### Field | Host Institution
--- | ---
Chemical Engineering (ChE) | De La Salle University (DLSU)
Civil Engineering (CE) | Chulalongkorn University (CU)
Electrical & Electronics Engineering (EEE) | Chulalongkorn University (CU)
Environmental Engineering (EnV) | University of the Philippines-Diliman (UP)
Geological Engineering (GeoE) | Gadjah Mada University (UGM)
Information & Communication Technology (ICT) | King Mongkut’s Institute of Technology Ladkrabang (KMITL)
Manufacturing Engineering (ManuE) | University of Malaya (UM)
Materials Engineering (MatE) | Universiti Sains Malaysia (USM)
Mechanical / Aeronautical Engineering (ME/AE) | Institut Teknologi Bandung (ITB)

### AUN/SEED-Net at a Glance

- **Establishment of AUN/SEED-Net Project**: 23 April 2001
- **Duration of Project Phase II**: 5 years (March 2008- March 2013)
- **Number of Member Institutions in ASEAN**: 19 universities in 10 countries
- **Number of Japanese Supporting Universities**: 11 universities in Japan
- **Number of Scholarships Awarded (as of March 2012)**: 799
  - Master’s Degree Program: 496 (since 2001)
  - Ph.D. Sandwich Program: 143 (since 2003)
  - Ph.D. Program in Japan: 128 (since 2002)
  - Ph.D. Program in Singapore: 32 (since 2006)
- **Number of Graduates (as of March 2012)**: 504
  - Master’s Graduates: 373
  - Ph.D. Graduates: 131
- **Sources of Fund in Phase II**: Government of Japan through JICA, ASEAN Foundation, Member Countries and Member Institutions
- **JICA Project for AUN/SEED-Net: Chief Advisor**: Prof. Dr. Chitoshi Miki
- **AUN/SEED-Net Secretariat: Executive Director**: Assoc. Prof. Dr. Prakit Tangtisanon
## Abbreviations & Acronyms

### Activities/Programs
- **CR**: Collaborative Research
- **CRI**: Collaborative Research with Industry
- **JPDP**: Japanese Professor Dispatch
- **MS**: Master’s Degree
- **PhD JP**: Doctoral Degree in Japan
- **PhD SIN**: Doctoral Degree in Singapore
- **PhD SW**: Doctoral Degree Sandwich
- **RA**: Research for Alumni Members
- **RC**: Regional Conference
- **SDM**: Special Research for Disaster Prevention & Mitigation
- **SRA**: Special Research for Alumni Members
- **SRJP**: Short-term Research in Japan
- **SSJP**: Short-term Study in Japan
- **SVAS**: Short-term Visit in ASEAN

### Engineering Fields
- **CE**: Civil Engineering
- **ChE**: Chemical Engineering
- **EEE**: Electrical & Electronics Engineering
- **EnvE**: Environmental Engineering
- **GeoE**: Geological Engineering
- **ICT**: Information & Communication Technology
- **ManuE**: Manufacturing Engineering
- **MatE**: Materials Engineering
- **ME/AE**: Mechanical/Aeronautical Engineering

### Interdisciplinary Areas
- **BioT**: Biotechnology
- **DM**: Disaster Mitigation
- **GEnv**: Global Environment
- **NRM**: Natural Resources & Materials
- **NRE**: New/Renewable Energy

### Japanese Supporting Universities
- **Hokkaido**: Hokkaido University
- **Keio**: Keio University
- **Kyoto**: Kyoto University
- **Kyushu**: Kyushu University
- **GRIPS**: National Graduate Institute for Policy Studies
- **SIT**: Shibaura Institute of Technology
- **Tokai**: Tokai University
- **TIT**: Tokyo Institute of Technology
- **TUT**: Toyohashi University of Technology
- **Tokyo**: The University of Tokyo
- **Waseda**: Waseda University

### Member Institutions
- **BUU**: Burapha University
- **CU**: Chulalongkorn University
- **DLSU**: De La Salle University
- **HCMUT**: Ho Chi Minh City University of Technology
- **HUST**: Hanoi University of Science and Technology
- **ITB**: Institut Teknologi Bandung
- **ITB-BRU**: Institut Teknologi Brunei
- **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-Diliman
- **USM**: Universiti Sains Malaysia
- **UY**: University of Yangon
- **YTU**: Yangon Technological University

### Organizations and Other Terms
- **AF**: ASEAN Foundation
- **ASEAN**: Association of South East Asian Nations
- **AUN**: ASEAN University Network
- **AUN/SEED-Net**: ASEAN University Network/Southeast Asia Engineering Education Development Network
- **HI**: Host Institution
- **JFY**: Japanese fiscal year (April - March)
- **JICA**: Japan International Cooperation Agency
- **JSU**: Japanese Supporting University
- **JSUC**: Japanese Supporting University Consortium
- **MI**: Member Institution
- **Si**: Sending Institution
As stated in the ASEAN Charter Article 1(10), one of ASEAN’s purposes as reflected on the Charter is to “develop human resources through closer cooperation in education and life-long learning, and in science and technology, for the empowerment of the peoples of ASEAN and for the strengthening of the ASEAN Community”.

This highlights the very strong focus on the social dimensions of development in ASEAN as well as represents ASEAN’s aspirations to promote greater educational cooperation among member states and to strengthen education within them, in order to; i) narrow the development gaps, ii) prepare youth for regional leadership, and iii) increase the competitiveness of the people.

As an autonomous sub-network of the ASEAN University Network (AUN), AUN/SEED-Net plays a critical role in addressing these educational objectives on narrowing development gaps and to eventually increase the competitiveness of ASEAN peoples. The promotion of human resources development in engineering in ASEAN will be instrumental in our vision of a knowledge-based ASEAN, prepared to advance integration within ASEAN and stimulate development amongst ASEAN Member States.

