prime Minister of Japan Mr. Ryutaro Hashimoto in 1997, to enhance economic sustainability in ASEAN region through human resources development. This initiative was later firmly incorporated into “The Obuchi Plan”, which was announced by the then Prime Minister Mr. Keizo Obuchi when the ASEAN Plus 3 Summit was held in Manila in November 1999. This plan entailed support for a network of human resources development in higher education in ASEAN countries in the area of engineering, whereby Japan intended to finance this undertaking through Japan’s bilateral technical cooperation program schemes and, in addition, the Japan-ASEAN Solidarity Fund.

To materialize this undertaking, the relevant authorities of ASEAN countries and Japan envisaged formation of an engineering institutions network ASEAN-wide, which would promote upgrading of higher engineering education through active collaboration among the member universities of ASEAN and Japanese universities. This is in line with the principles underlying the already existing ASEAN University Network (AUN), which aims at promoting human resources development through collaboration of leading universities and institutions in the ASEAN region with a view to ultimately establishing ASEAN University based on this expanded network.

In April 2001, the basis of the project concept “Cooperative Framework” was agreed by all parties concerned, “The ASEAN University Network / Southeast Asia Engineering Education Development Network” (AUN/SEED-Net) was inaugurated as an autonomous sub-network under the auspices of the AUN. The AUN/SEED-Net is composed of 19 Member Institutions (MIs) and supported by Japanese Supporting University Consortium (JSUC) which consists of 11 Japanese universities. In March 2003, the AUN/SEED-Net Project officially started with cooperation period of 5 years.

The Project’s Mid-Term Evaluation in 2005 had found that the Project had contributed to academic and economic development of the region by achieving the following results:

- (1) Establishment of “Consortium of Graduate Schools of Engineering” of top universities of the region, which offer international graduate programs in 9 engineering fields (To enable the region to develop human resources necessary to address the challenges of the region);
- (2) Human resource development of young teaching staffs of MIs through acquisition of higher degree in ASEAN and Japan (production of 300 Master holders and 110 PhD holders);
- (3) Development of an active academic network among MIs and Japanese Supporting Universities, through Master and PhD program in ASEAN countries and Japan, collaborative research projects, as well as regional seminars.

As the current phase of the Project is expected to complete its 5 years cooperation period at March 2008, the Final Evaluation Team is dispatched from JICA to review the achievement of the Project until the present date and draw lessons from the current phase. Since the Phase 2 of the Project is proposed, the Preliminary Survey is also conducted at the same time to confirm the needs, basic framework of the Project.

1.2. Purpose of Final Evaluation

- 1) To grasp and summarize the achievements of the Project in accordance with the Project Design Matrix (PDM) and from the viewpoint of five evaluation criteria
- 2) To review the implementation process of the Project and identify contributing factors (both

positive and negative) to the achievement of the Project, and draw lessons learnt from the implementation process

1.3. Schedule of the Survey

The survey was conducted from May 13th 2007 to May 31st 2007.

(Detailed schedule is shown in Annex 1)

1.4. Composition of Final Evaluation Team

The Survey Team consists of following members. As the number of member countries to which the Survey Team visit is as much as 9 countries, the survey was conducted by dividing the Survey Team to 3 sub teams, each of which visited 3 countries.

	Task	Name	Title & Organization	Team
1	Leader	Mr. TODA Takao	Group Director, Group II, Human Development Department, JICA HDQ	-
2	Engineering Education	Mr. YONEZAWA Akiyoshi	Associate Professor, Center for Advancement of Higher Education, Tohoku University	B
3	Cooperation Policy	Mr. HIGASHI Yoshinori	Official, Grant and Technical Cooperation Division, International Cooperation Bureau, Ministry of Foreign Affairs	-
4	Cooperation Planning	Mr. WATANABE Motoharu	Team Director, Technical and Higher Education Team, Group II, Human Development Department, JICA HDQ	C
5	Survey Planning	Mr. UEDA Daisuke	Senior Program Officer, Technical and Higher Education Team, Group II, Human Development Department, JICA HDQ	B
6	Evaluation Analysis 1	Mr. TAKEI Makoto	Director, Pantel International Co.Ltd	A
7	Evaluation Analysis 2	Mr. MATSUMOTO Yuichi	Consultant, RECS International Inc.	B
8	Evaluation Analysis 3	Ms. NAMURA Ayako	Consultant, Inter-works, Co.Ltd.	C

*1 Vice President of JICA, Mr.UEDA Yoshihisa accompanied Team A's schedule in Vietnam (a part of the schedule) and Laos.

*2 Mr. TODA Takao and Mr. Higashi Yoshihisa were not assigned to any sub team which visited the member countries, but joined the Survey from May 24 in Thailand to compile the survey result and discuss with the Thai authorities.

<Visited Countries by Team>

Team A: Thailand→Vietnam→Laos

Team B: Malaysia→Indonesia→Cambodia

Team C: Myanmar→Singapore→Philippines

1-5 Methodology of Evaluation

The Project was evaluated based on the Project Design Matrix (hereinafter referred to as “PDM”) of this Project. The PDM is a summary table describing the outline of the Project. The evaluation for this Project refers to the PDM (version 2) (attached as Annex 3), which was revised and agreed among project stakeholders in January 2006.

1-5-1 Evaluation Procedure

The Team developed the evaluation grid which identified the specific evaluation points and the data collection methods. The Team was divided into three sub teams and each visited three member countries each except Brunei. For the data and information collection, various methods were applied, such as questionnaires, interviews, discussions, workshops, and observation of laboratories. The Team analyzed and evaluated the Project from the viewpoint of the achievement level of the Project, the implementation process, and five evaluation criteria such as Relevance, Effectiveness, Efficiency, Impact and Sustainability. Finally, the Team drafted the recommendations and drew the lessons learned from the results, and had a series of discussions with the authorities concerned. (For the list of interviewees, see Annex 2)

1-5-2 Points for the evaluation

Achievement level and Implementation Process of the Project

The achievement level in terms of Inputs, Activities, Outputs, and Project Objective was assessed based on the PDM. The implementation process of the Project was also confirmed from the various viewpoints.

Evaluation Criteria

The following five evaluation criteria were applied to the project evaluation.

- (1) *Relevance:*** Relevance of the Project was considered from a viewpoint of the validity of the Project Objective and Overall Goal in connection with the development policy of ASEAN countries and the needs of the beneficiaries – the Member Institutions.
- (2) *Effectiveness:*** Effectiveness was assessed by evaluating to what extent the Project has achieved its purpose clarifying the relationship between the Objective and Outputs.
- (3) *Efficiency:*** Efficiency of the Project implementation was analyzed with an emphasis on the relationship between Outputs and Inputs in terms of timing, quality and quantity.
- (4) *Impact:*** Impact examines the indirect effects and extended effects by the Project in the long run. The analysis also includes the positive and negative impacts that were not expected when the Project was planned.
- (5) *Sustainability:*** Sustainability of the Project was evaluated from the viewpoints of political, institutional, financial and technical aspects, and examined the current extent to what the achievement of the Project was sustained or expanded.

2. Achievement of the Project

2-1. Actual Input

2.1.1. Inputs from Japanese side

In total, the Japanese side had allocated and appropriated necessary budget for the project activities and management as shown in the following table.

Unit: Thousand yen

Japanese Fiscal Year	JFY2003	JFY2004	JFY 2005	JFY 2006	JFY 2007 (Plan)	Total
Actual Expense	158,437	383,074	490,827	617,895	623,558	2,273,791

Below are the details regarding main inputs provided by JICA (all the numbers below are as of March 2007).

(1) Dispatch of experts and assignment of personnel for management of the Secretariat

As of May 2007, in total twelve (12) experts/personnel are dispatched or assigned as follows (See Annex 5 for the details):

- One (1) Chief Advisor
- One (1) Academic Advisor
- Three (3) Project Coordinators
- Seven (7) Program Officers

(2) Dispatch of technical experts (i.e., Japanese Professors) for the Project implementation

In total, 289 person-times were dispatched from JSUs for attending the Field Wise Seminars and/or supervising Collaborative Research. (See Annex 6 for the details)

(3) Provision of Master's and PhD scholarships

Master's degree scholarships were provided to 255 persons and PhD scholarships to 91 persons (PhD in Japan: 38, PhD Sandwich: 50, PhD in Singapore: 3) in total, from JFY 2001 to 2006 and 55 for Master and 50 for PhD are planned in 2007. (See Annex 7 for the details)

(4) Provision of research support fund

Financial assistance was provided for 170 thesis research and Collaborative Research projects in total from JFY 2003 to 2006 and 43 is planned in 2007. (See Annex 8 for the details)

(5) Provision of equipment

Equipment for Collaborative Research of the Project was procured and installed in each Host Institution. (See Annex 9 for the details)

2.1.2. Inputs from Member Countries and Institutions

Many member countries and MIs contribute to the project by finance and/or in-kind. The items and amount of these cost sharing has been increased year by year (See Annex 10 for the details).

Typical items of the cost sharing are as follows;

- In-kinds such as human resources and spaces for liaison offices and other activities
- Tuition fee and allowances for scholars (In case students cannot complete their study within the period and extend their study period, some of the Host Institutions (HIs) have waived 50-100% of tuition fee during extension period)
- Full scholarship (Singapore)
- Allowances for staff
- Collaborative Research project fund

In addition to these, the following inputs have been provided by the Thai.

- Office space of the AUN/SEED-Net Secretariat at Faculty of Engineering, Chulalongkorn University, Thailand and its domestic telephone charges and electricity
- Assignment of the following personnel to the AUN/SEED-Net Secretariat:
 - One (1) Executive Director
 - One (1) Assistant Executive Director
 - Two (2) secretaries
 (Note: Partial cost for assigned is paid by Japanese side)

2.1.3. Inputs from the ASEAN Foundation

Inputs from the ASEAN Foundation (Japan-ASEAN Solidarity Fund) were completed by the time for the mid-term evaluation on December 2005. In total, US\$ 316,073.56 was provided for 9 master scholarships, 6 research projects, and 5 academic seminars (from the year 2001 to 2004, including the preparation period of the Project).

2-2. Accomplishment of Activities

In the early stage of the Project, the scheme, structure and process to accomplish various activities were not firmly defined and activities were conducted in trial and error bases. Based on these precious experiences and with efforts of MIs and the AUN/SEED-Net Secretariat, the scheme, structure and process were established in the former half. Therefore, in the latter half of the Project, almost all activities were smoothly implemented and accomplished as described in the PDM.

Improvement on the scheme, structure and process are still on-going and there remain some points for further improvement. There are two kinds of changes: One is the change to be made as modification to the current Project framework and process, which is deemed relatively easy to achieve; the other fundamental change is to make the effect of the Project sustainable. Details of these points as well as performance of each activity are described in detail in the following sections.

2-3. Achievement of Output

The achievement of each Output of the Project is summarized as follows.

Output 1. “Faculty qualifications are upgraded through acquisition of graduate degrees”

Provision of scholarships by the Project has contributed to the increased number of Master degree holders and PhD degree holders at MIs, and the number of graduates is expected to increase threefold within a few years to come, during which all the awardees of the scholarship under the current Project will finish their study.

Currently, the number of academic staffs of MIs who have already acquired Master degree level is 132 person as of March 2007. While the number of PhD degree holders from the Project is still limited

to 8 person as of March 2007, as the majority of them have not graduated yet, the number is expected to increase sharply within a few years to come. A total of more than 400 faculty or faculty-to-be of MIs are granted scholarship during the Project.

Certain percentages (37% as of March 2007) of the Master's degree graduates through the AUN/SEED-Net are continuing their study at PhD level and are expected to join their institutions as academic staff. Most of the remaining of the Master's degree graduates (53% of the all Master degree graduates) are already working as faculty staff. The turnover rate of the AUN/SEED-Net alumni is quite low, and 95% of the graduates are currently working at respective MIs, a factor which contributes to ensure the impact of the Project.

It is found that the needs for human resource development of faculty staff at MIs, especially the current non-HIs are still high, and so is the expectation of these MIs for further support by the Project.

Output 2. "Host graduate programs are enhanced"

At this moment, it is observed that graduate programs at HIs are enhanced by the Project in different ways depending on the situation of each HI. According to reports by HIs and interview to them, the majority of host institutions recognize that their programs have been enhanced through the project both in terms of education and research. Some HIs indicated that there is an increase of number of research projects, conference papers and proceedings, courses or supplementary classes for international students, and a proposal for establishment of a new PhD course has also been made as a result of the project. It has been also mentioned by some HIs that establishment of the international course itself, which led to a better status as an educational institution, has been initiated by the project.

One of the objective indicators for this output can be obtained by international ranking of universities by outside authorities. Among them, The Times of London Higher Education Survey published the list of top 520 universities in 2006. Criteria used in ranking the universities are research quality, graduate employability international outlook and teaching quality. Proportion of international students and faculties are among these four criteria used in measuring the surveyed universities. MIs of the AUN/SEED-Net ranked within the top 400 are, NUS (No. 19), NTU (No. 61), CU (No. 161), UM (No. 192), ITB (No. 258), UGM (No. 270), USM (No. 277), UP (No. 299), and DLSU (No. 392). Although the contributing factors for this ranking cannot be thoroughly attributed to the Project, some of MIs stated during the interview that the ranking improved as a result of the Project.

Another indicator can be the evaluation by JSU professors. According to the questionnaire to JSU, 90% of JSU academic staff feel graduate program in HI is enhanced compared with the situation before the Project. There are SIs where the research outputs reach to the international standard level or program operation for PhD course is improved so that courseware is well arranged.

Output 3. "Joint activities and human linkage among the Member Institutions are strengthened"

Joint activities and human linkage among the MIs, which were rarely seen before the Project, have been established and strengthened, through diverse and intertwining schemes such as Collaborative Researches, Field Wise Seminars, Short term visits among MIs, Promotional Trip to SIs, as well as scholarship program. While the human linkage among MIs shows clear and strong effect of the Project, there is still room for improvement in increasing the effectiveness of those joint activities, as well as its sustainability without external assistance.

In total, 170 Collaborative Research projects (including thesis researches) were or are being conducted from JFY 2003 to 2006 and 43 research projects are planned in 2007. Field Wise Seminars were held 76 times by the end of JFY2006. All HIs except Singaporean universities also conducted

promotional trips to other MIs, in order to introduce their graduate courses, recruit new students, and explore the possibility of cooperation on research activities since 2003. These activities provided opportunities for faculty members and students of MIs to get to know researchers from other countries in the same field.

Regarding these activities, there are several points to be changed, improved or considered. Some interviewees pointed that there were no concrete actions after Field Wise Seminars and it is the time to review and change their objectives, strategies, policies, scope of attendees and agenda. Many interviewees in non-HIs requested joint activities be more interactive between MIs and not at HIs' sole initiative, including ownership of the equipment procured by the Project and budget management. There is room to examine measures to enhance involvement of non-HIs in organizing Field Wise Seminars and Collaborative Researches, as some MIs have suggested that more active exchange activities among MIs are necessary. To encourage involvement from industry is also worthwhile to consider as many MIs suggested.

Output 4. "Information-dissemination system, activity management system and communication network are established."

The foundation of Information-dissemination system, activity management system and communication network of the AUN/SEED-Net are established and being well managed. However, their current structure needs further consideration and improvement to attain sustainability.

In terms of information dissemination and communication network, there are a number of measures being taken. Newsletters started to be issued quarterly since year 2005, to inform relevant stakeholders about the activities of the AUN/SEED-Net. 500 copies are issued and distributed in each time. A website was launched in March 2005, and since then, the total access number to current website increased from 118,894 in 2005 to 191,893 in 2006. The number of mailing list members for distribution of newsletter of electronic version also sees increase from 243 on November 2005 to 676 as of April 2007.

For activity management, organization of the AUN/SEED-Net Secretariat and an implementation scheme were established. A Steering Committee was formed consisting of representatives of MIs and met semi-annually to monitor the project. Monitoring visits to each HIs are regularly conducted once a year by the Secretariat, and also on other occasions such as orientation and Field Wise Seminars, the Secretariat sometimes monitors the progress of students and takes any measures to provide support, if necessary. 30 regular monitoring visits were conducted between December 2003 and November 2006.

It should be noted that the role of the Secretariats in Information-dissemination system, activity management system and communication network are highly appreciated by all MIs. However, this also implies that without the function of the AUN/SEED-Net Secretariat, which is currently being supported by Japanese experts and coordinators as well as Thai Program Officers employed by the Project, implementation and management of activities of the AUN/SEED-Net will face difficulty.

2-4. Achievement of Project Objective

Project Objective: "Educational and research capacities of the Member Institutions are improved through the active exchange of resources among them and the collaborative relationship with Japanese Supporting University Consortium."

Project Objective is expected to be achieved through the activities conducted by the Project and efforts by MIs.

For the evaluation purpose, since the definition of the Project Objective differs from one MI to another, it should be presented based on the situation of each MI.

“Improvement of educational and research capacity” for the HIs is generally attained in terms of changed coursework style and increased number of research activities, research schemes, and better research environment with equipment provision. On the other hand, SIs have benefited by an increased number of academic staff with higher degrees. This shows a dramatic contribution to the improvement of educational/research capacity.

Singaporean institutions have different positions from the others, due to the status of non-ODA target countries. However, their participation is also considered as critical as a member of ASEAN countries. They have also taken a role of co-contributors in terms of financial support.

In short, although educational and research capacities of the MIs are improved through the activities of the Project, it is considered its sustainability is yet to be established. The major reasons for this are above mentioned in the items of Output 3 and 4. It is needless to say that the AUN/SEED-Net has to seek new scheme which is self-sustainable based on the experience they had so far.

3. Evaluation by Five Evaluation Criteria

3-1. Relevance

The Project is relevant to the policy of ASEAN countries, the needs of MIs, and the policy of Japanese Government including ODA.

(1) Consistency with the policies of ASEAN countries

ASEAN countries have recognized that human resource development and enhancement of science and technology were among the top priorities to promote not only the infrastructure of the countries but also the technological advancement. Moreover, some countries emphasize the importance of globalizing the institutes in charge of higher education and increasing the number of their human resources in engineering fields. Therefore, the project is in line with the policies in ASEAN countries.

(2) Consistency with the needs of beneficiaries (MIs)

Before the project was commenced, ASEAN countries were not able to develop sufficient human resources in quality and quantity at the postgraduate level. This resulted that higher educational institutes could not satisfy the requirement of industrial sectors. In this circumstance, the MIs had strong needs to enhance the postgraduate programs in engineering field through the increase in the number of faculty members holding higher degrees, and to enhance the quality of research activities. Moreover, some MIs formulate the policy of upgrading the quality of engineering education to international standard. This need of globalization is also consistent with the Project Objective. Therefore, the Project meets the needs of the MIs, which intended to enhance the educational and research quality, and establishing the network with foreign universities.

(3) Consistency with policy of the Government of Japan

The Project is consistent with the Japan's policy on promotion of science and technology strategy and prioritizing Asian region. The cooperation from JSUs toward the Project is promoted based on these policies. The revised ODA Charter specifies the ASEAN region as the priority region of Japan's ODA. Japan has kept the economic relation with Asian countries, and promoted the cooperation with these countries. It also refers to the policy that ODA will be utilized to forge stronger relations with ASEAN countries and to rectify disparities in the region. The Project adopted the scheme of interregional personnel interaction among MIs, this is a tool of strengthening their relationship and trying to reduce the gaps of educational level among the countries. This also promotes the South-South cooperation, which is addressed by Japan's ODA. Therefore the Project is also in line with Japan's ODA policy.

(4) Relevance of project design/ approaches (relevance as regional cooperation)

The Project aims at not only human resources development but also contribution to the ASEAN regional integration and upgrading of country's capacity through the establishment of engineering human linkage among ASEAN countries. Especially, the Project expects that the human network will not only be maintained among connected stakeholders at MIs, but also be expanded to other stakeholders on their own motive. It is certain that this will be achieved more effectively within the framework of regional cooperation, involving the multiple countries and promoting their interaction through project activities. Therefore, it was appropriate that the Project was formulated as regional

project, rather than bilateral projects.

3-2. Effectiveness

Based on the achievement of the Outputs and the Project Objective stated in “2-3. Achievement of Outputs,” and “2-4. Achievement of Project Objective,” it can be concluded that educational and research capacities of MIs are improved through the active exchange of resources among them and the collaborative relationship with JSUC by the end of the cooperation period. The factors promoting the effectiveness of the Project are (1) strong commitment of MIs management level toward the project implementation and their contribution to inputs, and (2) support and cooperation from JSUs and their strong commitment.

However, there are still several areas to be addressed.

- (1) There are still room and needs of further enhancement of educational and research capacities, especially in CLMV countries,
- (2) The human network established in five year cooperation needs to be upgraded to strong and lasting network.
- (3) It is necessary to promote the resources sharing further among MIs, including human and facility resources.

In sum, the foundation of AUN/SEED-Net system has been established in five years cooperation (seven years adding two year preparatory period) and it still needs to be strengthened as self-sustainable system by MIs themselves.

Analyzing the contribution of Project Outputs toward achieving the Project Objective, all outputs were essential approaches to achieve its objective. On the other hand, the external factors were recognized, which also contributed to fulfilling the Project Objective. Those identified are as follows:

- Some MIs already agreed MOUs with foreign universities or institutes, and have received the visiting professors or pursued collaborative researches. These activities conducted out of the project scope may contribute to achieving the Project Objective to some extent.
- The governments in some countries such as Vietnam, Indonesia and Thailand support the higher education by providing scholarship for their faculty members or students.

3-3. Efficiency

Overall, the project was efficiently implemented through the project period. The Cooperative Framework formulated in 2001 specified the roles and responsibilities of MIs, Steering Committee, Joint Coordination Committee, and the Secretariat, which have been functioning well. Most of the inputs were appropriately delivered and utilized except the procurement of equipment. In some cases, the installation of the equipment was delayed because it took longer time to go through all procurement process, which sometimes negatively affected the research progress of students.

While the Project is the regional cooperation and targets many institutions, the project has been managed very efficiently because of the high management capacity of the AUN/SEED-Net Secretariat, and assigning the experienced coordinators at some MIs, who manage foreign exchange programs and

coordination with other institutions very well.

3-4. Impact

There seems to be many steps until the Overall Goal of “economic sustainability is enhanced through engineering human resource development as to reinvigorate the industrial sector of ASEAN countries” is fulfilled. Therefore, it may be premature to evaluate the achievement level of Overall Goal at this moment. However, there is evidence of “the increase in the number of joint researches among MIs, JSUs and private sectors,” and “the increase in the number of joint activities such as MOU between MIs and JSUs,” which are specified as the indicators of Overall Goal of the Project. These two indicators are started to be realized since some MIs already pursue such activities by themselves.

There are many other ripple impacts generated by the Project.

(1) Promotion of mutual understanding and trust, leading to the future ASEAN regional integration

Before the Project was commenced, faculty staff and students were not familiar with ASEAN countries although they were geographically very close. Establishing the human linkage (to know each other by face to face communication) among ASEAN countries through the project activities, the mutual understanding and cultural exchange have been dramatically promoted. This will also lead to promoting the common understanding and mutual trust among them and contribute to the future ASEAN regional integration.

(2) Expansion of network beyond nine fields

After severely affected by the Indian Ocean Tsunami in October 2004, the AUN/SEED-Net urgently organized the workshops on natural disaster mitigation and management in ASEAN countries. In addition, after the earthquake occurred in Jogjakarta area, the AUN/SEED-Net organized FWS and international conference. In those meetings, the information and ideas were shared among MIs and JSUs, and possible countermeasures were discussed. After the workshop on natural disaster, the proceeding on geohazard was produced and this presentation made by one head of department of geology at a HI was awarded by a British academic society in the United Kingdom.

The network formulated by the Project made it possible to take such prompt actions in response to common issues in ASEAN region. Moreover, these actions brought the awareness of importance of pursuing the interdisciplinary fields to MIs as well. Later, the linkage among MI, and between MIs and JSUs were strengthened regarding the disaster prevention. For instance, Chulalongkorn University launched the human resources development program on earthquakes, and Institut Teknologi Bandung, Universitas Gadjah Mada, Chulalongkorn University started to participate in the activity of Tokyo Institute of Technology’s COE program on urban disaster prevention. Tokyo Institute of Technology also launched the distance learning on disaster prevention with Chulalongkorn University.

(3) Stimulating the university management and research activities through AUN/SEED-Net Project

While a HI is hosting one particular field in the AUN/SEED-Net Project, this stimulates the entire university and research activities to be much activated. In addition, the management and administrative sides at HIs started to acquire the know-how of managing foreign students through the project activities. There is also a case that HIs introduced research activities in scholarship programs

or the administrative staff started to learn English to communicate foreign students smoothly. Thus, some HIs utilize the knowledge and skills acquired through AUN/SEED-Net in their own management and administrative works.

(4) New research topic emerging from the collaborative researches at HIs

The AUN/SEED-Net graduates formulated a team of collaborative research on common issues in ASEAN countries. For instance, a graduate acquired the degree of electrical power engineering at Chulalongkorn Univ. initiated the collaborative research at her/his university, involving the advisors of Universitas Gadjah Mada where this student graduated.

(5) Spontaneous expansion of collaborative activities and network

Some MIs are now under discussion to launch the distance learning and develop the curriculum in cooperation with JSUs. The AUN/SEED-Net graduated students started to launch the Host Institutes-wise website for graduates at their own initiatives. On the website, the coordinators of graduated institutes are also assigned respectively. Thus, the activities expanding collaborative researches and connecting the AUN/SEED-Net graduate students voluntarily were recognized.

(6) Other impacts

Some ASEAN governments started to provide scholarship for post graduate programs aiming to enhance the capacity of their faculty staff.

3-5.Sustainability

The sustainability of the project is relatively uncertain at this moment. While the basic framework of the human resources development system and human network were already established, there are still several issues to be addressed to ensure the project sustainability.

(1) Political sustainability

It was confirmed that the ministry in charge of higher education of each member country and MIs management level would support the Project. Therefore, the political sustainability will be secured at this moment.

(2) Institutional sustainability

It can be concluded that the Project was successful to initiate and develop the human network among MIs and JSUs. However, further external assistance is still required to sustain this established network by MIs themselves and strengthen it to the lasting network. In addition, some functions or roles of the AUN/SEED-Net Secretariat should be transferred to MIs gradually, in order for MIs to carry out the AUN/SEED-Net by themselves for the future.

To date, the equipment procured through the Project has kept in good condition. Since some MIs have difficulties to secure the maintenance budget for their own laboratory equipment to some extent, the maintenance conditions of procured equipment may need to be monitored carefully.

(3) Technical sustainability

It is confirmed that the basic framework of human resources development system in engineering

field was established through promoting postgraduate programs in the Project. Foundation of human network is also successfully established by the Project and it started to work effectively. On the other hand, the further measures should be taken to enhance educational and research quality further and to make the established network lasting after the cooperation is completed. To undertake these tasks, MIs still need support and ideas from Japanese side and inputs such as knowledge, experience and support from the AUN/SEED-Net Secretariat.

(4) Financial sustainability

The amount and items of contributing to the project activities have been increased during the project implementation. To date, the following items were shared by MIs: the tuition fees for masters and PhD programs, waiver of extension fees, publication cost, and so forth. Additionally, some MIs cover the cost for maintenance fee of laboratory facilities or partial cost of research activities. At this moment, many MIs already committed to sharing the costs for tuition fees, partial support of travel expenses for the future activities, the funds for project activities are secured to some extent.

However, it is still difficult to sustain the current activity level without any external assistance, although MIs committed the partnership to the AUN/SEED-Net. Especially, the funds supporting the AUN/SEED-Net activities are a vital factor. Therefore, the AUN/SEED-Net needs to make efforts to acquire external funds such as the competitive funds or ASEAN Solidarity Funds. Alternatively, the AUN/SEED-Net needs to adjust the framework, which seeks for more cost-effectiveness than the current framework from the viewpoint of selection and concentration of activities for the sake of enhancing its sustainability in the future.

4. Conclusion

4-1. Result of Evaluation

4-1-1. Significance of AUN/SEED-Net

The AUN/SEED-Net is an unprecedented dynamic endeavor in a sense that it tries to develop human resource in engineering field which support sustainable socio-economic development of ASEAN countries, through establishment of a network among universities of ASEAN countries as well as a network between universities in ASEAN and Japan. Before the AUN/SEED-Net Project began, universities in ASEAN countries mostly focused on establishing and strengthening bilateral relationship with universities in the developed countries - US, Europe and Japan. Collaboration among universities of ASEAN regions is not of common occurrence, and even the existing relationships are confined to bilateral connections. It is almost non-existent that universities in ASEAN region go into partnership as a group, not to mention actual undertakings of effective collaborative works.

The AUN/SEED-Net is a very creative and epoch-making program on the point that it systematically combines scholarship program (among ASEAN countries and to Japan) and diverse programs, such as Collaborative Researches, Field Wise Seminars, short term visit among universities in ASEAN and to Japanese universities, in order to strengthen the network among the universities, as well as their educational and research capacities. Through consolidation of collaboration among universities in ASEAN, It is aimed at creating a framework which enables the region to develop necessary human resource by its own, as well as to utilize knowledge and know-how which is available and accumulated in the region, for solving the problems common to the region. In addition to this, collaboration with Japanese universities is also incorporated in the Project framework for the sake of ensuring access to the advanced and cutting edge technologies of Japanese universities, which are vital to advancement of education and research capacity of the universities of the ASEAN region. Along with contribution to human resource development in engineering field, it also contributes to the integration of ASEAN community expected in year 2020, by forming tangible and effective human network.

The AUN/SEED-Net began its formal operation from March 2003 after 2 years preparation period from 2001. Although it had faced various difficulties and challenges which resulted from its unprecedented nature - vastness of the countries which it covers, volume of budget, and comprehensiveness and complexity of the programs, the AUN/SEED-Net is now being operated in smooth and effective manner, and reach to achieve human resource development and educational and research capacity development of the MIs. As a result, the AUN/SEED-Net has been highly esteemed by its MIs and their governments, and therefore, their requests to Japanese governments for continuous support for the Project were strongly expressed in numerous occasions.

As a result of final evaluation, which carried out comprehensive information collection and analysis, together with consideration to the above mentioned appreciation from the stakeholders, **it is concluded that the Project has proved its significant value and achievement**, and that it is **most appropriate to advance to the next phase of the Project** based on the achievement up to the present, in order to further promote human resource development in engineering field which is indispensable for the sustainable socio-economic development of the ASEAN region.

The current status of the achievement of the Project Objective and the Output is concluded as

follows:

4-1-2. Project Objective

The Project Objective: “Educational and research capacities of Member Institutions (MIs) are improved through the active exchange of resources among them and the collaborative relationship with Japanese Supporting University Consortium (JSUC).” is deemed **mostly achieved** by reason that their educational and research capacity have been enhanced as a result of the Project, although the degree of attainment varies depending on MIs.

4-1-3. Outputs

The Outputs: “(1)Faculty qualifications are upgraded through acquisition of graduate degrees; (2)Host graduate programs are enhanced; (3)Joint activities and human linkage among the MIs are strengthened; and (4)Information dissemination system, activity management system and communication network are established.” are also evaluated as **achieved good result**, though the degree of benefit and attainment differs depending on status of HI and non-HI. It is also appraised however, that there still **remains substantial needs** for Output (1) and (2), and **challenges of sustainability** for Output (3) and (4).

4-1-4. Challenges to be tackled at the next phase

Notwithstanding that the Project has mostly achieved its Project Objective and Outputs, it is considered necessary to continue the support for the AUN/SEED-Net. This is because there remains considerable necessity for human resource development (especially among CLMV countries) and necessity for establishment/strengthening of MI’s graduate schools (not only at HIs but also non-HIs), and also much room for improvement for sustainability in organizational/institutional and technical aspect of the Project framework and activities. By implementing the next phase of the Project, it is expected that the AUN/SEED-Net will be further developed, based on the foundation built during the current phase, into a sustainable framework for human resource development in engineering field in ASEAN region, and will be able to ensure its larger effect and impact to not only to MIs, but also to non-MIs, industries and communities, etc.

4-2. Recommendations

4-2-1 Recommendations for the remaining cooperative period

(1) Enhancement of recognition and reputation of AUN/SEED-Net

- It is necessary to enhance the recognition and reputation of the AUN/SEED-Net among related government (ASEAN countries and Japan), universities/research institutions, and industries, in order to enhance its sustainability and impact on society in the region.
- It is recommended that related stakeholders – MIs, governments of the member countries, the AUN/SEED-Net Secretariat, and JICA to promote the significance and achievement of the AUN/SEED-Net in every appropriate occasion available. It might be good to have a general overview meeting for the achievement of the project in near future, inviting delegation from each government organization.
- Significance of the AUN/SEED-Net to be shared includes: contribution to sustainable socio-economic development of ASEAN through human resource development in engineering field; and contribution to build foundation for integration of ASEAN in 2020, by forging

strong human linkage among ASEAN countries.

4-2-2 Recommendations for the Phase 2 Project (or Issues to be considered for the next phase)

(1) Enhancement of sustainability (financial, organizational/institutional, technical)

In order to enhance the sustainability of the AUN/SEED-Net, the following points require further consideration.

(a) Financial sustainability

- The financial sustainability can be pointed out as one of the most important issue for sustaining the AUN/SEED-Net, considering the fact that currently a major portion of financial resource is supported by JICA, although the MIs are committed to support and actually bear some shares.
- It is imperative to gradually shift the major funding resource from JICA to other resources: member countries and external resources. Proactive participation and contribution of the member countries, either financial or non-financial, in-kind contribution, is an essential factor. Many MIs have already committed to share the cost for the Phase 2, and gradual increase of the share should be promoted. It should be noted, however, contribution from member countries should not be rigidly applied equally to all member countries, but rather shall be determined in accordance with capacity of each member country.
- However, it is still difficult to sustain the current activity level without any external assistance, although MIs committed the partnership to the AUN/SEED-Net. Therefore, the AUN/SEED-Net needs to make efforts to acquire external funds such as the competitive funds or ASEAN Funds. The recognition and reputation of the AUN/SEED-Net, mention earlier, will be one of the determining factors for success of this effort.
- Alternatively, the AUN/SEED-Net needs to adjust the framework which seeks for more cost-effectiveness than the current framework from the viewpoint of selection and concentration

(b) Organizational / Institutional sustainability

- Currently, most of the secretariat function is centered in the AUN/SEED-Net Secretariat, located in Chulalongkorn University, Thailand. It is concluded that the Project was successful to initiate and develop the human network among MIs and JSUs. However, further external assistance is still required to sustain this established network by MIs themselves and strengthen it to the lasting network.
- It is desirable to transfer some functions of the AUN/SEED-Net Secretariat to MIs where it is desirable and viable, for the sake of efficient operation of the AUN/SEED-Net and enhancement of sustainability. Some example might be management of FWS; arrangement of travel for SI students; screening by administrative division of MIs on financial reports, and etc.

(c) Technical sustainability

- It is confirmed that the basic framework of engineering human resources development system was established through promoting postgraduate programs in the Project. However, MIs still need the support or ideas from Japanese side for further enhancement of educational and research quality, after the cooperation is completed.
- Foundation of human network is also successfully established by the Project and it started to work effectively. On the other hand, the further measures should be taken to make this network lasting. To undertake this task, inputs such as knowledge, experience, and support from the AUN/SEED-Net Secretariat are still essential for MIs.

(2) Japanese Professors Dispatch Program (numbers and duration)

- It is requested both by HIs and non-HIs that number, frequency, and the length of the Japanese Professors Dispatch Program should be increased/extended, in pursuance of improvement in the quality of collaborative researches and co-advising of the AUN/SEED-Net students. Especially in the case of non-HIs, there exists strong demand since opportunity of JSU professors to visit non-HIs is quite limited. It is considered necessary to look for possible solution, as the Phase 2 plan intends to support strengthening research capacity of non-HIs, as well as establishment/ strengthening of some graduate programs at the non-HIs. It is also recommendable to extend the duration per dispatch from the viewpoint of cost-effectiveness.
- One solution might be the involvement of younger teaching staffs of JSUs in addition to currently dominant senior teaching staffs, most of who are usually quite busy and cannot spare longer time for dispatch. Dispatch of younger teaching staffs, establishment and strengthening of network among same generation of JSU and MIs can be expected. It is favorable that those younger teaching staffs are also involved in collaborative research.
- A supplementary solution is utilization of video conference system (including JICA-Net, internet video communication system, etc), where equipment and telecommunication environment allows.

(3) Support for research by the AUN/SEED-Net Alumni

- The request for support research activities by the AUN/SEED-Net Alumni were commonly expressed by non-HIs, as budget and equipment necessary for research at their universities are quite limited. As this factor affect whether the Alumni can fully exercise their strengthened capacity by studying abroad, this issue needs appropriate consideration and some viable solution.
- A possible measure is that the Alumni and non-HIs make the best effort to obtain research fund from outside of the AUN/SEED-Net in collaboration with JSUs, with which the they have developed human and organizational network through the AUN/SEED-Net. This effort should also be promoted from the view point of financial sustainability of the AUN/SEED-Net.

(4) Study period of PhD Sandwich Program

- Some comments are made by HIs that 3 year period for the PhD Sandwich Program should be extended for certain period of time, in consideration to time needed for deciding thesis theme, as well as time needed for scheduling of reviewers of thesis.
- Although this issue had been already discussed and agreed at the 10th Steering Committee that the study period of this programs remains 3 years, while the expenses incurred during the extended study period shall be borne by HIs, this repeated request shows necessity for some additional remedy.
- This issue will most likely be solved, if not all, in due course of time, since the percentage of PhD Sandwich students who directly come from the Master program of the AUN/SEED-Net has been increasing, therefore minimizing the loss of time by reducing research gap between Master program and PhD program, and by effectively utilizing what they have acquired during Master's program.
- It is also recommended that monitoring system of students will be further improved, so that possible problem, which could lead to extension of study period, will be solved beforehand.

- (5) Sustained linkage between PhD Japan Students and their ex-HI
- It is pointed out by some HIs that human linkage between PhD Japan students and HIs, where they obtained Master's degree, becomes weak after they go to Japan. It is necessary to tackle with this issue in view of the purpose of the AUN/SEED-Net to establish/strengthen the linkage among MIs.
 - Possible remedial measures include utilization of the opportunities such as, PhD Japan students' participation to Field Wise Seminars, Short term Visit to Japan by ex-HI teaching staff, further involvement of PhD Japan students in collaborative research with ex-HI.
- (6) Coordination of research theme of Collaborative Research
- The issue of coordination and decision of research theme of Collaborative Research was presented by both non-HIs and HIs. Some non-HIs have a opinion that research themes of Collaborative Research does not necessarily match their needs and interest, while some HIs claims commitment and participation of non-HIs to Collaborative Research is yet to be maximized.
 - Although it is quite difficult to accommodate interests of all stakeholders (HI, SI an JSU), since interests of each MIs as well as individuals widely varies, it is still imperative to make further effort to coordinate as much as possible, through Field Wise Seminars, Short term visit among MIs / to Japan, promotional trips, etc. The interest of non-HIs, among other things, shall require further attention and consideration.
- (7) Redefinition of purpose and function of Field Wise Seminar
- Considering that human linkage among HIs, one of the major purpose of Field Wise Seminars, has been strengthened to certain extent, it is deemed necessary to redefine the purpose, frequency of Field Wise Seminars, depending on the current situation of each of the 9 engineering fields
 - In doing so, it is necessary to consider how to utilize Field Wise Seminars as an opportunity for revitalizing Collaborative Research, and what follow up actions to be taken after the Field Wise Seminars. Upgrading Field Wise Seminars into a difference setting in the Phase 2, e.g., regional academic societies and regional conferences, is expected to heighten the significance and incentives for making presentations.
- (8) Aspiration of non-HI to become HI
- Some non-HI universities and its governments expressed their aspirations to become HI, not just as non-HIs.
 - The consortium program, which will be one of the major Outputs for the Phase 2, will offer chances for the current non-HIs to partly undertake the function of HIs.
- (9) Shortage of number of Scholarships
- There exists considerably high demand for scholarships to study in ASEAN and in Japan. As the number of scholarships offered per year is definite, some SIs cannot secure number of scholarships they hope, which influences the human resource development plan of those universities.
 - Since the number of scholarships offered by JICA is expected to be at same level in the Phase 2, it is recommendable that the support for scholarships program both by HI and SI will be

increased, as well as that collaboration with external resources for supporting the scholarship program will be promoted.

(10) Issue of expanding membership to current non-MIs

- Some governments of member countries had conveyed their wishes that the membership of the AUN/SEED-Net be expanded to other domestic universities.
- The strategy of the AUN/SEED-Net is to strengthen the capacity of and network among top engineering universities in ASEAN region, and the strengthened MIs, as a center of excellence in each country. Each MI and its government should make their best effort to give positive impact on other domestic universities by strengthening ties among them. A good example is that Thai government offers scholarships to non-MI domestic universities to study at MIs within Thailand. Involvement of non-MIs to some of Phase 2 activities – regional academic societies, collaborative researches, etc., will provide non-MIs with opportunities to participate in the AUN/SEED-Net. It should be noted that the above mentioned involvement could be realized based on appropriate proactive participation and commitment of stakeholders.

(11) Promotion of merits and advantage of AUN/SEED-Net scholarship

- For the purpose of securing more number of competent students to the AUN/SEED-Net, it is imperative to promote the significance and advantage of studying within ASEAN in comparison with other scholarships, through opportunities of promotional trips and etc.

(12) Necessity for improving the management of host program

- Although most of the HIs made their best effort to improve their host graduate program, further improvement is deemed necessary, depending on the fields, especially from the aspect of institutional management of activities.

(END)

Annex 1: 調查日程表

Tentative Schedule

SEED-Net: Final Evaluation of Phase 1 and Preliminary Study of Phase 2

Ver. April 26, 2007

Team A [Thailand→Vietnam→Laos]

Members: (Vice Pres. Mr. Ueda (May 17-26)), Consultant (Mr. Takei, May 10-31), Dr. Kraisada (May 14-17), Mr. Unemiyga, SEED-Net Secretariat PO (Ms. Siriporn R., May 16-23), ARR of Visited Country

No.	M/D	Day	Activities	Slay
1	May 10	Thu	Mr. Takei: 10:30 NRT→BKK 15:05(JL717) (~May 13: meeting with Secretariat)	RGN
2	May 14	Mon	08:30~13:30: CU, 14:00~15:00: CHE, 16:00~17:00: TICA	NPT
3	May 15	Tue	09:00~10:00: AUN, 13:00~17:00: BUU	RGN
4	May 16	Wed	09:00~14:30: KWITL, 18:15 BKK→19:45 SGN(TG686)	SIN
5	May 17	Thu	AM~PM: HCMUT 17:00 SGN →19:00 HAN (VN740)	SIN
6	May 18	Fri	10:30: MOET	SIN
7	May 19	Sat	Data Analysis	SIN
8	May 20	Sun	Data Analysis	MNL
9	May 21	Mon	09:00~15:00: HUT, 16:00: EOJ, 17:30: JICA	MNL
10	May 22	Tue	08:25 HAN→09:30 VTE (VN841), 11:00~12:00: MOE, 13:30~16:45: NUOL	MNL
11	May 23	Wed	09:30: EOJ, 11:00: JICA, 21:35 VTE→ 22:30 BKK (TG693)	BKK
12	May 24	Thu	Team Internal Meeting (Sharing of Survey Result) Dr. Yonezawa: 07:30 Narita (JL704), Mr. Toda, Mr. Higashi: 10:30 NRT→BKK 15:05(JL717)	BKK
13	May 25	Fri	Team Internal Meeting (Discussion & Summarizing of Findings)	BKK
14	May 26	Sat	Drafting of Minutes of Meetings (M/M) (1)	BKK
15	May 27	Sun	Drafting of Minutes of Meetings (M/M) (2)	BKK
16	May 28	Mon	09:30~12:00: Joint Coordination Committee: Explanation of Survey Findings and Discussion with Thai Gov. Mr. Matsumoto, Ms. Namura: 08:10 BKK→16:15 NRT (JL708)	BKK
17	May 29	Tue	Correction of M/M Mr. Higashi: 23:25 BKK (→NRT, JL704)	BKK
18	May 30	Wed	11:30~13:30: Signing of M/M with Thai Gov, 15:00: EOJ, 17:00: JICA Mr. Higashi: 07:30 NRT (JL704)	BKK
19	May 31	Thu	08:10 BKK→16:15 NRT (JL708)	-

Team B [Malaysia→Indonesia→Cambodia]

Members: Dr. Yonezawa (May 16-23), Mr. Ueda, Consultant (Mr. Matsumoto), Dr. Tsutsumi, SEED-Net Secretariat PO (Ms. Kalayaporn, May 13-16, Ms. Siriporn L., May 16-23), ARR of Visited Country

No.	M/D	Day	Activities	Slay
1	May 13	Sun	11:05NRT→(JL719) 17:15/18:45 SIN→20:10 PEN (SQ198)	RGN
2	May 14	Mon	09:00~15:30: USM, 17:10 PEN→18:05 KL (MH1155)	NPT
3	May 15	Tue	09:00~15:30: UM, 16:30~17:30: MOHE, 19:00~21:00: EOJ	RGN
4	May 16	Wed	09:30~10:30: JICA, 12:00 Depart to Airport, 15:55 KL→16:55 JKT(AF8399) Dr. Yonezawa: 19:10 NRT→01:15 SIN (SQ11)	SIN
5	May 17	Thu	10:30~18:30: Evaluation Workshop with UGM & ITB① Dr. Yonezawa: 07:40 SIN → 08:15 JKT (SQ952)	SIN
6	May 18	Fri	08:30~15:00: Evaluation Workshop with UGM & ITB② 15:30: ASEAN, 17:00: EOJ, 18:00: JICA	SIN
7	May 19	Sat	Data Analysis, Drafting of Minutes of Meeting (M/M) for Indonesian Gov.	SIN
8	May 20	Sun	Data Analysis, Drafting of Minutes of Meeting (M/M) for Indonesian Gov.	MNL
9	May 21	Mon	08:00~09:30: MOE (Explanation of Result of WS and Signing of M/M) 12:20 JKT→(SQ957) 14:55/16:20 SIN→17:15:PNH (SQ5009MI606)	MNL
10	May 22	Tue	09:00~16:30: ITC	MNL
11	May 23	Wed	09:00: MOEYS, 11:00: EOJ, 14:30: JICA 20:25 PNH→21:30 BKK (TG699), Dr. Yonezawa: 23:25 BKK(JL704)	BKK
12	May 24	Thu	Team Internal Meeting (Sharing of Survey Result) Dr. Yonezawa: 07:30 Narita (JL704), Mr. Toda, Mr. Higashi: 10:30 NRT→BKK 15:05(JL717)	BKK
13	May 25	Fri	Team Internal Meeting (Discussion & Summarizing of Findings)	BKK
14	May 26	Sat	Drafting of Minutes of Meetings (M/M) (1)	BKK
15	May 27	Sun	Drafting of Minutes of Meetings (M/M) (2)	BKK
16	May 28	Mon	09:30~12:00: Joint Coordination Committee: Explanation of Survey Findings and Discussion with Thai Gov. Mr. Matsumoto, Ms. Namura: 08:10 BKK→16:15 NRT (JL708)	BKK
17	May 29	Tue	Correction of M/M Mr. Higashi: 23:25 BKK (→NRT, JL704)	BKK
18	May 30	Wed	11:30~13:30: Signing of M/M with Thai Gov, 15:00: EOJ, 17:00: JICA Mr. Higashi: 07:30 NRT (JL704)	BKK
19	May 31	Thu	08:10 BKK→16:15 NRT (JL708)	-

Team C: [Myanmar→Singapore→Philippines]

Members: Mr. Toda (May 24-31), Mr. Watanabe (May 13-27), Mr. Higashi (May 24-30), Consultant (Ms. Namura), Dr. Tsunoda, SEED-Net Secretariat PO (Ms. Siriporn S., May 13-19, Ms. Parichart, May 20-23), ARR of Visited Country

No.	M/D	Day	Activities	Slay
1	May 13	Sun	11:00 NRT→(TG 641) 15:30/18:10 BKK→19:00 RGN (TG305)	RGN
2	May 14	Mon	09:00~: YTU	NPT
3	May 15	Tue	09:00~: UY	RGN
4	May 16	Wed	09:00: EOJ, 11:00: JICA, 16:10 RGN→20:40 SIN(M517)	SIN
5	May 17	Thu	09:00~14:45: NUS, PM: MOE	SIN
6	May 18	Fri	09:00~14:45: NTU, 15:00: EOJ, 16:00: JICA	SIN
7	May 19	Sat	Data Analysis	SIN
8	May 20	Sun	13:00 SIN→ 16:40 MNL (PR504)	MNL
9	May 21	Mon	09:00~15:00: UP	MNL
10	May 22	Tue	08:00~14:00: DSLU, 15:00: Meeting with All Stakeholders (GHED, NEDA, UP, DSLU)	MNL
11	May 23	Wed	09:00~10:00: EOJ, 10:30~11:30: JICA 14:30 MNL→16:35 BKK(TG621)	BKK
12	May 24	Thu	Team Internal Meeting (Sharing of Survey Result) Dr. Yonezawa: 07:30 Narita (JL704), Mr. Toda, Mr. Higashi: 10:30 NRT→BKK 15:05(JL717)	BKK
13	May 25	Fri	Team Internal Meeting (Discussion & Summarizing of Findings)	BKK
14	May 26	Sat	Drafting of Minutes of Meetings (M/M) (1)	BKK
15	May 27	Sun	Drafting of Minutes of Meetings (M/M) (2)	BKK
16	May 28	Mon	09:30~12:00: Joint Coordination Committee: Explanation of Survey Findings and Discussion with Thai Gov. Mr. Matsumoto, Ms. Namura: 08:10 BKK→16:15 NRT (JL708)	BKK
17	May 29	Tue	Correction of M/M Mr. Higashi: 23:25 BKK (→NRT, JL704)	BKK
18	May 30	Wed	11:30~13:30: Signing of M/M with Thai Gov, 15:00: EOJ, 17:00: JICA Mr. Higashi: 07:30 NRT (JL704)	BKK
19	May 31	Thu	08:10 BKK→16:15 NRT (JL708)	-

※ Abbreviations

- (1) Name of City: NRT: Narita, BKK: Bangkok, SGN: Ho Chi Minh, HAN: Hanoi, VTE: Vientian, SIN: Singapore, PEN: Penang, KL: Kuala Lumpur, JKT: Jakarta, PNH: Phnom Penh, RGN: Yangon, MNL: Manila
- (2) Name of Univ.: (Thailand) CU: Chulalongkorn Univ., KMUTL: King Mongkurt's Institute of Technology Ladkrabang, BUU: Burapha Univ., (Vietnam) HUT: Hanoi Univ. of Technology, HCMUT: Ho Chi Minh City Univ. of Laos (Malaysia) USM: Universiti Sains Malaysia, UM: Universiti Malaysia, (Indonesia) UGM: Universitas Gadjah Mada, ITB: Institut Teknologi Bandung, (Cambodia) ITC: Institute of Technology of Cambodia, (Myanmar) UY: Yangon Univ., YTU: Yangon Technological Univ. (Singapore) NUS: National Univ. of Singapore, NTU: Nanyang Technological Univ., (Philippines) UP: Univ. of the Philippines-Diliman, DLSU: De La Salle Univ.

Annex 2: 面談者リスト

List of Interviewees

No.	Name	Position	Organization	Member Country
1	Mr. Pit Chamnan	Secretary of State	Ministry of Education, Youth and Sport	Cambodia
2	Dr. Phoeurng Sackona	Director	ITC	Cambodia
3	Dr. Romny Om	Deputy Director	ITC	Cambodia
4	Mr. Moncef Meddeb	Conseiller de la Direction, Chef de projet de la cooperation francaise	ITC	Cambodia
5	Mrs. Men Nareth	Head of Department of Rural Engineering	ITC	Cambodia
6	Dr. Seng Vong	Director Assistant, Civil Engineering Department	ITC	Cambodia
7	Mr. Uddam Chukmol	Deputy Head of Computer Science Depa	ITC	Cambodia
8	Prof. Dr. Somkot Mangnomek	Minister	Ministry of Education	Lao PDR
9	Dr. Sisamon	Deputy Director General	Ministry of Education	Lao PDR
10	Assoc. Prof. Boualinh Soysouvanh	Dean	Faculty of Engineering, NUOL	Lao PDR
11	Assoc. Prof. Khamphoui	Vice Dean	Faculty of Engineering, NUOL	Lao PDR
12	Mr. Seumsak Douangsyla	Faculty staff	IT Department, NUOL	Lao PDR
13	Assoc. Prof. Sengprasong Phrakonkham	Head of Department	IT Department, NUOL	Lao PDR
14	Mr. Phoumy Indarack	Head of Department	Electronics Engineering Department, NUOL	Lao PDR
15	Mr. Soulikane Samathsengvongxay	Head of Department	Communication and Transportation Engineering Department, NUOL	Lao PDR
16	Assoc. Prof. Korakanh Pasomsouk	Head of Department	Mechanical Engineering Department, NUOL	Lao PDR
17	Mr. Nhimxay Visane	Head of Department	Civil Engineering Department, NUOL	Lao PDR
18	Dato Prof. Dr. Hassan Bin Said	Director General	Ministry of Higer Education	Malaysia
19	Prof. Zahari Taha	Dean	Faculty of Engineering, UM	Malaysia
20	Prof. Nasrudin Abd Rahim	Deputy Dean	Department of Engineering Design and Manufacture, UM	Malaysia
21	Dr. Nukman Yusoff	Faculty staff	Department of Engineering Design and Manufacture, UM	Malaysia
22	Dr. Siti Nurmaya Musa	Faculty staff	Department of Engineering Design and Manufacture, UM	Malaysia
23	Dr. Mohd Hamdi Abdul Shukor	Faculty staff	Department of Engineering Design and Manufacture, UM	Malaysia
24	Dr. Siti Zawiah Md. Dawal	Head of Department	Department of Engineering Design and Manufacture, UM	Malaysia
25	Mr. Yap Hwa Jen	Faculty staff	Department of Engineering Design and Manufacture, UM	Malaysia
26	Mr. Norhafizan Ahmad	Faculty staff	Department of Engineering Design and Manufacture, UM	Malaysia
27	Ms. Noraisyah	Administrative staff	Department of Electrical Engineering, UM	Malaysia
28	Ms. Haizanizan	Secretariat	Deputy Dean's Office, Faculty of Engineering, UM	Malaysia
29	Prof. Dato' Dzulkipli Abdul Razak	Vice Chancellor	Universiti Sains Malaysia	Malaysia
30	Prof. Dr. Khairun Azizi Mohd. Azizi	Dean	School of Materials & Mineral Resources Engineering, USM	Malaysia
31	Prof. Radzali Othman	Faculty staff, Chairman	AUN/SEED-Net at USM	Malaysia
32	Assoc. Prof. Dr. Ahmad Fauzi Mohd Noor	Faculty Staff, Deputy Chairman	AUN/SEED-Net at USM	Malaysia
33	Prof. Dr. Hanafi Ismail	Faculty staff	School of Materials & Mineral Resources Engineering, USM	Malaysia
34	Assoc. Prof. Luay Bakir Hussein	Faculty staff	School of Materials & Mineral Resources Engineering, USM	Malaysia
35	Dr. Azhar Abu Bakar	Faculty staff	School of Materials & Mineral Resources Engineering, USM	Malaysia
36	Dr. Nurulakmal Mohd Sharif	Faculty staff	School of Materials & Mineral Resources Engineering, USM	Malaysia
37	Dr. Hazizan Md Akil	Faculty staff	School of Materials & Mineral Resources Engineering, USM	Malaysia
38	Dr. Zulkifli Ahmad	Faculty staff	School of Materials & Mineral Resources Engineering, USM	Malaysia
39	Dr. Badri Ismail Ahmad	Faculty staff	School of Materials & Mineral Resources Engineering, USM	Malaysia
40	Dr. Zainovia Lockman	Faculty staff	School of Materials & Mineral Resources Engineering, USM	Malaysia
41	Dr. Chow Wen shyang	Faculty staff	School of Materials & Mineral Resources Engineering, USM	Malaysia
42	Dr. Zuhailawati Hussain	Faculty staff	School of Materials & Mineral Resources Engineering, USM	Malaysia
43	Ms. Norpisah Mat Isa	International Officer	International Office, USM	Malaysia
44	Prof. Dr. Pag-asa D. Gaspillo	Dean	College of Engineering, DLSU	The Philippines
45	Prof. Dr. Leonila C. Abella	Chair	Chemical Engineering Dept., DLSU	The Philippines
46	Assoc. Prof. Dr. Julius B. Maridable	Vice President	Academics and Research, DLSU	The Philippines
47	Ms. Gladys T. Cruz	Research Specialist	Chemical Engineering Dept., DLSU	The Philippines
48	Prof. Dr. Servillano Olano, Jr.	Faculty staff	Chemical Engineering Dept., DLSU	The Philippines
49	Prof. Dr. Susan M. Gallardo	Faculty staff	Chemical Engineering Dept., DLSU	The Philippines
50	Prof. Dr. Susan A. Roces	Faculty staff	Chemical Engineering Dept., DLSU	The Philippines
51	Assoc. Prof. Dr. Yolanda Brondial	Faculty staff	Chemical Engineering Dept., DLSU	The Philippines
52	Assoc. Prof. Dr. Joseph Auresenia	Faculty staff	Chemical Engineering Dept., DLSU	The Philippines
53	Assoc. Prof. Dr. Luis F. Razon	Faculty staff	Chemical Engineering Dept., DLSU	The Philippines
54	Assoc. Prof. Dr. Raymond R. Tan	Faculty staff	Chemical Engineering Dept., DLSU	The Philippines
55	Asst. Prof. Dr. Marylou Uy	Faculty staff	Chemical Engineering Dept., DLSU	The Philippines
56	Asst. Prof. Dr. Wilheliza Baraoidan	Faculty staff	Chemical Engineering Dept., DLSU	The Philippines
57	Assoc. Prof. Dr. Norbert S. Que	Associate Dean for Academic Affairs	UP	The Philippines
58	Assoc. Prof. Dr. Ernesto O. Dela Cruz	Faculty staff	Chemical Engineering Department	The Philippines
59	Asst. Prof. Dr. Maria Lourdes P. Dalida,	Faculty staff	Chemical Engineering Department, UP	The Philippines
60	Asst. Prof. Dr. Antonio Senador	Faculty staff	Chemical Engineering Department, UP	The Philippines
61	Prof. Dr. Wilfredo I. Jose	Faculty staff	Chemical Engineering Department, UP	The Philippines
62	Asst. Prof. Dr. Analiza P. Rollon	Faculty staff	Chemical Engineering Department, UP	The Philippines
63	Asst. Prof. Dr. Karl B.N. Vergel	Faculty staff	Civil Engineering Department, UP	The Philippines
64	Ms. Elizabeth L. Salazar	University Extension Specialist	College of Engineering, UP	The Philippines
65	Ms. Pamela L. Infante	Administrative Assistant	College of Engineering, UP	The Philippines
66	Mr. Apinan Phatarathiyanon	Deputy Director-General	TICA	Thailand
67	Mrs. Rumpuey Pattanavichaiporn	Director, External Cooperation Division I	TICA	Thailand
68	Mrs. Charintip Yosthasan	Program Officer	TICA	Thailand
69	Ms. Vitida Sivakua	Program Officer	TICA	Thailand
70	Dr. Krissanapong Kirtikara	Secretary-General	Commission on Higher Education	Thailand
71	Ms. Aporn Kanvong	Director of Bureau of International Cooperation Strategy	Commission on Higher Education	Thailand
72	Ms. Chadarat Singhadechakul	Acting Director, Management Policy of Liberalization of Trade in Education Services Group	Commission on Higher Education	Thailand
73	Ms. Sudaporn Imcharoen	International Cooperation Officer	Commission on Higher Education	Thailand
74	Assoc. Prof. Dr. Pinit Ratananukul	Executive Director	AUN Secretariat	Thailand
75	Assoc. Prof. Dr. Nantana Gajasen	Deputy Executive Director	AUN Secretariat	Thailand
76	Ms. Ratsuda Poolsuk	Program Officer	AUN Secretariat	Thailand

List of Interviewees

No.	Name	Position	Organization	Member Country
77	Assoc. Prof. Dr. Kobchai Dejhan	Dean	Faculty of Engineering, KMITL	Thailand
78	Dr. Pakorn Watanachaturaporn	Associate Dean	ICT, KMITL	Thailand
79	Assoc. Prof. Dr. Anantawat Kunakorn	Faculty staff	ICT, KMITL	Thailand
80	Dr. Choompunuch Jinjakam	Faculty staff	ICT, KMITL	Thailand
81	Asst. Prof. Dr. Sakchai Thipchaksurat	Faculty staff	ICT, KMITL	Thailand
82	Assoc. Prof. Dr. Kraisin Songwatana	Faculty staff	ICT, KMITL	Thailand
83	Assoc. Prof. Nipa Leelaruij	Faculty staff	ICT, KMITL	Thailand
84	Assoc. Prof. Dr. Surapan Airphaiboon	Faculty staff	ICT, KMITL	Thailand
85	Assoc. Prof. Dr. Chanin Bunlaksananusorn	Faculty staff	ICT, KMITL	Thailand
86	Asst. Prof. Dr. Yuttana Kitjaidure	Faculty staff	ICT, KMITL	Thailand
87	Dr. Pitak Thumwarin	Faculty staff	ICT, KMITL	Thailand
88	Prof. Dr. Direk Lavansiri	Dean	Faculty of Engineering, CU	Thailand
89	Assoc. Prof. Dr. David Banjerdpongchai	Director of Graduate Program	International School of Engineering, CU	Thailand
90	Dr. Naebboon Hoonchareon	Committee	International School of Engineering, CU	Thailand
91	Ms. Kanasom Udomkijwattana	Program Officer	International School of Engineering, CU	Thailand
92	Ms. Nongcharosporn Pinkaew	Program Officer	International School of Engineering, CU	Thailand
93	Assoc. Prof. Dr. Tanit Tongthong	Head of Department	Faculty of Civil Engineering, CU	Thailand
94	Prof. Dr. Panitan Lukkunaprasit	Faculty staff	Faculty of Civil Engineering, CU	Thailand
95	Assoc. Prof. Dr. Wanchai Teparaksa	Faculty staff	Faculty of Civil Engineering, CU	Thailand
96	Dr. Saksith Chalempong	Faculty staff	Faculty of Civil Engineering, CU	Thailand
97	Dr. Suched Likitlersuang	Faculty staff	Faculty of Civil Engineering, CU	Thailand
98	Assoc. Prof. Dr. Choompol Antarasena	Head of Department	Faculty of Electrical and Electronics Engineering, CU	Thailand
99	Asst. Prof. Dr. Supavadee Aramvith	Associate Head for Information and Inter	Faculty of Electrical and Electronics Engineering, CU	Thailand
100	Assoc. Prof. Dr. Ekachai Leelarasmee	Associate Head for Student Affairs	Faculty of Electrical and Electronics Engineering, CU	Thailand
101	Asst. Prof. Dr. Tuptim Angkaew	Associate Head for Special Affairs	Faculty of Electrical and Electronics Engineering, CU	Thailand
102	Assoc. Prof. Dr. Nisachon Tangsangiumvisai	Assistant Head for Information	Faculty of Electrical and Electronics Engineering, CU	Thailand
103	Asst. Prof. Dr. Wirogana Ruengphrathuengsuka	Dean	Faculty of Engineering, BUU	Thailand
104	Dr. Charoen Chinwanitchareon	Associate Dean for Administration Affairs	BUU	Thailand
105	Assoc. Prof. Kasem Pipatpanyanugoon	Associate Dean for Quality Assurance Affairs	BUU	Thailand
106	Dr. Pailin Ngoatrankanwiwat	Assistant Dean for Academic Affairs	BUU	Thailand
107	Mr. Patiparn Boonruam	Head of Department (Chemical Engineering)	Chemical Engineering Dept., BUU	Thailand
108	Asst. Prof. Dr. Banhan Lila	Lecturer	Industrial Engineering Dept., BUU	Thailand
109	Dr. Nayot Kurukitkoson	Lecturer	Industrial Engineering Dept., BUU	Thailand
110	Mr. Ek-u Thammakombunjut	Lecturer	Industrial Engineering Dept., BUU	Thailand
111	Dr. Nguyen Thanh Son	Vice Rector	HCMUT	Vietnam
112	Dr. Tran Thien Phuc	Vice Dean of Mechanical Engineering	Mechanical Engineering Department, HCMUT	Vietnam
113	Dr. Vo Huu Thao	Vice Dean of Materials Technology	Materials Technology, HCMUT	Vietnam
114	Dr. Nguyen Phuoc Dan	Vice Dean of Environmental Engineering	Environmental Engineering, HCMUT	Vietnam
115	Assoc. Prof. Dr. Bui Cong Thanh	Vice Dean of Civil Engineering	Civil Engineering, HCMUT	Vietnam
116	Dr. Hoang Thi Hong Hanh	Vice Dean of Geology and Petroleum	Geology and Petroleum, HCMUT	Vietnam
117	Dr. Pham Thanh Quan	Vice Dean of Chemical Engineering	Chemical Engineering, HCMUT	Vietnam
118	Assoc. Prof. Dr. Cao Hoang Tru	Vice Dean of Computer Science and Engineering	Computer Science and Engineering, HCMUT	Vietnam
119	Assoc. Prof. Dr. Le Thi Minh Nghia	Vice Dean of Transportation Engineering	Transportation Engineering, HCMUT	Vietnam
120	Dr. Nguyen Huu Phuc	Vice Dean of Electrical – Electronics Engineering	Electrical – Electronics Engineering, HCMUT	Vietnam
121	Prof. Dr. Ha Duyen Tu	Vice Rector	HUT	Vietnam
122	Dr. Nguyen Huu Thanh	Vice Dean of Electronics and Telecommunication	Electronics and Telecommunication, HUT	Vietnam
123	Prof. Dr. Nguyen Ngoc Lan	Director	Institute of Environmental Science and Technology	Vietnam
124	Prof. Dr. Nguyen Thi Phuong Mai	Vice Dean of Mechanical Engineering	Faculty of Mechanical Engineering, HUT	Vietnam
125	Prof. Dr. Hoang Minh Son	Vice Dean of Electrical Engineering	Faculty of Electrical Engineering, HUT	Vietnam
126	Prof. Dr. Nguyen Hong Hai	Vice Dean of Materials Science and Technology	Faculty of Materials Science and Technology, HUT	Vietnam
127	Representative from Faculty of Geology and Petroleum		Faculty of Geology and Petroleum, HUT	Vietnam
128	Dr. Le Minh Thang	Lecturer	Faculty of Chemical Engineering, HUT	Vietnam
129	Prof. Dr. Nguyen Hoang Lan	Vice Dean of	Faculty of Information Technology, HUT	Vietnam
130	Representative from Faculty of Transportation Engineering		Faculty of Transportation Engineering, HUT	Vietnam
131	Mr. Nguyen Binh Duong	Officer	Department of International Cooperation, HUT	
132	Mr. Tran Ba Viet Dzung	Director General, International Cooperation Department	Ministry of Education and Training	Vietnam
133	Ms. Nguyen Thi Minh Tam	Officer, International Cooperation Department, MOET	Ministry of Education and Training	Vietnam
134	Mr. Hoang Xuan Lan	Director, International Cooperation Department	HUT	Vietnam
135	Assoc. Prof. Dr. Dwiwahju Sasongko	Dean	Faculty of Industrial Technology, ITB	Indonesia
136	Assoc. Prof. Dr. Andi Isra Mahyuddin	Vice Dean	Faculty of Industrial Technology (ME), ITB	Indonesia
137	Dr. Tatacıpta Dirgantara	Faculty staff & SEED-Net Program Office	Faculty of Industrial Technology (AE), ITB	Indonesia
138	Dr. Taufiq Mulyanto	Faculty staf	Faculty of Industrial Technology (AE), ITB	Indonesia
139	Dr. Iman Reksowardojo	Faculty staff & SEED-Net Program Office	Faculty of Industrial Technology (ME), ITB	Indonesia
140	Dr. Hisar M. Pasaribu	Faculty staf	Faculty of Industrial Technology (AE), ITB	Indonesia
141	Prof. Dr. Indarto	Dean	Faculty of Engineering (GeoE), UGM	Indonesia
142	Dr. Heru Hendrayana	Graduate Program Manager	Faculty of Engineering (GeoE), UGM	Indonesia
143	Dr. Dwikorita Kamawati	Head of Geological Engineering Departm	Faculty of Engineering (GeoE), UGM	Indonesia
144	Dr. Agung Harijoko	Faculty staff & SEED-Net Academic advi	Faculty of Engineering (GeoE), UGM	Indonesia
145	Dr. I Wayan Warmada	Faculty staff	Faculty of Engineering (GeoE), UGM	Indonesia
146	Dr. Subagyo Parmumojoyo	Faculty staff & SEED-Net Students advis	Faculty of Engineering (GeoE), UGM	Indonesia
147	Assoc. Prof. Dr. Tjin Swee Chuan	Assistant Director	Office of Research, NTU	Singapore
148	Assoc. Prof. Dr. Yeo Swee Hock	Lecturer	School of Mechanical & Aerospace Engineering, NTU	Singapore
149	Ms. Chen Wan Ling	Assistant Director	Graduate Studies Office, NTU	Singapore
150	Prof. Dr. Seeram Ramakrishna	Dean	Faculty of Engineering, NUS	Singapore
151	Prof. Dr. Chow Yean Khaw	Vice Dean	Academic Affairs and Graduate Studies, NUS	Singapore

List of Interviewees

No.	Name	Position	Organization	Member Country
152	Assoc. Prof. Dr. Christopher Yap	Lecturer	Department of Mechanical Engineering, NUS	Singapore
153	Ms. Chin Ai Wei	Senior Administration Officer	Graduate Studies Office, NUS	Singapore
154	Prof. Dr. Mya Mya Oo	Rector	Yangon Technological University	Myanmar
155	Prof. Dr. Aung Shein	Head of Mining Engineering Department	Yangon Technological University	Myanmar
156	Prof. Dr. Khin Than Yu	Head of Civil Engineering Department	Yangon Technological University	Myanmar
157	Prof. Dr. Kyawt Khin	Head of Electronics Engineering & Information Technology Department	Yangon Technological University	Myanmar
158	Asst. Prof. Dr. Maung Hliang	Deputy Head of Department of Architecture	Yangon Technological University	Myanmar
159	Prof. Than Than Win	Head of Electrical Power Engineering	Yangon Technological University	Myanmar
160	Mr. Khin Maung Zaw	Lecturer & Head of Department of Foreign Relations	Yangon Technological University	Myanmar
161	Prof. Dr. Tun Khin	Pro-Rector	Yangon University	Myanmar
162	Prof. Dr. Ko Ko Kyaw Soe	Pro-Rector	Yangon University	Myanmar
163	Assoc. Prof. Dr. Maung Hein	Head of Physics Department	Yangon University	Myanmar
164	Prof. Dr. Saw Hla Myint	Head of Chemistry Department	Yangon University	Myanmar
165	Prof. Daw Aye Nyunt Kyi	Head of Industrial Chemistry Department	Yangon University	Myanmar
166	Assoc. Prof. U Htay Win	Lecturer, Geology Department	Yangon University	Myanmar

Project Design Matrix (PDM) (2nd version)
Project Title: The ASEAN University Network/Southeast Asia Engineering Education Development Network (AUN/SEED-Net) Project
Duration: March 2003 to March 2008 (Preparatory period: April 2001 to March 2003)
Target Group : Students and/or Academic staff of Member Institutions

Date:1/20/2006

Narrative Summary	Indicators	Means of verification	Important Assumptions
<p>Overall Goal Economic sustainability is enhanced through engineering human resource development as to reinvigorate the industrial sector of ASEAN countries.</p> <p>Project Objective Educational and research capacities of MIs are improved through the active exchange of resources among them and the collaborative relationship with Japanese Supporting University Consortium (JSUC).</p>	<p>Indicators</p> <ol style="list-style-type: none"> 1. The number of joint researches among MI, JSUs, and private sectors other than those directly promoted by the Project will increase. 2. The number of graduates or faculty staff from MIs who engaged in engineering research development activities in ASEAN countries will increase. 3. The number of engineers with higher degree in 9 engineering fields in each ASEAN countries will increase. 4. The number of network development activities, such as Memorandum of Understanding (MOU) between the MIs and JSUs, will increase. <p>Sending Institutions (SIs)</p> <ol style="list-style-type: none"> 1. The number of academic staffs with Master's degree from the AUN/SEED-Net to the total number of faculties at the Department will increase by 284 by 2008. (to be set for each SI) 2. The number of academic staffs with Ph.D from the AUN/SEED-Net to the total number of faculties at the Department will increase by 140 by 2008. (see annex for each SI) 3. Ex-AUN/SEED-Net students evaluate that educational and research capacities of SIs are improved by the Project. <p>All HIs and other applicable MIs</p> <ol style="list-style-type: none"> 4. Number of research publications and presentations to journals and conference related to the Project will increase. 5. Amount and percentage of cost-sharing by MIs and ASEAN countries to support exchange students or research fund will increase. <p>HIs</p> <ol style="list-style-type: none"> 6. Number and content of new curriculum or coursework to accept international students will increase. <p>All parties concerned</p> <ol style="list-style-type: none"> 7. Academic staffs of MIs and JSUs involved in the project evaluate that 	<p>Means of verification</p> <ol style="list-style-type: none"> ➤ Record of the AUN/SEED-Net Secretariat ➤ Record of MIs ➤ Questionnaire/Interview to MIs, JSUs, and ex-AUN/SEED-net students <p>Means of verification</p> <ol style="list-style-type: none"> ➤ Record of the AUN/SEED-Net Secretariat ➤ Record of each MI ➤ Record of JSUC ➤ Questionnaire/Interview to MIs, JSUs, and ex-AUN/SEED-net students 	<p>Important Assumptions</p> <p>➤ Each ASEAN country's government maintains policies and support to strengthen engineering higher education.</p> <p>➤ The governments of ASEAN countries will support an academic network for collaborative research activities.</p> <p>➤ The government of ASEAN countries will not introduce restriction of knowledge exchange at the academic and industrial level.</p>

<p>Output</p> <p>1. Faculty qualifications are upgraded through acquisition of graduate degrees</p>	<p>educational and research capacities of MIs are improved by the project.</p>	<p>➤ The academic staff obtaining their post graduate degrees will keep their academic carrier at the MIs.</p> <p>➤ The labor market for human resource with higher education will not change drastically.</p>
<p>2. Host graduate programs are enhanced</p>	<p>1.1 The number of academic staffs with Master's degree from AUN/SEED-Net will increase by 284 by 2008.</p> <p>1.2 The number of the academic staffs with Doctoral degree from AUN/SEED-Net will increase by 140 by 2008.</p> <p>2.1 The aggregate number of students with support of the Project accepted by HIs will be 5 per year at Master's Degree program and 2 per year at Doctoral Degree program per field.</p> <p>2.2 The aggregate number of Collaborative Research and thesis research supported by the Project will be 213 by 2008 (to be set by MI or field)</p> <p>2.3 Academic staff of HIs and JSUs involved in the project evaluate that host graduate program is enhanced by the Project.</p>	<p>➤ Record of the AUN/SEED-Net Secretariat</p> <p>➤ Record of each MI</p> <p>➤ Record of JSUC</p> <p>➤ Questionnaire/Interview to MIs, JSUs</p>
<p>3. Joint activities and human linkage among the Member Institutions are strengthened</p>	<p>3.1 Collaborative researches, field-wise seminars, short-term visits, and other workshops among the MIs will be utilized to share research experience and findings.</p> <p>3.2 Academic staff of MIs involved in the project evaluate that joint activities and human linkage among MIs are strengthened by the Project.</p>	<p>➤ Record of the AUN/SEED-Net Secretariat</p> <p>➤ Record of each MI</p> <p>➤ Questionnaire/Interview to MIs</p>
<p>4. Information-dissemination system, activity management system and communication network are established.</p>	<p>➤ Activity Management System</p> <p>4.1 The adequate organizational structure with clear function and responsibility will be established.</p> <p>4.2 Monitoring activities such as monitoring visits are appropriately implemented in terms of frequency and effectiveness.</p> <p>➤ Information Dissemination and Communication Network System</p> <p>4.3 The number of visitors to the AUN/SEED-Net Web-site are increased.</p> <p>4.4 The aggregate number of press coverage is increased.</p> <p>4.5 The number of subscribers of AUN/SEED-Net newsletters which are distributed by both conventional and electric means (by mailing list) is increased.</p> <p>➤ Overall</p> <p>4.6 Academic staffs of MIs and JSUs involved in the project evaluate that information-dissemination system, activity management system and communication network is well-established.</p>	<p>➤ Record of the AUN/SEED-Net Secretariat</p> <p>➤ Record of JICA HQs</p> <p>➤ Questionnaire/Interview to MIs and JSUs</p>