The ASEAN Secretariat recognizes and would like to commend, indeed, the work done by AUN/SEED-Net over the years in this area. With the achievements that AUN/SEED-Net have realized for the year 2011-2012, the ASEAN Secretariat does hope that in the future, there will be more opportunities for these capacity building efforts to be expanded to other tertiary institutions within ASEAN, so as to achieve the ASEAN’s educational purposes, as articulated in the Charter.

Dato’ Misran Karmain
Deputy Secretary-General of ASEAN
for ASEAN Socio-Cultural Community
ASEAN Secretariat
Message from AUN Secretariat

It has been another successful year for AUN/SEED-Net. The network has been continuously growing and contributing to the development of the people in ASEAN region as well as strengthening the long-standing partnership between ASEAN and Japan. The linkage between Member Institutions, Japanese Supporting Universities and other partner organisations has been strong and bonding through the time. On behalf of the AUN Secretariat, I would like to take this opportunity to deliver my sincere thanks to all of our friends from ASEAN and Japan for their efforts that tremendously help this network towards various achievements with the long-term benefits for our societies.

AUN SEED-Net has long been the successful AUN thematic network and it has always been the core programme that sits in the key composition of the ASEAN 5-Year Plan of Education and, ultimately, its works are instrumental for the region to realising the goals stated in the ASEAN Road Map. This year, the AUN/SEED-Net Phase II has come to its fourth year. We have together witnessed the works and progress of the network in various aspects including capacity building of teaching staff, creating the pool of calibre human resources in engineering, high quality research and various joint activities and collaboration with the industries. We are expecting for the continuation of this remarkable progress being carried out into the Phase III and I am confident that the extension, continuation and sustainability of the AUN/SEED-Net would enable the network to take the further steps, advance its works, widen the reach and deepen the impacts to the peoples, societies and the regions in the way that we have always envisioned. Our community has been planted with this seed of future and of partnership and we will together witness the growth and its fruits that shall nurture our next generations to come.

Finally, the AUN Secretariat will continue to support the works and activities of AUN/SEED-Net with its utmost capacity, and we are determined to set sail together with our friends to move forward in an attempt to address the challenges and achieve our collective goals. In capacity of the Executive Director of ASEAN University Network, I would like to place my commitment and strong support in facilitating AUN/SEED-Net’s endeavours for the successful implementation and progress. Today, the network will continue to grow and I am certain that we will see further development and collaboration between universities and partner organisations which will lead us to fulfilling our mission of collective growth and mutual prosperity

Assoc. Prof. Dr. Nantana Gajaseni
Executive Director
ASEAN University Network

Message from JICA

This year 2012 is a very important year for AUN/SEED-Net in two folds: First, it is the last year of the Phase II of AUN/SEED-Net Project. The Project has been successfully implemented for the past years with tremendous efforts of the member institutions and member countries, further improving educational and research capacity of the member institutions and strengthening the academic network in the field of engineering in the region. The network has also been putting lots of efforts to address regional common issues by bringing together experts and researchers from within the region to discuss and conduct collaborative research activities on these common issues. The seminar on disaster prevention and mitigation, for example, was held in August 2011, to share Japan’s experiences of the Great East Japan Earthquake that took place in March 2011 with the member institutions from ASEAN, which was then followed by several collaborative research projects by researchers from the region. The Final Evaluation planned for July 2012 will be a good opportunity to review and summarize these achievements of the Phase II of the Project.

Second, 2012 is the year for the intensive preparation for Phase III of the Project. In the ASEAN-Japan Plan of Action of the Bali Declaration from the ASEAN-Japan Summit held in Indonesia in November 2012, it was mentioned to promote human resource development in science and technology through AUN/SEED-Net. With this important commitment by the leaders of Japan and ASEAN, and with recommendations from the Advisory Committee that discussed future directions of AUN/SEED-Net in the year 2010-2011, the preparation for Phase III started early this year.

The Advisory Committee recognized three key issues that the region faced today, which were (1) Advancement of industry in the region that required higher-skilled human resources, (2) Increased importance to address global issues, and (3) Brain drain of Asian human resources to USA and Europe for advanced study and research. With this recognition, three directions of the Phase III was recommended by the Committee: (1) to contribute to advancement of industry in the region, (2) to address global issues in Asia commonly faced by ASEAN countries, and (3) to strengthen capacity of the member institutions and academic network in Asia in order to establish a platform for promotion of science and technology in the region.

The preparation has been taking place since early 2012, by having intensive discussions with all stakeholders including member country governments, member institutions, Japanese supporting universities, AUN Secretariat and ASEAN Secretariat, to design details of Project activities and implementation mechanisms based on the directions presented by the Advisory Committee.

We will continue the efforts for this preparation towards the end of the Project Phase II cooperation period, with a strong hope that we can make a good start of Phase III in March 2013 and that the Phase III could further contribute to the advancement of the industry, to address global common issues and lead to establishment of a platform for promotion of science and technology in the region. In addition, it is strongly expected that the AUN/SEED-Net would contribute to the integration of ASEAN, especially in encouraging people-to-people activities.

Lastly, I would like to express my sincere gratitude to all the concerned parties for the continuous commitment to the project activities.

Ms. Nobuko Kayashima
Director General
Human Development Department
Japan International Cooperation Agency
As an Executive Director, I am delighted to say that the year 2011 has marked another fruitful year for AUN/SEED-Net. Despite some difficulties and challenges taking place in many of our member countries, including the flood in Thailand that caused temporary close down of our Secretariat office, both on-going activities and new programs were smoothly carried on with kind contribution and active collaboration from all the members.