<u>Activities</u>	<u>Input</u>	
1-1	Implement Master's Degree Program for students/academic staff from MIs in nine engineering fields by ten HIs with financial support of scholarships	All the MIs are collaborative and supportive to each other in conducting activities.
1-2.	Implement Doctoral Sandwich Degree Program in nine engineering fields for students/academic staff from MIs by ten HIs and JSUs with financial support of scholarships	Japan's ODA is not drastically reduced.
1-3	Implement Doctoral Degree Program in nine engineering fields for students/academic staff from MIs by JSUs with financial support of scholarships	The MIs will maintain their budget.
2-1.	Accept students/academic staff from MIs by HIs	Preconditions All the MIs are highly motivated to utilize a variety of the schemes of SEED-Net.
2-2	Arrange and conduct Collaborative Research by HIs and other MIs with financial and equipment support and academic support by professors of JSUs	
2-3	Implement short-term visits by academic staff of HIs and MIs to Japan	
3-1.	Develop and share IT-enhanced courseware among MIs	
3-2.	Conduct the field-wise seminar to systematize Collaborative Research activities by MIs	
3-3.	Implement the Short-term Visit Program within MIs to promote research activities under the theme of Collaborative Research Program.	
3-4	Hold academic seminars, workshops and conferences by MIs	
4-1.	Establish organization structure and management system of the AUN/SEED-Net.	
4-2.	Establish information dissemination system and communication network	
4-3.	Conduct management and monitoring activities of the AUN/SEED-Net students and activities of MIs	
4-4.	Promote the publicity of the AUN/SEED-Net activities	
	<p>1. JICA</p> <p>a) Long-term Experts Dispatch of 1) Chief Advisor (1), 2) Academic Advisor (1), 3) Project Coordinator (3)</p> <p>b) Short-term Experts Dispatch of Short-term experts, mainly professors from JSUs to the MIs on a necessary and occasional basis.</p> <p>c) Provision of Equipment for Collaborative Research (by 2005)</p> <p>d) Financial support for activities such as; 1) Scholarships for Master and PhD Degree program (including short-term study in Japan for PhD sandwich program) 2) Collaborative research and thesis research of the AUN/SEED-Net students 3) Short-term visit of thesis advisors to Japan or to other MIs 4) Field-wise seminars and workshops/ conferences</p> <p>e) Financial support to administrative costs of the AUN/SEED-Net Secretariat</p> <p>2. Member Countries and Institutions</p> <p>a) Assign necessary administrative or academic staff for activities of the AUN/SEED-Net b) Partial financial support for project activities c) Provision of office space and partial operating costs of the AUN/SEED-Net Secretariat (Chulalongkorn Univ.)</p> <p>3. Japan – ASEAN Solidarity Fund (by 2004)</p> <p>Financial support for : 1) Research Activities (6 projects / 2 years and 8months) 2) Graduate study within the region (9 persons / 2 years and 8months) 3) Academic seminars(5 seminars / 2 years and 8months)</p>	

Evaluation Grid (Progress and Process)		Survey items & source	Result																			
Evaluation Questions	Evaluation Criteria Sub-questions																					
Progress of Project																						
Progress of inputs	< Japanese side > 1. Dispatch of Japanese Experts a. Japanese Experts Dispatched for Project Management (Long Term basis) b. Japanese Professors Dispatched for Project Implementation (Short Term basis)		<p>1. Dispatch of Japanese Experts</p> <p>a. Japanese Experts Dispatched for Project Management The following experts were planned to be dispatched to the Secretariat of SEED-NET: One (1) Chief Advisor, one (1) Academic Advisor, and three (3) Project Coordinators in the PDM. As of March 2007, five (5) experts were dispatched for the Project to cover the above positions. Being continued from the preparation period, as long-term experts, one (1) Chief Advisor was assigned until August 2003 and one (1) Academic Advisor was assigned until September 2004. Since then to the date (as of March 2007), one (1) Chief Advisor and one (1) Academic Advisor were dispatched. In addition, three (3) Project Coordinators have been stationed at the Secretariat.</p> <p>b. Japanese Professors Dispatched for Project Implementation According to the JICA Head quarter's record, the cumulative total number of Japanese professors dispatched is 289 persons / times for attending field-wise seminars and/or supervising collaborative research, as of the end of March 2007. ➢ 85 persons / times to visit to MIs for CR related activities. ➢ 204 persons / times to attend field-wise seminars and other matters.</p>																			
Has the Japanese side been providing the inputs as planned?		<ul style="list-style-type: none"> Plan and actual activities 	<p>c. Equipment Granted There was no specific plan in the original PDM or the strategy paper. (NOTE* During preparation period, the IT equipments, which amounted THB 2,813,308 in total, were granted to 13 Member Institutions, including the current 7 host and 6 sending institutions)</p>																			
			<p>d. Financial support for activities The total amount of project cost, including costs for seminars, research and small amount equipment for research, provided by the Japanese side is as follows;</p> <table border="1"> <thead> <tr> <th rowspan="2">Japanese Fiscal Year</th> <th colspan="5">Unit: Thousand yen</th> <th rowspan="2">Total</th> </tr> <tr> <th>JFY2003</th> <th>JFY2004</th> <th>JFY 2005</th> <th>JFY 2006</th> <th>JFY 2007 (Plan)</th> </tr> </thead> <tbody> <tr> <td>Cost for each JFY</td> <td>158,437</td> <td>383,074</td> <td>490,827</td> <td>617,895</td> <td>623,558</td> <td>2,273,791</td> </tr> </tbody> </table> <p>(Note: During the implementation of the Project, IT enhanced courseware development was allocated with the total amount US \$48,845, and 14 persons from 13 institutions including current 8 host institutions and 5 sending institutions.)</p> <ul style="list-style-type: none"> As of March 2007, seven (7) Thai program officers are assigned to support for the work. 	Japanese Fiscal Year	Unit: Thousand yen					Total	JFY2003	JFY2004	JFY 2005	JFY 2006	JFY 2007 (Plan)	Cost for each JFY	158,437	383,074	490,827	617,895	623,558	2,273,791
Japanese Fiscal Year	Unit: Thousand yen					Total																
	JFY2003	JFY2004	JFY 2005	JFY 2006	JFY 2007 (Plan)																	
Cost for each JFY	158,437	383,074	490,827	617,895	623,558	2,273,791																

Evaluation Criteria		Survey items & source	Result
Evaluation Questions	Sub-questions		
Have the ASEAN countries been providing the inputs as planned?	a) Assign necessary administrative or academic staff for activities of the AUN/SEED-Net		<p>a. Personnel Assigned for project management According to R/D between JICA and the Ministry of University Affairs in Thailand, the following personnel were planned to be assigned:</p> <ul style="list-style-type: none"> • Chairperson of the Joint Coordinating Committee (JCC) • Project Manager: Executive Director of AUN/SEED-Net Secretariat • Project managers for the Member Institutions: (1) Presidents or authorized representatives of the MIs, (2) Deans or authorized representatives and academic staffs in Faculty of Engineering at the MIs • Administrative Personnel: (1) Program Officers, (2) Secretaries, (3) other necessary staffs <p>As of May 2007, these positions were assigned as planned.</p>
	b) Partial financial support for project activities	<ul style="list-style-type: none"> • Plan and actual activities 	<p>Many member countries and institutions contribute to the project by finance and/or in-kind. The items and amount of these cost sharing has been increased year by year. Typical items of the cost sharing are as follows;</p> <ul style="list-style-type: none"> • In-kinds, such as human resources and spaces for liaison offices and other activities • Tuition fee and allowances for scholars (In case students cannot complete their study within the period and extend their study period, some of the Host Institutions (HIs) have waived 50-100% of tuition fee during extension period • Full scholarship (Singapore) • Allowances for staff • Joint CR project fund
	c) Provision of office space and partial operating costs of the AUN/SEED-Net Secretariat (Chulalongkorn Univ.)		<ul style="list-style-type: none"> • Office space for the AUN/SEED-Net Secretariat is provided at the Chulalongkorn University, Bangkok, Thailand, as in the R/D • Currently, domestic telephone charges, electricity and partial personnel expense were provided from the Thai side. • Assignment of the following <ul style="list-style-type: none"> - One (1) AUN/SEED-Net Secretariat Executive Director - One (1) Assistant Executive Director - Two (2) secretaries <p>(Note: Partial cost for assigned is paid by Japanese side)</p>
	Financial support from Japan – ASEAN Solidarity Fund (till 2004)		<ul style="list-style-type: none"> • Plan and actual activities

Evaluation Criteria		Survey items & source	Result
Evaluation Questions	Sub-questions		
<p>Activities</p> <ul style="list-style-type: none"> How the outputs realized? 		<p>What are merits, problems/ challenges and suggestions?</p>	<p>In the early stage of the Project, the scheme, structure and process to accomplish various activities were not firmly defined and activities were conducted in trial and error bases. Based on these precious experiences and with efforts of MIs and the Project office, the scheme, structure and process were established in the former half. Therefore, in the latter half of the Project, almost all activities were accomplished as described in the PDM. Improvement on the scheme, structure and process are still going and there remain some points to be further improved. There are two kinds of points to be improved. One is the change to be made as extension of the current situation, which is relatively easy to achieve and the other is fundamental change to make the effect by the Project sustainable. Details of these points as well as performance of each activity were described in the appropriate items in Inputs and Outputs accordingly.</p> <p>Master Degree in ASEAN</p> <ul style="list-style-type: none"> As HI: Problems/ Challenges: 1 reputation/competition, – Suggestions: promotions (i.e. support on regional conference), increase scholarships, increase opportunities to present papers in inter conferences, capacity development, expand opportunities to non-MIs-, expand collaboration with industry, selection of research topics 2 student quality/gap/ insufficient basic knowledge & English communication skills – Suggestions: bridging course, encourage MIs to provide English in undergrad level, pre-departure training, tutorial system 3 financial support; – Suggestions: expansion of collaboration with industry, expansion of collaboration with other networks i.e. asialink, selection of topics that match with regional interest <ul style="list-style-type: none"> As SI: Merit: enhancement of staff quality/ increase no. of higher degree holders. networking with MIs and JSUs <p>Problems/ Challenges: 1 lack of candidates from SIs,</p> <ol style="list-style-type: none"> no guarantee that graduates will return to SIs after graduation, – Suggestions: contract, increase no. of scholarship 3 top students more interested in US/EU (promotion trips& Taiwan, Korea) duplication with monbuscho scholarship, – Suggestions: make it more attractive (Master's in SEA and PhD in Japan) <p>Sandwich PhD</p> <ul style="list-style-type: none"> As HI: Merit: improvement of quality of program through joint supervision, Problems/ Challenges: <ol style="list-style-type: none"> best candidates go to other scholarships, 1-yr in Japan could be too long (need better communication & coordination) – Suggestions: divide program to more than one but short time 3 years for PhD too short (should be 3-4 yrs) – admin matters take 2-3 moths. – Suggestions: combine masters & PhD As SI: Merit: improvement of staff quality, increase of network & collaboration <p>Problems/ Challenges: 1 lack of candidates from SIs,</p> <ol style="list-style-type: none"> no guarantee that graduates will return to SIs after graduation, – Suggestions: -contract 3 top students more interested in US/EU (promotion trips& Taiwan, Korea) duplication with monbuscho scholarship <p>– Suggestions: - increase no. of scholarship, make it more attractive (Master's in SEA and PhD in Japan)</p>

Evaluation Questions	Evaluation Criteria Sub-questions	Survey items & source	Result
			<p>Short term training in Japan for Sandwich Ph.D</p> <p>Merit: improvement of quality of program through joint supervision, - academic atmosphere, - research experience(facilities), - conferences, journal publications, - access to literature expanded, - cultural experience (attitude to be professional researcher)</p> <p>Problems/ Challenges:</p> <ol style="list-style-type: none"> 1. 1yr could be too long, - Suggestions: divide program to more than one but short time 2. limited no. of scholarship, - Suggestions: increase no. of scholarship 3. different research facilities (GeoE) , - Suggestions: used equipment donation 4. miscommunication between JPN and HI profs (sometimes) , - Suggestions: net meeting/TV conference <p>Ph.D in Japan</p> <p>Merit: improvement of quality of staff, - academic atmosphere, - research experience(facilities), - conferences, journal publications, - access to literature expanded, - cultural experience (attitude to be professional researcher), -establish network with JSU and other institutions, private companies in Japan, - linkage between JSU, SI and ex-HI</p> <p>Problems/ Challenges:</p> <ol style="list-style-type: none"> 1. limited no. of scholarship 2. no joint supervision, - Suggestions: - combination of Master's and PhD, - involvement of SI and HI advisors <p>Collaboration Research</p> <p>Merit: improvement of research quality (joint supervision), -enhancement of efficiency of research (precise schedule), - attract other sources of funding (MONE provides grant, NEDO, private companies <facilities>)</p> <p>Problems/ Challenges:</p> <ol style="list-style-type: none"> 1. IPR (varies across institutions) - 2. Different interest of research topics among HI, SI, and JSU (hard to find topics suitable for 3 parties) - <p>Suggestions:</p> <ol style="list-style-type: none"> 3. Industrial & community needs/variatiions- Suggestions: agreement of IPR among participants (no problem about budget disbursement) - Suggestions: selection of topics that match with regional interest 4. limited no. of scholarship- Suggestions: selection of topics that match with regional interest <p>Dispatch of Japanese Professors</p> <p>Merit: improvement of teaching and research quality, -enhancement of efficiency of research, -improvement of academic atmosphere, - attractiveness of the degree program, - networking</p> <p>Problems/ Challenges:</p> <ol style="list-style-type: none"> 1. visit time management / matching schedule of JSU profs. and HI- Suggestions: - dispatch of retired profs, - involvement of all JSUs profs 2. duration is too short- Suggestions: - ditto - 3. more frequent visits- Suggestions: : - ditto -

Evaluation Questions	Evaluation Criteria Sub-questions	Survey items & source	Result
<ul style="list-style-type: none"> Have the outputs realized as planned? 	<p>Output 1: Have the faculty qualifications been upgraded?</p>	<p>1.1 The number of academic staffs with Master's degree from the AUN/SEED-Net to the total number of faculties at the Department will</p>	<p>Field Wise Seminar Merit: - coordination among JSU, HIs, and SI, - opportunities to evaluate progress and disseminate research results, - create human linkage, - formulate future collaboration, - opportunities for benchmarking each MIs achievement/standard/improvement, - students exposed to scientific community, - credit for MIs for hosting international meetings, - international network Problems/ Challenges: 1. duration is too short, too many agenda in 2 days, need time for field trip (GeoE) – Suggestions: - more flexibility on duration (depending on fields) 2. limited no. of participants– Suggestions: - - include non-MIs, industry and community, - joint meetings, - establishment of regional/international conferences</p> <p>Short term visit to Japan Merit: -improvement of research through supervision, - involvement of other staff from SIs (three parties : JSU, HI, SI), - discussion on progress and CR future plan, - access to literature, - opportunities to attend seminars in JPN Problems/ Challenges: 1. duration is too short – Suggestions: - explore more funding resources 2. visiting profs from HIs to JSUs– Suggestions: - utilizing the visiting profs scheme of JPN universities 3. limited quota of visits– Suggestions: - flexibility to combine JICA training program with other programs 4. allowances depending on places–</p> <p>Short Trip among MIs Merit: -improvement of research through supervision, - involvement of other staff from JSU (three parties : JSU, HI, SI), - discussion on progress and CR future plan, - access to literature and relevant field, - opportunities to attend FWS Problems/ Challenges: 1. visit time management / matching schedule of JSU profs. and HI– Suggestions: - more communications.</p> <p>Promotion Tour Merit: - improvement of attractiveness of HI program, - Interview with prospective students - Discussion on possible future collaboration, - Understand condition of SIs, - Establish good relations with embassy in sending/host countries (help promote programs, signed MOU with NUOL <GeoE>) Problems/ Challenges: 1. English ability of students at MIs– Suggestions: - more communications. 2. Duration too short – Suggestions: - involvement of alumni in promotional tour, combine SVMl with PT to include other activities i.e. discussion on CR, Use other means of media i.e. leaflet, exhibition 3. Difficulties to visit Myanmar – - ditto -</p> <p>It is targeted that academic staffs with Master's degree from the AUN/SEED-Net will increase by 284 by 2008. Though this can not be achieved with the following reasons, it may be achieved in long run. 1. The accumulated number of scholarship granted is 310 including plan for FY 2007. 2. It takes at least two years to get a Master degree. 3. There were and would be drop-outs (8 in the past) 4. Not all students are guaranteed to be offered an academic position after returning their home country, though many of them became academic staff in the past.</p>

Evaluation Criteria		Survey items & source		Result	
Evaluation Questions	Sub-questions				
		increase by 284 by 2008.	5. Many of Master degree graduates who are not academic staff are studying at PhD course. See Annex 5 for more detail.		
		1.2 The number of academic staffs with PhD degree from the AUN/SEED-Net to the total number of faculties at the Department will increase by 140 by 2008.	It is targeted that academic staffs with PhD degree from the AUN/SEED-Net will increase by 140 by 2008. Though this can not be achieved with the following reasons, it may be achieved in long run. 1. The accumulated number of scholarship granted is 141 including plan for FY 2007. 2. It takes at least three years to get a PhD degree. 3. There was and would be drop-outs (1 in the past) Not all students are guaranteed to be offered an academic position after returning their home country though it may be a rare case for the PhD candidate. See Annex 5 for more detail.		
		<Supplement> Academic staff of SIs evaluate that the quality of academic staff of SIs are improved by the project.	The number of the AUN/SEED-Net graduate students returned to SI varies among SIs. SIs which received certain number of the AUN/SEED-Net graduate evaluate their quality are improved while others claimed it is premature to evaluate.		
	Output2: Have the host graduate programs been enhanced?	2.1 The aggregate number of students with support of the Project accepted by His will be 5 per year at Master's Degree program and 2 per year at Doctoral Degree program per field.	For all 9 fields, at least 5 Master Degree students were or are accepted by His since 2005. Regarding Doctoral Degree students, in some fields less than 2 were or are accepted by His and in other field more than 2 were or are accepted See Annex 5 for more detail.		
		2.2 The aggregate number of Collaborative Research and thesis supported by the Project will be XX by 2008 (to be set by MI or field)	The aggregate number of Collaborative Research and thesis research supported by the Project was 170 as of March 2007 and 43 is expected in FY2007. Therefore, it is likely that this is achieved.		
		2.3 Academic staff of His and JSUs involved in the project evaluate	Many His evaluate host graduate program is enhanced by the Project through some or all aspects such as teaching skill, quality of research activities, teaching method which matches with students demand, develop a courseware in a new field, start of English course or classes, number of staff with higher degrees, attitudes of graduate school students and international ranking of universities. Some His listed, as byproducts, enhancement		

Evaluation Questions	Evaluation Criteria Sub-questions	Survey items & source	Result
		that host graduate program is enhanced by the Project.	of communication skill by accepting international students. For the international ranking of universities, the Times of London Higher Education Survey published the list of top 520 universities in 2006. Criteria used in ranking the universities are research quality, graduate employability international outlook and teaching quality. Proportion of international students and faculties are among these four criteria used in measuring the surveyed universities. Some AUN/SEED-net member institutions rank within the top 400 list are, NUS (No. 19), NTU (No. 61), CU (No. 161), UM (No. 192), ITB (No. 258), UGM (No. 270), USM (No. 277), UP (No. 299), and DLSU (No. 392). According to the questionnaire to JSU, 90% of JSU academic staff feel graduate program in HI is enhanced compared with the situation before the Project. There are SIs where the research outputs reach to the international standard level or program operation for PhD course is improved so that coursework is well arranged. However, it was pointed out that it is necessary to strengthen the collaboration with other fields in the area of interdisciplinary field.
Output3: Have the joint activities and human linkage among the Member Institutions been strengthened?		3.1 Collaborative researches, field-wise seminars, short-term visits, and other workshops among Mis will be utilized to share research experience and findings.	The foundation of joint activities and human linkage among the Member Institutions, such as FWS, CR and co-adviser scheme, are established and they have been strengthened. However, the scheme of network is considered not enough to be self-sustainable. <ul style="list-style-type: none"> • Among the interviewees, the majority considered FWSs provide good opportunities not only to share research results but discuss new common subjects. They also help to establish network. • However, some interviewees pointed that there is no concrete actions after FWS and it is the time to review and change their objectives, strategies, policies, scope of attendees and agenda. • Regarding CR, many consider it provides good opportunity to share their experience through collaborating research adviser activities. • However, some interviewees pointed that there are several points to be improved, such as level of "interactive". • Number of FWS held between 2002 and 2006 is 76 • Number of Short term visit program held between 2002 and 2006 is 183
		3.2 Academic staff of Mis involved in the project evaluate that joint activities and human linkage among Mis are strengthened by the Project.	Most of the interviewed academic staff of Mis involved in the project evaluate that joint activities and human linkage among Mis are strengthened by the Project. Joint activities and human linkage are cross functional and they make teaching and research programs expanded through human resources. According to the questionnaire to JSU, many JSU academic staff evaluate joint activities and human linkage among Mis are strengthened by the Project. They believe the human network in each field was established through FWS, short term visit among Mis and other kinds of meeting. Some staff of Mis edited and published a proceeding by collecting their research results. However, there are not many examples of this level, and it is pointed out that inter-field network should be strengthened, as it is expected CR and joint activities will be conducted through the network.

Evaluation Criteria		Survey items & source	Result
Evaluation Questions	Sub-questions		
	Output4: Information-dissemination system, activity management system and communication network are established.	4.1 The adequate organizational structure with clear function and responsibility will be established. <Supplement> Framework of the AUN/SEED-Net is regulated. Roles of His, Sis, AUN/SEED-Net Secretariat and the steering committee are specified. And each organization is properly managed accordingly.	The foundation of Information-dissemination system, activity management system and communication network are established. However, their structure is considered not enough to be self-sustainable. In April 2001, AUN, ASEAN Foundation MIs and JICA signed the Cooperative Framework which defined the framework of AUN/SEED-Net. The objectives of AUN/SEED-Net, organizational structure, roles of His, Sis, AUN/SEED-Net Secretariat and the steering committee are specified.
		4.2 Monitoring activities such as monitoring visits are appropriately implemented in terms of frequency and effectiveness. <Supplement> Frequency of monitoring visits, Structure for feedback of monitoring results and actual numbers of feed-back cases	Monitoring visit is part of the monitoring scheme of the quality assurance of the project. AUN/SEED-Net had regular meetings with the faculty staff and students at the host institutions on a yearly basis. The meeting generally comprises discussion with advisors and faculty staff on all concerned programs, discussion with the students and wrap-up session, which brings all concerns raised by the students to the attention of the faculty staff for possible solutions. Some host institutions organized the monitoring meeting together with the orientation for new students. After each monitoring visit, a report of the visit will be made and kept for record. The Secretariat will use this record to track the issues after the visit as well as for the next visit to examine whether the issues have been solved.
		4.3 The number of visitors to the AUN/SEED-Net web site is increased.	Since its launch in March 2005, AUN/SEED-Net web site has been accessed increasingly from many origins. Number of accesses by calendar year until March 2007 is presented below: <ul style="list-style-type: none"> • 2005 (since first launch in March) 118,894 times • 2006 191,893 times • 2007 (until March 2007) 21,334 times • Total visits 332,121 times
		4.4 The aggregate number of press coverage is increased.	The aggregate number of press coverage since the Project establishment increases significantly when compared to the early period of the Project, especially when there are significant events or activities. The number of press coverage, based on number of articles published in each fiscal year, is shown below: <ul style="list-style-type: none"> • FY2002 1 time

Evaluation Criteria		Survey items & source		Result
Evaluation Questions	Sub-questions			
				<ul style="list-style-type: none"> • FY2003 2 times • FY2004 4 times • FY2005 30 times • FY2006 26 times • Total coverage 63 times
		4.5 The number of subscribers of AUN/SEED-Net newsletters which are distributed by both conventional and electronic means (by mailing list) is increased.		<p>AUN/SEED-Net newsletter was started in FY2005 on quarterly basis. One volume of each fiscal year comprises 4 issues. Until now, there have been 8 issues of newsletters published.</p> <ul style="list-style-type: none"> • FY2005 (Volume 1) 4 issues • FY2006 (Volume 2) 4 issues • Total issues 8 issues <p>The newsletters will be distributed by conventional means (by hand or by post) and electronic means (by mailing list). Quarterly 500 hard copies of each newsletter have been published and distributed to readers. Subscribers via mailing list have been increasing from 243 in 2005 to 676 in 2007.</p>
		4.6 Academic staff of Mis and JSUs involved in the project evaluates that information-dissemination system, activity management system and communication network is well established.		<p>Many interviewee evaluate the role is clear and organizational structure is adequate. Many appreciations were addressed to the role of the Project office. However, this implies many rely on POs and consequently, without new appropriate scheme of office function it is very difficult to make the Information-dissemination system, activity management system and communication network self-sustainable after the project.</p>
Is it expected to achieve the Project Purpose until the completion of the Project?	(Project Purpose) Educational and research capacities of the Member Institutions are improved through the active exchange of resources among them and the collaborative relationship with Japanese Supporting University	<ul style="list-style-type: none"> • (The number of academic staffs with Master's degree from the AUN/SEED-Net to the total number of faculties at the Department will increase by 284 by 2008.) 		- Same as an indicator of Output 1 and covered by it.

Evaluation Criteria		Survey items & source		Result
Evaluation Questions	Sub-questions			
	Consortium.	<ul style="list-style-type: none"> (The number of academic staffs with PhD degree from the AUN/SEED-Net to the total number of faculties at the Department will increase by 140 by 2008.) 	<ul style="list-style-type: none"> Ex-AUN/SEED-Net students evaluate that educational and research capacities of Sis are improved by the Project. 	- Same as an indicator of Output 1 and covered by it.
		<ul style="list-style-type: none"> The number of joint research publications and presentations to journals and conferences will increase. 	<ul style="list-style-type: none"> Because there are not so many graduates as that yet, it depends on the future progress whether education and research ability improved as SI. It can think that it is improving gradually in the interview with the graduate because it is making use of the knowledge and experiences learned by studying abroad for the education, research guidance and the development of a curriculum. As for the present condition as well, education research activities became vigorous by influencing a dealing attitude to the learning. There is a comment that this transfiguration leads to the acquisition of the bounty from the ministry of higher education and/or the ministry of science and technology, the improvement in international evaluation ranking, the cooperation with Japan and the foreign countries on education research opportunities, too. 	<ul style="list-style-type: none"> It is estimated that the number of research publishing increased due to the activities of SEED-Net. As a background as an above, the increase of research publishing number is brought by an influence of dealing attitude to the learning and its repercussion effect.
		<ul style="list-style-type: none"> The amount and ratio of cost-sharing from MI and/or ASEAN countries will increase on student support and research fund. 	<ul style="list-style-type: none"> As for securing a financial source after Ph2 and the importance of the cost sharing, each MI is aware of and concerned about. Correspondence within the range that it is made is partly carried out, or it is scheming in such cases as waiving of the tuition fees in HI, a part burden of the traveling expenses and the research-funds in SI depending on each position. Furthermore, there is a governmental encouragement plan, too, and turns an eye to the outside resource in many cases. In other words, a research fund and others is secured with reducing a burden by the cooperation with the internal and external university of SEED-net, the related government ministries and agencies, the enterprise, and so on. 	
		<ul style="list-style-type: none"> The number of curriculum and courses will increase to accept foreign student as well as up-dating these contents. 	<ul style="list-style-type: none"> Because it began to accept the students from foreign countries for the first time by the project, a change is seen on the contents side to shift to the tuition that an international case and an experience were adopted in addition to domestic ones as well as a revision of the course work to meet their needs and an experience. Secondary effect is seen in steady acquisition of know-how on acceptance of foreign students with SEED-net. Furthermore, it works for the diversification of the program with adding improvement to the contents of the curriculum in accordance with the internationalization, and there is an example which increased in 8 programs more than 2 in the beginning. 	
		<ul style="list-style-type: none"> Academic staffs of MIs and JSUs involved in the project evaluate that educational and research capacities 	<ul style="list-style-type: none"> The point of the research capacity is evaluated that contents of research, ability and quality having improved in many universities by the joint research with the Japanese university professor. There are various improvements even in the education side so far, and it is estimated that it improves gradually. 	

Evaluation Criteria		Survey items & source		Result
Evaluation Questions	Sub-questions			
Is it expected to achieve the Overall Goal?	(Overall Goal) Economic sustainability is enhanced through engineering development resources as to reinvigorate the industrial sector of ASEAN countries.	of the Member Institutions are improved.	<ul style="list-style-type: none"> The number of joint researches among MI, JSU, and private sectors other than those directly promoted by the Project will increase. The number of graduates or faculty staff from MIs who engaged in engineering research development activities in ASEAN countries will increase. The number of engineers with higher degree in 9 engineering fields in each ASEAN countries will increase. The number of network development activities, such as Memorandum of Understanding (MOU) between the MIs and JSUs, will increase. 	<ul style="list-style-type: none"> There is an example that the distance-learning program is prepared for working people in the industrial world. The number of joint research is anticipated to increase if it approaches toward the industrial world so gradually. There is an example that it proceeds with the joint researches under MOUs which have already been concluded with the government-affiliated organization, the enterprise, and so on. It thinks that industry-university joint researches are promoted by applying research results to common local subject's (renewable fuel, environmental conservation, protection against natural disasters, and others) from now on at many universities as well as commercial oriented joint researches and a student internship programs. That number is thought to be increasing now in accordance with rising social needs of the economic development and strengthening of the higher engineering education in the ASEAN countries. In the future, if the number that a master and a doctor's degree holders increases and joint research becomes active, the number that it is engaged in the research and development activities in engineering field will increase further. Growing needs to the regional common subjects such as emergency response for environmental conservation and/or protection against natural disasters will spur on this tendency. It is predicted that this tendency gets strong because of the transfiguration of dealing attitude to the learning and the surrounding environment, high demand for degree acquisition among SIs, vigorous joint research activities with the private sector. The pursuer needs for research and development are born in SIs of the CLMV countries in accordance with quantitative and qualitative improvement the faculty staff to cope with future expansion plan by newly establishing the MA degree course aiming at HI grade. The opportunities to be acquainted with other MI's increased by the implementation of the project. Resultingly, other MI's and MOU are concluded actively as further interchange cooperation. For instance, DLSU has already concluded TIT and MOU since the 1980's before starting a project. MOU is on the increase in the execution of the joint research and network strengthening steadily at each university. Though the number of MOU varies from university to university, it from several to approximately 30 cases including cooperation with the private sector. .
Implementation Process of Project	Have the activities been implemented as planned?	Plan and actual activities	<ul style="list-style-type: none"> Master Degree Program in ASEAN countries HI: Target results were attained as the host universities due to the activities as planned. SI: Target results were attained as the student's sending out universities due to the activities as planned. 	

Evaluation Criteria		Survey items & source	Result
Evaluation Questions	Sub-questions		
			<p>Ph.D Sandwich Program</p> <ul style="list-style-type: none"> • HI: Target results were attained as the host universities due to the activities as planned. • SI: Target results were attained as the student's sending out universities due to the activities as planned. <p>Short term training in Japan for Sandwich Ph.D</p> <ul style="list-style-type: none"> • HI: Target results were attained as the host universities due to the activities as planned. • SI: Target results were attained as the student's sending out universities due to the activities as planned. <p>Ph.D in Japan</p> <ul style="list-style-type: none"> • Target results were attained due to the activities as planned. <p>Collaboration Research</p> <ul style="list-style-type: none"> • Target results were attained due to the activities as planned. <p>Dispatch of Japanese Professors</p> <ul style="list-style-type: none"> • Target results were attained due to the activities as planned. <p>Field Wise Seminar</p> <ul style="list-style-type: none"> • Target results were attained due to the activities as planned. <p>Short term visit to Japan</p> <ul style="list-style-type: none"> • Target results were attained due to the activities as planned. <p>Short term visit within MIs</p> <ul style="list-style-type: none"> • Target results were attained due to the activities as planned. <p>Promotion Tour</p> <ul style="list-style-type: none"> • Target results were attained due to the activities as planned.
Involvement of parties concerned to the Project	Is the involvement and support of Ministry of Education to the Project adequate in ASEAN courtiers?	<ul style="list-style-type: none"> • Financial and human resource supports by the ASEAN governments 	<ul style="list-style-type: none"> • Even though the degree of participation of the ministry of higher education at each country is lesser extent in the phase 1, a university side is giving careful consideration to involving the ministry from the preparatory stage of the phase 2, and a remarkable result is being given to it. And thus, it can expect that a participation level is rising gradually. Because a university has autonomous rights in the management policy and the financial side, it seems to be difficult to gain financial support from the ministry. As for the ministry of each country, it is common with recognition about the contribution to the industrial development by human resource cultivation in the higher engineering education and solution for the raising problems from now on as well as encouragement on industrial -academia cooperation and financing from outside sources. There are some cases that a university partially finances research fund by offering for public subscription for contract research/ survey from the ministry concerned such as science and technology in some countries.
	Involvement of Mis to the Project	<ul style="list-style-type: none"> • Firmness of involvement of Mis to the Project 	<ul style="list-style-type: none"> • The consciousness of the participation of SI is high as a general tendency as the direct beneficiary. It strongly motivates the universities to improve the academic quality and accompanied reputation. Furthermore, some universities have intension to aim at the position of the HI accepting foreign students. Most of HIs have stronger participation consciousness due to tangible benefits such as the internationalization of the graduate school program and increase of foreign students.
Management system of the project	Is the management system (Monitoring structure, Decision-making process, roles of the ASU/SEED-Net Secretariat and the steering committee) of the project operation adequate?	<ul style="list-style-type: none"> • Definition, frequency and monitoring method of monitoring and feedback are established. • Roles and functions of AUN/SEED-Net Secretariat and the 	<ul style="list-style-type: none"> • The monitoring of the project is quite appropriate, and it gives effect in the dialog with the university side, the problem solutions and care management for the foreign students. It is evaluated that decision-making was timely and the project management system functioned properly. It thinks that it came to show the high degree of satisfaction by a management system's being improved gradually since the inauguration of the SEED-Net Secretariat. But, there is indication that a student's monitoring has the room for improvement on method and frequency.

Evaluation Criteria		Survey items & source	Result
Evaluation Questions	Sub-questions		
		<p>steering committee are specified. And each organization is well functioned accordingly.</p> <ul style="list-style-type: none"> • Decision-making is timely processed. 	
Assignment of counterpart	Is the human assignment of MIs adequate?	<ul style="list-style-type: none"> • Necessary human resources (Administrative or academic staff) for the project activities are assigned. 	<ul style="list-style-type: none"> • Though there is a gap between the universities, coordinators are assigned play the precious part to intervene with the university side. Because expert's staff members are assigned, coordinators contribute to the smooth project management.
Solution for various problems at the implementation stage	What are factors affecting problems and/or impacts arisen at the implementation stage?	—	The efficient project management of the secretariat and appropriate intervention of the coordinator assigned at each university seem to contribute to efficient project implementation.

Evaluation Grid (Five Evaluation Criteria)

Evaluation Questions		Basis for Judgment	Evaluation
Five Evaluation Criteria	Sub-questions		
Relevance			
Consistency with development policies of the ASEAN countries	Are the Project Purpose and the Overall Goal consistent with tertiary educational policies of the ASEAN countries?	<ul style="list-style-type: none"> Are there any critical policy changes in the ASEAN countries after the start of the Project? If so, are these changes consistent with directional character of the Project? Are needs for higher engineering education revealed in development plans and education policies by the ASEAN governments? Same as in the left 	<ul style="list-style-type: none"> While, the policies on higher education vary among ASEAN countries, human resources development is one of their top priorities according to the interview with the ministry in charge of higher education in all member countries. Moreover, some countries emphasize the importance of globalizing the institutes in charge of higher education and increase in the number of their human resources in engineering fields. Therefore, the project is in line with the policies in ASEAN countries. ASEAN countries also recognize the importance of engineering human resource development for industrial and economic development. This also matches with Overall Goal of the Project.
Consistency with the beneficiaries' needs	Was the Project Objective relevant to the needs of the Member Institutes?		<ul style="list-style-type: none"> Before the project was implemented, ASEAN countries were not able to develop sufficient human resources in quality and quantity at the postgraduate schools. This resulted that higher educational institutes could not satisfy the requirement of industrial sectors. In this circumstance, member institutes had strong needs to enhance the graduate programs in engineering fields through the increase in the number of faculty members holding higher degree, and to enhance the quality of research activities. Some Member Institutes formulate the policy of upgrading the quality of engineering education to international standard. This need of globalization is also consistent with the Project Objective. Therefore, the Project meets the needs of the Member Institutes, which intended to enhance the educational and research quality, and establishing the networks with foreign universities such as other ASEAN countries and Japan.
Is the Project relevant to the Japanese policy on ASEAN Countries?	Is the Project relevant to the revised ODA charter, the Mid-term Policy on ODA and policies to support for higher education?	<ul style="list-style-type: none"> Consistency with the revised ODA charter, the Mid-term Policy on ODA and policies to support for higher education 	<ul style="list-style-type: none"> The revised ODA Charter specifies the ASEAN region as the priority region of Japan's ODA. Japan has kept the economic relation with Asian countries, and promotes the cooperation with these countries. The Mid-term Policy on ODA addresses the sustainable growth as one of the priority issues, emphasizing to promote the assistance of human resources development and states that support will be provided to improve basic education, higher education and vocational training in developing countries, and to assist the development of human resources in a wide range of fields by, among other things, providing scholarships to study at higher education institutions in Japan. In this connection, the Project is consistent with this policy.

Evaluation Questions		Basis for Judgment	Evaluation
Five Evaluation Criteria	Sub-questions		
	Is the Project relevant to the Japan's assistance /cooperation policy for ASEAN countries?	<ul style="list-style-type: none"> Consistency with the Japan's cooperation policy for ASEAN countries 	<ul style="list-style-type: none"> The Project is consistent with the Japan's policy on promotion of science and technology strategy and prioritizing Asian region. The cooperation from JSUs toward the Project is likely to be promoted based on these policies. ODA Charter also states the policy that ODA will be utilized to forge stronger relations with ASEAN countries and to rectify disparities in the region. The Project adopts the scheme of sending faculty members at the Sending Institutes to the Host Institutes, where they acquires the higher degree. This scheme is a tool of strengthening their relationship and reducing the gaps of educational level among the countries; therefore the Project is also in line with the above-mentioned policy and promotion of south-south cooperation addressed by Japan's ODA.
Relevance of project design	Was it adequate to implement as the ASEAN regional project?	<ul style="list-style-type: none"> Was it possible as bilateral projects? 	<ul style="list-style-type: none"> The Project aims at not only human resources development but also contribution to the ASEAN regional integration and upgrading of country's capacity through the establishment of engineering human linkage among ASEAN countries. Therefore, it was appropriate that the Project was formulated as regional project. Especially, the Project expects that the human network will spontaneously expand to other stakeholders, as well as kept among students or students and advisors. In this connection, it was relevant that the multiple countries were involved in the Project.
Effectiveness			
Possibility of achieving Project Purpose	Is it expected that the Project Purpose will be attained until the end of the Project?	<ul style="list-style-type: none"> Verification of achievement level of the Project Purpose 	<ul style="list-style-type: none"> Overall, the Project is likely to achieve its objective of "Educational and research capacities of MIs are improved through the active exchange of resources among them and the collaborative relationship with JSUC" by the completion of the Project. Refer to the "Achievement" of Evaluation Grid for details. On the other hand, there are still some issues to be addressed: to need further enhancement of educational and research capacities in CLMV countries, to upgrade the established human network to solid and sustainable one, and to share the resources among MIs, including human and facility resources.
Casual linkage	Have the outputs of the Project been contributing to achievement of the Project Purpose? Are there any external factors affecting achievement of the Project Purpose?	<ul style="list-style-type: none"> Confirmation of the PDM logic Factorial contribution of the Net-working 	<ul style="list-style-type: none"> According to the answers of questionnaires to MIs and JSUs, it was confirmed that all outputs were essential approaches to achieve the project objective. On the other hand, there was an opinion that provision of equipment for SIs to upgrade their laboratory would also effective approach in next phase, since only His receives this benefit in phase 1. <p><Other factors contributing to the achievement of Project Objective></p> <ul style="list-style-type: none"> Some MIs already agreed MOU with foreign universities or institutes, and have received the visiting professors or pursued collaborative researches. These activates other than the Project activates may contribute to achieving the Project Activities to some extent. Some countries such as Vietnam, Indonesia and Thailand, the governments support the higher education by providing scholarship for their faculty members or students.

Evaluation Questions		Basis for Judgment	Evaluation
Five Evaluation Criteria	Sub-questions		
Efficiency	Achievement of outputs	<ul style="list-style-type: none"> Emergence of the important assumptions and influence to the Project 	<ul style="list-style-type: none"> Most graduates of AUN/SEED-Net Project went back to their universities and teach undergraduate or graduate programs, or proceed to PhD programs after acquiring Master degree. In this sense, the turnover ratio of AUN/SEED-Net graduates would be very low. Based on the interview with current students, most of them intended to return their home universities and teach as lectures or faculty staff.
	Casual linkage	<ul style="list-style-type: none"> Key factors, which can be important assumptions affecting attainment of outputs or the Project Purpose 	<p><Promoting factors></p> <ul style="list-style-type: none"> Strong commitment of MI managerial level Support and cooperation from JSUs and their strong commitment
Appropriateness of the inputs	Achievement of outputs	<ul style="list-style-type: none"> Verification of the outputs achieved 	<ul style="list-style-type: none"> While all Outputs show certain achievements to date, there are still strong needs of capacity enhancement of MIs and enhancement of graduate program at HIs. Moreover, the groundwork of the human linkage and management system of SEED-Net were laid in the project period; however, those have not reached the stage of sustaining them by MIs yet. Refer to the Achievement of Evaluation Grid for details.
	Casual linkage	<ul style="list-style-type: none"> Confirmation of the activity completion and related logics Emergence of the important assumptions shown in the left column 	<ul style="list-style-type: none"> Based on the answers of the questionnaire to MIs, most of them found that all activities were sufficient to achieve the outputs of the Project. While MIs were satisfied with all activities, there are some comments to improve the activities such as FWS, Sandwich PhD, and the duration of PhD program. Overall, the commitment of MIs toward the Project was very high and the participation level of some MIs was gradually increased in accordance with the project implementation. Budget for the Project was allocated appropriately through JICA. Although the budget allocation to the Project from MIs depends on MIs capacities, the cost sharing by MIs has been increasing as the project is implemented. Therefore, all external factors are satisfied to achieve the Project Objective.
Appropriateness of the inputs	Were the activities for producing outputs satisfactory?	<ul style="list-style-type: none"> Comparison of plan and actual activities Analysis of relation between the inputs and the outputs 	<ul style="list-style-type: none"> Overall, the quality, quantity and timing of project inputs were appropriate. AUN/SEED-Net Secretariat employs Thai staff to support Japanese experts for administrative works and project management. This increases the management efficiency of the Project. However, the procurement of equipment was delayed in some cases, which adversely affected the progress of research activities at MIs. There is a suggestion to make procurement system more efficient. Moreover, MIs wishes that faculty members of JSUs could visit MIs in longer
	Are there any factors affecting achievement of the Project Purpose as the important assumptions such as "The academic staff obtaining their post graduate degrees will keep their academic carrier at the MIs" and "The labor market for human resource with higher education will not change drastically"?	<ul style="list-style-type: none"> Were quality, quantity and timing of the inputs were appropriate? (Equipment, MI's human resources, assignment of Thailand staff, JICA experts, research fund, facilities) 	

Evaluation Questions		Basis for Judgment	Evaluation
Five Evaluation Criteria	Sub-questions		
	Was investment of Japan-ASEAN fund appropriate?	–	<p>period, such as 3-4 weeks, since their visit is very short and sufficient time to discuss researches are not secured.</p> <ul style="list-style-type: none"> • The mid-term evaluation carried out this evaluation already.
Factors affecting efficiency as driving forces and/or obstacles	Are there any factors affecting efficiency of the project implementation?	<ul style="list-style-type: none"> • Is there any sacrifice due to the ASEAN regional project for efficiency? 	<ul style="list-style-type: none"> • The Project is the regional cooperation and targets many institutions, but the project has been managed very efficiently because of the high management capacity of AUN/SEED-Net Secretariat, and assigning the coordinators at some MIs who have sufficient experience of managing foreign exchange programs and coordination with other institutions.
Impact			
Possibility of achieving the Overall Goal	Is the achievement of overall goal highly possible? Is it expected to result from accomplishment of the project purpose?	<ul style="list-style-type: none"> • Confirmation of achievement of the Project Objectives • Confirmation of the PDM logic • 	<ul style="list-style-type: none"> • There seems to be many steps until the Overall Goal of “Economic sustainability is enhanced through engineering human resource development as to reinvigorate the industrial sector of ASEAN countries” is achieved. Therefore, it may be still premature to evaluate the achievement level of Overall Goal at this moment. • However, as stated in Achievement of Evaluation Grid, “Increase in the number of joint researches among MIs, JSUs and private sectors,” “Increase in the number of joint activities such as MOU between MIs and JSUs” are likely to be realized since some MIs already pursue such activities by themselves. • JSUs pointed out that it is necessary to continue the human resources development by sustaining the regional network at the current level or even at higher level in order to achieve the Overall Goal. They also mentioned that the following issues should be addressed to enhance the educational quality: upgrade of laboratory facilities, support to the SEED-Net graduates for research activities financially and technically, formulation of interdisciplinary fields, and linkage with industrial sectors. • One of the external factors fulfilling the Overall Goal is “The governments of ASEAN countries will support an academic network for collaborative research activities.” To date, the governments of ASEAN countries express positive opinions on regional cooperation of this Project; therefore, this external factor is currently satisfied. • Moreover, the governments of ASEAN have not introduced any restriction of knowledge exchange at the academic and industrial level. Thus, this external factor is also satisfied. • As mentioned above, it is essential to sustain the regional network established by the Project and promote further collaborative research through established network. To accomplish this, external funds need to be secured. • Before the Project was commenced, faculty staff and students were not familiar with ASEAN countries although they were geographically very close. Establishing the human linkage among ASEAN countries through the project activities, the mutual understanding and cultural exchange have been dramatically promoted. This will also lead to promoting the common understanding and mutual trust among them and contribute to the future ASEAN regional integration. • An MI is now under discussion to launch the distance learning and develop the curriculum in cooperation with a JSU.
Casual linkage	Are there any factors to affect achieving overall goal? What are those?	<ul style="list-style-type: none"> • Emergence of the important assumptions affecting to the Project Objective level • Other analysis on various factors 	
Other impacts (Spillover effects)	Are there any positive and/or negative impacts generated out of project framework? Is there any impact due to the ASEAN regional project?	–	

Evaluation Questions		Basis for Judgment	Evaluation
Five Evaluation Criteria	Sub-questions		
			<ul style="list-style-type: none"> • Some ASEAN governments started to provide scholarship for postgraduate programs aiming to enhance the capacity of their faculty staff. • The management and administrative sides at MIs started to acquire the know-how of managing foreign students through the project activities. There is also a case that an MI introduced research activities in scholarship programs or the administrative staff started to learn English to communicate foreign students smoothly. Thus, some MIs utilize the knowledge and skills acquired through AUN/SEED-Net in their own management and administrative works. • While a HI is hosting one particular field in AUN/SEED-Net Project, this stimulates the entire university and research activities are much activated. • After Tsunami occurred in Asia AUN/SEED-Net urgently organized the workshops on natural disaster. In addition, after the earthquake occurred in Jogjakarta, AUN/SEED-Net organized FWS and international conference. In those meetings, the information and ideas were shared among MIs and JSUs, and possible countermeasures were discussed. The thesis on earthquake from the viewpoint of geology was produced and this was awarded by a British academic society. These actions brought the awareness of importance of pursuing the interdisciplinary fields to MIs as well. • Later, the linkage among MI and between MIs and JSUs were strengthened regarding the disaster prevention. For instance, Chulalongkorn Univ. launched the human resources development program on earthquakes, and Institute Technology Bandung, Universitas Gadjah Mada, Chulalongkorn Univ. started to participate in the activity of Tokyo Institute of Technology's COE program on urban disaster prevention. Tokyo Institute of Technology also launched the distance learning on disaster prevention with Chulalongkorn Univ. • AUN/SEED-Net graduates formulated a team of collaborative research on common issues in ASEAN countries. For instance, a graduate acquired the degree of electrical power engineering at Chulalongkorn Univ. initiated the collaborative research at his university, involving the advisors of Universitas Gadjah Mada where this student graduated. • AUN/SEED-Net graduated students started to launch the Host Institutes-wise website for graduates at their own initiatives. On the website, the coordinators of graduated institutes are also assigned respectively.
Sustainability	<p>Are the effects of the Project by achieving the project objective expected to be sustained after the end of the Project?</p>	<ul style="list-style-type: none"> • What kinds of measures are taken for sustainability? • How were results of these? 	<ul style="list-style-type: none"> • It is concluded that educational and research capacities of MIs are improved by implementing the Project. AUN/SEED-Net graduates utilize the knowledge, experience and skills acquired through the post graduate program. This effect will be sustained at each MI. • On the other hand, some MIs still need to improve the educational and research capacities more, and human network formulated by the Project also need to become permanent network by introducing specific framework of network.

Evaluation Questions		Basis for Judgment	Evaluation
Five Evaluation Criteria	Sub-questions		
	Is there any factor to affect sustainability of the project effects? (What kinds of abilities, activities and/or assistances bring continuous benefit after the project completion? → What points will be critical in Phase 2?)	—	<ul style="list-style-type: none"> The answers of questionnaire to MIs and JSUs revealed that most influential items to the project sustainability and effects were funds for scholarships, management capacity of AUN/SEED-Net Secretariat, capacity of MIs, collaborative research activities, and support from JSUs. Some MIs think that it is feasible to sustain short-term visits among MIs and FWS by MIs themselves, if MIs share those costs. However, the situation depends on the countries and MIs.
Political sustainability	Will policy supports (Policy of Ministry of Education, Policy of MIs) be able to be obtained in the future?	<ul style="list-style-type: none"> Policy of the Ministry of Education Policy of MIs 	<ul style="list-style-type: none"> It was confirmed that the ministry in charge of higher education of each member countries and MIs management level would support the Project by the interview with them.
Institutional sustainability	Will the system of AUN/SEED-Net developed by the Project be sustained after the project is completed?	<ul style="list-style-type: none"> Whether the function of SEED/Net will be sustainable or developed more by MIs Whether the function of AUN/SEED-Net Secretariat will be maintain by MIs 	<ul style="list-style-type: none"> It can be concluded that the Project was successful to initiate and develop the human network among MIs and JSUs. However, further external assistance is still required to sustain this established network by MIs themselves and strengthen it to the lasting network. In addition, some functions or roles of AUN/SEED-Net Secretariat should be transferred to MIs gradually, in order for MIs to carry out AUN/SEED-Net by themselves for the future.
	Will the equipment procured by the project be maintained?	<ul style="list-style-type: none"> Will budget, human resources be allocated properly? Will maintenance system be established? 	<ul style="list-style-type: none"> To date, the equipment procured through the Project has kept in good condition. Since some MIs have difficulties to secure the maintenance budget for laboratory equipment to some extent, the maintenance conditions of procured equipment may need to be monitored carefully.
Technical sustainability	Will the skills or know-how be sustained after the project is completed?	<ul style="list-style-type: none"> Whether educational and research quality will be improved by MIs Whether the human network will be sustained by MIs 	<ul style="list-style-type: none"> It is confirmed that the basic framework of engineering human resources development system was established through promoting postgraduate programs in the Project. However, MIs still need the support or ideas from Japanese side for further enhancement of educational and research quality, after the cooperation is completed. Foundation of human network is also successfully established by the Project and it started to work effectively. On the other hand, the further measures should be taken to make this network lasting. To undertake this task, inputs such as knowledge, experience, and support from AUN/SEED-Net Secretariat are still essential for MIs.

Evaluation Questions		Basis for Judgment	Evaluation
Five Evaluation Criteria	Sub-questions		
Financial sustainability	Will some budget for carrying on the activities employed by the Project be secured by MIs?	<ul style="list-style-type: none"> • Current amount and percentage of cost-sharing of MIs • Commitment of MIs 	<ul style="list-style-type: none"> • The amount and items of cost sharing for the Project have been increased since the Project was commenced. To date, the following items were shared by eleven MIs: the tuition fees for masters and PhD programs, waiver of extension fees, publication cost, and so forth. The total amounted to USD1,418, 506, accounting for approximately 7% of total project cost. Additionally, some MIs cover the cost for maintenance fee of laboratory facilities or partial cost of research activates. • Many MIs already committed to sharing some costs for tuition fees, partial support of travel expenses for the future activities. • Although MIs committed the partnership to AUN/SEED-Net, it is still difficult to sustain the current activity level without any external assistance. Especially, the funds supporting AUN/SEED-Net activities are vital factor. Therefore, AUN/SEED-Net needs to make efforts to acquire external funds such as the competitive funds or ASEAN Solidarity Funds. Alternatively, AUN/SEED-Net needs to adjust the framework which seeks for more cost-effectiveness than the current framework from the viewpoint of selection and concentration.

List of Japanese Experts and Thai personnel of the Secretariat

1. Japanese Experts

	Title	Name	Duration
1	Program Manger	Mr. Kiyoshi Isaka	Dec.10, 2001-Aug. 22, 2003*
2	Chief Advisor	Prof.Dr. Kazuo Tsutsumi	Aug. 2003~Present (Dispatch by short term basis: 44 times/499 days till May 2007)
3	Academic Advisor	Dr. Okitsugu Fujiwara	Sep.19, 2002~Sep.18, 2004*
4	Academic Advisor	Dr. Manabu Tsunoda	Nov. 2004~Present (Dispatch by short term basis: 17 times/351 days till May 2007)
5	Coordinator	Mr. Hiroshi Iwadate	Dec. 4, 2002 – Mar. 10, 2008*
6	Program Coordinator	Mr. Nobuyuki Konishi	Mar.2001 – May.23, 2003*
7	Coordinator	Mr. Tsugihiko Shimura	Sep.27, 2002 – Sep.26, 2004*
8	Program Coordinator	Mr. Shinichi Ishihara	May 12, 2003 – Sep. 11. 2005
9	Coordinator	Mr. Masanori Nakamura	Sep. 17, 2004 – Mar. 16, 2005
10	Coordinator	Mr. Sakae Yamada	Apr. 28, 2005 – Mar. 10, 2008
11	Program Coordinator	Mr. Naoki Umemiya	Aug.28, 2005 – Aug.27, 2007

* Including the preparation period from April 2001 to March 2003.

2. Thai Personnel

	Title	Name	Duration
1	Executive Director	Prof. Dr. Panitan Lukkunaprasit	Nov.29, 2000 - July 4, 2005*
2	Executive Director	Assoc.Prof. Krisada Visavateeranon	July4,2005 to date
3	Assis. Executive Director	Assoc.Prof. Dr. Wanchai Teparaksa	Aug.15,2003 - July 6, 2004
4	Assis. Executive Director	Assoc.Prof. Dr. Somchai Jitapunkul	Oct.1,2004 - May31, 2005
5	Assis. Executive Director	Assistant Prof. Dr. Tirawat Boonyatee	Oct.1, 2005 to date
6	Program Officer	Ms. Siriporn Rungrueangtanya	Jul. 1, 2002 to date
7	Program Officer	Ms. Meena Thamchaipenet	Apr. 1, 2003 - Feb. 28, 2006
8	Program Officer	Ms. Sidhara Nualyai Mondrup	Mar.3, 2003 - Sep.3,2003
9	Program Officer	Ms. Sirimuk Jinanarong	Apr.21, 2003 - Jan.9,2004
10	Program Officer	Ms.Kalayaporn Teungfung	Mar.3, 2003 to date
11	Program Officer	Ms Siriporn Laosang	Aug. 1, 2003 to date
12	Program Officer	Ms. Parichart Thammajinda	Jan. 5, 2004 to date
13	Program Officer	Ms. Rungchalai Punninda	Nov. 16, 2004 to date
13	Program Officer	Ms. Vantanee Arunotai	Mar. 3, 2006 to date
14	Program Officer	Ms. Siriporn Settakanpitak	Jun. 5, 2006 to date
15	Secretary	Ms. Pannipa Chinavanichkit	Mar. 24, 2003 to date
16	Secretary	Ms. Wipawan Ganlanan	Jun.1, 2004 to date

* Including the preparation period from April 2001 to March 2003.

Annex 6: 国内支援大学教員派遣実績

Japanese Professors Dispatch Program

Objectives

- (1) To carryout joint thesis research supervision of AUN/SEED-Net students between Host Institution and Japanese Supporting Universities under Collaborative Research Program scheme.
- (2) To ensure high quality of master's and doctoral theses (which would lead to reputable international refereed journal publication) and to ensure the completion of the graduate degree within reasonable duration (two years for master's degree and three years for doctoral degree).
- (3) To enhance the research collaboration between Host Institution and Japanese Supporting Universities
- (4) To give special lecture(s) or seminar(s) related to his/her recent research results to faculty members and graduate students of the Member Institutions and beyond.

Japanese Professors Dispatch Program (JFY 2003 - 2006)

No	JFY	No	Japanese Professor	JSU	Field	Period	Duration	MI	Contact Person
1	2003	1	Prof. Dr. KAGAYA Seiichi	Hokkaido	CE	9 Nov 03 - 18 Nov 03	10 days	CU	Dr. Saksith Chalermpong
2	2003	2	Assoc. Prof. Dr. NAKATSUJI Takashi	Hokkaido	CE	11 Nov 03 - 20 Nov 03	10 days	CU	Assoc. Prof. Dr. Sorawit Naupiti
3	2003	3	Assoc. Prof. Dr. SHIBUYA Satoru	Hokkaido	CE	7 Mar 04 - 9 Mar 04	3 days	CU	Assoc. Prof. Dr. Wanchai Teeparaksa
4	2003	4	Assoc. Prof. Dr. TAKANO Shin-ei	Hokkaido	CE	7 Mar 04 - 9 Mar 04	3 days	CU	Dr. Veerasak Likhitrungsilp
5	2003	5	Prof. Dr. UEDA Tamon	Hokkaido	CE	8 Mar 04 - 9 Mar 04	2 days	CU	Assoc. Prof. Dr. Boonchai Stitmanthum
6	2003	6	Prof. Dr. HINODE Hirofumi	TITech	ChE	24 Nov 03 - 4 Dec 03	11 days	DLSU	Assoc. Prof. Dr. Luis F. Razon
7	2003	7	Assoc. Prof. Dr. AIDA Takashi	TITech	ChE	24 Nov 03 - 29 Nov 03	6 days	DLSU	Assoc. Prof. Dr. Luis F. Razon
8	2003	8	Assoc. Prof. Dr. MORIKAWA Hiroyuki	U of Tokyo	EEE	24 Feb 04 - 27 Feb 04	4 days	CU	Assoc. Prof. Dr. Watit Benjapolakul
9	2003	9	Prof. Dr. WATANABE Koichiro	Kyushu	GeoE	10 Sep 03 - 24 Sep 03	15 days	UGM	Mr. Lucas Donny Setjadji
10	2003	10	Prof. Dr. UCHINO Kenichi	Kyushu	GeoE	17 Sep 03 - 19 Sep 03	3 days	UGM	Assoc. Prof. Dr. Dwikorita Karnawati
11	2003	11	Prof. Dr. EHARA Sachio	Kyushu	GeoE	17 Sep 03 - 24 Sep 03	8 days	UGM	Ms. Pri Utami
12	2003	12	Prof. Dr. IMAI Akira	Kyushu	GeoE	10 Sep 03 - 24 Sep 03	15 days	UGM	Assoc. Prof. Dr. Dwikorita Karnawati
13	2003	13	Prof. Dr. AOKI Kenji	Kyoto	GeoE	14 Nov 03 - 21 Nov 03	8 days	UGM	Assoc. Prof. Dr. Dwikorita Karnawati
14	2003	14	Prof. Dr. MATSUURA Takenobu	Tokai	ICT	24 Feb 04 - 23 Mar 04	28 days	KMITL	Assoc. Prof. Dr. Kraisin Songwatana
15	2003	15	Prof. Dr. WAKABAYASHI Toshio	Tokai	ICT	20 Dec 03 - 24 Dec 03	4 days	KMITL	Assoc. Prof. Dr. Jongkol Ngamwiwit
16	2003	16	Prof. Dr. MITSUI Kimiyuki	Keio	ManuE	20 Jul 03 - 22 Jul 03	3 days	UM	Prof. Dr. Zahari Taha
17	2003	17	Prof. Dr. ARIGA Tadashi	Tokai	MatE	28 Jan 04 - 4 Feb 04	8 days	USM	Assoc. Prof. Dr. Luay Bakir Hussain
18	2003	18	Prof. Dr. ARIGA Tadashi	Tokai	MatE	18 Mar 04 - 20 Mar 04	3 days	USM	Assoc. Prof. Dr. Luay Bakir Hussain
19	2003	19	Assoc. Prof. Dr. OBI Shinnosuke	Keio	ME/AE	24 Aug 03 - 28 Aug 03	5 days	ITB (INA)	Assoc. Prof. Dr. Ichsan Setya Putra
20	2004	1	Prof. Dr. MITO Yoshitada	Kyoto	GeoE	12 Dec 04 - 23 Dec 04	12 days	UGM	Assoc. Prof. Dr. Dwikorita Karnawati
21	2004	2	Prof. Dr. EHARA Sachio	Kyushu	GeoE	31 Jul 04 - 7 Aug 04	8 days	UGM	Dr. I Wayan Warmada
22	2004	3	Prof. Dr. ITOI Ryuichi	Kyushu	GeoE	31 Jul 04 - 7 Aug 04	8 days	UGM	Dr. I Wayan Warmada
23	2004	4	Prof. Dr. WATANABE Koichiro	Kyushu	GeoE	31 Jul 04 - 7 Aug 04	8 days	UGM	Dr. I Wayan Warmada
24	2004	5	Assoc. Prof. Dr. AIDA Takash	TITech	ChE	4 Jan 05 - 9 Jan 05	6 days	DLSU	Assoc. Prof. Dr. Luis F. Razon
25	2004	6	Assoc. Prof. Dr. KUBOUCHI Masatoshi	TITech	ChE	4 Jan 05 - 9 Jan 05	6 days	DLSU	Prof. Dr. Susan A. Roces
26	2004	7	Prof. Dr. HINODE Hirofumi	TITech	ChE	3 Oct 04 - 9 Oct 04	7 days	DLSU	Assoc. Prof. Dr. Leonila Cobacha Abella
27	2004	8	Prof. Dr. NIYAMA Hiroo	TITech	ChE	3 Oct 04 - 9 Oct 04	7 days	DLSU	Prof. Dr. Susan M. Gallardo
28	2004	9	Prof. Dr. KAWASAKI Junjiro	TITech	ChE	5 Dec 04 - 11 Dec 04	12 days	DLSU	Assoc. Prof. Dr. Noel Cabigon
29	2004	10	Prof. Dr. MITSUI Kimiyuki	Keio	ManuE	6 Sep 04 - 10 Sep 04	5 days	UM	Dr. Mohd Hamdi Abdul Shukor
30	2004	11	Prof. Dr. ARIGA Tadashi	Tokai	ManuE	6 Sep 04 - 10 Sep 04	5 days	UM	Dr. Mohd Hamdi Abdul Shukor
31	2004	12	Prof. Dr. UEDA Tamon	Hokkaido	CE	13 Mar 05 - 17 Mar 05	5 days	CU	Assoc. Prof. Dr. Boonchai Stitmanthum
32	2004	13	Prof. Dr. MIYANAGA Yoshikazu	Hokkaido	ICT	8 Aug 04 - 14 Aug 04	7 days	KMITL	Assoc. Prof. Dr. Kraisin Songwatana
33	2004	14	Prof. Dr. MATSUURA Takenobu	Tokai	ICT	10 Mar 05 - 23 Mar 05	14 days	KMITL	Assoc. Prof. Dr. Boontee Kruatrachue
34	2004	15	Assoc. Prof. Dr. KOMINE Noriyuki	Tokai	ICT	6 Sep 04 - 17 Sep 04	12 days	KMITL	Assoc. Prof. Dr. Jongkol Ngamwiwit
35	2004	16	Assoc. Prof. Dr. TODA Hiroyuki	TUT	MatE	2 Mar 05 - 5 Mar 05	4 days	USM	Assoc. Prof. Dr. Ahmad Fauzi Mohd Noor
36	2004	17	Prof. Dr. MARUYAMA Toshio	TITech	MatE	15 Mar 05 - 18 Mar 05	4 days	USM	Assoc. Prof. Dr. Rizal Astrawinata
37	2004	18	Prof. Dr. ARIGA Tadashi	Tokai	MatE	24 Feb 05 - 27 Feb 05	4 days	USM	Assoc. Prof. Dr. Luay Bakir Hussain
38	2004	19	Prof. Dr. OKUMA Masaaki	TITech	ME/AE	5 Dec 04 - 11 Dec 04	7 days	ITB (INA)	Prof. Dr. Komang Bagiasna
39	2004	20	Prof. Dr. HOUJOH Haruo	TITech	ME/AE	5 Mar 05 - 17 Mar 05	13 days	ITB (INA)	Prof. Dr. Komang Bagiasna
40	2004	21	Prof. Dr. HOMMA Hiroomi	TUT	ME/AE	6 Oct 04 - 23 Oct 04	18 days	ITB (INA)	Assoc. Prof. Dr. Ichsan Setya Putra
41	2004	22	Assoc. Prof. Dr. OBI Shinnosuke	Keio	ME/AE	10 Oct 04 - 15 Oct 04	6 days	ITB (INA)	Dr. Lavi R. Zuhail

Japanese Professors Dispatch Program (JFY 2003 - 2006)

No	JFY	No	Japanese Professor	JSU	Field	Period	Duration	MI	Contact Person
42	2005	1	Assoc. Prof. Dr. SHIBUYA Satoru	Kobe	CE	28 Apr 05 - 3 May 05	6 days	CU	Assoc. Prof. Dr. Wanchai Teparaksa
43	2005	2	Prof. Dr. NAWA Toyoharu	Hokkaido	CE	11 Jan 06 - 18 Jan 06	8 days	CU	Assoc. Prof. Dr. Boonchai Stitmannathum
44	2005	3	Assoc. Prof. Dr. NAKATSUJI Takashi	Hokkaido	CE	20 Nov 05 - 26 Nov 05	7 days	CU	Dr. Kasem Choocharukul
45	2005	4	Prof. Dr. KAWASAKI Junjiro	TITech	ChE	31 Jul 05 - 7 Aug 05	8 days	DLSU	Prof. Dr. Pag-asa D. Gaspillo
46	2005	5	Prof. Dr. NIYAMA Hiroo	TITech	ChE	19 Jun 05 - 26 Jun 05	8 days	DLSU	Prof. Dr. Susan M. Gallardo
47	2005	6	Assoc. Prof. Dr. AIDA Takashi	TITech	ChE	7 Aug 05 - 13 Aug 05	7 days	DLSU	Assoc. Prof. Dr. Luis F. Razon
48	2005	7	Assoc. Prof. Dr. KUBOUCHI Masatoshi	TITech	ChE	21 Nov 05 - 26 Nov 05	6 days	DLSU	Prof. Dr. Susan A. Roces
49	2005	8	Prof. Dr. UNNO Hajime	TITech	ChE	15 Mar 06 - 18 Mar 06	4 days	DLSU	Assoc. Prof. Dr. Florinda Bacani
50	2005	9	Prof. Dr. ODA Shunri	TITech	EEE	2 Mar 06 - 7 Mar 06	6 days	CU	Assoc. Prof. Dr. Songphol Kanjanachuchai
51	2005	10	Prof. Dr. MITO Yoshitada	Kyushu	GeoE	23 Oct 05 - 30 Oct 05	8 days	UGM	Dr. Agung Harijoko
52	2005	11	Prof. Dr. WATANABE Koichiro	Kyushu	GeoE	12 Jan 07 - 17 Jan 07	6 days	UGM	Dr. Agung Harijoko
53	2005	12	Prof. Dr. AOKI Kenji	Kyoto	GeoE	25 Oct 05 - 28 Oct 05	4 days	UGM	Assoc. Prof. Dr. Dwikorita Karnawati
54	2005	13	Prof. Dr. MATSUURA Takenobu	Tokai	ICT	30 Oct 05 - 5 Nov 05	7 days	KMITL	Assoc. Prof. Dr. Boontee Kruatrachue
55	2005	14	Prof. Dr. TSUJI Hidekazu	Tokai	ICT	25 Dec 05 - 31 Dec 05	7 days	KMITL	Dr. Visit Hirankitti
56	2005	15	Prof. Dr. TOMIYAMA Shigenori	Tokai	ICT	29 Aug 05 - 3 Sep 05	6 days	KMITL	Asst. Prof. Dr. Surin Kittitornkun
57	2005	16	Assoc. Prof. Dr. KOMINE Noriyuki	Tokai	ICT	28 Aug 05 - 3 Sep 05	7 days	KMITL	Assoc. Prof. Dr. Pitikhate Sooraksa
58	2005	17	Prof. Dr. SUGA Yasuo	Keio	ManuE	6 Sep 05 - 10 Sep 05	5 days	UM	Prof. Dr. Zahari Taha
59	2005	18	Assoc. Prof. Dr. KURABAYASHI Daisuke	TITech	ManuE	6 Sep 05 - 10 Sep 05	5 days	UM	Prof. Dr. Zahari Taha
60	2005	19	Prof. Dr. ARIGA Tadashi	Tokai	ManuE	7 Sep 05 - 10 Sep 05	4 days	UM	Ms. Bushroa Abdul Razak
61	2005	20	Prof. Dr. MITSUI Kimiyuki	Keio	ManuE	7 Sep 05 - 10 Sep 05	4 days	UM	Dr. Mohd Hamdi Abdul Shukor
62	2005	21	Prof. Dr. KAWASHITA Masakazu	Kyoto	MatE	21 Nov 05 - 26 Nov 05	6 days	USM	Prof. Dr. Radzali Othman
63	2005	22	Prof. Dr. UMEMOTO Minoru	TUT	MatE	21 Aug 05 - 26 Aug 05	6 days	USM	Prof. Dr. Radzali Othman
64	2005	23	Prof. Dr. ARIGA Tadashi	Tokai	MatE	10 Sep 05 - 14 Sep 05	5 days	USM	Assoc. Prof. Dr. Luay Bakir Hussain
65	2005	24	Prof. Dr. MATSUSHITA Junichi	Tokai	MatE	27 Mar 06 - 30 Mar 06	4 days	USM	Assoc. Prof. Dr. Luay Bakir Hussain
66	2005	25	Prof. Dr. ARIGA Tadashi	Tokai	MatE	15 Mar 06 - 17 Mar 06	3 days	USM	Assoc. Prof. Dr. Luay Bakir Hussain
67	2005	26	Prof. Dr. SATO Haruki	Keio	ME/AE	14 Sep 05 - 22 Sep 05	9 days	ITB (INA)	Dr. I Made Astina
68	2005	27	Prof. Dr. KUDO Kazuhiko	Hokkaido	ME/AE	7 Sep 05 - 11 Sep 05	5 days	ITB (INA)	Assoc. Prof. Dr. Abdurrachim Halim
69	2005	28	Prof. Dr. OBI Shinnosuke	Keio	ME/AE	7 Sep 05 - 10 Sep 05	4 days	ITB (INA)	Dr. Lavi R. Zuhal
70	2006	1	Prof. Dr. MITACHI Toshiyuki	Hokkaido	CE	22 May 06 - 26 May 06	5 days	CU	Asst. Prof. Dr. Tirawat Boonyatee
71	2006	2	Assoc. Prof. Dr. AIDA Takashi	TITech	ChE	4 Mar 07 - 9 Mar 07	6 days	DLSU	Assoc. Prof. Dr. Luis F. Razon
72	2006	3	Prof. Dr. MIYANAGA Yoshikazu	Hokkaido	EEE	19 Nov 06 - 25 Nov 06	7 days	CU	Asst. Prof. Dr. Supavadee Aramvith
73	2006	4	Prof. Dr. ARAKAWA Yasuhiko	U of Tokyo	EEE	25 Dec 06 - 27 Dec 06	3 days	CU	Dr. Chanin Wissawinthanon
74	2006	5	Prof. Dr. ODA Shunri	TITech	EEE	7 Mar 07 - 9 Mar 07	3 days	CU	Assoc. Prof. Dr. Songphol Kanjanachuchai
75	2006	6	Prof. Dr. IKEDA Shunsuke	TITech	EnvE	14 Jun 06 - 19 Jun 06	6 days	UP / NUOL	Prof. Dr. Leonardo Liongson
76	2006	7	Assoc. Prof. Dr. KUBOUCHI Masatoshi	TITech	EnvE	16 Jan 07 - 19 Jan 07	4 days	UP	Assoc. Prof. Dr. Jose Munoz
77	2006	8	Prof. Dr. NAKASAKI Kiyohiko	(Shizuoka)	EnvE	4 Mar 07 - 10 Mar 07	7 days	UP	Asst. Prof. Dr. Analiza Rollon
78	2006	9	Prof. Dr. KAWASAKI Junjiro	TITech	EnvE	4 Mar 07 - 12 Mar 07	9 days	UP	Prof. Dr. Genandrialine L. Peralta
79	2006	10	Prof. Dr. HINODE Hirofumi	TITech	EnvE	4 Mar 07 - 12 Mar 07	9 days	UP	Prof. Dr. Genandrialine L. Peralta
80	2006	11	Prof. Dr. MATSUURA Takenobu	Tokai	ICT	25 Jun 06 - 4 Jul 06	10 days	KMITL	Assoc. Prof. Dr. Boontee Kruatrachue
81	2006	12	Prof. Dr. SUGA Yasuo	Keio	ManuE	28 Feb 07 - 3 Mar 07	4 days	UM	Prof. Dr. Zahari Taha
82	2006	13	Prof. Dr. SAWADA Tatsuo	Keio	ManuE	28 Feb 07 - 6 Mar 07	7 days	UM	Prof. Dr. Zahari Taha
83	2006	14	Prof. Dr. ARIGA Tadashi	Tokai	ManuE	14 Jan 07 - 21 Jan 07	8 days	UM / NUOL	Dr. Mohd Hamdi Abdul Shukor / Mr. Lamphanh Sisamouth
84	2006	15	Assoc. Prof. Dr. SAKAI Etsuo	TITech	MatE	16 Jul 06 - 22 Jul 06	7 days	USM	Assoc. Prof. Dr. Khairun A. M. Azizli
85	2006	16	Prof. Dr. ITOH Mitsuru	TUT	MatE	10 Feb 07 - 14 Feb 07	5 days	USM	Assoc. Prof. Dr. Ahmad Fauzi Mohd Noor

Annex 6: 国内支援大学教員派遣実績

Japanese Professors dispatched for AUN/SEED-Net Field-wise Seminars (JFY 2003-2006)
by FWS