Our mission to improve educational and research capacity of the universities in ASEAN region has been continuously committed. In the meantime, the importance of the industrial sector involvement is also realized. Therefore, there have been increasingly efforts from various parties to reach out to and to more and more engage with the industry. As an example of such new programs, Collaborative Research with Industry was implemented. 12 projects were awarded with more than 500,000 USD in research fund granted. The researches will be conducted for two consecutive years with close cooperation from a number of well-known international companies. Such success has proved that we are on the right track and that encourages us to sustain the involvement beyond the phase II.

As we are now less than a year before the end of phase II in March 2013, with the approvals from the government of Japan as well as from the government of member countries, the preparation of the next phase is progressively underway. Our Secretariat together with the fellow member institutions and Japanese Supporting Universities have brainstormed and formulated another five-year phase of AUN/SEED-Net. To this great extent, I would like to convey my sincere appreciation to all efforts and supports that every single individual in our big regional family will bring to grow, to strengthen, and to sustain our collaboration in years to come.

The past four years with AUN/SEED-Net have been my honor and privilege to be a part of this enthusiastic and dedicated project team. Since this is the last year of my assignment as the Executive Director, I would like to extend my gratitude to all parties, including Japanese Government, Governments of the ASEAN Member Countries, fellow ASEAN Member Institutions, Japanese Supporting Universities, ASEAN Secretariat, ASEAN Foundation, and staff at Secretariat office. Their hard work has played vital role in today’s success of the network. I wish you all remarkable accomplishments in the quest for a better and brighter future for ASEAN and Japan.

Assoc. Prof. Dr. Prakit Tangtisanon
Executive Director
AUN/SEED-Net Secretariat

Message from Chief Advisor

My sincere greetings to all. Thank you for taking time to read our 2011/2012 Annual Report.

Entering the fourth year of Phase II, AUN/SEED-Net kept moving forward at firm and confident pace with the significant support from various organizations in ASEAN and Japan. Our Host Institutions and Japanese Supporting Universities, for instance, continued to advance knowledge of students and researchers in ASEAN by providing a noteworthy learning experience based on the teaching and research excellence and support of intellectual. Government and relevant ministries of the respective countries likewise retained the strong sense of support to facilitate the mission of AUN/SEED-Net. Industrials and private sector also presented a good sign of support through research collaboration with faculty staff of the Member Institutions.

Our Supporting Programs continued to flourish with three new programs introduced in JFY2011. First, Collaborative Research Program with Industry (CRI), which conceptualized new scheme of research ties between university and industry. Second, Special Research Fund for Alumni Members (SRA) that provided our alumni with sufficient resources they need to continue doing research. Lastly, Special Research Program for Disaster Prevention and Mitigation (SDM) for researchers to conduct research to tackle the natural disaster challenging their region. These new supporting programs were made possible by the additional research fund from government of Japan to promote research activities in ASEAN countries through AUN/SEED-Net.

JFY 2011 also marked the first year of the presence of ASEAN Engineering Journal (ASEAN E.J.). The first issue of ASEAN E.J. was successfully launched in June 2011. My special appreciation and thanks go to the members of Editorial Board, reviewers, authors, readership, as well as Secretariat. Year by year, AEJ would become the collection of state-of-the-art and high quality research developments in all main disciplines of engineering of ASEAN.

Lastly, I wish to extend my gratitude to all organizations and people involved in our network throughout the past year. As our dynamic organization moves forward, I wish for the strong and continuous supports from the current members and the new comers. Together we can ensure the future success of the Network. I conclude my message here and hope that you take more minutes to review our collective accomplishments highlighted in the report.

Prof. Dr. Chitoshi Miki
Chief Advisor
JICA Project for AUN/SEED-Net
Goal and Expected Outputs of Phase II

The goal of Phase II (March 2008 – 2013) is that the foundation of a sustainable framework of human resource development network in engineering field, aiming at contributing to development of societies, is established in ASEAN under the ownership of the member countries.

Expected outputs of Phase II include:

• Capacity enhancement of the member institutions through upgrade of faculty qualifications by Graduate Degree Scholarship Programs
• Collaborative research for industry and community through cooperation between ASEAN and Japanese researchers supported by Collaborative Research Program and Japanese Professor Dispatch Program
• Engineering network strengthening through annual gathering and knowledge exchange facilitated by Regional Conference Program
• Establishment of Graduate School Consortium of Engineering among ASEAN and Japan through development of online bibliography and database, as well as journal publication under the ASEAN Engineering Research Gateway Program
Even though there seemed to be a significant decrease in the number of applications for the Master’s Degree Program by 25% in the year 2011 compared to applications received in 2010, the application number of 160 is still considered slightly above average number from the year 2008 which was the start of the AUN/SEED-Net Project Phase II. The top three popular fields that attracted the most applications this year are still Environmental Engineering (EnvE, hosted by UP, received 28 applications), followed by Civil Engineering (CE, hosted by CU) and Geological Engineering (GeoE, hosted by UGM), which received 26 applications each. Most of the applicants were fresh graduates and final-year students.

The Member Institutions that sent the most applicants in JFY 2011 were ITC (45 applicants with 13 successful), and NUOL (23 applicants, with 10 successful), followed by HUST (15), UGM (13), and HCMUT (10).

In total, 45 scholarships were granted for Master’s Degree Program and the Project managed to make equal distribution of five students to each of the nine engineering fields.

For Master’s Degree Program in JFY 2012, there were 199 applications. The top three fields that attracted the most applications were still GeoE (37), EnvE (33), and CE (26).

First of all I would like to express my thanks to AUN/SEED-Net for the precious opportunity to enroll in the prestigious Master program at Chulalongkorn University (CU), Thailand. Here, I find myself fully facilitated to study and do research in the field of civil engineering.

It has been very exciting and challenging to study in CU. The kindness and enthusiasm received from professors, friends and staffs helped me to gradually get used to and get on well with a new environment as well as different cultures. Campus life at CU brought about an improvement in my communication, presentation, and English skills. Besides, I find flexible courses and extracurricular activities such as various study trips organized by International School of Engineering very useful. Last year, I was offered two opportunities to attend international conferences in Indonesia and Japan through which my knowledge and skills were broadened and enhanced.