JFY	No	Field	Title	Venue	Day 1	Day 2	J2 Prof. 1	J2 Prof. 2	J2 Prof. 3	J2 Prof. 4	J2 Prof. 5	J2 Prof. 6	JSU 6
2002	1	EEE	Quantum Structures for Nanoelectronics	CU	7-Jan-03	8-Jan-03							
2002	2	CHE/ENVE	Regional Network in Chemical Education and Research	DLSU/UP	4-Mar-03	5-Mar-03							
2002	3	ME/AE	Impact Mechanics and Vibration Based Failure Detection	ITB	10-Mar-03	11-Mar-03							
2002	4	ICT	Recent Topics on Information Technologies	KMITL	13-Mar-03	14-Mar-03							
2002	5	ManUE	Collaborative Research in Manufacturing Engineering	UM	13-Mar-03	14-Mar-03							
2002	6	GeoE	Development of Networks for Research and Education in Mining and Geological Engineering	UGM	17-Mar-03	19-Mar-03							
2002	7	MatE	Seminar on Qualitative and Quantitative X-Ray Diffraction (XRD) Analysis and Its Application	USM	17-Mar-03	19-Mar-03							
2003	1	GeoE	Development of Strategic Plan for Research and Education in Geological Engineering	HCMUT	25-Aug-03	26-Aug-03	Prof. Dr. UCHINO Kenichi	Prof. Dr. WATANABE Koichiro	Prof. Dr. AOKI Kenji				
2003	2	ICT	ASEAN Microelectronics 2003: Microelectronics, IC Design	UP	28-Aug-03	29-Aug-03	Assoc. Prof. Dr. SHIMIZU Naohiko	Dr. IZUMI Tomonori	Kyoto				
2003	3	CHE/ENVE	Development of Networks for Research and Education in Chemical Engineering and Environment Engineering	UGM	9-Sep-03	10-Sep-03	Prof. Dr. KAJIUCHI Toshio	Prof. Dr. NIYAMA Hiroo	TIT				
2003	4	MatE	Joining of Materials, Prospective, and Application	USM	21-Oct-03	22-Oct-03	Prof. Dr. ARIGA Tadashi	Assoc. Prof. Dr. TAKAHASHI Kuno	Tokai				
2003	5	ManUE	Material and Manufacturing Technology	UGM	23-Oct-03	24-Oct-03	Prof. Dr. ARIGA Tadashi	Prof. Dr. ARIGA Tadashi	Tokai				
2003	6	EEE	Mobile Communication and Related Signal Processing	CU	27-Oct-03	28-Oct-03	Prof. Dr. SUZUKI Hiroshi	Prof. Dr. SUZUKI Hiroshi	Hokkaido				
2003	7	CE	Transportation and Development: A Road Toward Regional Prosperity in Harmony, Civil Engineering	CU	12-Nov-03	13-Nov-03	Prof. Dr. KAGAYA Seishi	Assoc. Prof. Dr. NAKATSUJI Takashi	Hokkaido				
2003	8	CHE/ENVE	Current Trends and Development for Environmental and Chemical Engineering Education and Research	DLSU/UP	1-Dec-03	2-Dec-03	Prof. Dr. KAJIUCHI Toshio	Prof. Dr. NIYAMA Hiroo	TUT				
2003	9	GeoE	Enhancement of Strategic Plan for Research and Education in Geological Engineering	USM	19-Jan-04	20-Jan-04	Prof. Dr. UCHINO Kenichi	Prof. Dr. AOKI Kenji	Kyoto				
2003	10	MatE	Nanometaterials - "Recent Advances, Perspective and Challenges"	UP	22-Jan-04	23-Jan-04	Prof. Dr. KM Hee Joon	Assoc. Prof. Dr. KITAMOTO Yoshitaka	TIT				
2003	11	ME/AE	The Development of Master Plan for Education and Research in Mechanical and Aeronautical Engineering	HCMUT	5-Feb-04	6-Feb-04	Prof. Dr. HOMMA Hiroomi	Prof. Dr. OBI Shinnosuke	Keio				
2003	12	CE	Research Collaboration on Infrastructure	HCMUT	10-Mar-04	11-Mar-04	Prof. Dr. UEDA Tamon	Assoc. Prof. Dr. SHIBUYA Satou	Keio				
2003	13	EEE	Power and Control Engineering	CU	11-Mar-04	12-Mar-04	Assoc. Prof. Dr. TAKADA Junichi	Prof. Dr. HARA Shinji	TUT				
2003	14	ManUE	National Seminar on Manufacturing and Material Processing Technology	UM	17-Mar-04	18-Mar-04	Prof. Dr. MITSUI Kimiyuki	Prof. Dr. ARIGA Tadashi	Keio				
2004	1	CHE	Strengthening Collaboration on Research and Education in Chemical Engineering	HCMUT	22-Apr-04	23-Apr-04	Prof. Dr. KAJIUCHI Toshio	Prof. Dr. NIYAMA Hiroo	TIT				
2004	2	MatE	Processing-Properties Relationship in Biomaterials	USM	2-Aug-04	3-Aug-04	Prof. Dr. NINOMI Mitsuuo	Prof. Dr. IWATA Hiroo	Kyoto				
2004	3	GeoE	Geological Engineering	UP	23-Aug-04	24-Aug-04	Prof. Dr. UCHINO Kenichi	Prof. Dr. WATANABE Koichiro	Kyushu				
2004	4	ManUE	Current Development and Research in Manufacturing Process	DLSU	7-Oct-04	8-Oct-04	Prof. Dr. MORI Ken-ichiro	Prof. Dr. AOYAMA Hioki	Keio				
2004	5	ME/AE	Mechanical & Aeronautical Engineering	ITB	11-Oct-04	12-Oct-04	Prof. Dr. HOMMA Hiroomi	Assoc. Prof. Dr. YANADA Hioki	TUT				
2004	6	EEE	Communications	UP	17-Nov-04	18-Nov-04	Prof. Dr. ARAKI Kiyomichi	Prof. Dr. KUNIEDA Hiroyuki	TIT				
2004	7	MatE	Composites and Advanced Materials: Design, Processing and Prospectives	HUT	30-Nov-04	1-Dec-04	Prof. Dr. KOHJIYA Shiroo	Assoc. Prof. Dr. MATSUMOTO Akiriko	Kyoto				
2004	8	ENVE	Strengthening Collaboration on Research and Education in Environmental Engineering	KMITL	1-Dec-04	2-Dec-04	Prof. Dr. KAJIUCHI Toshio	Prof. Dr. KAWASAKI Junjiro	TIT				
2004	9	CE	Collaborative Research in Structural and Geotechnical Engineering	CU	2-Dec-04	3-Dec-04	Prof. Dr. MITACHI Toshiyuki	Prof. Dr. HAYASHIKAWA Toshiro	Hokkaido				
2004	10	GeoE	Strengthening Network on Education in Geological / Earth Resources Engineering of AUN/SEED-Net Program	UGM	13-Dec-04	14-Dec-04	Prof. Dr. UCHINO Kenichi	Prof. Dr. WATANABE Koichiro	Kyushu				
2004	11	ICT	Advanced Fields in Information and Communication Technology	KMITL	31-Jan-05	1-Feb-05	Prof. Dr. OUCHI Shigetoo	Prof. Dr. OHARA Shigeoyuki	Tokai				
2004	12	CHE	Sustainability in the Development of Chemical Engineering Education and Research in the ASEAN Region	DLSU	25-Feb-05	26-Feb-05	Prof. Dr. NIYAMA Hiroo	Prof. Dr. KAWASAKI Junjiro	TIT				
2004	13	ENVE	Sustainability in the Development of Environmental Engineering Education and Research in the ASEAN Region	UP	25-Feb-05	26-Feb-05	Prof. Dr. KAJIUCHI Toshio	Assoc. Prof. Dr. KANDA Manabu	TIT				
2004	14	ManUE	Collaborative Research on Product Design and Development, Manufacturing Processes, and Metrology	UM	28-Feb-05	1-Mar-05	Prof. Dr. MITSUI Kimiyuki	Prof. Dr. SUGA Yasuo	Keio				
2004	15	ME/AE	Mechanical & Aeronautical Engineering	HUT	28-Feb-05	1-Mar-05	Prof. Dr. HOMMA Hiroomi	Prof. Dr. OBI Shinnosuke	TUT				
2004	16	CE	Collaborative Research in Construction Management and Transportation Engineering	ITB	9-Mar-05	10-Mar-05	Assoc. Prof. Dr. NAKATSUJI Takashi	Assoc. Prof. Dr. TAKANO Shin-pei	Hokkaido				
2004	17	EEE	Power and Control Engineering	HUT	21-Mar-05	22-Mar-05	Prof. Dr. YOKOYAMA Akihiko	Prof. Dr. HARA Shinji	U of Tokyo				
2005	1	MatE	Biomaterials, Nanomaterials, Advanced Materials and Composites	USM	16-May-05	17-May-05	Prof. Dr. TAKEICHI Tsutomu	Prof. Dr. KURODA Kazuyuki	Waesata				
2005	2	GeoE	Strengthening Network on Geological and Earth Resources Education Towards Sustainable Life and Environment	ITC	9-Jun-05	10-Jun-05	Prof. Dr. UCHINO Kenichi	Prof. Dr. WATANABE Koichiro	Kyushu				
2005	3	ICT	Information & Communications Technology and Electronics	HCMUT	28-Jul-05	29-Jul-05	Prof. Dr. WAKABAYASHI Toshio	Prof. Dr. MIZUNO Hioki	Tokai				
2005	4	ENVE	Sustainability in the Development of Environmental Engineering Education and Research in the ASEAN Region	UP	30-Aug-05	31-Aug-05	Prof. Dr. KAWASAKI Junjiro	Assoc. Prof. Dr. TANIGUCHI Izumi	TIT				

JFY	No	Field	Title	Venue	Day 1	Day 2	JP Prof. 1	JSU 1	JP Prof. 2	JSU 2	JP Prof. 3	JSU 3	JP Prof. 4	JSU 4	JP Prof. 5	JSU 5	JP Prof. 6	JSU 6
2005	5	CHE	Chemical Engineering Education in the ASEAN Region: Facing the Challenges of Globalization	DLSU	1-Sep-05	2-Sep-05	Prof. Dr. HNODE Hirofumi	TIT	Assoc. Prof. Dr. KOSUGE Hiroshi	TIT	Assoc. Prof. Dr. SUZUKI Masaki	TIT	Assoc. Prof. Dr. TANGUCHI Izumi	TIT	Assoc. Prof. Dr. SEKIGUCHI Hidetoshi	TIT	Prof. Dr. KAWASAKI Juniro	TIT
2005	6	ME/AE	Mechanical & Aeronautical Engineering	UM	5-Sep-05	6-Sep-05	Prof. Dr. HOMMA Hiroomi	TUT	Assoc. Prof. Dr. YANADA Hidaki	TUT	Prof. Dr. OBI Shinnosuke	Keio	Prof. Dr. KUDO Kazuhiko	Hokkaido				
2005	7	ManUE	Manufacturing Engineering	CU	3-Oct-05	4-Oct-05	Prof. Dr. MITSUI Kimiyuki	Keio	Prof. Dr. SUGA Yasuo	Keio	Prof. Dr. ARIGA Tadashi	Tokai	Assoc. Prof. Dr. KURABAYASHI Daibuke	TIT				
2005	8	EEE	Nanoelectronics and Photonics	HUT	14-Nov-05	15-Nov-05	Prof. Dr. ARAKI Kiyomichi	TIT	Prof. Dr. ODA Shunri	TIT	Prof. Dr. ARAKAWA Yasuhiko	U of Tokyo						
2005	9	CHE	Asia Link in Chemical Engineering Education and Research	HUT	30-Nov-05	1-Dec-05	Prof. Dr. HNODE Hirofumi	TIT	Prof. Dr. SUZUKI Masaaki	TIT	Assoc. Prof. Dr. AIDA Takashi	TIT						
2005	10	EnvE	Asia Link in Environmental Engineering Education and Research	HUT	30-Nov-05	1-Dec-05	Prof. Dr. KAWASAKI Juniro	TIT	Prof. Dr. IKEDA Shunsuke	TIT	Assoc. Prof. Dr. EGASHIRA Ryutchi	TIT	Prof. Dr. KAJIUCHI Toshio	TIT				
2005	11	GeoE	Strengthening Network on Geo-Hazard and Earth Resources Management	CU	8-Dec-05	9-Dec-05	Prof. Dr. AOKI Kenji	Kyushu	Assoc. Prof. Dr. IMAI Akira	Kyushu	Prof. Dr. JINNO Kenji	Kyushu						
2005	12	MatE	Materials Performance and Processing	ITB	25-Jan-06	26-Jan-06	Prof. Dr. KAKUTA Nobuyoshi	TUT	Prof. Dr. MATSUDA Atsunori	TUT	Prof. Dr. TSUTSUMI Kazuo	TUT						
2005	13	ICT	"Signal Processing", Information & Communication Technology	KMITL	16-Feb-06	17-Feb-06	Assoc. Prof. Dr. HAMAMOTO Kazuhiko	Tokai	Prof. Dr. MIYANAGA Yoshikazu	Hokkaido	Prof. Dr. KONDO Shozo	Tokai						
2005	14	ME/AE	Mechanical & Aeronautical Engineering	ITB	24-Feb-06	25-Feb-06	Prof. Dr. HOMMA Hiroomi	TUT	Prof. Dr. OGAWA Hiroyuki	Hokkaido	Prof. Dr. HOUJOU Haruo	TIT						
2005	15	ManUE	Manufacturing and Material Processing Technology	UM	14-Mar-06	15-Mar-06	Prof. Dr. MITSUI Kimiyuki	Keio	Prof. Dr. ARIGA Tadashi	Tokai								
2005	16	CE	The Fifth Field-wise Seminar in Civil Engineering	CU	16-Mar-06	17-Mar-06	Prof. Dr. KAGAYA Saichi	Hokkaido	Assoc. Prof. Dr. TAKANO Shin-ei	Hokkaido	Dr. FUKUDA Fumihiko	Hokkaido						
2005	17	EEE	Control Engineering	CU	16-Mar-06	17-Mar-06	Prof. Dr. HARA Shinji	U of Tokyo	Prof. Dr. YAMAKITA Masaki	TIT	Assoc. Prof. Dr. TAKADA Junichi	TIT						
2006	1	MatE	Advanced Materials: Processing and Characterisation	USM	22-May-06	23-May-06	Prof. Dr. MATSUDA Atsunori	TUT	Prof. Dr. TODO Misugu	Kyushu	Prof. Dr. ISHIKAWA Kunio	Kyushu						
2006	2	ME/AE	Mechanical & Aeronautical Engineering	CU	26-Jun-06	27-Jun-06	Prof. Dr. HOMMA Hiroomi	TUT	Prof. Dr. KAWAMURA Shozo	TUT	Assoc. Prof. Dr. YANADA Hidaki	TUT						
2006	3	GeoE	The 8th Field-wise Seminar on Geological Engineering Field and The 3rd International Symposium on Earth Resources and Geological Engineering Education and Research	UGM	3-Aug-06	4-Aug-06	Prof. Dr. YONEDA Tetsuro	Hokkaido	Prof. Dr. JINNO Kenji	Kyushu	Assoc. Prof. Dr. IMAI Akira	Kyushu						
2006	4	ICT	Computer and Control Engineering Solutions to Environmental Challenges: A Regional Collaborative Research	UGM	7-Aug-06	8-Aug-06	Prof. Dr. YAMAMOTO Yoshio	Tokai	Prof. Dr. OHKURA Michiko	Shibaura	Assoc. Prof. Dr. HAMAMOTO Kazuhiko	Tokai						
2006	5	EnvE	Strategic Directions Towards Strengthening Research Collaboration in Chemical Engineering in the ASEAN Region	UP	1-Aug-06	2-Aug-06	Prof. Dr. KAWASAKI Juniro	TIT	Hidetoshi	TIT	Assoc. Prof. Dr. SEKIGUCHI Hidetoshi	TIT						
2006	6	CHE	Chemical Engineering in the ASEAN Region	DLSU	3-Aug-06	4-Aug-06	Prof. Dr. HNODE Hirofumi	TIT	Assoc. Prof. Dr. KOSUGE Hiroshi	TIT	Assoc. Prof. Dr. TANUJI Yasunori	TIT	Assoc. Prof. Dr. KUBOUCHI Masatoshi	TIT	Assoc. Prof. Dr. AIDA Takashi	TIT	Assoc. Prof. Dr. FUCHINO Tetsuo	TIT
2006	7	CCE	The 6th Field-wise Seminar in Civil Engineering	CU	5-Oct-06	6-Oct-06	Assoc. Prof. Dr. SHIN-EI Shin-ei	Hokkaido	Assoc. Prof. Dr. NAKATSUJI Takashi	Hokkaido								
2006	8	EEE	Multimedia Signal Processing and Communication Systems	CU	16-Oct-06	17-Oct-06	Prof. Dr. ARAKI Kiyomichi	TIT	Prof. Dr. NISHIHARA Akinori	TIT	Assoc. Prof. Dr. TAKADA Junichi	TIT						
2006	9	CCE	Enhancing Research Capabilities in Structural and Geotechnical Engineering through Collaboration	DLSU	26-Oct-06	27-Oct-06	Assoc. Prof. Dr. MITSUI Kimiyuki	Hokkaido	Assoc. Prof. Dr. TANAKA Hiroyuki	Hokkaido								
2006	10	ME/AE	Mechanical & Aeronautical Engineering	ITB	22-Feb-07	23-Feb-07	Assoc. Prof. Dr. YANADA Hidaki	TUT	Prof. Dr. HOMMA Hiroomi	Hokkaido	Prof. Dr. TSUCHIYA Takashi	Tokai	Prof. Dr. KUDO Kazuhiko	Hokkaido	Prof. Dr. OBI Shinnosuke	Keio		
2006	11	ICT	Advanced Topics in Communication Technologies	KMITL	26-Feb-07	27-Feb-07	Assoc. Prof. Dr. HAMAMOTO Kazuhiko	Tokai	Prof. Dr. YAMAMOTO Tsuyoshi	Hokkaido	Prof. Dr. MIZUNO Hiaki	Tokai						
2006	12	MatE	Nanomaterials & Nanocomposites: Processing and Performance	HCMUT	8-Jan-07	9-Jan-07	Prof. Dr. TAKEICHI Tsutomu	TUT	Prof. Dr. MATSUDA Atsunori	TUT	Prof. Dr. ISHIKAWA Kunio	Kyushu	Assoc. Prof. Dr. TSUCHIYA Koichi	TUT	Prof. Dr. ITOH Misuru	TIT		
2006	13	ManUE	Manufacturing System	UM	5-Mar-07	6-Mar-07	Prof. Dr. AOYAMA Hidaki	Keio	Prof. Dr. MITSUI Kimiyuki	Keio	Prof. Dr. ARIGA Tadashi	Tokai	Prof. Dr. Sawada Tatsuo	Keio				
2006	14	EEE	Distributed Generation: Applications & Impacts in Today's Power Systems ...towards the Future	UP	21-Mar-07	22-Mar-07	Prof. Dr. GODA Tadahiro	Kyushu	Prof. Dr. IWAMOTO Shinichi	Waseda	Dr. Pathom Attawiryanupap	TIT						
2006	15	EnvE	Supporting Sustainable Development Strategies through Collaborative R7D in Environmental Engineering	ITC	21-Nov-06	22-Nov-06	Prof. Dr. KAWASAKI Juniro	TIT	Assoc. Prof. Dr. TANUJI Yasunori	TIT								
2006	16	CHE	Strategic Program Development to Sustain Research Collaboration in Chemical Engineering in the ASEAN Region	ITC	23-Nov-06	24-Nov-06	Prof. Dr. HNODE Hirofumi	TIT	Assoc. Prof. Dr. KUBOUCHI Masatoshi	TIT								
2006	17	GeoE	Geological Engineering Research and Education for the Life Society and Environmental Sustainability	NUOL	5-Dec-06	6-Dec-06	Prof. Dr. JINNO Kenji	Kyushu	Prof. Dr. WATANABE Koichiro	Kyushu	Prof. Dr. AOKI Kenji	Kyoto	Prof. Dr. SUZUKI Masaaki	TIT				
2006	18	ManUE	Commercialization of Research Products	NUOL	21-Dec-06	22-Dec-06	Prof. Dr. MITSUI Kimiyuki	Keio	Prof. Dr. AOYAMA Hidaki	Keio								

Annex 7-1 Master's Program by SI

SI:	Master's Program by SI							Total
	2001*	2002*	2003	2004	2005	2006	2007	
BUU			1		1	3	4	9
CU								0
DLSU	1	6			2	1	1	11
HCMUT			8	10	7	6	7	38
HUT		3	8	9	8	6	9	43
ITB			4	4	7	6	2	23
ITC		1	3	8	10	9	10	41
KMITL			1					1
NUOL	6	3	8	13	9	8	5	52
UGM		9	14	10	9	7	10	59
UM								0
UP			1	1	3	2	1	8
USM				2		1		3
UY	1		1	2	4			8
YTU			2	1	3	2	1	9
2007 Pending							5	5
Grand Total	8	22	51	60	63	51	55**	310

Remarks * Year 2001-2002 are preparatory period of the project.

** 50 slots were awarded & accepted. 5 slots under screening at NTU

Terminated cases are included.

Annex 7-2 PhD Program by SI

SI:	PhD Sandwiche Program							PhD in Japan Program							Grand Total
	2003	2004	2005	2006	2007	Total	2002*	2003	2004	2005	2006	2007	Total		
BUU						0							0	0	
CU						0			1				1	1	
DLSU						0							0	1	
HCMUT		5	3	3	4	15			2	1	4	4	11	26	
HUT		1	2	4	3	10			1	2		2	5	15	
ITB		1		1		2		1			2	4	8	12	
ITC	1	1		1	2	5				1	1	4	6	11	
KMITL						0			1				2	2	
NUOL	2		2	2	4	10			1		2		3	13	
UGM	1	4	4	3	1	13		1	2	4	2	1	10	25	
UM						0			1				2	2	
UP				1		1				1			4	5	
USM			1	1		2			1		1	1	4	5	
UY	2	1	1	2	2	8							2	4	
YTU						0							0	0	
2007 Pending						2							1	2	
Grand Total	6	13	13	18	18**	68	3	4	9	9	13	18****	56	141	

Remarks * Year 2002 is preparatory period of the project.

** 8 were awarded & accepted while 8 were short-listed and 2 under screening by HI (ManUE & ChE - already included)

*** 3 were awarded. Screening is on-going for the remaining 9 slots at NTU and 2 slots at NUS.

**** 17 were confirmed by JICA HQ and 1 under process of confirmation.

Terminated cases are included.

Annex 7-3 Master's Program by Field

Field:	Master's Program							Total
	2001*	2002*	2003	2004	2005	2006	2007	
CE	1	3	9	11	7	5	5	41
ChE		2	6	10	9	8	5	40
EEE		9	11	6	9	5	7	47
EnvE		1		2	6	5	6	20
GeoE			5	4	6	5	6	26
ICT	6	1	5	8	7	5	5	37
ManuE			5	4	6	5	5	25
MatE			4	5	5	5	6	25
ME/AE		4	6	10	8	8	5	41
Metal		1						1
Mining		1						1
Survey	1							1
2007 Pending							5	5
Grand Tot	8	22	51	60	63	51	55**	310

Remarks * Year 2001-2002 are preparatory period of the project.

** 50 slots were awarded & accepted. 5 slots under screening at NTU

No. of Master's scholars in each field per year might be higher than 5 slots because scholars at NUS/NTU are included (NUS/NTU can host all fields.)

Terminated cases are included.

Annex 7-4 PhD Program by Field

Field:	PhD Sandwich Program				PhD Singapore Program				PhD in Japan Program				Grand Total	
	2003	2004	2005	2006	2007	Total	2002*	2003	2004	2005	2006	2007		Total
CE	1	3	3	2	3	12			1	1	1	2	5	17
ChE		3	2	2	2	9				1	2	2	5	15
EEE	2	2	3	3	2	9	1		2	1	2	1	7	16
EnvE		1	1	1	2	5			1	1		2	4	9
GeoE	1	1	2	1	0	5		1	1	1	1	1	5	10
ICT	2		2	1	1	6		2	1	1	1	2	7	13
ManuE		1	2	3	1	7	2		1	1	1	2	5	14
MatE		1	1	3	3	8	1		1	1	3	3	9	17
ME/AE		1		2	2	5	1	1	1	1	2	2	8	16
Metal														0
Mining														0
Survey														0
2007 Pending (EEE)					2	2						1	1	14
Grand Tot	6	13	13	18	18***	68	3	4	9	9	13	18*	56	141

Remarks * 17 were confirmed by JICA HQ and 1 under process of confirmation.

*** 8 were awarded & accepted while 8 were short-listed and 2 under screening by HI (ManuE & ChE - already included)

**** 3 were awarded. Screening is on-going for the remaining 9 slots at NTU and 2 slots at NUS.

Terminated cases are included.

Summary of Total Actual CR Support from JFY 2003 - 2006

Field	JFY												Total							
	2003			2004			2005			2006			Proj	M	D	Amount (US\$)				
	Proj	M	D	Proj	M	D	Proj	M	D	Proj	M	D					Amount (US\$)			
CE	5	5	1	33,229	13	11	3	39,584	14	10	5	75,928	17	9	8	86,530	29	20	8	235,271
ChE	3	6	-	32,726	7	14	3	44,712	13	20	5	76,814	15	20	7	83,600	18	26	7	237,852
EEE	3	6	-	29,115	6	9	2	39,412	12	14	4	68,666	9	9	4	64,365	15	22	5	201,558
EnvE	1	-	1	11,980	-	-	-	-	8	6	2	32,300	13	10	3	55,100	15	11	3	99,380
GeoE	3	4	1	38,366	4	8	2	32,249	5	15	2	46,862	5	14	4	66,500	5	19	4	183,977
ICT	7	5	2	30,716	9	7	2	33,095	11	8	3	47,862	12	8	4	51,251	23	19	4	162,924
ManuE	3	3	-	20,310	7	7	-	18,383	11	10	1	39,892	13	10	3	58,900	20	17	3	137,485
MatE	4	4	-	16,352	6	6	-	18,503	12	10	2	40,840	17	13	4	69,345	24	19	4	145,040
ME/AE	2	3	-	14,176	9	11	1	27,356	14	17	1	52,464	15	19	1	53,159	19	22	1	147,155
Total	31	36	5	226,970	61	73	13	253,294	100	110	25	481,628	116	112	38	588,750	168	175	39	1,550,642

**Collaborative Research Program (JFY 2003 - 2006)
Civil Engineering (Chulalongkorn University)**

No	CRID	Title	Status	FY	Curr ency	Amount of Support 2003	Amount of Support 2004	Amount of Support 2005	Amount of Support 2006	Grand Total	Advisors	Japanese Professors	JSUs	Partner from MI	MI	Students	M/D	Sending	Student status
1	CR0010	Identification of Localization of Clay using Wave Propagation Technique	Completed	2003	US\$	5,298.00	3,749.00	-	-	9,047.00	Assoc. Prof. Dr. Supot Teachavorasinskun	Assoc. Prof. Dr. SHIBUYA Satoru	Hokkaido (moved to Kobe)			Mr. Sumaryono	M	UGM	graduated
2	CR0011	Ground Movement due to EPB Shield Tunneling in Bangkok Subsoils	On-going	2003	US\$	6,608.00	5,623.00	5,700.00	5,700.00	23,631.00	Assoc. Prof. Dr. Wanchai Teeparaksa	Assoc. Prof. Dr. SHIBUYA Satoru	Hokkaido (moved to Kobe)			Mr. Lim Sok Tay	D	ITC	studying
3	CR0021	Selection of Car-following Model for Traffic Simulation	Completed	2003	US\$	8,309.00	3,749.00	-	-	12,058.00	Assoc. Prof. Dr. Narupiti	Assoc. Prof. Dr. NAKATSUJI Takashi	Hokkaido			Mr. Phongsavanh Inthavongsa	M	NUJOL	graduated
4	CR0043	Investigating Travel Attributes and Alternative Combination Sets of Travel Demand Management	changed to CR0044	2003	US\$	8,498.00	-	-	-	8,498.00	Assoc. Prof. Dr. Narupiti	Assoc. Prof. Dr. NAKATSUJI Takashi	Hokkaido	Mr. Charad Phiyawat	BUU	Mr. Berlian Kushari	M	UGM	-
5	CR0044	A Comparative Study of Travel Demand Management Experiences in Southeast/Asian Nations	Completed	2004	US\$	-	3,749.00	-	-	3,749.00	Dr. Saksith Chalermpong	Prof. Dr. KAGAYA Seichi	Hokkaido			Mr. Berlian Kushari	M	UGM	graduated
6	CR0045	Improvement of Construction Productivity in Developing Countries	CR0046, CR0047	2003	US\$	4,516.00	-	-	-	4,516.00	Assoc. Prof. Dr. Visuth Chovichien	Assoc. Prof. Dr. TAKANO Shin-ei	Hokkaido			Mr. Arief Setiawan Budi Nugroho Ms. Pipong Phimpachanh	M	UGM	-
7	CR0046	A Study of Productivity Improvement in Piling Work in Southeast Asian Countries	Completed	2004	US\$	-	3,320.00	-	-	3,320.00	Assoc. Prof. Dr. Tongthong	Assoc. Prof. Dr. TAKANO Shin-ei	Hokkaido			Mr. Arief Setiawan Budi Nugroho	M	UGM	graduated
8	CR0047	Low Cost Housing Administration	Completed	2004	US\$	-	3,330.00	-	-	3,330.00	Assoc. Prof. Dr. Visuth Chovichien	Assoc. Prof. Dr. TAKANO Shin-ei	Hokkaido			Ms. Pipong Phimpachanh	M	NUJOL	graduated
9	CR0048	Knowledge Management Strategies for Governmental Agencies in Public Construction Projects	Completed	2004	US\$	-	1,785.00	5,700.00	-	7,485.00	Dr. Veerasak Likhitruangsilp	Assoc. Prof. Dr. TAKANO Shin-ei	Hokkaido			Ms. Nofalia Andriyani	M	UGM	graduated
10	CR0049	Using Information Technology for Building Road Inventory System in Lao PDR	Completed	2004	US\$	-	1,785.00	5,700.00	-	7,485.00	Dr. Kasem Choocharukul	Assoc. Prof. Dr. NAKATSUJI Takashi	Hokkaido			Mr. Anousone Outhalatsady	M	NUJOL	graduated
11	CR0050	Transit Accessibility Improvement Project - Phase I (TAIP I)	On-going	2004	US\$	-	2,677.00	8,550.00	5,700.00	16,927.00	Dr. Saksith Chalermpong	Prof. Dr. KAGAYA Seichi	Hokkaido	Dr. Alexis Filone	DLSU	Mr. Sony S Wibowo	D	ITB	studying
12	CR0051	Model Calibration for Bridge Maintenance System	Completed	2004	US\$	-	1,785.00	5,700.00	-	7,485.00	Assoc. Prof. Dr. Phoonsak Phainsusom	Prof. Dr. NAWA Toyoharu	Hokkaido			Mr. Nguyen Bao Thach	M	HCMUT	graduated
13	CR0052	Comparative Study of Implementation of Online Bidding for Contractor Selection in Government Projects	Completed	2004	US\$	-	1,785.00	5,700.00	-	7,485.00	Assoc. Prof. Dr. Tongthong	Assoc. Prof. Dr. TAKANO Shin-ei	Hokkaido			Mr. Suprpto Budinugroho	M	UGM	graduated
14	CR0053	Utilizing Probe Vehicle Data for Better Traffic Management: A Microsimulation Analysis	Completed	2004	US\$	-	1,785.00	5,700.00	-	7,485.00	Assoc. Prof. Dr. Narupiti	Assoc. Prof. Dr. NAKATSUJI Takashi	Hokkaido			Ms. Masria binti Mustafa	M	UGM	graduated
15	CR0054	Ground Response due to Deep Excavation in Bangkok Subsoils	On-going	2004	US\$	-	4,462.00	10,342.00	5,700.00	20,504.00	Assoc. Prof. Dr. Wanchai Teeparaksa	Prof. Dr. MITTACHI Toshiyuki	Hokkaido			Mr. Vuithy Hong Mr. Le Trong Nghia	M D	ITC HCMUT	graduated studying
16	CR0077	Bidding and Constructing Process of Government Public Construction Case Study from Three ASEAN Countries	On-going	2005	US\$	-	-	3,800.00	-	3,800.00	Assoc. Prof. Dr. Visuth Chovichien	Assoc. Prof. Dr. TAKANO Shin-ei	Hokkaido			Ms. Xoumatiri Panyanouvong	M	NUJOL	graduated
17	CR0078	Development of Performance-Based Design Code for Structures in Indonesia	On-going	2005	US\$	-	-	5,650.00	5,700.00	11,350.00	Prof. Dr. Ekasit Limswan	Prof. Dr. UEDA Tamon	Hokkaido			Mr. Ashar Saputra	D	UGM	studying
18	CR0085	Determination of Strain Dependent Shear Modulus of Soft Clay using Bender Element Test and Its Application to Geotechnical Problems	On-going	2005	US\$	-	-	5,700.00	5,700.00	11,400.00	Asst. Prof. Dr. Tirawat Boonyatee	Prof. Dr. MITTACHI Toshiyuki	Hokkaido			Mr. Chan Kok Hooi	D	USM	studying

**Collaborative Research Program (JFY 2003 - 2006)
Civil Engineering (Chulalongkorn University)**

No	CRID	Title	Status	FY	Curr ency	Amount of Support 2003	Amount of Support 2004	Amount of Support 2005	Amount of Support 2006	Grand Total	Advisors	Japanese Professors	JSUs	Partner from MI	MI	Students	M/D	Sending	Student status
19	CR0106	Effect of Stress-Induced Anisotropy of Elastic Shear Modulus of Sands using Bender Elements	On-going	2005	US\$	-	-	2,007.00	1,980.00	3,987.00	Assoc. Prof. Dr. Supot Teachavorasinkun	Assoc. Prof. Dr. TANAKA Hiroyuki	Hokkaido			Mr. Aliking Anongphouth	M	NUJOL	graduated
20	CR0107	Productivity Improvement for Pre-fabrication Installation in Housing Project through Wireless Technology	On-going	2005	US\$	-	-	1,879.00	5,700.00	7,579.00	Dr. Vachara Peamsupap Assoc. Prof. Dr. Tanit Tonthong	Assoc. Prof. Dr. TAKANO Shih-ei	Hokkaido			Mr. Budi Hasholian Siregar	M	ITB	studying
21	CR0122	Seismic Performance of Energy Dissipating Interior Hinges of Pre-fabricated RC Frames	On-going	2005	US\$	-	-	3,800.00	3,800.00	7,600.00	Asst. Prof. Dr. Anat Ruangrassamee	Assoc. Prof. Dr. GOTO Yasuaki	Hokkaido			Mr. Phonpheth Mounnarath	M	NUJOL	graduated
22	CR0130	Monitoring of Bridge Loading in Thailand	On-going	2006	US\$	-	-	-	5,700.00	5,700.00	Assoc. Prof. Dr. Phoosak Pheinsusom	Assoc. Prof. Dr. SATO Yasuhiko Dr. OBATA Takashi (Research Associate)	Hokkaido			Mr. Douangmixai Dounsabanh	D	NUJOL	studying
23	CR0131	Estimation of Probable Earthquake Ground Motions in Bangkok	On-going	2006	US\$	-	-	-	7,600.00	7,600.00	Dr. Chaiphan Chintanapakdee	Prof. Dr. KAGAMI Hiroshi	Hokkaido			Ms. Muriel E. Nagut	M	DLSU	studying
24	CR0132	Improvement of Urban Travel using Advanced Traveler Information System (ATIS)	On-going	2006	US\$	-	-	-	7,600.00	7,600.00	Assoc. Prof. Dr. Sorawit Narupit	Assoc. Prof. Dr. NAKATSUJI Takashi	Hokkaido	Prof. Dr. Abdul Karim Rehan	UM	Ms. Rani Nurcharissa	M	ITB	studying
25	CR0133	Modeling the Chloride Penetration into Real Concrete Structures in Marine Environment	On-going	2006	US\$	-	-	-	5,700.00	5,700.00	Assoc. Prof. Dr. Sitmamaithum	Prof. Dr. NAWA Toyocharu	Hokkaido			Mr. Tran Van Mien	D	HCMUT	studying
26	CR0134	Influence of Pozzolan in Plastic Shrinkage Cracking Properties of Concrete	On-going	2006	US\$	-	-	-	7,600.00	7,600.00	Assoc. Prof. Dr. Boonchai Sitmamaithum	Prof. Dr. NAWA Toyocharu	Hokkaido			Ms. Irene Olivia Ubay	M	DLSU	studying
27	CR0135	The Exploration of Cambodia Construction Industry for Development a Construction Road Map by Comparing with Thailand	On-going	2006	US\$	-	-	-	3,800.00	3,800.00	Dr. Noppadon Jokkaw Assoc. Prof. Dr. Tanit Tongthong	Assoc. Prof. Dr. TAKANO Shih-ei	Hokkaido	Mr. Phat Bone	ITC	Mr. Menghour Phann	M	ITC	studying
28	CR0143	Performance of Bridges under Tsunami and Earthquake Loadings	On-going	2006	US\$	-	-	-	2,850.00	2,850.00	Prof. Dr. Panitan Luukkunaprasit Asst. Prof. Dr. Anat Ruangrassamee	Prof. Dr. OHMACHI Taisuo	TIT	Assoc. Prof. Dr. Taksiah A. Majid	USM	Mr. Lao Tze Liang	D	USM	studying
29	CR0161	Stated Preference Analysis of Urban Bus Attributes in Phnom Penh	On-going	2006	US\$	-	-	-	1,900.00	1,900.00	Dr. Kasem Choochanukul	Assoc. Prof. Dr. NAKATSUJI Takashi	Hokkaido			Mr. Meng Hong Ung	M	ITC	studying
Total of CR Support for CE (for each JFY)						US\$ 33,229.00	39,584.00	75,928.00	86,530.00	235,271.00	US\$								
Grand Total of CR Support for CE (JFY 2003 - 2006)											US\$								

**Collaborative Research Program (JFY 2003 - 2006)
Chemical Engineering (De La Salle University)**

No	CRID	Title	Status	FY	Currency	Amount of Support 2003	Amount of Support 2004	Amount of Support 2005	Amount of Support 2006	Grand Total	Advisors	Japanese Professors	JSUs	Partner from IMI	MI	Students	M/D	Sending	Student status
1	CR0003	Catalytic Processes for the Production of Syngas from Natural Gas	On-going	2003	US\$	17,493.00	21,154.00	27,550.00	22,800.00	88,997.00	Assoc. Prof. Dr. Luis F. Razon Prof. Dr. Susan M. Gallardo Prof. Dr. Carillo Salazar	Assoc. Prof. Dr. AIDA Takashi Prof. Dr. NIYAMA Hiroo Prof. Dr. HINODE Hirofumi	TIT TIT TIT	Prof. Dr. I Made Bendiyasa Mr. Doan Thai Hua Prof. Dr. Duongkamol Naranong	UGM HUT KMUTL	Mr. Cam Linh Phan Mr. Dang Son Van Mr. Doan The Nam Long	M M M	HCMUT HUT HCMUT	Terminated graduated, PHD SW05 graduated
2	CR0019	Microwave Pyrolysis of (Medical) Plastics Wastes	Completed / split to CR0084 / reactivated	2003	US\$	9,003.00	5,533.00	1,900.00	6,650.00	23,086.00	Prof. Dr. Susan A. Roces Assoc. Prof. Dr. Florinda Bacani	Assoc. Prof. Dr. KUBOUCHI Masatoshi	TIT	Dr. Piyachat Yimsiri	BUJ	Mr. Dinh Van Chau Mr. Phuong Ngoc Diem Mr. Chainarong Upasen Mr. Phuong Ngoc Diem	M M M D	HUT HCMUT BUJ HCMUT	graduated, PHD JP05 - studying studying
3	CR0020	Recovery of Solvent from the Semiconductor Washings via Selective Separation by Molecular Affinity Modification	Completed / changed to CR0083	2003	US\$	6,230.17	5,533.00	-	-	11,763.17	Assoc. Prof. Dr. Noel P. Cabigon	Prof. Dr. KAWASAKI Junjiro	TIT	Assoc. Prof. Dr. Harcharan Singh	UM	Ms. Pham Phuong Thi Thuy Mr. Nguyen Dinh Viet	M M	HCMUT HUT	- -
4	CR0057	Extraction of Flavor from Spices / Herbs using Supercritical Carbon Dioxide	On-going	2004	US\$	-	4,462.00	9,488.00	7,600.00	21,550.00	Assoc. Prof. Dr. Julius B. Maritabile Prof. Dr. Pag-asa D. Gaspillo	Prof. Dr. KAWASAKI Junjiro	TIT	Assoc. Prof. Dr. Harcharan Singh	UM	Mr. Huynh Ky Phuong Ha Mr. Mith Hasika	D M	HCMUT ITC	studying graduated
5	CR0058	CO2 Fixation and Utilization by Conversion to Biomass using an Integrated Absorption-Biofilm-Algal Photo-bioreactor System	On-going	2004	US\$	-	4,462.00	11,350.00	11,400.00	27,212.00	Assoc. Prof. Dr. Joseph Aurensia Prof. Dr. Servilliano Olano Jr.	Assoc. Prof. Dr. KOSUGE Hitoshi	TIT	Prof. Dr. I Made Bendiyasa	UGM	Mr. Hak Sok Chea Ms. Le Thi Hong Linh Mr. Tun Naing W/in	D M M	ITC HCMUT YTU	studying graduated studying, graduated, SW06
6	CR0059	Biological Treatment of Microwave-Induced Plastics	On-going	2004	US\$	-	1,784.00	3,746.00	1,900.00	7,430.00	Assoc. Prof. Dr. Florinda Bacani	Prof. Dr. UNNO Hajime	TIT	Dr. Nguyen Xuan Sam	HUT	Ms. Soe Soe Than	M	UY	studying, graduated, SW06
7	CR0060	Development of A Rule-based Methodology for the Design of Industrial Water Reuse Networks	On-going	2004	US\$	-	1,784.00	2,830.00	1,900.00	6,514.00	Assoc. Prof. Dr. Raymond Tan	Prof. Dr. FUCHINO Teisuo	TIT			Mr. Hui Seingheng	M	ITC	graduated

**Collaborative Research Program (JFY 2003 - 2006)
Chemical Engineering (De La Salle University)**

No	CRID	Title	Status	FY	Currency	Amount of Support 2003	Amount of Support 2004	Amount of Support 2005	Amount of Support 2006	Grand Total	Advisors	Japanese Professors	JSUs	Partner from IMI	MI	Students	M/D	Sending	Student status
8	CR0083	(1) Separation of Acetone-Toluene-Water System by Salt Distillation Using Sodium Chloride and Cupric Chloride; (2). Mathematical Modelling for Optimal Recovery of Industrial Solvents	Completed / split to CR0140	2005	US\$	-	-	5,700.00	-	5,700.00	Assoc. Prof. Dr. Yolanda Brondial	Prof. Dr. KAWASAKI Junjiro	TIT			Ms. Pham Phuong Thi Thuy Mr. Nguyen Dinh Viet	M M	HCMUT HUT	graduated
9	CR0084	Pyrolysis of Halogenated Plastics by Microwave Dielectric Heating	On-going	2005	US\$	-	-	3,800.00	1,900.00	5,700.00	Prof. Dr. Susan A. Roces	Assoc. Prof. Dr. KUBOYUCHI Masatoshi	TIT	Dr. Phychat Yimsin	BUJ	Mr. Nguyen Ngoc Diem Phuong	M	HCMUT	graduated
10	CR0100	Extraction of Essential Oil of Ginger by Microwave Assisted Process	On-going	2005	US\$	-	-	1,900.00	3,800.00	5,700.00	Asst. Prof. Dr. Marylou Uy Assoc. Prof. Dr. Florinda Bacani	Prof. Dr. SEKIGUCHI Hidetoshi	TIT	Dr. Mohammad Faturrozi	UGM	Ms. Reniek Fitriany Munif	M	UGM	studying
11	CR0101	Treatment of an Industrial Wastewater with Sizeable Dissolved Solids (DS) and High Concentration of Chemical Oxygen Demand (COD) using Coagulation and Flocculation	On-going	2005	US\$	-	-	1,900.00	3,800.00	5,700.00	Asst. Prof. Dr. Wilheliza Baraoidan Prof. Dr. Pag-asa Gasplillo	Prof. Dr. SUZUKI Masaaki	TIT			Ms. Lin Lin Tun	M	UY	studying
12	CR0102	Removal of Arsenic from Geothermal Water by Using Adsorption	On-going	2005	US\$	-	-	2,850.00	5,700.00	8,550.00	Prof. Dr. Leonita Abella	Prof. Dr. KAWASAKI Junjiro (retiring soon)	TIT			Mr. Dang Son Van	D	HUT	studying
13	CR0103	Vapor-Liquid-Liquid Equilibria of Acetone-Toluene-Water System with and without salt	On-going	2005	US\$	-	-	1,900.00	3,800.00	5,700.00	Assoc. Prof. Dr. Yolanda Brondial	Prof. Dr. KAWASAKI Junjiro	TIT			Ms. Dyah Setia Novianti	M	UGM	studying
14	CR0104	Degradation of Organic Pollutants Using Advanced Oxidation Process Assisted By Microwave Irradiation (AOP-MW)	On-going	2005	US\$	-	-	1,900.00	3,800.00	5,700.00	Prof. Dr. Pag-asa Gasplillo Assoc. Prof. Dr. Joseph Aurenselia	Prof. Dr. HINODE Hirofumi	TIT	Dr. Nguyen Xuan Sam	HUT	Ms. Reasmeay Tan	M	ITC	studying
15	CR0140	Modelling of Vapour-Liquid Equilibrium Process Control on the Production of Carbon Nanotubes Using Natural Gas by Microwave Induced Plasma	On-going	2006	US\$	-	-	-	1,900.00	1,900.00	Assoc. Prof. Dr. Susan A. Roces Tan	Prof. Dr. FUCHINO Tetsuo	TIT			Mr. Nguyen Dinh Viet	M	HUT	graduated, SW 06
16	CR0157	Process Control on the Production of Carbon Nanotubes Using Natural Gas by Microwave Induced Plasma	On-going	2006	US\$	-	-	-	1,900.00	1,900.00	Assoc. Prof. Dr. Joseph Aurenselia Assoc. Prof. Dr. Raymond Tan	Prof. Dr. SUZUKI Masaaki	TIT			Mr. Eka Praselia Merdeka	M	UGM	studying
17	CR0158	Ethanol Production from Biomass Using Reactive Distillation	On-going	2006	US\$	-	-	-	2,850.00	2,850.00	Prof. Dr. Senvillano Olano Jr. Assoc. Prof. Dr. Yolanda Brondial	Assoc. Prof. Dr. KOSUGE Hitoshi	TIT			Mr. Nguyen Dinh Viet	D	UGM	studying
18	CR0159	Chemical Composition and Antimicrobial Activity of the Essential Oils of Philippine Ginger and Garlic	On-going	2006	US\$	-	-	-	1,900.00	1,900.00	Asst. Prof. Dr. Marylou Uy Asst. Prof. Dr. Wilheliza Baraoidan	Prof. Dr. SUZUKI Masaaki	TIT			Ms. Nguyen Thi Anh Nga	M	HCMUT	studying
Total of CR Support for ChE (for each JFY)						US\$ 32,726.17	44,712.00	76,814.00	83,600.00	237,852.17	US\$								
Grand Total of CR Support for ChE (JFY 2003 - 2006)											237,852.17 US\$								

**Collaborative Research Program (JFY 2003 - 2006)
Electrical & Electronics Engineering (Chulalongkorn University)**

No	CRID	Title	Status	FY	Curr ency	Amount of Support 2003	Amount of Support 2004	Amount of Support 2005	Amount of Support 2006	Grand Total	Advisors	Japanese Professors	JSUs	Partner from MI	MI	Students	M/D	Sending	Student status
1	CR0007	Mobile / Wireless Networking	On-going	2003	US\$	12,614.00	11,247.00	7,600.00	10,450.00	41,911.00	Assoc. Prof. Dr. Waitt Benjapokul	Assoc. Prof. Dr. MORIKAWA Hiroyuki	U. of Tokyo			Mr. Ha Duyen Trung Mr. Leng Ky Mr. Muhammad Nur Rizal Masdaq Mr. Andrianus Yofy Mr. Hein Thura Aung	M	HUT	graduated, SIVOS graduated, PHD JP 06
2	CR0008	Development of Infrastructures of Control Systems Technology	On-going	2003	US\$	8,364.00	7,391.00	13,300.00	11,400.00	40,455.00	Assoc. Prof. Dr. David Banjerpongchai	Prof. Dr. HARA Shiroji	U. of Tokyo			Mr. Ha Duyen Trung Mr. Tristan Puzalan Mr. Addy Wahyudie Mr. Pupus Adiwalyo Mr. Lycheck Keo Ms. Do Thi Tu Anh Mr. Hoang Ha	D	HUT	studying graduated graduated graduated graduated graduated graduated
3	CR0009	Prosodic Study for Thai Speech Recognition	Completed	2003	US\$	8,137.00	9,372.00	7,600.00	-	25,109.00	Assoc. Prof. Dr. Somchai Jitapunkul	Prof. Dr. FURUI Sadaoki	TIT	Mr. Kinghong Innavongkha Mr. Achmad Batza	NUOL UGM	Mr. Sengialhasmy Chanthamavong Mr. Nazrul Effendi	M	NUOL	graduated
4	CR0063	(1) Impact of Load Uncertainty on System Reliability; (2) Fuzzy Application in Power System Planning	Completed	2004	US\$	-	2,030.00	-	-	2,030.00	Assoc. Prof. Dr. Bundhit Eua-arporn	Prof. Dr. YOKOYAMA Akihiko	U. of Tokyo			Ms. Htet Zarni Kyaw	M	YTU	graduated
5	CR0064	Growth and Characterization of InAs Quantum Dots on Cross-hatch Virtual Substrates	On-going	2004	US\$	-	5,623.00	5,700.00	5,700.00	17,023.00	Asst. Prof. Dr. Songphol Kanjanachuchal	Prof. Dr. ODA Shunri	TIT			Ms. Cho Cho Thet	D	UY	studying
6	CR0065	Performance Improvement of Next Generation Wireless Telecommunication System	Completed	2004	US\$	-	3,749.00	3,800.00	-	7,549.00	Assoc. Prof. Dr. Luchakorn Wuttititkulkij	Prof. Dr. Suzuki Hiroshi	TIT			Mr. Pham Dinh Tan	M	HUT	graduated
7	CR0066	Development of An OFDM System using Sundance SMT8036 SDR Kit	Completed	2005	US\$	-	-	5,130.00	-	5,130.00	Assoc. Prof. Dr. Bundhit Eua-arporn	Prof. Dr. ARAKI Kiyomichi	TIT			Ms. Chaymaly Phakasom	M	NUOL	graduated
8	CR0067	Enhancing Southern Thailand Transmission System using HVDC	Completed	2005	US\$	-	-	5,468.00	-	5,468.00	Dr. Naebtoon Hoonchareon	Prof. Dr. YOKOYAMA Akihiko	U. of Tokyo	Dr. T. Hayano	UGM	Ms. Avrin Nur Widastuti	M	UGM	graduated
9	CR0068	Short-term Operating Strategy with Consideration of Bilateral Contracts and System Uncertainty	On-going	2005	US\$	-	-	11,518.00	7,480.00	19,008.00	Assoc. Prof. Dr. Bundhit Eua-arporn	Prof. Dr. YOKOYAMA Akihiko	U. of Tokyo			Mr. Sanjya	D	UGM	studying
10	CR0086	A Spread Spectrum Clock Oscillator: A Current Approach	On-going	2005	US\$	-	-	1,900.00	5,700.00	7,600.00	Assoc. Prof. Dr. Ekachai Leelarasamee	Prof. Dr. FUJII Nobuo	TIT			Mr. Le Viet Tien	M	HUT	graduated
11	CR0087	Optical Properties of Linearly Aligned Quantum Dots	On-going	2005	US\$	-	-	2,850.00	8,550.00	11,400.00	Dr. Channin Wissawinthanon	Prof. Dr. ARAKAWA Yasuhiko	Hokkaido			Mr. Prapto Nugroho Ms. Nuan Thidar Chit Sae	M	UGM	studying
12	CR0120	Finite Element - Beam Propagation Analysis of Photonic Crystal Fibers	On-going	2005	US\$	-	-	1,900.00	-	1,900.00	Asst. Prof. Dr. Tuglim Angkaew	Prof. Dr. KOSHIBA Masanori	Waseda			Ms. RR Ery Sukani Rahayu	M	UGM	studying
13	CR0124	GaAs/GaAs Symmetrical Emitter-Collector Double Heterojunction Bipolar Transistors	On-going	2005	US\$	-	-	1,900.00	5,700.00	7,600.00	Assoc. Prof. Dr. Choompol Antarasena	Prof. Dr. HORIKOSHI Yoshiji	U. of Tokyo			Mr. Nay Myo Tun	M	UY	studying
14	CR0139	Distributed Generation Impacts on Distribution Systems Reliability	On-going	2006	US\$	-	-	-	3,675.00	3,675.00	Assoc. Prof. Dr. Bundhit Eua-arporn	Prof. Dr. YOKOYAMA Akihiko	U. of Tokyo			Mr. Nguyen Hieu Kitac	M	HUT	studying
15	CR0141	A SCADA System using Mobile and Internet Data Communication	On-going	2006	US\$	-	-	-	5,700.00	5,700.00	Assoc. Prof. Dr. Krisada Visavateranon	Assoc. Prof. Dr. OHYAMA Shiroji	TIT			Mr. Nguyen Ich Vinh	M	HUT	studying
Total of CR Support for EEE (for each JFY)										201,558.00 US\$									
Grand Total of CR Support for EEE (JFY 2003 - 2006)										64,365.00									

**Collaborative Research Program (JFY 2003 - 2006)
Environmental Engineering (University of the Philippines - Diliman)**

No	CRID	Title	Status	FY	Currency	Amount of Support 2003	Amount of Support 2004	Amount of Support 2005	Amount of Support 2006	Grand Total	Advisors	Japanese Professors	JUSUs	Partner from MI	MI	Students	M/D	Sending	Student status
1	CR0004	Anaerobic Digestion of Organic Fraction of Municipal Wastes using High-Rate Slurry and Solid State Fermentation Reactors	changed to CR0082	2003	US\$	11,980.68	-	-	-	11,980.68	Assoc. Prof. Dr. Analiza P. Rollon	Prof. Dr. NAKAZAKI Kiyohiko	Shizuka			Ms. Le Thi Hong Tran	D	HCMUT	-
2	CR0080	Use of Horn Sonotrode Sonication System at Various Frequency and Power to Inactivate E. coli in Drinking Water	Completed	2005	US\$	-	-	7,600.00	-	7,600.00	Assoc. Prof. Dr. Genandrialine Peraila	Assoc. Prof. Dr. SEKIGUCHI Hidetoshi	TIT			Ms. Vo Thi Le Ha	M	HUT	graduated
3	CR0081	Experimental Studies on the Efficiency of Cyclone-type Equipment for the Removal of Aerosol Agglomerates from Diesel Exhaust Gases	On-going	2005	US\$	-	-	5,700.00	1,900.00	7,600.00	Prof. Dr. Genandrialine Peraila Dr. Michael Georg Schmitzlein	Assoc. Prof. Dr. EGASHIRA Ryuichi	TIT			Mr. Hoang Tuan Dung	M	HUT	graduated
4	CR0082	Anaerobic-Aerobic Digestion of Organic Fraction of Municipal Solid Waste: Kinetics, Microbial Population Dynamics and Two-Phase Reactor Systems	On-going	2005	US\$	-	-	8,550.00	5,700.00	14,250.00	Assoc. Prof. Dr. Analiza P. Rollon	Prof. Dr. NAKAZAKI Kiyohiko	Shizuka			Ms. Le Thi Hong Tran	D	HCMUT	studying
5	CR0111	Experimental Studies on production of biodegradable cassava based food packaging material	On-going	2005	US\$	-	-	1,900.00	5,700.00	7,600.00	Assoc. Prof. Dr. Jose Munoz	Assoc. Prof. Dr. KUBOUCHI Masatoshi	TIT			Ms. Souksakhone Shalath	M	NUOL	studying
6	CR0112	Modeling pH and Temperature Effects on Anaerobic Stabilization of Cellulose and Nitrogen-Rich Organic Solid Wastes	On-going	2005	US\$	-	-	1,900.00	5,700.00	7,600.00	Asst. Prof. Dr. Analiza Rollon	Prof. Dr. NAKAZAKI Kiyohiko	Shizuka			Mr. Tran Duc Chung	M	HUT	studying
7	CR0113	Fractional speciation of river sediment and suspended particulates in run-off waters of small scale gold mining activities	On-going	2005	US\$	-	-	1,900.00	5,700.00	7,600.00	Asst. Prof. Dr. Florenzo, Jr. Ballesteros Asst. Prof. Dr. Eligia Clemente	Assoc. Prof. Dr. URASE Taro	TIT		UGM	Dr. Agung Harjoko	M	NUOL	studying
8	CR0114	Anaerobic and Aerobic Treatment of Food Processing Wastewater Using Discarded Solid Waste	On-going	2005	US\$	-	-	1,900.00	5,700.00	7,600.00	Prof. Dr. Wilfredo I. Jose	Prof. Dr. SHODA Makoto	TIT			Ms. Nguyen Thi Du	M	HUT	studying
9	CR0115	Measurement, Analysis and Modeling of Pollutant Transport in Surface Water and Groundwater Bodies in Selected Sites in Laos and the Philippines	On-going	2005	US\$	-	-	2,850.00	8,550.00	11,400.00	Prof. Dr. Ricardo Leonardo Liongson	Prof. Dr. IKEDA Shunsuke	TIT			Mr. Khamfeuang Sioudom	D	NUOL	studying
10	CR0128	Monitoring and Assessment of Inland Water Bodies using Remote Sensing Approach and Spatial Data Analysis	On-going	2006	US\$	-	-	-	3,800.00	3,800.00	Asst. Prof. Dr. Emrico Camero Parangit	Prof. Dr. NADAOKA Kazuo	TIT			Mr. Ros Sobonn	M	ITC	studying
11	CR0129	Denitrification of Landfill Leachate Using Membrane BioReactor (MBR)	On-going	2006	US\$	-	-	-	3,800.00	3,800.00	Asst. Prof. Dr. Maria Lourdes Dalida	Assoc. Prof. Dr. YOSHIKAWA Shiro	TIT		HCM UT	Ms. Pham Thi Thanh Thuy	M	HCMUT	studying
12	CR0162	Isolation and Characterization of Azo-dye Degrading Microorganisms	On-going	2006	US\$	-	-	-	1,900.00	1,900.00	Assoc. Prof. Dr. Ernesto De La Cruz	Prof. Dr. TANUI Yasunori	TIT			Mr. Vu Ngoc Thuy	M	HUT	studying
13	CR0163	The Potential of Sulfonated Expanded Polystyrene Using Recycled Styrofoam in the Reduction of Heavy Metals in Wastewater	On-going	2006	US\$	-	-	-	1,900.00	1,900.00	Assoc. Prof. Dr. Angela Escoto Asst. Prof. Dr. Antonio Senador	Assoc. Prof. Dr. SEKIGUCHI Hidetoshi	TIT			Mr. Dinh Quang Hung	M	HUT	studying
14	CR0164	Determination of Physical Properties of Payatas Dumpsite to Evaluate the Impacts on Soil and Groundwater Quality	On-going	2006	US\$	-	-	-	1,900.00	1,900.00	Asst. Prof. Dr. Maria Antonia Tanchuling	Assoc. Prof. Dr. TAKEMURA Jiro	TIT		BUU	Mr. Cherdpong Seedao	M	BUU	studying
15	CR0170	Characterization and Management of Excessive Nutrient Loads from Agricultural and Rural Areas into Selected Rivers and Lakes in Laos and the Philippines	On-going	2006	US\$	-	-	-	2,850.00	2,850.00	Prof. Dr. Guillermo Tabios III	Assoc. Prof. Dr. URASE Taro	TIT			Mr. Somphone Inkhamseng	D	NUOL	studying
Total of CR Support for Enve (for each JFY)						US\$ 11,980.68	-	32,300.00	55,100.00	106,980.68									
Grand Total of CR Support for Enve (JFY 2003 - 2006)										US\$									

**Collaborative Research Program (JFY 2003 - 2006)
Geological Engineering (Gadjah Mada University)**

No	CRID	Title	Status	FY	Currency	Amount of Support 2003	Amount of Support 2004	Amount of Support 2005	Amount of Support 2006	Grand Total	Advisors	Japanese Professors	JSUs	Partner from IMI	MI	Students	M/D Sending	Student status										
1	CR0027	Development of Sustainable Slope Protection in Tropical Residual Soils	On-going	2003	US\$	13,746.89	19,218.00	22,165.00	24,700.00	79,829.69	Assoc. Prof. Dr. Dwikorita Karnawati	Prof. Dr. AOKI Kenji	Kyoto	Assoc. Prof. Dr. HJ. Ismail Abustami	USM	Mr. Long Veasna	M	ITC	graduated									
2	CR0028	Exploration and Utilization Studies of Geothermal Energy as Alternative Energy Resources (Silica scaling problem at the geothermal field)	On-going	2003	US\$	11,521.88	3,749.00	7,587.00	9,500.00	32,367.88	Ms. Pri Utami Dr. Heru Hendrayana	Prof. Dr. WATANABE Koichiro Prof. Dr. EHARA Sachie	Kyushu Kyushu			Mr. Nguyen Dinh Tu Mr. Mohd Ashraf Mohamad Ismail	D M	HCMUT USM	studying graduated, PHD JP 06									
											Dr. Agung Harijoko	Prof. Dr. ITOI Ryuichi	Kyushu			Ms. Bui Thi Tai	M	HCMUT	graduated									
3	CR0029	Integrated Study on Earth Resources within the Island Arc and Continental Margin Geological Setting of SE Asia	On-going	2003	US\$	13,098.20	9,282.00	9,500.00	7,600.00	39,480.20	Dr. I Wayan Warmada	Prof. Dr. WATANABE Koichiro Assoc. Prof. Dr. IMAI Akira Prof. Dr. UCHINO Kenichi Prof. Dr. YONEDA Tetsuro	Kyushu Kyushu Kyushu Kyushu			Mr. Vongsavanh Soysouvanh Mr. Nimol Vamoeurn Mr. U Thhaa See	M M M	UGM ITC UY	studying studying graduated									
4	CR0105	Toward Sustainable GeoEnvironment and Geohazard Management	On-going	2005	US\$	-	-	5,700.00	20,900.00	26,600.00	Dr. Heru Hendrayana Dr. Agung Harijoko Dr. I Wayan Warmada	Prof. Dr. JINNO Kenji Prof. Dr. WATANABE Koichiro	Kyushu Kyushu			Mr. May Raksmeay Ms. Dang Thuong Huyen Ms. Keophusone Phonlathai	M M M	ITC HCMUT NUOL	studying studying studying									
5	CR0121	Landslide Mitigation with Respect to Tunneling Risk Management	On-going	2005	US\$	-	-	1,900.00	3,800.00	5,700.00	(Dr. Heru Hendrayana) (Dr. Heru Hendrayana) Assoc. Prof. Dr. Dwikorita Karnawati	Prof. Dr. AOKI Kenji (Prof. Dr. JINNO) (Prof. Dr. JINNO)	Kyoto			Mr. Myo Thant Mr. Shalauddin bin Adnan Ms. Phetnakhone Xakongdieth	D M M	UY USM NUOL	studying studying studying									
										5,700.00	Prof. Dr. AOKI Kenji	Kyoto			Mr. Leang Sopheap	M	ITC	studying										
										183,977.77	Grand Total of CR Support for GeoE (JFY 2003 - 2006)																	

**Collaborative Research Program (JFY 2003 - 2006)
Information and Communication Technology (KMITL)**

No	CRID	Title	Status	FY	Curr ency	Amount of Support 2003	Amount of Support 2004	Amount of Support 2005	Amount of Support 2006	Grand Total	Advisors	Japanese Professors	JUS	Partner from MI	MI	Students	M/D	Sending	Student status
1	CR0012	Inverted Pendulum Control Systems	Completed	2003	US\$ 7,686.00	3,749.00	-	-	-	11,435.00	Assoc. Prof. Dr. Jongkol Ngamwivit	Assoc. Prof. Dr. KOMINE Noriyuki	Tokai			Mr. Adha Imam Cahyadi	M	UGM	graduated, PHD JP 05
2	CR0013	(1) Derating Factors in PWM Inverter Fed Induction Machine (2) Modeling for PWM Voltage Source Converter Controlled Power Transfer for HVDC Application	Completed	2003	US\$ 2,177.00	3,749.00	-	-	-	5,926.00	Asst. Prof. Dr. Vjitt Kinrares	Prof. Dr. KANDO Masaaki	Tokai			Mr. Phoumy Indarack	M	NUJOL	graduated
3	CR0014	On-Line Lao Handwritten Feature with Automatic Noise and Real Feature Identification	Completed	2003	US\$ 2,177.00	3,749.00	-	-	-	5,926.00	Asst. Prof. Dr. Vjitt Kinrares	Prof. Dr. KANDO Masaaki	Tokai			Mr. Saunsak Douangsyia	M	NUJOL	graduated
4	CR0015	Design and Development of A Temporal Information Warehouse	Completed	2003	US\$ 3,673.00	3,582.00	-	-	-	7,255.00	Assoc. Prof. Dr. Suphamit Chittayasothorn	Prof. Dr. WAKABAYASHI Toshio	Tokai			Ms. Vo Thi Ngoc Chau	M	HCMUT	graduated, PHD SW 05
5	CR0016	On-Line Lao Handwritten Feature with Automatic Noise and Real Feature Identification	On-going	2003	US\$ 6,518.00	5,623.00	5,700.00	5,700.00	5,700.00	23,541.00	Assoc. Prof. Dr. Boontee Krautrachue	Prof. Dr. MATSUURA Takenobu	Tokai			Mr. Khampheth Bounnady	D	NUJOL	studying
6	CR0017	Recognition of Laoian Spoken Vowels using Spectral Vocal Tract Transfer Function on Bark Scale	On-going	2003	US\$ 5,128.00	5,519.00	5,700.00	5,700.00	5,700.00	22,047.00	Assoc. Prof. Dr. Songwatana	Prof. Dr. MIYANAGA Yoshikazu	Hokkaido			Mr. Kham Khanthavivone	D	NUJOL	studying
7	CR0018	Distributed Network Management System via Web Service and Mobile Agents	Completed	2003	US\$ 3,357.00	3,630.00	-	-	-	6,987.00	Dr. Voravat Limpoka	Prof. Dr. OHARA Shigeyuki	Tokai			Mr. Pham Huu Ngia	M	HCMUT	graduated
8	CR0055	A Logical Study of Semantic Webs	Completed	2004	US\$ -	1,872.00	5,692.00	-	-	7,564.00	Dr. Visti Hirankitti	Prof. Dr. TSUJI Hidekazu	Tokai			Mr. Vuong Tran Xuan	M	HCMUT	graduated, PHD JP 06
9	CR0056	On-Line Impulse Responses of High Voltage Dividers (Phase II)	Completed	2004	US\$ -	1,622.00	2,050.00	-	-	3,672.00	Asst. Prof. Dr. Anantawat Kunakorn	Prof. Dr. KANDO Masaaki	Tokai			Mr. Soumek Inthala	M	NUJOL	graduated
10	CR0069	Manifold Similarity Search of Biological Sequences using FPGA	Completed	2005	US\$ -	-	5,125.00	-	-	5,125.00	Asst. Prof. Dr. Surin Kittitornkun	Prof. Dr. TOMIYAMA Shigenori	Tokai			Mr. Tran Ngoc Thinh	M	HCMUT	graduated, SW06
11	CR0070	Multimedia Encryption using Tools in System Engineering	Completed	2005	US\$ -	-	5,700.00	-	-	5,700.00	Assoc. Prof. Dr. Pitkhate Sooraksa	Assoc. Prof. Dr. KOMINE Noriyuki	Tokai			Ms. Su Su Maung	M	YTU	graduated
12	CR0071	Switched Reluctance Machine Modeling	Completed	2005	US\$ -	-	5,645.00	-	-	5,645.00	Asst. Prof. Dr. Supat Kittiratsatcha	Prof. Dr. ISHIBASHI Kazuhisa	Tokai			Mr. Sisavath Khoapanya	M	NUJOL	graduated
13	CR0072	QoS-Based Multimedia Service in Wireless Ad-Hoc Networks	Completed	2005	US\$ -	-	5,600.00	-	-	5,600.00	Asst. Prof. Dr. Sakchai Thipchaksurat	Prof. Dr. ISHII Hiroshi	Tokai			Mr. Nguon TAING	M	ITC	graduated
14	CR0108	Automatic Vehicle Classification	On-going	2005	US\$ -	-	1,900.00	5,697.00	-	7,597.00	Dr. Watchara Chatwinya	Prof. Dr. KONDO Shozo	Tokai			Mr. Le Thanh Sach	M	HCMUT	studying
15	CR0109	A Spatio-temporal Database Model for Virtual Reality	On-going	2005	US\$ -	-	2,850.00	7,357.00	-	10,207.00	Assoc. Prof. Dr. Suphamit Chittayasothorn	Prof. Dr. OHARA Shigeyuki	Tokai			Ms. Vo Thi Ngoc Chau	D	HCMUT	studying
16	CR0110	Study on Rain Characteristic and Rain Attenuation on Ku Band (and Ka Band) Satellite in Tropical Region	On-going	2005	US\$ -	-	1,900.00	5,700.00	-	7,600.00	Assoc. Prof. Nipa Leelaifujj	Prof. Dr. MORIYA Yoshiaki	Tokai			Mr. Donekeo Lakanchaiath	M	NUJOL	studying
17	CR0136	Modelling and Control of DC-DC Converters	On-going	2006	US\$ -	-	-	3,800.00	-	3,800.00	Assoc. Prof. Dr. Bunaksananusorn	Assoc. Prof. Dr. HIRATA Hiroshi	Tokai			Mr. Phok Chrin	M	ICT	studying

**Collaborative Research Program (JFY 2003 - 2006)
Information and Communication Technology (KMITL)**

No	CRID	Title	Status	FY	Currency	Amount of Support 2003	Amount of Support 2004	Amount of Support 2005	Amount of Support 2006	Grand Total	Advisors	Japanese Professors	JUSs	Partner from MI	MI	Students	M/D	Sending	Student status
18	CR0137	Experimental Investigatin on Reflection-mode Ultrasonic Tomography	On-going	2006	US\$	-	-	-	7,046.00	7,046.00	Assoc. Prof. Dr. Manas Sangworsasi Asst. Prof. Dr. Chuchart Pritavirooj	Assoc. Prof. Dr. HAMAMOTO Kazuhiko	Tokai			Mr. Thongsamllith Onemanisone	M	NUJOL	studying
19	CR0138	Solving Loading Problem Using Genetic Algorithm	On-going	2006	US\$	-	-	-	-	-	Dr. Aranya Walitrachit	Prof. Dr. OHARA Shigeyuki	Tokai			Ms. Myat Su Hlaing	M	UY	Retired
20	CR0144	Online Reconfigurable Architecture for Filtering/Detection System	On-going	2006	US\$	-	-	-	2,651.00	2,651.00	Asst. Prof. Dr. Surin Kittitornkun	Prof. Dr. TOMIYAMA Shigenori	Tokai			Mr. Tran Ngoc Thinh	D	HCMUT	studying
21	CR0165	ECG Signal Compression based on Wavelet Transform	On-going	2006	US\$	-	-	-	1,900.00	1,900.00	Assoc. Prof. Dr. Surapan Airphaiboon	Assoc. Prof. Dr. HAMAMOTO Kazuhiko	Tokai			Mr. Somsanouk Pathoumvahn	M	NUJOL	studying
22	CR0166	QOS-Based Routing Protocol in Mobile Ad-Hoc Networks	On-going	2006	US\$	-	-	-	1,900.00	1,900.00	Asst. Prof. Dr. Sakchai Thipchaksurat	Prof. Dr. ISHI Hiroshi	Tokai			Mr. I Wayan Mustika	M	UGM	studying
23	CR0166	A Unidirectional Antenna Using a Probe Excited Concentric Circular Ring above the Reflector	On-going	2006	US\$	-	-	-	1,900.00	1,900.00	Asst. Prof. Dr. Chuwong Phongchairoenpanich	Prof. Dr. WAKABAYASHI Toshio	Tokai			Ms. Souphanna Vongsack	M	NUJOL	studying
24	CR0171	Active and Passive EMI Filter Design for Induction Motor Drives	On-going	2006	US\$	-	-	-	1,900.00	1,900.00	Assoc. Prof. Dr. Werachet Khan-ngern	Prof. Dr. KANDO Masaaki	Tokai			Mr. Chanthea Khun	M	ITC	studying
Total of CR Support for ICT (for each JFY)						US\$ 30,716.00	33,095.00	47,862.00	51,251.00	162,924.00	US\$								
Grand Total of CR Support for ICT (JFY 2003 - 2006)											162,924.00 US\$								

**Collaborative Research Program (JFY 2003 - 2006)
Manufacturing Engineering (University of Malaya)**

No	CRID	Title	Status	Cur ren cy	Amount of Support 2003	Amount of Support 2004	Amount of Support 2005	Amount of Support 2006	Grand Total	Advisors	Japanese Professors	JSUs	Partner from MI	MI	Students	M/D	Sendin g	Student status			
1	CR0022	Investigation into Minimal Cutting Fluid Application in High Speed Milling of Hardened Steel Made using Carbide Tools	Completed	2003 US\$	4,388.00	3,749.00	-	-	8,137.00	Dr. Mohd Hamdi Abdul Shukor	Prof. Dr. MITSUI Kimiyuki	Keio			Mr. Thanongsak Thepsonthi	M	BUU	graduated			
2	CR0023	Development and Fabrication of Miniature Heat Exchangers through Precision Machining/Joining/Slurry Polishing and Their Performance Evaluation through Experimental and Analytical Techniques	Completed	2003 US\$	4,388.00	3,749.00	-	-	8,137.00	Dr. Mohd Hamdi Abdul Shukor	Prof. Dr. ARIGA Tadashi	Tokai			Mr. I Gusti Bagus Budi Dharma	M	UGM	graduated			
3	CR0024	Intelligent On-line Monitoring System of Cutting Tool Wear and Failure	Completed	2003 US\$	11,534.00	3,749.00	-	-	15,283.00	Prof. Dr. Zahari Taha	Prof. Dr. MITSUI Kimiyuki	Keio	Prof. Dr. Doko Suharto	ITB	Mr. Muslim Mahardika	M	UGM	graduated, PHD JP 05			
4	CR0030	Development and Fabrication of Water Cooling Channel Structure for Injection Mold through Machining and Brazing Technology	Completed	2004 US\$	-	1,784.00	5,700.00	-	7,484.00	Dr. Mohd Hamdi Abdul Shukor	Prof. Dr. ARIGA Tadashi	Tokai			Mr. Lamphanh Siamouth	M	NUOL	graduated			
5	CR0031	Brazing of Ceramic and Metal (SiC, Al2O3, AlN, PSZ-Partially Stabilized Zirconia)	Completed	2004 US\$	-	1,784.00	5,700.00	-	7,484.00	Dr. Mohd Hamdi Abdul Shukor	Prof. Dr. ARIGA Tadashi	Tokai			Mr. Somporn Vongphesy	M	NUOL	graduated			
6	CR0032	PC-Base Control of A Tele-Operated Robot for Search or Inspection Tasks	Completed	2004 US\$	-	1,784.00	5,700.00	-	7,484.00	Assoc. Prof. Dr. KURABAYASHI Daisuke	TIT				Mr. Herianto	M	UGM	graduated, PHD JP 06			
7	CR0033	Investigation of Vibration of Cathode in EDM	Completed	2004 US\$	-	1,784.00	5,700.00	-	7,484.00	Dr. Mohd Hamdi Abdul Shukor	Prof. Dr. MITSUI Kimiyuki	Keio	Dr. Mulipwidodhokantiplo	ITB	Mr. Ganawan Setia Pmandana	M	UGM	graduated			
8	CR0079	Robotcraft-based Autonomous Unmanned Aerial Vehicle	On-going	2005 US\$	-	-	5,700.00	5,700.00	11,400.00	Prof. Dr. Zahari Taha	Prof. Dr. SUGA Yasuo	Keio	Dr. Subagy	UGM	Mr. Gesang Nugroho	D	UGM	studying			
9	CR0094	Monitoring of Bearing Defects Using Acoustic Emission (AE) Application	On-going	2005 US\$	-	-	1,900.00	5,700.00	7,600.00	Prof. Dr. Zahari Taha	Prof. Dr. MITSUI Kimiyuki	Keio	Dr. Tin Agung Rochmat	UGM	Mr. Indro Pranoto	M	UGM	studying			
10	CR0095	Development of a Software for Designing and Manufacturing of an Impeller	On-going	2005 US\$	-	-	1,892.00	5,700.00	7,592.00	Prof. Dr. Zahari Taha	Prof. Dr. SUGA Yasuo	Keio	Dr. Bang Pham Cong	UGM	Mr. Agung Bramanya Muhammad	M	UGM	studying			
11	CR0096	CAD/CAM integration of PC-based retrofit milling	On-going	2005 US\$	-	-	1,900.00	5,700.00	7,600.00	Prof. Dr. Zahari Taha	Prof. Dr. SUGA Yasuo	Keio	Dr. Ha Thai Thi Thu	HCMUT	Mr. Heang Le Minh	M	HCMUT	studying			
12	CR0097	Multi-feature Recognition for Autonomous Mobile Robot	On-going	2005 US\$	-	-	1,900.00	5,700.00	7,600.00	Prof. Dr. Zahari Taha	Prof. Dr. SUGA Yasuo	Keio	Prof. Dr. Elmer Dadios	DLSU	Ms. Julirose Gonzales	M	DLSU	studying			
13	CR0098	Fabrication of Hydroxyapatite Coating Using Magnetron Sputtering	On-going	2005 US\$	-	-	1,900.00	5,700.00	7,600.00	Dr. Mohd Hamdi Abdul Shukor	Prof. Dr. Ari Ide Ektesabi	Kyoto			Mr. Jay Arre C. Toque	M	UP	studying			
14	CR0099	Diamond Particle Distributed Cemented Carbide	On-going	2005 US\$	-	-	1,900.00	5,700.00	7,600.00	Dr. Mohd Hamdi Abdul Shukor	Prof. Dr. ARIGA Tadashi	Tokai	Mr. Thanongsa K. Thepsonthi	BUU	Ms. Waratta Aulthayarat	M	BUU	studying			
15	CR0126	Design and Manufacturing of Brazed Joint Laminated Mold with Conformal Cooling Channel for Plastic Injection Molding	On-going	2006 US\$	-	-	5,700.00	5,700.00	5,700.00	Dr. Mohd Hamdi Abdul Shukor	Prof. Dr. ARIGA Tadashi	Tokai	Assoc. Prof. Dr. Ava Ecy Tontowi	UGM	Mr. Fauzun	D	UGM	studying			
16	CR0127	Development and Fabrication of Hydroxyapatite Bone Graft for Implant Application	On-going	2006 US\$	-	-	5,700.00	5,700.00	5,700.00	Dr. Mohd Hamdi Abdul Shukor	Prof. Dr. Ari Ide Ektesabi	Kyoto	Dr. Muhamamad Waziz Wikan	UGM	Mr. Muhammad Kusumawan Herliansyah	D	UGM	studying			
17	CR0146	Prediction of Rolling Bearing Failure Using Finite Element Model Simulation	On-going	2006 US\$	-	-	1,900.00	1,900.00	1,900.00	Prof. Dr. Zahari Taha	Prof. Dr. MITSUI Kimiyuki	Keio	Dr. Tataoipa Digtanara	ITB	Mr. Purwo Kadarino	M	ITB	studying			
18	CR0158	PC based 3D Prototyping Milling Machine	On-going	2006 US\$	-	-	1,900.00	1,900.00	1,900.00	Prof. Dr. Zahari Taha	Prof. Dr. SUGA Yasuo	Keio	Mr. PAN Sovanna	ITC	Mr. KIM Vireak	M	ITC	studying			
19	CR0152	Investigation of Vibration Effect on EDM Process	On-going	2006 US\$	-	-	1,900.00	1,900.00	1,900.00	Dr. Mohd Hamdi Abdul Shukor	Prof. Dr. MITSUI Kimiyuki	Keio			Ms. Tuik Sriani	M	UGM	studying			
20	CR0153	The Effect of Brazing Parameters on the Mechanical Properties of AlN-Cu System	On-going	2006 US\$	-	-	1,900.00	1,900.00	1,900.00	Dr. Mohd Hamdi Abdul Shukor	Prof. Dr. ARIGA Tadashi	Tokai	Mr. Thanongsa K. Thepsonthi	BUU	Mr. Ekkavat Kanjanasatthap	M	BUU	studying			
									Total of CR Support for ManuE (for each JFY)												
									Grand Total of CR Support for ManuE (JFY 2003 - 2006)												
									18,383.00	39,892.00	58,900.00	137,485.00	US\$								