Over the last two years, I have found myself a place as a student in the vigorous environment at CU where international students gain plenty of assistance from clear policies and helpful staff. After obtaining a Master’s degree in June 2012, I decided to further my research career at the PhD level; and once again, I was successful to receive the scholarship from AUN/SEED-Net. Within the scholarship framework, I will do research in both CU and Kyoto University, one of the best Japanese universities where I can enrich my knowledge as well as acquire the educational development in Japan.

I was blessed with the opportunity to become a student under the scholarship program of AUN/SEED-Net. I believe that with joint supervision of the professors of Chulalongkorn University and Kyoto University, and with my persistence and determination, I will be able to contribute to the development of developing countries in general and that of Vietnam in particular. I wish for sustainability of the AUN/SEED-Net program, and pledge to do my best to maintain the success of this program.

Mr. Sy Tien Do, master’s graduate cum PhD candidate of CU and faculty staff of HCMUT
**Doctoral Degree Sandwich Program**

For the JFY 2011, with two-batch calls for applications in October 2010 and in May 2011, the Doctoral Degree Sandwich Program received in total 33 applications (10 in the first batch and 23 in the second batch) from 30 applicants (10 in the first batch and 20 in the second batch). Similar to the Master’s Degree Program, although the number of applications in the JFY 2011 seemed to decrease from 40 applications in JFY 2010, it is still considered slightly above average when compared to the record so far from the JFY 2008 (23 applications) and 2009 (28 applications).

When closing up to the application number to each field, the fields that were the most popular for the Doctoral Degree Sandwich Program 2011 were EnvE, CE, and Electrical & Electronics Engineering (EEE, hosted by CU) which received 5 applications each, and followed by Information and Communication Technology (ICT, hosted by KMITL) and Chemical Engineering (CHE, hosted by DLSU) which received 4 applications each.

However, despite the high application number in the fields of EnvE, CE, and EEE, the Project was able to award more scholarships mainly to the fields of ICT (3) and GeoE (2). This was due to the high requirements of the hosting universities especially as a few declination of the scholarships awarded. The Project would need to put its efforts in promoting more applications for the Doctoral Degree Sandwich Program in the future.

Although the Project did not receive any applications for Master’s Degree Program 2011 from MIs in Myanmar, there were as many as 10 applications from Myanmar to the Doctoral Degree Sandwich Program, which is about 30% of the total number of applicants/applications, and Yangon Technological University (YTU) was the third rank of the MIs that sent the most applications to the program (6 applications from 6 applicants), following NUOL (8 applications from 8 applicants) and HCMUT (7 applications from 6 applicants). And the MIs that received the most scholarship awards for the Doctoral Degree Sandwich Program 2011 were NUOL (7), HCMUT (5), followed by University of Yangon (UY, 4) and YTU (4).

**Short-term Study Program in Japan**

The Short-term Study Program in Japan (SSIP) was designed for AUN/SEED-Net Doctoral Degree Sandwich students in order to provide them with opportunity to conduct research at the Japanese Supporting Universities under the supervision of respective Japanese co-advisor. The maximum period of the program is eight months. Students may choose to conduct only one trip for eight months maximum, or can also conduct two trips (one-month trip & seven-month trip) during the whole scholarship period. In principle, the AUN/SEED-Net encourage students to make two trips, starting with one-month trip first for detail planning of research activity in Japan, and followed by seven-month trip for actual research activity. Anyhow, decision making should be based on careful discussion and planning together with advisor at Hosting Institution as well as with co-advisor at Japanese Supporting Universities.

In the JFY 2011, 23 doctoral sandwich students participated in the SSIP program, seven of which made a short visit (Short-SSIP) for one month, 14 made a long visit (Long-SSIP), and two made both kinds of trip in the same year.
In JFY 2011, the number of applications to Doctoral Degree Program in Japan declined slightly from the previous year. In total, 39 applications from 10 MIs were submitted, which over 50% of them came from ITC and UGM. Noticeably, NUOL submitted an application for the first time in Phase II, while USM submitted seven applications, its biggest number yet, in the field of MatE.

Despite the lower number of applications, the quota of 18 scholarships per year has been continued in order to produce the steady number of fresh doctoral degree graduates from Japan, who are armed with the most updated knowledge and research skill in engineering, to return and contribute to ASEAN. With the most number of applications, ITC was awarded six scholarships this year, followed by UGM who received five. All three applicants from HCMUT were successfully awarded. The interest in the program rose again in JFY2012, as the number of applications increased to 54. ITC remained the SI with most applications and its number even went up. Much welcome were the applications from two MIs from Myanmar which totaled 14, the greatest number of submission from the country thus far in the Project.

I would like to express my deep gratitude to all professors for their guidance, and also to AUN/SEED-Net and JICA for the financial support during my study in Japan. This program is really a good opportunity for developing countries as we can go to study abroad, learn teaching method and style of a foreign university, and do researches with full support of modern experimental equipment. Based on these factors, after returning to our mother-land, we can share our knowledge and experience with our university, friends and students.

Staying in Japan was at first a bit difficult for me: different food, little understanding of Japanese language, unfamiliar society and etc. However, after a few months, I became familiar with those gradually.

I was advised by Prof. Yoshio Yamamoto from Tokai University. Under his kind and patient guidance, my study progress was as smooth as planned and I finished all requirements to fulfill the doctoral degree. For the study within a limited period, making a study progress plan and following the plan strictly could help me catch the goal.

Dr. Yu Yu Lwin, PhD graduate of Tokai University and faculty staff of YTU, and her advisor Prof. Yoshio Yamamoto
Ten monitoring visits were conducted from December 2011 to January 2012 for students in Master’s Degree Program, Doctoral Degree Sandwich Program, and Doctoral Degree in Singapore Program. The monitoring of students under Doctoral Degree in Japan Program is conducted by JICA Headquarters and Centers and informed to AUN/SEED-Net. The number of graduates from the JFY 2003 to 2011 is 504 graduates in total. The SI that has the highest number of graduates is UGM (92), followed by ITC (78), NUOL (77), HCMUT (73), and HUST (61).

Among 504 graduates, the program that has the most graduates is Master’s Degree Program at 373 while Doctoral Degree in Singapore Program has only eight graduates. In the JFY 2011, 66 students completed and received the degree. As Master Degree’s Program offers the highest number of scholarships, more than half of the graduates of AUN/SEED-Net belong to this program. Among these graduates, nine of them extended their graduation to the beginning of 2012. The reasons for extension were mostly for thesis completion.

According to student status as of March 2012, there are 227 students studying in our programs including Master’s Degree, Doctoral Degree in Japan, Doctoral Degree Sandwich, and Doctoral Degree in Singapore. There are 32 students who have been suspended and another 32 students have been terminated from 2003. Among the graduates of the JFY 2011, 38% of the graduates returned to sending institutions for the position of faculty staff; while 41% of them furthered their study in a higher degree.

For publications report, students and alumni of AUN/SEED-Net programs are contacted to report their publications twice a year. The total number of publications from JFY 2003 to 2011 are 1,612 publications. More than 50% of the publications are international proceedings while 21% are international journals. In 2011, current students and alumni reported 240 publications.

As the monitoring visit is an annual activity for the improvement and the quality assurance of the students and our programs, AUN/SEED-Net would conduct the monitoring visits of the JFY 2012 with the support from the Host Institutions.
Collaborative Research Program

Collaborative Research Program (CR) has kept going strong as one of the main supporting programs which purpose is to fund the research jointly done by Principal Investigator from HI, Co-advisor from JSU and MI, and AUN/SEED-Net’s students. The Program is open to participation from non-member universities, local government agencies and private industries, as one of its objectives is to contribute to the development of region by addressing ASEAN’s common critical problems or needs in both academic and private sectors.

The annual budget of USD 3,500 per one master’s student and USD 5,000 per doctoral student is provided to help each student conduct research and excel in their thesis, while topics of research under CR are not limited to the fundamental fields but can also be in the interdisciplinary areas. Not only this grant is used to purchase equipments or materials, as to promote the student’s mobility in ASEAN, it can also be used to travel in this region to take short courses, collect data, and make a research presentation in an international conference. Since each CR project consists of various academic parties, it propels more interaction between people and exchange of knowledge that is originated from Japan and ASEAN.

Since JFY 2005, AUN/SEED-Net has supported for over 100 projects in every year. In JFY2011, 123 projects were implemented and the total of 134 students benefitted from it. Also, for the third consecutive year, the Office of Higher Education Commission (OHEC) has provided approximately 11% of the total budget to financially support a number of projects conducted by Thai MIs.

I and my team would like to thank AUN/SEED-Net for the CRI support to our research entitled “Prospecting the Strategic Rare Earth Elements (REE) Potentials in Southeast Asia, with Case Study in the Indonesia’s Archipelago”. The support has truly expanded our educational and research career in the international level. The formulation of this research project is achieved after several years of involvement in AUN/SEED-Net programs, starting with PhD in Japan, teaching staff of UGM hosting GeoE graduate program, and involvement in the regional conferences widens our perspective on state-of-art research topics required in the area of NRM. Networking with ASEAN and Japanese researchers through collaborative research and programs, starting with PhD in Japan, teaching staff of UGM hosting GeoE graduate program, and involvement in the operations are located in single country, i.e. China. This may lead to potential instability of REE global supply that in turn will affect global economic development.

Based on our extensive studies within AUN/SEED-Net programs, Indonesia’s potential of REE resources is considerable. However, exploration and exploitation projects are expensive and highly risky, so we need some first-pass works funded by international community to promote larger efforts of projects. In addition, we believe that the AUN/SEED-Net students’ research can also contribute to the development of the region by addressing ASEAN’s common critical problems or needs in both academic and private sectors.

### Collaborative Research Program with Industry

Introduced as one of the new special programs in JFY2011, Collaborative Research Program with Industry (CRI) offers the support fund to encourage research collaboration between MI faculty staff and industries in ASEAN countries as well as universities in Japan. The research under this program, which topic addressing the needs of industry or common critical issues, is conducted at the MIs, with the faculty staff at MIs as the leader of the project, with collaboration from Japanese professors and students from JSUs or Japanese universities under Global 30 Project, co-researchers from MIs, and AUN/SEED-Net students.

The program provides USD 50,000 per grant at the maximum for the whole research period (October 1, 2011 – March 10, 2013) and it strictly requires counter budget from the industry for at least 20% of the total grant from AUN/SEED-Net. Extra eight JRPD trips are also given for the MI principal investigator who would like to invite the Japanese co-investigator in the project to make the visit to supervise the research in person.

The program gathered much interest from all MIs as 24 applications were submitted. The largest number of applications came from UGM and CU, while the field with the most applications was CE. After the review, 12 applicants were successfully awarded; three of them were granted full amount from their proposals while the rest received 85% of their proposed amounts (see Appendix 1). When these research projects are completed at the end of Phase II, it is expected that the researchers are able to produce an output that directly responds to the needs of industries while reinforce the networking between universities and industries both in ASEAN and Japan.