Collaborative Research Program (JFY 2003 - 2006)
Materials Engineering (Universiti Sains Malaysia)

No	CRID	Title	Status	FY	Completed	Currency	Amount of Support 2003	Amount of Support 2004	Amount of Support 2005	Amount of Support 2006	Grand Total	Advisors	Japanese Professors	JSUs	Partner from MI	MI	Students	M/D	Sending	Student status		
1	CR0001	Synthesis and Characterization of Vanadium Oxide Nanotube	Completed	2003	31-Mar-05	US\$	5,805.00	3,749.00	-	-	9,554.00	Assoc. Prof. Dr. Azizan Bin Aziz	Prof. Dr. TSUTSUMI Kazuo	TUT	Assoc. Prof. Dr. Lu Li	NIUS	Mr. Rinse Buch M. Cervera	M	UP	graduated, PHD JP 05		
2	CR0002	Thermal Spray Fabrication of Lead Free Solder and Evaluation using Different Flux and Substrates	Completed	2003	31-Mar-05	US\$	3,830.00	3,749.00	-	-	7,579.00	Assoc. Prof. Dr. Luay Bakr Hussain	Prof. Dr. ARIGA Tadashi	Tokai	Mr. Nguyen Hong Hai	HUT	Mr. Duong Ngoc Binh	M	HUT	graduated		
3	CR0025	Mechanical and Microstructural Response on the Thermal Behaviour of Ti-Al-X Intermetallic Alloy System with respect to Material Failures	Completed	2003	31-Mar-05	US\$	3,474.00	3,749.00	-	-	7,223.00	Assoc. Prof. Dr. Fauzi Mohd Noor	Prof. Dr. TAKEYAMA Misaou	TIT	Dr. Syam Soopryanto	ITB	Mr. Usman Huiem	M	ITB	graduated		
4	CR0028	Determination of Transport Properties in the Prospective Oxide-scale Formation of the Ti-Al-X Multiphase Alloy Systems	Completed	2003	31-Mar-05	US\$	3,243.00	3,689.00	-	-	6,931.00	Assoc. Prof. Dr. Rizal Astriawinata	Prof. Dr. MARYUAMA Toshio	TIT	Dr. Eddy Agus Basuki	ITB	Mr. Oki Junping perasomann Manaki	M	ITB	graduated, PHD JP 06		
5	CR0061	Nano Structural Electrode Tips for Spot Welding Application	Completed	2004	31-Mar-06	US\$	-	1,784.00	5,700.00	-	7,484.00	Dr. Ahmad Badri Ismail	Prof. Dr. MATSUSHITA Junichi	Tokai	Dr. Afif Basuki	ITB	Mr. Setawan Asep Ridwan	M	ITB	graduated		
6	CR0062	Preparation and Properties of Polymer Clay Nano Composites	Completed	2004	31-Mar-06	US\$	-	1,784.00	5,700.00	-	7,484.00	Prof. Dr. Hanafi Ismail	Prof. Dr. TAKEICHI Tsutomu	TUT	Dr. Syarif Pandita	ITB	Mr. Andhyantista Hobla	M	ITB	graduated		
7	CR0073	The Properties of Polycaprolactone (PCL) / Poly(lactic Acid (PLLA) Blend for New Scaffold Material	changed to CR0125	2005	1-Nov-05	US\$	-	-	-	-	-	Dr. Hazzan Md Aki Dr. Ahmad Marzoe Ahmad Yusof	Prof. Dr. IWATA Hiroo	Kyoto			Mr. Nguyen Ngoc Minh	M	HUT	graduated		
8	CR0074	Properties of Dispersion Strengthened Copper Made by Mechanical Alloying of Copper-Niobium-Graphite Powders	Ongoing	2005		US\$	-	3,795.00	3,800.00	3,800.00	7,595.00	Prof. Dr. Radzai Othman Dr. Zulfawati Husain	Prof. Dr. UMEMOTO Minoru	TUT	Prof. Dr. Nguyen Hong Hai	HUT	Mr. Bu Duc Long	M	HUT	graduated		
9	CR0075	Development of Bioactive Glass-Ceramics/Polymer Composites for Bone-Graft	Ongoing	2005		US\$	-	3,795.00	3,800.00	3,800.00	7,595.00	Prof. Dr. Radzai Othman Dr. Jaafar Marati	Prof. Dr. KAWASHTA Masakazu	Kyoto	Dr. Phung Thi To Hang	HUT	Mr. Le Pham Ngoc Ouyh	M	HUT	graduated		
10	CR0076	Microstructure Characterization and Mechanical Properties of Polyamide (6/30)/poly(ethylene Oxide)/nanocomposites	Ongoing	2005		US\$	-	5,700.00	5,700.00	5,700.00	11,400.00	Prof. Dr. Zainal Arifin Mohd Isahak	Prof. Dr. TAKEICHI Tsutomu	TUT	Assoc. Prof. Dr. Rachmadi	USM	Mr. Sultan Kusmono	D	ITB	studying		
11	CR0088	Influence of Tungsten Nano Particle Size on Copper Alloy Produced via Equal Channel Angular Pressing (ECAP)	Ongoing	2005		US\$	-	1,900.00	5,700.00	5,700.00	7,600.00	Assoc. Prof. Dr. Luay Bakr Hussain Dr. Nurulakmal Mohd Sharif	Prof. Dr. ARIGA Tadashi	Tokai	Prof. Dr. Nghiep Do Minh	HUT	Ms. Tran Thi Thien Ly	M	HUT	studying		
12	CR0089	Dissolution Phenomenon and Reaction Phase Formation of Lead Free Solder with Different Plated Substrates	Ongoing	2005		US\$	-	2,850.00	8,550.00	8,550.00	11,400.00	Assoc. Prof. Dr. Luay Bakr Hussain Dr. Ahmad Badri Ismail	Prof. Dr. ARIGA Tadashi	Tokai	Prof. Dr. Nguyen Hong Hai	HUT	Mr. Duong Ngoc Binh	D	HUT	studying		
13	CR0090	Development of Bagasse Fiber Reinforced Polymer Composites	Ongoing	2005		US\$	-	1,900.00	5,700.00	5,700.00	7,600.00	Dr. Marati Jaafar Dr. Razana Mat Tab	Assoc. Prof. Dr. TODO Mitsugu	Kyushu	Mr. Korakam Pasomsakul	NUOL	Mr. Vilay Vannaladsaysy	M	NUOL	studying		
14	CR0091	Synthesis of Nano-bioresorbable (b-TCP (Tricalcium Phosphate) Bioceramics	Ongoing	2005		US\$	-	1,900.00	5,700.00	5,700.00	7,600.00	Prof. Dr. Radzai Othman Assoc. Prof. Dr. Ahmad Fauzi Mohd Noor	Prof. Dr. ISHIKAWA Kunio	Kyushu	Mr. Quang Minh Do	HCMU T	Mr. Phan-Trung Kean	M	HCMUT	studying		
15	CR0092	Using Waste Gypsum from Slip Casting Moulds and Rice Husk in Improving Properties Such As Strength and Durability of Cement	Ongoing	2005		US\$	-	1,900.00	5,700.00	5,700.00	7,600.00	Assoc. Prof. Dr. Khairun Azzi Mohd Azizi	Assoc. Prof. Dr. SAKAI Etsuo	TIT	Mr. Bone Phat	ITC	Mr. Chea Chandara	M	ITC	studying		
16	CR0093	Chemical Synthesis of Nanocrystals of Semi-Conducting Doped Tetragonal Zirconia	Ongoing	2005		US\$	-	1,900.00	5,700.00	5,700.00	7,600.00	Mr. Zainal Arifin Mohd Noor	Assoc. Prof. Dr. MATSUDA Atsunori	TUT	Asst. Prof. Dr. Ahmad Naudin	ITB	Mr. Niki Prasboto	M	ITB	studying		
17	CR0125	The Preparation of Magnetic Nanoparticle	Ongoing	2005		US\$	-	3,820.00	3,820.00	3,820.00	7,650.00	Prof. Dr. Zainal Arifin Mohd Noor	Prof. Dr. KAKIUTA Noryoshi	TUT			Mr. Nguyen Ngoc Minh	M	HUT	graduated		
18	CR0142	Production and Characterization of Water-based Epoxy Foam	Ongoing	2006		US\$	-	-	2,850.00	2,850.00	2,850.00	Dr. Azhar Abu Bakar Assoc. Prof. Dr. Baharin Azhari	Prof. Dr. CHUJO Yoshiaki	Kyoto	Mr. Du Ngoc Uy Lan	D	HCMUT	D	studying			
19	CR0145	Synthesis, Structural and Magnetic Characterization of Rare Earths Substituted Mg-Mn Ferrite System	Ongoing	2006		US\$	-	-	2,850.00	2,850.00	2,850.00	Assoc. Prof. Dr. Ahmad Fauzi Mohd Noor Dr. Samsala Sreekantan	Prof. Dr. ITOH Miburu	TIT	Assoc. Prof. Dr. Pho Kaung	UY	Ms. Aye Aye Thant	D	UY	studying		
20	CR0147	Study on the Concrete Properties Prepared using Different Composition of Blended Cements	Ongoing	2006		US\$	-	-	1,895.00	1,895.00	1,895.00	Prof. Dr. Zainal Arifin Mohd Noor Dr. Haemaliza Mohamad	Assoc. Prof. Dr. SAKAI Etsuo	TIT	Mr. Phat Bone	ITC	Mr. BUN Kim Ngun	M	ITC	studying		
21	CR0154	Cartilage Tissue of PCUP/LLA Copolymer Scaffold with Bio-functionality and Growth Factor	Ongoing	2006		US\$	-	-	1,900.00	1,900.00	1,900.00	Dr. Hazzan Md Aki Dr. Zulfifi Ahmad	Prof. Dr. IWATA Hiroo Prof. Dr. HYON Suong-Hyu	Kyoto	Prof. Dr. Nguyen Hau Nieu	HCMU T	Mr. Nguyen Minh Luan	M	HCMUT	studying		
22	CR0155	Nano-sized Zirconia Reinforced Hydroxyapatite Bio-Composite for Improved Strength and Toughness	Ongoing	2006		US\$	-	-	1,900.00	1,900.00	1,900.00	Assoc. Prof. Dr. Ahmad Fauzi Mohd Noor Dr. Haemaliza Mohamad	Prof. Dr. ISHIKAWA Kunio	Kyushu	Dr. Adianto Remelan	ITB	Mr. Firdausi Harida	M	ITB	studying		
23	CR0160	Protective Agent-Free Synthesis of Co Nanoparticles and its Core-Shell Structures	Ongoing	2006		US\$	-	-	1,900.00	1,900.00	1,900.00	Dr. Zamoria Lockman	Prof. Dr. MATSUBARA Eichiro	Kyoto	Prof. Dr. Alberto Jr. Amoroso	UP	Ms. Mary Domatelle L. Ballea	M	UP	studying		
24	CR0168	Combined Effect of Organosilyl and Carbon Black on Properties of Natural Rubber Nanocomposites	Ongoing	2006		US\$	-	-	1,900.00	1,900.00	1,900.00	Prof. Dr. Hanafi Ismail	Prof. Dr. TAKEICHI Tsutomu	TUT	Dr. Vo Huu Thau	HCMU T	Mr. Cao Xuan Viet	M	HCMUT	studying		
											145,040.00	US\$										

Grand Total of CR Support for MATE (JFY 2003 - 2006)

Total of CR Support for MATE (for each JFY)

**Collaborative Research Program (JFY 2003 - 2006)
Mechanical / Aeronautical Engineering (Institut Teknologi Bandung)**

No	CRID	Title	Status	FY	Cur ren cy	Amount of Support 2003	Amount of Support 2004	Amount of Support 2005	Amount of Support 2006	Grand Total	Advisors	Japanese Professors	JUSUs	Partner from MI	MI	Students	M/D	Sending	Student status		
1	CR0005	High Velocity Impact on Multilayered Composites	Completed	2003	US\$	5,384.00	-	-	-	5,384.00	Assoc. Prof. Dr. Ichsan Setya Putra	Prof. Dr. HOMMA Hiroomi	TUT	Prof. Dr. Victor P. W. Shm	NUS						
2	CR0006	Development of Vibration-based Failure Detection Technique using ODS Analysis	Completed, splitted to CR0034, CR0035, CR0036	2003	US\$	8,792.00	-	-	-	8,792.00	Dr. Zainal Abidin	Prof. Dr. OKUMA Masaaki	TIT			Ms. War War Min Swe Mr. Phan Anh Tuan	M M	YTU HUT			
3	CR0034	Sensitivity Analysis of Simple Flat Beam Vibration	Completed	2004	US\$	-	3,648.00	1,820.00	-	5,468.00	Prof. Dr. Komang Bagiasna	Prof. Dr. OKUMA Masaaki	TIT	Prof. Dr. Zahani Taha	UM	Ms. War War Min Swe	M	YTU	graduated		
4	CR0035	Locating Structural Damage Detection using ODS Analysis	Completed	2004	US\$	-	3,626.00	1,800.00	-	5,426.00	Prof. Dr. Djoko Suharto	Prof. Dr. HOUJUH Haruo	TIT	Prof. Dr. Zahani Taha	UM	Mr. Duong Tran Khanh	M	HUT	graduated, PhD JP 05		
5	CR0036	Measuring and Compensating for Off-line to Running Machinery Alignment	Completed	2004	US\$	-	3,648.00	1,810.00	-	5,458.00	Dr. Zainal Abidin	Prof. Dr. OKUMA Masaaki	TIT	Prof. Dr. Gaffar	UM	Mr. Phan Anh Tuan	M	HUT	graduated		
6	CR0037	Development of the Mesh Free Methods for Dynamic Fracture Problem	On-going	2004	US\$	-	2,677.00	5,700.00	5,700.00	14,077.00	Assoc. Prof. Dr. Ichsan Setya Putra	Prof. Dr. HOMMA Hiroomi	TUT	Mr. Loc Ngo Sy	HUT	Mr. Le Xuan Trong	D	HUT	studying		
7	CR0038	Very High Speed Ballistic Impact on Composite-Ceramics Plate	On-going	2004	US\$	-	1,771.00	3,800.00	1,900.00	7,471.00	Assoc. Prof. Dr. Ichsan Setya Putra	Prof. Dr. HOMMA Hiroomi	TUT	Mr. Loc Ngo Sy	HUT	Mr. Duong Van Yen Mr. Nguyen Quang Nguyen	M M	HUT HUT	graduated graduated, PhD JP 06		
8	CR0039	Experimental Investigation of Three-Dimensional Flow Separation using PIV	On-going	2004	US\$	-	1,784.00	3,800.00	1,900.00	7,484.00	Dr. Lavi Rizki Zuhai	Prof. Dr. OBI Shinosuke	Keio								
9	CR0040	Development and Implementation of Thermodynamic Property Models for Simulating Refrigeration and Integrated Thermal Systems in Buildings	On-going	2004	US\$	-	3,123.00	7,219.00	3,784.00	14,126.00	Dr. I Made Astina	Prof. Dr. SATO Hanaki	Keio	Mr. Sengraty Kyhavone	NUOL	Mr. Deuansavanh Phommavongsa	M	NUOL	graduated		
10	CR0041	Solar Dyer	On-going	2004	US\$	-	1,728.00	3,780.00	1,900.00	7,408.00	Assoc. Prof. Dr. Abdurrachim	Prof. Dr. SATO Hanaki	Keio	Mr. Sar Sambo	ITC	Mr. Chan Sarin	M	ITC	graduated		
11	CR0042	Bio Fuel	On-going	2004	US\$	-	5,351.00	11,400.00	5,700.00	22,451.00	Dr. Iman Kartolaksono Reksowardjo	Prof. Dr. OGAWA Hideyuki	Hokkai do	Prof. Dr. Khamphone Nantnawong Mr. Pham Xuan Mai	NUOL HCM UT	Ms. Kinnaleth Vongchanh Mr. Nguyen Ngoc Dung	M M	NUOL HCMUT	graduated graduated		
12	CR0116	Investigation of Mechanical Behaviours of Aluminium Foam Sandwich Structure	On-going	2005	US\$	-	-	3,800.00	7,600.00	11,400.00	Assoc. Prof. Dr. Ichsan Setya Putra	Prof. Dr. HOMMA Hiroomi Kikuo	TUT	Nguyen Thien Tong	HCM UT	Mr. Rey Sopbeak Mr. Ly Hung Anh	M M	ITC HCMUT	graduated studying		
13	CR0117	Buckling Analysis of Sandwich Plates with Aluminium Foam Core	integrated to CR0116													Mr. Nguyen Tran Nam	M	HCMUT	studying		
14	CR0118	The Influence of Unbalance Condition on Operating Deflection Shape (ODS) of an Overhang Mounted Fan	On-going	2005	US\$	-	-	1,835.00	3,800.00	5,635.00	Prof. Dr. Komang Bagiasna	Prof. Dr. OKUMA Masaaki	TIT	Prof. Dr. Zahani Taha	UM	Mr. Thein Min Hike	M	YTU	studying		
15	CR0119	Computational Study of Flow Separation Phenomena Using Vortex Method	On-going	2005	US\$	-	-	1,900.00	3,800.00	5,700.00	Dr. Lavi Rizki Zuhai	Prof. Dr. OBI Shinosuke	Keio			Mr. Nguyen Van Bo	M	HUT	studying		
16	CR0123	Theoretical and Experimental Study on Impact and Buckling Characteristics for Pipeline	On-going	2005	US\$	-	-	3,800.00	7,600.00	11,400.00	Assoc. Prof. Dr. IGN Wiratmaja Puja	Prof. Dr. KISHIMOTO Kikuo	TIT			Mr. Ngon Kailika Mr. Kamthanh Santisouk	M M	ITC NUOL	studying studying		
15	CR0149	Solar Distillation	On-going	2006	US\$	-	-	-	1,900.00	1,900.00	Assoc. Prof. Dr. Halim Abdurrachim	Prof. Dr. KUDO Kazuhiko	Hokkai do			Ms. Huynh Thi Minh Thu	M	HCMUT	studying		
16	CR0150	Identification and Control of Hydraulic Servomechanism Using Neural Network	On-going	2006	US\$	-	-	-	1,885.00	1,885.00	Dr. Indrawanto	Assoc. Prof. Dr. YANADA Hideki	TUT			Mr. Tran Xuan Bo	M	HUT	studying		
17	GR0151	Digital Image Correlation 3D Stress Measurements	On-going	2006	US\$	-	-	-	1,900.00	1,900.00	Assoc. Prof. Dr. Ichsan Setya Putra	Prof. Dr. HOMMA Hiroomi	TUT	Mr. Loc Ngo Sy	HUT	Mr. Nguyen Truong Tho	M	HUT	studying		
18	CR0156	Development of A Micro/Mini UAV	On-going	2006	US\$	-	-	-	1,890.00	1,890.00	Dr. Taufiq Mulyanto	Prof. Dr. SUZUKI Shinji	U of Tokyo			Mr. Huynh Phuoc Thien	M	HCMUT	studying		
19	CR0169	Development of a Low-speed Control Strategy for DC Motors Operating in the Nonlinear Region	On-going	2006	US\$	-	-	-	1,900.00	1,900.00	Dr. Zainal Abidin	Assoc. Prof. Dr. YANADA Hideki	TUT	Prof. Dr. Zahani Taha	UM	Mr. Aung Myo Thant Sin	M	YTU	studying		
										Grand Total of CR Support for ME/AE (JFY 2003 - 2006)											
										147,155.00 US\$											
										52,464.00											
										53,159.00											

Special Equipment for Collaborative Research Program (2003 ~ 2004)

Special Equipment for Collaborative Research Program FY 2003 - 2004

JFY	Field	HI	No	Equipment	AUN/SEED-Net's Collaborative Research Project under which the equipment was proposed	Amount (P.O.)	Currency	US\$ (estimate)	Status of Utilization
2003	CE	CU	1	Plaxis	Innovation in Design and Construction of Infrastructures in Bangkok Subsoils	918,060	THB	24,824	Fully utilized
2003	CHE	DLSU	1	Gas Chromatograph with TCD and FID	Catalytic Processes for the Production of SynGas from Natural Gas	1,890,000	Peso	33,895	Fully utilized
2003	EEE	CU	1	Control System Platform Hardware Training Kit (Software) + PC + System Cabinet	Development of Infrastructures of Control Systems Technology	650,000	THB	16,250	Fully utilized
2003	EEE	CU	2	CDMA 2000 Lab Application	Mobile / Wireless Networking	1,241,200	THB	31,030	Fully utilized
2003	GeoE	UGM	1	Slope hydrodynamic and slope stability numerical model	Development of Sustainable Slope Protection in Tropical Residual Soils	2,756,000	JPY	24,829	Fully utilized
2003	GeoE	UGM	2	Geomechanical Design Analysis Software	Development of Sustainable Slope Protection in Tropical Residual Soils	663,400	THB	16,585	Fully utilized
2003	ICT	KMITL	1	Data Acquisition Set	Derating Factors in PWM Inverter-Fed Induction Machine & Modelling for PWM Voltage Source Converter Controlled Power Transfer for HVDC Application	120,910	THB	3,022	Fully utilized
2003	ICT	KMITL	2	Digital Oscilloscope	Inverted Pendulum Control Systems	209,399	THB	5,235	Fully utilized
2003	ICT	KMITL	3	Small Database Server	Design and Development of A Temporal Information Warehouse	81,213	THB	2,030	Fully utilized
2004	CE	CU	1	Software for the 3D deformation analysis of foundation structures	Innovation in Design and Construction of Infrastructures in Bangkok Subsoils	470,800	THB	11,770	Fully utilized
2004	CE	CU	2	Data Collection Tool for Civil Engineering Processes	A Study of Productivity Improvement in Piling Work in Southeast Asian Countries	138,886	THB	3,472	Fully utilized
2004	CE	CU	3	Microscopic Traffic Simulation Tools	Modeling Car-following Behaviors of ASEAN Drivers	378,780	THB	9,470	Fully utilized
2004	CE	CU	4	Determination of the Chloride Ion Concentration Set	Model Calibration for Bridge Maintenance System	208,440	THB	5,211	Fully utilized
2004	CE	CU	5	GIS Mobile Solution	Using Information Technology for Building Road Inventory System in Laos PDR	224,700	THB	5,618	Fully utilized
2004	CHE	DLSU	1	START Microwave Labstation with complete packages of the START System	Pyrolysis of Halogenated Plastics by Microwave Dielectric Heating	1,526,416	Peso	27,753	Fully utilized
2004	CHE	DLSU	2	UV-VIS Spectrophotometer with accessories	CO2 Fixation and Utilization by Conversion to Biomass Using an Integrated Absorption-Biofilm-Algal Photo-bioreactor System	585,000	Peso	10,636	Fully utilized
2004	EEE	CU	1	AC-DC Switching Power Supply	Current Conduction in InAs Quantum Dot Arrays Embedded in GaAs Matrix	96,765	THB	2,419	Fully utilized
2004	EEE	CU	2	Optical Multimeter with OPM and Sensor Units	Current Conduction in InAs Quantum Dot Arrays Embedded in GaAs Matrix	248,100	THB	6,203	Fully utilized
2004	EEE	CU	3	Effusion Cell	Current Conduction in InAs Quantum Dot Arrays Embedded in GaAs Matrix	406,600	THB	10,165	Fully utilized
2004		CU	4	Mobile IP Simulator for Agilent Test Set	Mobile / Wireless Networking	1,016,500	THB	25,413	Fully utilized
2004	GeoE	UGM	1	X-Ray Diffraction	Almost all CR Projects, especially "Geology and Gold-copper Mineralization of the Selogiri Area, Central Java"	13,896,896	JPY	125,197	For analyzing clay mineral types. Fully utilized and shared by all CR projects at UGM
2004	GeoE	UGM	2	Rock Sample Preparation	Almost all CR Projects, especially "Geology and Gold-copper Mineralization of the Selogiri Area, Central Java"	3,133,000	JPY	28,225	Fully utilized
2004	ICT	KMITL	1	Mini CNC with Scan or Digital Probe	Inverted Pendulum Control Systems	196,000	THB	4,900	Fully utilized
2004	ICT	KMITL	2	Web Server	A Logical Study of Semantic Webs	124,300	THB	3,108	Fully utilized
2004	ICT	KMITL	3	Laptop Computer	A Logical Study of Semantic Webs	63,500	THB	1,588	Fully utilized
2004	ICT	KMITL	4	SiC/SiC Prolog (incl. 2nd year maintenance)	A Logical Study of Semantic Webs	126,700	THB	3,168	Fully utilized
2004	ManUE	UM	1	Fibre Insulated Laboratory Furnace with Vacuum and Gas Tight Chamber VMK 80 Vac	Development and Fabrication of Water Cooling Channel Structure for Injection Mold through Machining and Brazing Technology	62,254	RM	2,231	Fully utilized for the research. (Earlier the student had to use the similar equipment which belongs to different department, and was always occupied.)
2004	ManUE	UM	2	Vacuum pump with suction capacity	Injection Mold through Machining and Brazing Technology	57,589	RM	2,064	Fully utilized for the research. (Earlier the student had to use the similar equipment which belongs to different department, and was always occupied.)
2004	ManUE	UM	3	Vacuum display	Injection Mold through Machining and Brazing Technology	14,447	RM	518	Fully utilized for the research. (Earlier the student had to use the similar equipment which belongs to different department, and was always occupied.)
2004	ManUE	UM	4	Wilcoxon Piezoelectric Vibration Generator Model F7	Investigation of Vibration of Cathode in EDM	48,680	RM	1,744	Fully utilized as the main/indispensable equipment for the thesis research of the student involved in this CR project
2004	MatE	USM	1	Welding Test Rig	Mechanical and Microstructure Response on Thermal Behaviour of TiAl-based Alloy Systems with Respect to Materials Failure + Determination of Transport Properties in the Protective Oxide-Scale Formation of the Ti-Al-X Multiphase Alloy Systems	68,300	RM	2,447	Fully utilized
2004	MatE	USM	2	Zirconia Jar and Ball	Determination of Transport Properties in the Protective Oxide-Scale Formation of the Ti-Al-X Multiphase Alloy Systems	31,500	RM	1,129	Fully utilized
2004	MatE	USM	3	Glove-Box	Synthesis and Characterization of Vanadium Oxide Nanotube	50,800	RM	1,820	Fully utilized
2004	ME/AE	ITB	1	Image Acquisition Board, Digital Camera Cable, Counter/Timer Board, shielded Cable, BNC Connector Board and Test Accessory	Experimental investigation of Three-dimensional Flow Separation Using PIV	174,303	THB	4,358	Fully utilized

Special Equipment for Collaborative Research Program
(2005.10.10 ~ present) as of 29 March 2007

JFY	Field	HI	No	Equipment	AUN/SEED-Net's Collaborative Research Project under which the equipment was proposed	Amount Total Cost (P.O.)	Currency	Status of Utilization	
2005	CE	CU	1	RFID Hand Held Reader	Productivity Improvement for Pre-fabrication Installation in Housing Project through Wireless Technology	144,450.00	THB		
2005	CE	CU	1	RFID Fixed reader & writer and antenna		112,885.00	THB	Fully utilized	
2005	CE	CU	30	Passive RFID Tag		9,630.00	THB	Fully utilized	
2005	CE	CU	1	CUBE Transportation Planning Computer Software Package		298,559.00	THB	Fully utilized	
2005	CE	CU	1	1-channel Measuring Unit for EM Sensor (or Power Unit)		780,000.00	THB	Fully utilized	
2005	CE	CU	1	High Speed Measuring System	Determination of Strain Dependent Shear Modulus of Soft Clay using Bender Element Test and its Application to Geotechnical Problems	360,878.00	THB	Fully utilized	
2005	EEE	CU	1	Hardware Enhancement for CENTUM 3000					
2005	EEE	CU	1	Software Enhancement for CENTUM 3000	Development of Infrastructures of Control Systems Technology	527,800.00	THB	under procurement	
2005	EEE	CU	2	Personal Computers		337,000.00	THB		
2005	EEE	CU	1	Calibrator		2,910.88	US\$		
2005	EEE	CU	1	Lock-in Amplifier		191,530.00	THB	under procurement	
2005	EEE	CU	1	Broadband polarization rotator					
2005	EEE	CU	2	AC-DC switching power supply	Optical Properties of Linearly Aligned Quantum Dots	83,311.00	THB	Fully utilized	
2005	EEE	CU	1	software license		11,208.00	MYR	Fully utilized	
2005	ManuE	UM	1	Remote Control Helicopter Set	Rotorcraft-base Autonomous Unmanned Aerial Vehicle	35,000.00	MYR	Fully utilized	
2005	ManuE	UM	1	Mini Computer Set		32,000.00	MYR	Fully utilized	
2005	ManuE	UM	1	Oscilloscope	PC-Base Control of a Tele-operated Robot for Search or Inspection Tasks	22,300.00	MYR	Fully utilized	
2005	ManuE	UM	1	Embedded PC Base Control System Set		26,200.00	MYR	Fully utilized	
2005	ManuE	UM	1	Mini Control System		26,000.00	MYR	Fully utilized	
2005	ManuE	UM	1	Polishing machine	Development and Fabrication of Water Cooling Channel Structure for Injection Mold through Machining and Brazing Technology	15,500.00	MYR	Fully utilized	
2005	ManuE	UM	1	Motorized substrate holder					
2005	GeoE	UGM	1	Integrated Radar Control Unit(Li-ion battery pack and Li-ion battery charger are included)	(1) Development of sustainable slope protection in tropical soil for landslide mitigation; (2) Landslide Mitigation with Respect to Tunneling Risk Management	1,002,250.00	THB	Fully utilized	
2005	GeoE	UGM	1	Shielded 500MHz Antenna		158,000.00	THB	Fully utilized	
2005	GeoE	UGM	1	GPR Cart built in triggering wheel		76,000.00	THB	Fully utilized	
2005	GeoE	UGM	1	Tow handle for 500MHz antenne		7,600.00	THB	Fully utilized	
2005	GeoE	UGM	1	Distance measuring wheel diam 150mm		32,250.00	THB	Fully utilized	
2005	GeoE	UGM	1	Li-ion battery pack 7.5V/7.2 Ah		44,000.00	THB	Fully utilized	
2005	GeoE	UGM	1	Hard Shipping case for 500MHz antenna		25,250.00	THB	Fully utilized	
2005	GeoE	UGM	1	Object Mapper Processing Software(2 dimensional)		93,750.00	THB	Fully utilized	
2005	GeoE	UGM	1	RadExplorer software for X3M GPR		2,441.00	US\$	Fully utilized	
2005	GeoE	UGM	1	Mini Cutting Machine/Mini Grinding machine/Mini Polishing Machine		Exploration and Utilization Studies of Geothermal Energy as Alternative Energy Resources (Silica scaling problem at the geothermal field)	2,278,500.00	JPY	Fully utilized
2005	ME/AE	ITB	1	Eddy Current Dynamometer			25,234.00	€	Fully utilized
2005	ME/AE	ITB	1	Weather Station+computer interface , cable, software and tripod		Solar Dryer	108,117.00	THB	Fully utilized
2005	ME/AE	ITB	1	Temperature Calibrator+Book			103,041.00	THB	Fully utilized
2005	ME/AE	ITB	2	Temperature Controller			114,918.00	THB	Fully utilized
2005	ME/AE	ITB	1	Air velocity meter+power adapter			143,701.00	THB	Fully utilized
2005	ME/AE	ITB	1	Moisture Balance	105,435.00		THB	Fully utilized	
2005	ME/AE	ITB	2	Data Acquisition for Temperature measurement DAQ + Shield cable assy, terminal block with cold junction	CO2 Fixation and Utilization by Conversion to Biomass using an	119,493.00	THB	Fully utilized	
2005	ChE	DLSU	1	Gas Chromatograph, FID/TCD				Fully utilized	

2005 CheE	DLSU	1	Total Organic Carbon Analyzer	Integrated Absorption-Biofilm-Algal Photo-bioreactor System	2,500,000.00	Php	Fully utilized
2005 EnVE	UP	1	UV-VIS Spectrophotometer	(1) Use of Sonication System at Various Frequency and Power in Drinking Water and wastewater Anaerobic-Aerobic Digestion of Organic Fraction of Municipal; (2) Experimental Studies on the Efficiency of Cyclone-Type Equipment for the Removal of Aerosol Agglomerates from Diesel Exhaust Gases; (3) Anaerobic-Aerobic Digestion of Organic Fraction of Municipal Solid Waste: Kinetics, Microbial Population Dynamics and Two-Phase Reactor Systems	6,886.79	US\$	Fully utilized
2005 EnVE	UP	1	AAS with attachment		40,145.45	US\$	Fully utilized
2005 EnVE	UP	1	Analytical Balance		1,607.14	US\$	Fully utilized
2005 MatE	USM	1	Micro Spot Welder	(1) Influence of Tungsten Nano particle size on copper alloy Produced Via Equal Channel Angular pressing(ECAP); (2) Dissolution Phenomenon and Reaction Phase Formation of Lead Free Solder with Different Plated Substrates; (3) Nano Structural Electrode Tips for Spot Welding Application	13,000.00	US\$	Fully utilized
2005 ICT	KMITL	1	ARM Emulator	Multimedia Encryption using Tools in System Engineering	141,775.00	THB	Fully utilized
2005 ICT	KMITL	1	WinProlog with Pro Web Server Tool Kit	A Logical Study of Semantic Webs	130,861.00	THB	Fully utilized
2005 ICT	KMITL	1	FEMLAB Multiphysics Modeling	Switched Reluctance Machine Modeling	325,000.00	THB	Fully utilized
2005 ICT	KMITL	1	PSCAD	Evaluation Impulse Responses of High Voltage Dividers (Phase II)	145,841.00	THB	Fully utilized
2005 ICT	KMITL	2	Ka band LNB	Study on Rain Characteristic and Rain Attenuation on Ku Band (and Ka Band) Satellite in Tropical Region	18,744.00		
2005 ICT	KMITL	1	Ka band Tx/Rx antenna		68,572.00	THB	under procurement
2005 ICT	KMITL	1	Remote spectrum analyzer		136,480.00	THB	under procurement
2005 ICT	KMITL	1	Computer Server	On-Line Lao Handwritten Feature with Automatic Noise and Real Feature Identification	194,633.00	THB	Fully utilized
2005 ICT	KMITL	1	Notebook Computer	Manifold Similarity Search of Biological Sequences using FPGA	63,665.00	THB	Fully utilized
2005 ICT	KMITL	1	Logic Analyzer Set		129,470.00	THB	Fully utilized
2005 ICT	KMITL	1	Tablet Notebook		91,485.00	THB	Fully utilized
2005 ICT	KMITL	1	Wireless EtherScope	QOS-Based Multimedia Service in Wireless Ad-Hoc Networks	269,640.00	THB	Fully utilized

Cost-sharing : Actual Implementation and Commitment from Member Institutions (as of 26 Mar 2007)

No	Type	By MI	Scope of Contribution	Status / Expenses (USD)		Period	Remark	
				Committed	Implemented			
1	Secretariat Office & Personnel	CU	Office space with necessary facilities including electricity, water supply, domestic phone charges, and parking space	18,980/year		2001 onwards		
		CU	Personnel	ED and AED		2001 onwards		
2	Scholarship or tuition waiving	NUS	2-3 partial Master's scholarships per year with 50% tuition fee and 50% allowance	14,935/student	4 cases 59,740	2005 onwards		
			3 direct PhD scholarships per year with 100% tuition and 100% allowance for 4 years	59,740/student	3 cases 179,220	2006		
			10 direct PhD scholarships per year with 100% tuition and 100% allowance for 4 years	59,740/student		2007 onwards		
			40 Master's or PhD scholarships in total with 100% tuition and 100% allowance	14,935/student/year		2007 onwards	Increase from 2-3 Master's scholarships per year committed in 2005	
		ITB	12 partial Master's or PhD scholarships in total for tuition and stipend	4,250/student/year		2007 onwards		
			2 Master's scholarships per year for full tuition fees	3,430/student		2007 onwards		
		UM	3 partial Master's scholarships per year for tuition fees	1,710/student		2007 onwards		
		UP	5 Master's scholarships in total for tuition, EDF, and other fees	16,480/student		2007 onwards		
			5 PhD scholarships in total for tuition, EDF, and other fees	23,220/student		2007 onwards		
		BUU	Tuition fee and stipend for maximum 3 years (for BUU staff studying PhD abroad)	11,800/student/year		2007 onwards		
3	Extension of Scholarship	NTU	100% tuition fee and 1/3 allowance for 1 semester		1 case 3,280	2004-2005		
			100% tuition fee		2 cases 3,290			
		NUS	100% tuition fee for maximum 1 semester	1,570/student/semester		1 case 1,570	2005 onwards	
			100% tuition fee for maximum 1 semester	1,570/student/semester		2 cases 3,140	2005 onwards	
		CU	100% tuition fee for 1 semester	1,740/student		1 case 1,740	2004	
			50% tuition fee for 1 semester	870/student		2 cases 1,740	2005	
		KMITL	100% tuition fee for maximum 1 semester	2,450/student/semester		5 cases 12,250	2006 onwards	formal letter from CHE
			50% tuition fee for maximum 1 semester	470/student/semester			2005	formal letter from CHE
			100% tuition fee for maximum 1 semester	940/student/semester		2 cases 1,880	2006 onwards	
			100% tuition fee for maximum 1 semester	610/student/semester		2 cases 1,880	2005 onwards	formal letter
100% tuition fee for maximum 1 semester	560/student/semester			1 case 560	2006			
100% tuition fee for maximum 1 semester	300/student/semester			3 cases 900	2005 onwards			
ITB	100% tuition fee for maximum 2 semesters for PhD students	4,600/student/semester			2006 onwards	Ad-hoc committee meeting in 2006		
	100% tuition fee for maximum 1 semester for Master's students	2,000/student/semester			2006 onwards	case by case		
	100% tuition fee for maximum 1 semester					yet to confirm		
	100% tuition fee for 1 trimester for PhD students					yet to confirm		
4	Upgrading of Master's student to PhD candidates	NUS	100% tuition fee and 100% allowance during additional 1.5-2 years	7,460/student/semester		2005 onwards	1 case to be upgraded in Semester 1 of 2007	
		NTU	100% tuition fee and 100% allowance during additional 1.5-2 years	7,460/student/semester		2005 onwards		
5	Conference Participation	NUS	Support of expenses to present paper at conferences (if quota is left from PhD students)	Maximum 2,620	1 case 330	2005 onwards	Overseas Conference	
		NTU	Support of expenses to present paper at conferences (if quota is left from PhD students)	Maximum 1,310	1 case 1,050	2005 onwards	Overseas Conference	
6	Research fund	BUU	Joint CR project fund	Maximum 7,085/proposal		2006 onwards	Depend on proposal	