Dr. Lucas Donny Setiadjji, PhD graduate of Kyushu University and faculty staff of UGM

![Dr. Lucas Donny Setiadjji, PhD graduate of Kyushu University and faculty staff of UGM](Image 318x453 to 538x247)

![Collaborative Research Program with Industry](Image 850x273 to 1134x431)
Research Program for Alumni Members

Launched in 2008, at the beginning of Phase II, Research Program for Alumni Members (RA) aims to promote continuous research for capacity enhancement of the alumni who are faculty staffs for they have taken a crucial role in engineering human resource development in their respective countries and the region. Each year, the maximum grant of USD 2,000 will be offered to 20 applicants with outstanding research proposals and hold position as faculty or research staff at Member Institution to carry out their researches after graduation. Research period starts in June to February, within the given Japanese fiscal year.

JFY2011 could be recognized as the most successful year of RA program in terms of program awareness and active research activity attracting 33 applications, 32% increase from last year figure. Due to high-quality proposals, all 20 grants were awarded within its first batch. UGM, once again, won its place for highest application numbers which also resulted in highest numbers of successful applicants out of six grants. Another new active application sender, ITC, was also awarded six grants. In addition to this year’s 20 grants, one carry-over slot from JFY2010 for YTU was, as well, operated in this JFY2011.

Special Research Program for Alumni Members

In mid JFY2011, Japanese Government announced the additional fund given to accelerate overseas development which includes strengthening higher education network between ASEAN and Japan. AUN/SEED-Net views it is indispensable for our alumni who are educators for young-generation students to keep their knowledge updated, allocated this fund to start Special Research Program for Alumni Members (SRA).

Why is it called “Special”? Major differences of this new SRA to our regular RA are, first, SRA makes it possible for not only those graduated from SEED-Net scholarship but also Mongbukagakusho (Ministry of Education, Culture, Sports Science and Technology, Japan) scholarship graduates from Japanese Universities supported by Global 30 Project to apply. Second, SRA emphasizes more on strengthening continuous partnership with Japanese professor who was the applicants’ previous advisor as a co-investigator of the research. Third, SRA aims for a larger scale and in-depth research activities with only Doctoral Degree graduates could be eligible to compete for a grant of USD 25,000 ceiling amount to conduct research in two-year time from October 1, 2011 to March 10, 2013.

Even being a newly initiated program, SRA could draw as many as 31 applications and 20 quotas were fulfilled. The majority of applications or up to 12 was from UGM and as many as nine grants were awarded to the university. Although by MI, the number of applications from UGM is quite dominant, by field the application number equally spreads and the highest number of awards (see Appendix 2).

Dr. Tan Reasmey, master’s graduate of DLSU, PhD graduate of Tokyo Institute of Technology, and faculty staff of ITC

I got my Master degree in Chemical Engineering at De La Salle University (DLSU) in 2007 and PhD in Bioengineering at Tokyo Institute of Technology (TIT) in 2011. At present, I am a lecturer and also a researcher at Institute of Technology of Cambodia (ITC). As alumni of AUN/SEED-Net, in 2011 I got the award of Special Research for Alumni Members (SRA) from Sewage Sludge in Cambodia with collaboration from my Japanese professor. It is a good chance for me to get this award; without it my research could not be realized.

Relating to my research, I am focusing on different pretreatment methods to hydroyze sludge produced during biological wastewater treatment. High reduction in mixed liquor suspended solids (MLSS) and high production of volatile fatty acid (VFA) as well as methane gas are expected. I hope that the pretreatment with good results can be applied in wastewater treatment plants in Cambodia in order to reduce solid wastes.

As a seed at ITC, I will share my knowledge to young engineers and strengthen research collaboration. Finally, I am really grateful to AUN/SEED-Net for giving me these chances.
Special Research Program for Disaster Prevention and Mitigation

Due to severe earthquake in Japan in March 2011, which brought about massive losses and damages to Japan, together with a series of natural disasters in Asian countries, the Japanese Government approved an additional fund to promote research activities in ASEAN countries through the AUN/SEED-Net Project in JFY 2011. Thanks to the fund, a new supporting program, Special Research for Disaster Prevention and Mitigation (SDM), has been launched with its aim to support joint research activities and promote research collaboration on disaster prevention and mitigation among MIs and JSUs. Through this new program activity, research capability of faculty staff of the MIs can be further developed to directly respond to the common needs of disaster prevention and mitigation in ASEAN region.

The program offers the ceiling amount of USD 50,000 per project for the research period between December 1, 2011 and March 10, 2013. To promote multi-party collaboration, the program requires one principal investigator who is a full-time faculty member from an MI and one co-investigation from a JSU to take part in the project that is focused on the area of disaster mitigation and prevention. Co-researchers who are faculty members from MIs, students and governmental sector, among others, are also encouraged to participate.

The program was announced in September 2011 and opened for applications until November 14, 2011. It received 15 applications; four out of which were from CU and another four from UGM, two applications each from DLSU, HCMUT and UM, and one application from UV. Three projects from UM, UGM and DLSU were selected to receive the research grant (see Appendix 3).

Under this program, six slots of Japanese Professor Dispatch Program are available in each project to facilitate collaboration between Japanese and MI professors. In JFY 2011, one slot was utilized by DLSU in inviting a Japanese professor from Kyoto University to visit his co-researcher at DLSU for research activities.

Seminar on Disaster Prevention and Mitigation

From August 27 to September 6, 2011, the JICA-AUN/SEED-Net Seminar on Disaster Prevention and Mitigation: Learning from the Experience of the Great East Japan Earthquake for Better Disaster Preparedness in East Asia in Japan was organized by JICA and AUN/SEED-Net, with Center for Urban Earthquake Engineering of Tokyo Institute of Technology (TIT) and Global Center for Education and Research on Human Security Engineering of Kyoto University (KU) as co-hosts. Main objective of the seminar was to learn from experiences gained from the Great East Japan Earthquake for developing better disaster preparedness in East Asia. It consisted of 12 lectures by invited speakers from National Graduate Institute for Policy Studies (GRIPS), TIT, KU, Kyushu University, Port and Airport Research Institute (PARI), and NHK; DVD presentations; site visits and field trips to PARI, Hanshin Expressway Earthquake Museum, Disaster Reduction and Human Renovation Institution, and Iwate Prefecture. Participants from our MIs and JSUs exchanged research work and discussed possible collaborations on disaster prevention and mitigation skills, technologies, training programs, and researches. This seminar also generated the Special Research Program for Disaster Prevention and Mitigation.

The seminar was helpful to me in appreciating the value of systematically documenting, preserving and sharing knowledge gained from major natural disasters. Such conscientious documentation and sharing of disaster knowledge down generations engenders communities with a high level of preparedness and resiliency to all types of disasters. The sharing of disaster knowledge also encourages research and policy formulation aimed at mitigating future disasters. Finally, the practice of sharing disaster knowledge also provides a way for disaster survivors to pass on knowledge on the human and social dimensions of the disaster, while also providing a means of catharsis for these survivors.

For me, the seminar was very helpful in obtaining technical information on the Great East Japan Earthquake, with the goal of designing disaster resilient infrastructure. The general scope of the seminar was well balanced in that it was not limited to scientific and technical topics, but also discussions on the social constructs of disasters and disaster mitigation. Numerous activities were held in different locations over a wide area. Despite these logistical challenges, the seminar was successful in achieving its goals due to very good planning as well as efficient and well trained staff. It is hoped that participants of this seminar will be encouraged to host similar seminars in the various MIs.
Importantly, even though the RC is set up mainly for academic purpose, every conference provides time for participants to connect, thus resulting in the good spillover of ASEAN people getting together and learning more of each other. With the majority of the participants coming from ASEAN, the interaction has led to awareness and greater understanding of the opposite culture, which at the same time lead to realization of ASEAN’s identity.

Regional Conference Program

After the completion of the contract between AUN/SEED-Net Secretariat and the ASEAN Foundation to support AUN/SEED-Net’s Regional Conferences (RC) in JFY2010, all 14 RCs in JFY2011 were funded by JICA. The concept and feature of the program however is intact: RC is a venue of academic discussion that academicians and industries come to share new knowledge, thus the innovation born in ASEAN can expand faster, with more stakeholders getting involved.

The total number of participants in JFY2011 is 1,264, averaging 90 participants per conference. RC in NRM which was hosted by UP in conjunction with the Metallurgical Engineering Conference 2011 (METCON) supported by Society of Metallurgical Engineering of the Philippines, contributed the biggest number, followed by RC in CE and RC in ME/AE. While for the first time two MIs cooperate to organize an RC, as CU and BUU co-hosted RC in BioT in Bangkok, continuing from the previous year the RCs in CE and EnvE were organized as a joint bigger event. The breakdown of participants in each conference is depicted in chart below.

In the fourth year of Phase II, 56 RCs have taken place and more than 5,700 people have joined the event. This assembly of the people in engineering certainly led to the dissemination of new innovation and knowledge, as well as the increase of opportunities to strengthen the network, especially between ASEAN and Japan. As more people getting to know the Project, the impact is enhanced and the fruitful result emerging from each conference will contribute back to the people as well as the sustainable development of the ASEAN region.

Hosting the 4th Regional Conference on Natural Resources and Materials was a task that was both exciting and daunting for us given the expectations put forward by the AUN/SEED-Net community. Industry and government collaboration and participation was already a must in order to foster linkage with the academe in these fields of specialization. We welcomed the challenge and made sure that it shall be a fitting event for a memorable celebration of the 75th foundation anniversary of our Department, i.e. the Department of Mining, Metallurgical, and Materials Engineering of the University of the Philippines (UP), which was established in June 1936.

The Conference that was also regarded as the 2nd International Conference on Natural Resources (ICNRM) and the national Metallurgical Engineering Conference (METCON) 2011 was held on October 27-28, 2011 at the Subic Bay Travellers Hotel, Subic Bay Freeport Zone, Olongapo City, Zambales, Philippines. The whole event was a collaboration between AUN/SEED-Net, UP, and the Society of Metallurgical Engineers of the Philippines (SMEP) which has been holding a biannual national conference with a lot of support from the mining and metals industry in the country. In addition to this, the Department of Science and Technology of the Philippines (DOST), through one of its research and development council, i.e. Philippine Council for Industry, Energy, and Emerging Technology Research and Development (PCIEERD), and the Philippine Chamber of Mines also supported the event by providing speakers and other resources. These actually ensured participation from all sectors and created the venue for establishing or strengthening linkage or network between these institutions.

There were a total of 223 participants, wherein 47% were faculty members and researchers from different academic institutions in the Philippines and the rest of the Southeast Asian region; 33% represented the industry and government, and the remainder was composed of both graduate and undergraduate students from different universities in the Philippines. There were a total of six plenary presentations from invited speakers from Japanese universities, the Engineering and Research and Development for Technology (ERDT) Program of DOST, the Chamber of Mines of the Philippines and SMEP; and 64 oral presentations to make up the two-day conference.

Dr. Leslie Joy Diaz, PhD graduate of TIT, faculty staff of UP and organizer of the 4th Regional Conference on Natural Resources and Materials
Japanese Professor Dispatch Program

Japanese Professor Dispatch Program (JPDP) appeared one of the most dynamic programs in JFY2011 when it facilitated up to 74 dispatches with 97 trips of Japanese professors from JSUs to the MIs in ASEAN. Initially, a total quota of 80 Japanese professor dispatches were allocated for nine fundamental fields and five interdisciplinary areas, and specially allotted at the maximum of seven quotas to MIs in Cambodia, Lao P.D.R., Myanmar and Vietnam in order for the dispatched professor to provide research supervision for AUN/SEED-Net students, initiate and strengthen research collaboration with the member institutions, as well as participate in AUN/SEED-Net’s Regional Conferences. Additional ten quotas were later added as special consideration to open more chance for research collaboration among MIs and JSUs, making the total quota increased up 90 in JFY 2011.