No	Type	By MI	Scope of Contribution	Status / Expenses (USD)		Period	Remark
				Committed	Implemented		
7	Staff dispatch	UP	One year dissertation writing assistance overseas	Maximum 25,000		2007 onwards	
		NUS	Travel cost and allowance				
		NTU	Travel cost and allowance				
		BUU	Travel cost				
8	Publication	USM	Page charges for joint research paper with USM researchers under S/N program (excluding reprints)			2006 onwards	
		DLSU	Paper publication cost and personal copy of S/N students				
		UP	Publication and distribution cost				
		BUU	Publication cost				
9	Others	All MIs	Liaison Office (personnel, admin cost, communication charges, etc.)			2001 onwards	
		USM	Allowance for staff conducting promotional trip				

Note: Exchange rates as of March 2007

- 1 USD = 33.87261 THB
- 1 USD = 3.49243 RM
- 1 USD = 48.21092 PS
- 1 USD = 9046.903323 RP
- 1 USD = 1.52664 SGD

Rough Estimation of Cost-sharing from Member Institutions (as of 26 Mar 2007)

Fiscal Year	By MI	Scope of Contribution	Remark
2001	CU	Office space with necessary facilities including electricity, water supply, domestic phone charges, and parking space	
	All MIs	Liaison Office (personnel, admin cost, communication charges, etc.)	
	Total		
2002	CU	Office space with necessary facilities including electricity, water supply, domestic phone charges, and parking space	
	All MIs	Liaison Office (personnel, admin cost, communication charges, etc.)	
	Total		
2003	CU	Office space with necessary facilities including electricity, water supply, domestic phone charges, and parking space	
	All MIs	Liaison Office (personnel, admin cost, communication charges, etc.)	
	Total		
2004	CU	Office space with necessary facilities including electricity, water supply, domestic phone charges, and parking space	
	CU	100% tuition fee for 1 semester for extension case	
	NTU	100% tuition fee and 1/3 allowance for 1 semester for extension case	
	All MIs	Liaison Office (personnel, admin cost, communication charges, etc.)	
Total			
2005	CU	Office space with necessary facilities including electricity, water supply, domestic phone charges, and parking space	
	CU	50% tuition fee for 1 semester for extension case	1 case
	NTU	100% tuition fee for extension cases	2 cases
	NTU	100% tuition fee for maximum 1 semester for extension case	1 case
	NTU	Support of expenses to present paper at overseas conferences (if quota is left from PhD students)	1 case
	NUS	100% tuition fee for maximum 1 semester for extension case	1 case
	NUS	2-3 partial Master's scholarships per year with 50% tuition fee and 50% allowance	2 cases
	NUS	Support of expenses to present paper at overseas conferences (if quota is left from PhD students)	1 case
	USM	100% tuition fee for maximum 1 semester for extension case	2 cases
	All MIs	Liaison Office (personnel, admin cost, communication charges, etc.)	
Total			
2006	CU	Office space with necessary facilities including electricity, water supply, domestic phone charges, and parking space	
	CU	50% tuition fee for 1 semester for extension case	1 case
	CU	100% tuition fee for maximum 1 semester for extension case	5 cases
	KMITL	100% tuition fee for maximum 1 semester for extension case	2 cases
	NUS	3 direct PhD scholarships per year with 100% tuition and 100% allowance for 4 years	3 cases
	NUS	2-3 partial Master's scholarships per year with 50% tuition fee and 50% allowance	2 cases
	NUS	100% tuition fee for maximum 1 semester for extension case	1 case
	UM	100% tuition fee for maximum 1 semester for extension case	1 case
	USM	100% tuition fee for maximum 1 semester for extension case	1 case
	USM	Allowance for staff conducting promotional trip	
	All MIs	Liaison Office (personnel, admin cost, communication charges, etc.)	
Total			
2007	CU	Office space with necessary facilities including electricity, water supply, domestic phone charges, and parking space	
	CU	100% tuition fee for maximum 1 semester for extension case	2006 onwards
	BUU	Tuition fee and stipend for maximum 3 years (for BUU staff studying PhD abroad)	2007 onwards; based on 1 scholarship/year
	KMITL	50% tuition fee for maximum 1 semester for extension case	2005 onwards
	KMITL	100% tuition fee for maximum 1 semester for extension case	2006 onwards
	BUU	Joint CR project fund (depend on proposal)	2006 onwards
	BUU	Publication cost	2006 onwards
	BUU	Travel cost (domestic only)	2006 onwards
	ITB	100% tuition fee for maximum 2 semesters for PhD scholars	2006 onwards; based on 1-semester extension
	ITB	100% tuition fee for maximum 1 semester for Master's scholars	2006 onwards
	ITB	12 partial Master's or PhD scholarships in total for tuition and stipend	2007 onwards; based on 1 scholarship/level/year
	UGM	100% tuition fee for maximum 1 semester	yet to confirm
	NTU	100% tuition fee for maximum 1 semester for extension case	2005 onwards
	NTU	100% tuition fee and 100% allowance during additional 1.5-2 years for upgrade case	2005 onwards
	NTU	Support of expenses to present paper at overseas conferences (if quota is left from PhD students)	2005 onwards
	NTU	40 Master's or PhD scholarships in total with 100% tuition and 100% allowance	2007 onwards; based on 10 direct PhD scholarships/year
	NTU	Travel cost and allowance	2007 onwards
	NUS	100% tuition fee for maximum 1 semester for extension case	2005 onwards
	NUS	2-3 partial Master's scholarships per year with 50% tuition fee and 50% allowance	2005 onwards; based on 2 scholarships/year
	NUS	100% tuition fee and 100% allowance during additional 1.5-2 years for upgrade case	2005 onwards
NUS	Support of expenses to present paper at overseas conferences (if quota is left from PhD students)	2005 onwards	
NUS	10 direct PhD scholarships per year with 100% tuition and 100% allowance for 4 years	2007 onwards; based on 10 direct PhD scholarships/year	

Rough Estimation of Cost-sharing from Member Institutions (as of 26 Mar 2007)

Fiscal Year	By MI	Scope of Contribution	Remark
	NUS	Travel cost and allowance	2007 onwards
	DLSU	100% tuition fee for 1 trimester for PhD students	yet to confirm
	DLSU	Paper publication cost and personal copy of S/N students	2006 onwards
	UP	100% tuition fee for maximum 1 semester for extension case	2005 onwards
	UP	Publication and distribution cost	2006 onwards
	UP	5 Master's scholarships in total for tuition, EDF, and other fees	2007 onwards; based on 1 scholarship/year
	UP	5 PhD scholarships in total for tuition, EDF, and other fees	2007 onwards; based on 1 scholarship/year
	UP	One year dissertation writing assistance overseas	2007 onwards
	UM	2 Master's scholarships per year for full tuition fees	2007 onwards
	UM	3 partial Master's scholarships per year for tuition fees	2007 onwards
	USM	Page charges for joint research paper with USM researchers under S/N program (excluding reprints)	2006 onwards
	All MIs	Liaison Office (personnel, admin cost, communication charges, etc.)	
		Total	

Remarks:

n/a = Information is not available.

Cost-sharing in 2007 is projected estimation from commitments given by MIs.

CU also provide personnel in capacities of Executive Director and Assistant Executive Director.

Field-wise Seminar (2002-present) as of Mar 26, 2007

No.	FY	Field	Title	Organizer	Venue	Day 1	Day 2	Participants				Remarks	
								MI	Alumni	PhD Jp Student	SIN Student		Jp Prof.
1	2002	EEE	Quantum Structures for Nanoelectronics	CU	Bangkok	07/01/2003	08/01/2003	10					
2	2002	ChE	Regional Network in Chemical Education and Research	DLSU	Manila	04/03/2003	05/03/2003	12					
3	2002	EnvE	Regional Network in Chemical Education and Research	UP	Manila	04/03/2003	05/03/2003	12					
4	2002	ME/AE	Impact Mechanics and Vibration Based Failure Detection	ITB	Bandung	10/03/2003	11/03/2003						
5	2002	ICT	Recent Topics on Information Technologies	KMITL	Bangkok	13/03/2003	14/03/2003						
6	2002	ManuE	Collaborative Research in Manufacturing Engineering	UM	Kuala Lumpur	13/03/2003	14/03/2003						
7	2002	GeoE	Development of Networks for Research and Education in Mining and Geological Engineering	UGM	Yogyakarta	17/03/2003	19/03/2003						
8	2002	MatE	Seminar on Qualitative and Quantitative X-Ray Diffraction (XRD) Analysis and Its Application	USM	Penang	17/03/2003	19/03/2003						
9	2003	GeoE	Development of Strategic Plan for Research and Education in Geological Engineering	HCMUT	Ho Chi Minh City	25/08/2003	26/08/2003	6				3	
10	2003	ICT	ASEAN Microelectronics 2003 / Microelectronics, IC Design	UP	Manila	28/08/2003	29/08/2003	12				2	
11	2003	ChE	Development of Networks for Research and Education in Chemical Engineering and Environment Engineering	UGM	Yogyakarta	09/09/2003	10/09/2003	12				3	
12	2003	EnvE	Development of Networks for Research and Education in Chemical Engineering and Environment Engineering	UGM	Yogyakarta	09/09/2003	10/09/2003	0				0	ChE/EnvE, 9-10 Sep 03, total participants: 12, Total Jp Prof: 3
13	2003	MatE	Joining of Materials, Prospective, and Application	USM	Penang	21/10/2003	22/10/2003	11				2	In conjunction with RAMM conference (third international conference on recent advances in materials, mineral and environment)
14	2003	ManuE	Material and Manufacturing Technology	UGM	Yogyakarta	23/10/2003	24/10/2003	6				3	
15	2003	EEE	Mobile Communication and Related Signal Processing	CU	Bangkok	27/10/2003	28/10/2003	11				2	
16	2003	CE	Transportation and Development: A Road Toward Regional Prosperity in Harmony / Civil Engineering	CU	Bangkok	12/11/2003	13/11/2003	14				3	
17	2003	ChE	Environmental and Chemical Engineering	DLSU	Manila	01/12/2003	02/12/2003	11				3	
18	2003	EnvE	Current Trends and Development for Environmental and Chemical Engineering Education and Research	UP	Manila	01/12/2003	02/12/2003	0				0	ChE/EnvE, 1-2 Dec 03, total participants: 11, total Jp Prof: 3
19	2003	GeoE	Enhancement of Strategic Plan for Research and Education in Geological Engineering	USM	Penang	19/01/2004	20/01/2004	15				6	
20	2003	MatE	Nanomaterials - "Recent Advances, Perspective and Challenges"	UP	Manila	22/01/2004	23/01/2004	13				3	

No.	FY	Field	Title	Organizer	Venue	Day 1	Day 2	Participants				Remarks	
								MI	Alumni	PhD Jp Student	SIN Student		JP Prof.
21	2003	ME/AE	The Development of Master Plan for Education and Research in Mechanical and Aeronautical Engineering	HCMUT	Ho Chi Minh City	05/02/2004	06/02/2004	12				3	
22	2003	CE	Research Collaboration on Infrastructure	HCMUT	City	10/03/2004	11/03/2004	18				3	
23	2003	EEE	Power and Control Engineering	CU	Bangkok	11/03/2004	12/03/2004	9				2	
24	2003	ManuE	National Seminar on Manufacturing and Material Processing Technology	UM	Kuala Lumpur	17/03/2004	18/03/2004	13				4	
25	2004	ChE	Strengthening Collaboration on Research and Education in Chemical Engineering	HCMUT	Ho Chi Minh City	22/04/2004	23/04/2004	14				4	
26	2004	MatE	Processing-Properties Relationship in Biomaterials	USM	Penang	02/08/2004	03/08/2004	11				2	
27	2004	GeoE	Geological Engineering	UP	Manila	25/08/2004	26/08/2004	9				4	
28	2004	ManuE	Current Development and Research in Manufacturing Process	DLSU	Manila	07/10/2004	08/10/2004	15				3	
29	2004	ME/AE	Mechanical & Aeronautical Engineering	ITB	Bandung	11/10/2004	12/10/2004	13				4	
30	2004	EEE	Communications	UP	Manila	17/11/2004	18/11/2004	13				2	
31	2004	MatE	Composites and Advanced Materials: Design, Processing and Prosperities	HUT	Hanoi	29/11/2004	30/11/2004	10				2	
32	2004	EnvE	Strengthening Collaboration on Research and Education in Environmental Engineering	KMITL	Bangkok	01/12/2004	02/12/2004	12				3	In conjunction with Regional Symposium on Chemical Engineering (RSCE) 2004
33	2004	CE	Collaborative Research in Structural and Geotechnical Engineering	CU	Bangkok	02/12/2004	03/12/2004	15				3	
34	2004	GeoE	Strengthening Network on Education in Geological / Earth Resources Engineering of AUN/SEED-Net Program	UGM	Yogyakarta	13/12/2004	14/12/2004	10				3	
35	2004	ICT	Advanced Fields in Information and Communication Technology	KMITL	Bangkok	31/01/2005	01/02/2005	9				2	
36	2004	ChE	Sustainability in the Development of Chemical Engineering Education and Research in the ASEAN Region	DLSU	Manila	25/02/2005	26/02/2005	13				3	
37	2004	EnvE	Sustainability in the Development of Environmental Engineering Education and Research in the ASEAN Region	UP	Manila	25/02/2005	26/02/2005	16				3	
38	2004	ManuE	Collaborative Research on Product Design and Development, Manufacturing Processes, and Metrology	UM	Kuala Lumpur	28/02/2005	01/03/2005	13				4	
39	2004	ME/AE	Mechanical & Aeronautical Engineering	HUT	Hanoi	28/02/2005	01/03/2005	10				2	
40	2004	CE	Collaborative Research in Construction Management and Transportation Engineering	ITB	Bandung	09/03/2005	10/03/2005	14				2	
41	2004	EEE	Power and Control Engineering	HUT	Hanoi	21/03/2005	22/03/2005	10				3	
42	2005	MatE	Biomaterials, Nanomaterials, Advanced Materials and Composites	USM	Penang	16/05/2005	17/05/2005	10				3	
43	2005	GeoE	Strengthening Network on Geological and Earth Resources Education towards Sustainable Life and Environment	ITC	Phnom Penh	09/06/2005	10/06/2005	15				4	
44	2005	ICT	Information & Communications Technology and Electronics	HCMUT	Ho Chi Minh City	28/07/2005	29/07/2005	15				3	

No.	FY	Field	Title	Organizer	Venue	Day 1	Day 2	Participants					Remarks	
								MI	Alumni	PhD Jp Student	SIN Student	JP Prof.		
45	2005	EnvE	Sustainability in the Development of Environmental Engineering Education and Research in the ASEAN Region	UP	Manila	30/08/2005	31/08/2005	15					5	
46	2005	ChE	Chemical Engineering Education in the ASEAN Region: Facing the Challenges of Globalization	DLSU	Manila	01/09/2005	02/09/2005	15						6
47	2005	ME/AE	Mechanical & Aeronautical Engineering	UM	Kuala Lumpur	05/09/2005	06/09/2005	16						4
48	2005	ManuE	Manufacturing Engineering	CU	Bangkok	03/10/2005	04/10/2005	13						4
49	2005	EEE	Nano Electronics and Photonics	HUT	Hanoi	14/11/2005	15/11/2005	13						3
50	2005	ChE	Asia Link in Chemical Engineering Education and Research	HUT	Hanoi	30/11/2005	01/12/2005	15						3
51	2005	EnvE	Asia Link in Environmental Engineering Education and Research	HUT	Hanoi	30/11/2005	01/12/2005	15						4
52	2005	GeoE	Strengthening Network on Geo-Hazard and Earth Resources Management	CU	Bangkok	08/12/2005	09/12/2005	10						3
53	2005	MatE	Materials Performance and Processing	ITB	Bandung	25/01/2006	26/01/2006	13						2
54	2005	ICT	"Signal Processing" / Information & Communication Technology	KMITL	Bangkok	16/02/2006	17/02/2006	13						3
55	2005	ME/AE	Mechanical and Aeronautical Engineering	ITB	Bandung	24/02/2006	25/02/2006	12						3
56	2005	ManuE	Manufacturing & Material Processing Technology in conjunction with ICMM2006 on Manufacturing Innovation and Excellence through Research & Development	UM	Kuala Lumpur	14/03/2006	15/03/2006	15						2
57	2005	CE	The Fifth Field-wise Seminar in Civil Engineering	CU	Bangkok	16/03/2006	17/03/2006	30						3
58	2005	EEE	Control Engineering	CU	Bangkok	16/03/2006	17/03/2006	14						3
59	2006	MatE	Advanced Materials: Processing and Characterization	USM	Penang	22/05/2006	23/05/2006	12	0	0	0	0	0	3
60	2006	ME/AE	Mechanical & Aeronautical Engineering	CU	Bangkok	26/06/2006	27/06/2006	15	0	0	0	0	0	3
61	2006	GeoE	The 8th Field-wise Seminar on Geological Engineering Field And The 3rd International Symposium on Earth Resources and Geological Engineering Education and Research	UGM	Yogyakarta	03/08/2006	04/08/2006	15	1	0	0	0	0	3
62	2006	ICT	Computer and Control	UGM	Yogyakarta	07/08/2006	08/08/2006	14	1	0	0	0	0	3
63	2006	EnvE	Engineering Solutions to Environmental Challenges: A Regional Collaborative Approach	UP	Manila	01/08/2006	02/08/2006	15	1	0	0	0	0	3
64	2006	ChE	Strategic Directions Towards Strengthening Research Collaboration in Chemical Engineering in the ASEAN Region	DLSU	Manila	03/08/2006	04/08/2006	15	0	0	0	0	0	6
65	2006	CE	The 6th Field-wise Seminar in Civil Engineering	CU	Bangkok	05/10/2006	06/10/2006	16	1	0	0	0	0	2
66	2006	EEE	Multimedia Signal Processing and Communication Systems	CU	Bangkok	16/10/2006	17/10/2006	14	1	0	0	0	0	3
67	2006	CE	Enhancing Research Capabilities in structural and Geotechnical Engineering through collaboration	DLSU	Manila	26/10/2006	27/10/2006	14	1	0	0	0	0	2

No.	FY	Field	Title	Organizer	Venue	Day 1	Day 2	Participants					Remarks	
								MI	Alumni	PhD Jp Student	SIN Student	JP Prof.		
68	2006	EnvE	Supporting Sustainable Development Strategies through Collaborative R&D in Environmental Engineering	ITC	Phnom Penh	21/11/2006	22/11/2006	14	0	0	0	0	5	
69	2006	ChE	Strategic Program Development to Sustain Research Collaboration in Chemical Engineering in the ASEAN Region	ITC	Phnom Penh	23/11/2006	24/11/2006	14	1	0	0	0	6	
70	2006	GeoE	Geological Engineering Research and Education for the Life Society and Environmental Sustainability	NUJOL	Vientiane	05/12/2006	06/12/2006	15	1	1	0	0	5	
71	2006	ManuE	Commercialization of Research Products	NUJOL	Vientiane	21/12/2006	22/12/2006	15	1	1	1	0	2	
72	2006	ME/AE	Mechanical and Aeronautical Engineering	ITB	Bandung	22/02/2007	23/02/2007	0	0	0	0	0	0	
73	2006	ICT	Advanced topics in Communication Technologies	KMITL	Bangkok	26/02/2007	27/02/2007	10	0	0	0	0	4	
74	2006	MatE	Nanomaterials & Nanocomposites: Processing and Performance	HCMUT	Vietnam	08/01/2007	09/01/2007	13	1	1	0	0	5	
75	2006	ManuE	Manufacturing Systems	UM	Kuala Lumpur	05/03/2007	06/03/2007	15	1	1	0	0	3	+1 JP Prof. extended his stay from JPDp
76	2006	EEE	Distributed Generation: Applications & Impacts in Today's Power Systems...towards the Future	UP	Manila	21/03/2007	22/03/2007	15	1	1	0	0	3	

Special Workshops

No	Date	Venue	Workshop Title	Participants	Objectives
1	16-17 May 2002	Singapore	(1st IT Workshop) "Using Information Technology of Enhance Engineering Education"	34	<ol style="list-style-type: none"> 1. To familiarize key decision makers of Member Institutions of AUN/SEED-Net with various ways of using IT to enhance engineering education; 2. To come up with the strategy of AUN/SEED-Net on jointly creating and sharing IT-enhanced courseware in order to accomplish an objective of AUN/SEED-Net stipulated in the Cooperative Framework "...to effectively utilizing regionally available human resources for upgrading higher engineering education... not only advancing academic cooperation among themselves on an equal footing ... but also for providing educational and technical assistance to less advanced engineering institutions in the region, where appropriate"; 3. To explore the tentative policy towards IT-enhanced education and set up of the IT Committee.
2	10-13 February 2003	Bangkok, Thailand	(2nd IT Workshop & 1st IT Committee Meeting) "A Short Course on Developing IT-enhanced Engineering Courseware"	35	<ol style="list-style-type: none"> 1. To create or convert conventional lectures to IT-enhanced course materials; 2. To use the more common tools & techniques for authoring or enhancing courseware; 3. To apply the concepts and techniques in the development of a courseware through the preparation of sample modules; 4. To impart to others the concepts & skills necessary for developing IT-enhanced courseware
3	26 February 2004	Kuala Lumpur, Malaysia	(3rd IT Workshop & 2nd IT Committee Meeting) "Sharing the Experience and Exchanging the Idea on Developing IT-Enhanced Courseware"	36	<ol style="list-style-type: none"> 1. To present the outcome of IT-Enhanced Courseware Development Regular Project conducted at each MI; 2. To exchange ideas and to share experiences among participants
4	3-4 August 2005	Phuket, Thailand	"Workshop on Disaster Mitigation and Management"	29	<ol style="list-style-type: none"> 1. To share information and experiences on disasters among ASEAN countries and Japan; 2. To discuss the role of universities on disasters in terms of research and human resources development; 3. To identify the possible topics for collaborative activities on disasters in AUN/SEED-Net

Inception Activities (before the launch of Field-wise Support System)

Research Project Support Program under Inception Projects (JFY2001-2002)

No	MI	Field	Researcher	Project Title	Amount of Support (US\$)	Source of Funding
1	ITB(BRU)	CE	Mr. Aijaz Ahmad	To Develop Lightweight Foam Concrete Structural Elements for the Construction of Low Energy Houses in the Kampong (Water Village) of Brunei Darussalam	35,000	AF
2	ITC	CE	Mr. CHHOUK Chhay Horng	Determining the Strength Standard of Timbers in Cambodia	10,000	JICA
3	ITC	CE	Mr. LIM Sok Tay	Computerized Mapping and G.I.S. Database on Water-related Issues	9,892	JICA
4	ITB(INA)	ChE	Dr. Herri Susanto	Development of Ethanol-Fermentation Process for the Utilization of Oil-Palm Empty Fruit Bunches	10,000	JICA
5	ITB(INA)	ME	Dr. Ir. Ichsan S.Putra	Buckling Behaviour of Stiffened	25,000	JICA
6	ITB(INA)	ME	Dr. T.A. Fauzi Soelaiman	Use of LPG to Obtain Cleaner Fuel for the Environmnet and to Control Knock in Spark Ignition Engines	24,910	JICA
7	ITB(INA)	EEE	Prof. M. Barmawi, Ph.D.	Doping of GaN and AlGaN by Plasma Assisted MOCVD and its application to Photodiode and FET	25,000	JICA
8	ITB(INA)	ME	Dr. Muslinang Moestopo	Improved Behavior of Seismic Resistant Steel Braced Frames	9,900	JICA
9	ITB(INA)	ME	Dr. Ir. Adang Surahman	Energy Absorption Capacity of structural components under Reversed Cyclic Loading	24,900	JICA
10	ITB(INA)	EEE	Prof. Dr. Adrianto Handojo	Development of 3-D Surface Profile Measurement Techniques	24,000	JICA
11	ITB(INA)	CE	Dr. Ir. Benyamin Sapiie	Analogue Modeling of Tectonic Processes	9,997	JICA
12	ITB(INA)	CE	Dr. Ir. Adam Pamudji Rahardjo	Numerical Model Development of Swarm Bubble Kinematic and Oxygen Exchange in Aeration Tanks	24,410	JICA
13	ITB(INA)	CE	Dr.-Ing. Kusnanto	Lithium Aluminium Silicate (LAS) Glass Ceramics from Used Zeolite disposal	10,000	JICA
14	UGM	CE	Dr.-Ing. Harwin Saptoadi	Utilization of Ash Waste from Coal Fired Electric Power Plants to Produce Artificial Light Weight Aggregates	10,000	JICA
15	UGM	CE	Mr. Doni Prakasa Eka Putra	Integrated Water Resources Management in Merapi-Yogyakarta Basins	24,992	JICA
16	UGM	CE	Dr.-Ir. Danang Parikesit	Estimating Future Needs of Transportation Infrastructure and Services in the Southeast Asian Region	35,000	AF
17	NUOL	EEE	Mr. Khamphoui Southisombath	Wave Propagation According to Meteorological Aspects in Lao PDR	24,984	JICA
18	USM	EEE	Prof. Dr. Syed Idris Syed Hassan	To Study the Effect of Rain, TEC, Magnetic Storm and Weather on Satellite Link	5,910	AF
19	USM	ChE	Assoc. Prof. Dr. Abdul Rahman Mohamed	Flue Gas Desulfurization with Absorbent Utilizing Waste Material	10,000	JICA
20	USM	ME	Dr. Zainal Alimuddin	Biomass Gasification / Combustion System for Rural Electrification	25,000	JICA
21	DLSU	EEE	Rumel V. Atienza	E-Commerce Virtual Center for DLSU College of Engineering	10,000	JICA
22	UP	CE	Dr. Mark Albert H. Zarco	Seismic Response Analyses of Horizontally Layered Soli Deposits in Metro Manila	10,000	JICA
23	UP	CE	Dr. Nathaniel B. Diola	Development of Flowable Self-Compacting Concrete for Tropical (Hot-Weather) Environment	10,000	JICA
24	NTU	EEE	Asst. Prof. Dr. Charayaphan Charoensak	FPGA Implementation of MELP Encoder/Decoder	3,733	AF
25	CU	EEE	Dr. Roengdeja Rajatabhoti	Analysis and Design of Optical Fiber and Photonic Devices	10,125	JICA
26	CU	ME	Dr. Kanit Wattanavichien	Effects of Ethanol Contents on Diesohol Compression Ignition Engine Combustion and Emissions	15,288	AF
27	HUT	EEE	Prof. Dr. Than Duc Hien	Fabrication and Characterization of High-Tc Superconducting Thin Films	19,476	AF
28	HCMUT	EEE	Dr. Le Van Duc	Application of Near Infrared Low Power Semiconductor Laser in Treatment of Hemiplegia due to Cerebrovascular Accident (Strokes)	10,000	JICA

Inception Activities (before the launch of Field-wise Support System)
 Remarks: All are funded by ASEAN Foundation (AF)

Academic Seminars

No	Seminar Title	MI	Period	No of Participants Total	No of Participants supported by SEED-Net	Actual Spending (US\$)
1	The Experimental and Theoretical Mechanics 2002 Conference (ETM 2002)	ITB(INA)	18-19 March 2002	118	28	13,141
2	14th International Photovoltaic Science and Engineering Conference	CU	26-30 January 2004	400	11	8,089
3	Regional Conference on Aeronautical Science, Technology, and Industry (RC-ASTI) 2004	ITB(INA)	18-19 March 2004	108	10	8,912
4	The Workshop on High-Tc Superconducting Materials and Application (WHISMAS'2004)	HUT	15-16 April 2004	60	6	11,872
5	3rd International Conference on Engineering Education (ICEE)	DLSU	26-27 July 2004	N/A	7	12,715

Annex 12: 域内留学促進活動

Promotional Trips (JFY2003~present) as of March 2007

Objectives :

To recruit excellent candidates for the AUN/SEED-Net's Master's and Doctoral Degree Sandwich Programs

	SI	HI	CU	DLSU	CU	UP	UGM	KMITL	UM	USM	ITB	Total visits received
		CE	ChE	EEE	EnvE	GeoE	ICT	ManuE	MatE	ME/AE		
2003	Cambodia	ITC	●	●	●	●	●					5
		ITB								●		1
	Indonesia	UGM										0
		NUOL	●		●	●		●			●	5
	Malaysia	UM	●		●		●					3
		USM	●		●		●					3
	Myanmar	UY										0
		YTU										0
	Philippines	DLSU							●	●		1
		UP						●				2
	Thailand	BUU				●						1
		CU					●		●			2
		KMITL							●			1
	Vietnam	HCMUT	●	●	●	●		●	●	●	●	8
HUT		●	●		●		●		●	●	6	
Total visited universities			6	3	5	5	5	3	5	3	3	

	SI	HI	CU	DLSU	CU	UP	UGM	KMITL	UM	USM	ITB	Total visits received
		CE	ChE	EEE	EnvE	GeoE	ICT	ManuE	MatE	ME/AE		
2004	Cambodia	ITC		●	●	●	●	●	●	●	●	8
		ITB	●		●							2
	Indonesia	UGM			●	●		●		●		4
		NUOL	●			●	●	●		●		5
	Malaysia	UM	●								●	2
		USM									●	1
	Myanmar	UY					●					1
		YTU					●					1
	Philippines	DLSU	●									1
		UP	●				●					2
	Thailand	BUU										0
		CU									●	1
		KMITL				●					●	2
	Vietnam	HCMUT		●	●	●	●	●	●	●		6
HUT			●	●	●	●	●	●	●		6	
Total visited universities			5	3	5	6	7	5	3	3	5	

	SI	HI	CU	DLSU	CU	UP	UGM	KMITL	UM	USM	ITB	Total visits received
		CE	ChE	EEE	EnvE	GeoE	ICT	ManuE	MatE	ME/AE		
2005	Cambodia	ITC			●	●	●	●	●		●	6
		ITB			●					●		2
	Indonesia	UGM	●	●	●	●						4
		NUOL	●			●	●	●		●	●	6
	Malaysia	UM			●						●	2
		USM	●		●	●					●	4
	Myanmar	UY										0
		YTU		●	●							2
	Philippines	DLSU	●		●			●			●	4
		UP	●		●			●		●	●	5
	Thailand	BUU		●		●				●	●	4
		CU								●	●	2
		KMITL		●		●				●	●	4
	Vietnam	HCMUT	●	●	●	●	●	●	●	●	●	8
HUT			●	●	●		●		●	●	6	
Total visited universities			6	6	10	8	3	6	3	6	11	

	SI	HI	CU	DLSU	CU	UP	UGM	KMITL	UM	USM	ITB	Total visits received	
		CE	ChE	EEE	EnvE	GeoE	ICT	ManuE	MatE	ME/AE			
2006	Cambodia	ITC	●		●	●	●			●	●	6	
		ITB	●	●					●			3	
	Indonesia	UGM		●	●	●			●			4	
		NUOL	●		●	●	●	●		●	●	7	
	Malaysia	UM	●									1	
		USM										0	
	Myanmar	UY										0	
		YTU										0	
	Philippines	DLSU	●		●					●		3	
		UP	●		●		●		●			5	
	Thailand	BUU		●		●						●	3
		CU										●	1
		KMITL										●	1
	Vietnam	HCMUT	●			●	●	●	●	●	●	●	6
HUT					●	●	●	●		●	●	5	
Total visited universities			7	3	6	6	4	3	5	3	7		

Remarks * Sample of reports are available in separate documents

Short-term Visit within Member Institutions

- (1) To enrich, widen and deepen the scope of Collaborative Research Program
- (2) To stimulate productive research collaboration in nine engineering fields among all Member Institutions
- (3) To encourage AUN/SEED-Net graduates teaching at Member Institutions to be continuously involved in collaborative research with Host Institutions
- (4) To enhance "sustainability" of nine-field subnetworks through continuous research activities under themes of Collaborative Research Program.
- (5) To utilize Field-wise Seminars as a good platform to effectively promote research collaboration.
- (6) To support research activities of Member Institutions primarily in Cambodia, Laos, Myanmar, and Vietnam (CLMV countries).

Short-term Visit within Member Institutions (JFY 2004 - 2006)

No	JFY	No Name	MI	Field	HI	Contact Person at HI	Period	Duration	Research Topic
1	2004	1 Ms. Phayachat Yimsiri	BUU	CHE	DLSU	Prof. Dr. Susan A. Rocas	27 Feb 05 - 28 Mar 05	30 days	Microwave Pyrolysis of (Medical) Plastic Wastes
2	2004	2 Mr. Tuy Dao Quoc	HUT	CHE	DLSU	Assoc. Prof. Dr. Leonila C. Abella	1 Mar 05 - 30 Mar 05	30 days	Catalytic Processes for the Production of Syngas from Natural Gas
3	2004	3 Mr. Loc Ngo Sy	HUT	ME/AE	ITB (INA)	Assoc. Prof. Dr. Ichsan Setya Putra	14 Mar 05 - 22 Mar 05	9 days	Development of the Mesh Free Methods for Dynamic Fracture Problem.
4	2005	1 Mr. Nhinxay Visane	NUOL	CE	CU	Asst. Prof. Dr. Tirawat Boonyatavee	6 Nov 05 - 19 Nov 05	14 days	High Speed Ballistic Impact on Composite-Ceramics Plate (To formulate Collaborative Research)
5	2005	2 Asst. Prof. Dr. Alexis M. Filone	DLSU	CE	CU	Dr. Sakith Chalermpong	10 Mar 06 - 19 Mar 06	10 days	Transit Accessibility Improvement Project - Phase I (TAIP I)
6	2005	3 Mr. Jason Maximino Ongpeng	DLSU	CE	CU	Dr. Vachara Peansupap	17 Mar 06 - 26 Mar 06	10 days	(To formulate Collaborative Research)
7	2005	4 Assoc. Prof. Dr. Suyyo Purwono	UGM	CHE	DLSU	Assoc. Prof. Dr. Luis F. Razon	3 Sep 05 - 10 Sep 05	8 days	Catalytic Processes for the Production of Syngas from Natural Gas
8	2005	5 Dr. I Made Bandyasa	UGM	CHE	DLSU	Prof. Dr. Servillano Jr. Olano	20 Mar 06 - 29 Mar 06	10 days	CO2 Fixation and Utilization by Conversion to Biomass using an Integrated Absorption-Biofilm-Algal Photo-bioreactor System.
9	2005	6 Dr. Vimate Phoumvong	NUOL	ENVE	UP	Assoc. Prof. Dr. Jose C. Munoz	20 Feb 06 - 4 Mar 06	13 days	Experimental Studies on production of biodegradable cassava based food packaging material
10	2005	7 Balangue	UP	GeoE	UGM	Dr. Agung Harijoko	25 Aug 05 - 7 Sep 05	14 days	Exploration and Utilization Studies of Geothermal Energy as Alternative Energy Resources (Silica scaling problem at the geothermal field)
11	2005	8 Assoc. Prof. Dr. Ismail Abustan	USM	GeoE	UGM	Assoc. Prof. Dr. Dwikornita Kamawali	23 Oct 05 - 1 Nov 05	10 days	Development of Sustainable Slope Protection in Tropical Residual Soils
12	2006	1 Dr. Siti Malkhamah	UGM	CE	CU	Assoc. Prof. Dr. Sarawit Narupiti	22 Jul 06 - 31 Jul 06	10 days	(To formulate Collaborative Research)
13	2006	2 Dr. Muhammad Abduh	ITB	CE	CU	Dr. Vachara Peansupap	5 Feb 07 - 16 Feb 07	12 days	(To formulate new Collaborative Research from an on-going project "Productivity Improvement for Pre-fabrication Installation in Housing Project through Wireless Technology")
14	2006	3 Dr. Soulyphan Kamthua	NUOL	CE	CU	Assoc. Prof. Dr. Thanit Tongthong	7 Mar 07 - 17 Mar 07	11 days	(To formulate Collaborative Research)
15	2006	4 Mr. The Nam Long Doan	HCMUT	CHE	DLSU	Assoc. Prof. Dr. Luis F. Razon	1 Aug 06 - 20 Aug 06	20 days	Catalytic Processes for the Production of Syngas from Natural Gas
16	2006	5 Mr. Quyen Vu Ngoc	HUT	CHE	DLSU	Prof. Dr. Leonila C. Abella	1 Sep 06 - 30 Sep 06	30 days	Removal of Arsenic from Geothermal Water by Using Adsorption
17	2006	6 Dr. Mohammad Fahurozi	UGM	CHE	DLSU	Asst. Prof. Dr. Marylou M. Uy	21 Jan 07 - 1 Feb 07	12 days	Extraction of Essential Oil of Ginger by Microwave Assisted Process
18	2006	7 Mr. Nguyen Huu Thanh	HUT	EEE	CU	Asst. Prof. Dr. Supavadee Aramvith	14 Jun 06 - 23 Jun 06	10 days	(To formulate Collaborative Research)
19	2006	8 Mr. KEO Lychek	ITC	EEE	CU	Assoc. Prof. Dr. David Banjerdpongchai	7 Nov 06 - 12 Nov 06	6 days	Development of Infrastructures of Control Systems Technology
20	2006	9 Mr. Franz de Leon	UP	EEE	CU	Asst. Prof. Dr. Supavadee Aramvith	4 Mar 07 - 13 Mar 07	13 days	(To formulate Collaborative Research)
21	2006	10 Balangue	UP	GeoE	UGM	Dr. Agung Harijoko	1 Feb 07 - 8 Feb 07	8 days	Exploration and Utilization Studies of Geothermal Energy as Alternative Energy Resources (Silica scaling problem at the geothermal field)
22	2006	11 Mr. Soy Ty	ITC	GeoE	UGM	Assoc. Prof. Dr. Dwikornita Kamawali	11 Mar 07 - 18 Mar 07	8 days	Development of Sustainable Slope Protection in Tropical Residual Soils
23	2006	12 Ms. Pihong Phiphachanh	NUOL	GeoE	UGM	Assoc. Prof. Dr. Dwikornita Kamawali	11 Mar 07 - 18 Mar 07	8 days	Development of Sustainable Slope Protection in Tropical Residual Soils
24	2006	13 Dr. Muhammad Wasz Wildan	UGM	ManuE	UM	Dr. Mohd Hamdi Abdul Shukor	9 Jan 07 - 16 Jan 07	8 days	Development and Fabrication of Hydroxyapatite Bone Graft for Implant Application
25	2006	14 Assoc. Prof. Dr. Alva Edy Tontowi	UGM	ManuE	UM	Dr. Mohd Hamdi Abdul Shukor	9 Jan 07 - 16 Jan 07	8 days	Design and Manufacturing of Brazed Joint Laminated Mold with Conformal Cooling Channel for Plastic Injection Molding
26	2006	15 Dr. Subagyo	UGM	ManuE	UM	Prof. Dr. Zahari Taha	9 Jan 07 - 16 Jan 07	8 days	Prediction of Rolling Bearing Failure Using Finite Element Model Simulation
27	2006	16 Mr. Thanongsak Thepsonthi	BUU	ManuE	UM	Dr. Mohd Hamdi Abdul Shukor	9 Jan 07 - 16 Jan 07	8 days	The Effect of Brazing Parameters on the Mechanical Properties of AlN/Cu System