Putting into practice, 74 out of 90 quotas were utilized by professors from JSUs for the activities across nine fundamental fields and five interdisciplinary areas. The highest quotas accounted for 12 were utilized in the field of Geological Engineering and the area of Disaster Mitigation by professors from Kyoto University, Tokyo Institute of Technology, Hokkaido University and Kyushu University.

The abovementioned 74 quotas were utilized more efficiently as several professors continued their trips to other MIs. A total number of 97 destinations were visited. The highest number of the trips accounted for 20 were taken to Chulalongkorn University, followed by Gadjah Mada University, Ho Chi Minh City University of Technology, and Universiti Sains Malaysia.

Apart from the normal dispatch of Japanese Professor supported by JPDP, additional dispatches took place under the new programs namely, Collaborative Research Program with Industry (CRI), Special Research Program for Alumni Members (SRA) and Special Research Program for Disaster Prevention and Mitigation (SDM). As for purpose of all dispatches in JFY 2011, 31% of the total dispatches were utilized for activities related to Collaborative Researches, 20% for attending Regional Conferences, 21% for both conducting Collaborative Research activities and attending Regional Conferences, 14% were utilized under CRI program, 13% were utilized under SRA program and 1% was utilized under SDM program.

Thanks to the network of AUN/SEED-Net. For my research team at Tokyo Tech, this network enables us to work on various undiscovered and attractive topics in both basic and applied research in Southeast Asia as we are working on understanding and modeling natural systems, specifically river ecosystems. From this viewpoint, the network is not only for people in ASEAN, but it’s very precious also for researchers in Japan. Also, various academic fields, not only engineering, would benefit from the model of AUN/SEED-Net. Thus, it might be a good idea to expand the program to other fields.

I enjoy a lot of collaborations with brilliant researchers in ASEAN. Thanks again to the AUN/SEED-Net and many thanks to our collaborators and excellent staff at the Secretariat office.

Prof. Dr. Chihiro Yoshimura, faculty staff of TIT
Short-term Research Program in Japan

One of the AUN/SEED-Net program highlights, which increasingly draw interests from our alumni, is the Short-term Research Program in Japan (SRJP). Offering trip supports to meet with Japanese professors face-to-face in Japan, the program has been developed to ensure the continuity of research implementation as well as to strengthen the growing network between MIs and JSUs.

The program has gained more popularity over the years since its first implementation in JFY2009. This was evidenced by 30% increase in the applications received in JFY2011. The total number of the applications received was 26, out of which 18 were awarded.

The alumni from ITC showed the most interest, followed by those from UGM and NUOL, in a number of different engineering fields. Comparing to the previous year, ITC became significantly active in participation with AUN/SEED-Net activities, including SRJP. The number of their applications rose from one to seven. NUOL also made a big step with 50% increase in applications.

In the view of the engineering fields, research projects in the field of Environmental Engineering topped the list of both application received and awarded. Civil Engineering and Manufacturing Engineering came second. However, there was no successful candidate in the field of ICT.

Tokyo Institute of Technology remained as the most visited Japanese university, with eight out of 18 trips.

Short-term Visit Program in ASEAN

Cooperation among ASEAN academics becomes steadily more active as Short-term Visit Program in ASEAN (SVAS) has been progressively popular over the years. The program, which offers support to faculty members at an MI to visit another MI within the ASEAN region for various academic purposes, aims to enable capacity enhancement of MIs as well as boost research collaboration among all MIs, and ultimately, contributes to the sustainability of the network.

In JFY 2011, AUN/SEED-Net received a total of 40 applications for this program: 29 in the first batch and 11 in the second batch. Due to high interest in the first batch, 17 applications were approved while all 11 applications in the second batch received support, amounting to a total of 28 slots utilized in this program.

The MIs, as sending institutions, with the highest number of successful applicants were NUOL, USM and DLSU while CU remained the most popular destination as it received the most visits for two consecutive years. The field of ME/AE was most active under this program.

The objectives of the visits vary from discussion of research collaboration to giving special lectures and speeches in conferences, assisting development of curriculum and visiting sites and facilities. Some visiting staff who co-advised students in another MI utilized the program to perform the co-advisor duties while others visited another MIs to attend a coursework to enhance their capacity and knowledge. All visits’ purposes correspond with the program’s main objectives.

In addition to AUN/SEED-Net’s main support in this program, MIs show commitment by providing additional support to the participants. For example, HCMUT provided air-tickets to its visiting staff. In addition, a visitor from ITC received daily allowance support during the trip from his sending institution.
ASEAN Engineering Journal

Within one year after the set up of editorial board and release of call for papers, ASEAN Engineering Journal (ASEAN E.J.), has published four issues in the first Volume, which is one per each engineering division. The Journal, which aims to become a platform for ASEAN Engineering scholars to publish their research papers, focuses on the junior researchers as it provides an opportunity to promote their work among ASEAN academicians and is the stepping stone for them to expand and become recognized in the international level.

ASEAN E.J.’s inauguration issue in the division of ManuE and ME/AE was released in July 2011 with three invited papers and four reviewed papers. In total, 33 manuscripts were published in JFY2011. Most of the manuscripts came from MIs, while JSUs mainly contributed Invited papers. ASEAN E.J. also received papers from academicians from non-MIs, and three of them were reviewed and published in the first year. All four issues in this Volume 1 of the Journal were posted to the libraries of top 200 universities in the world, and top 100 in ASEAN. The soft copy of the journal can also be downloaded from the website at http://www.seed-net.org/journal.html.

To promote the program and collect more papers, Call for papers are announced in every quarter, and additionally, top 40% of the papers presented at the AUN/SEED-Net’s Regional conference are approached for the revision to be reviewed and published with the Journal. Brochures promoting the Journal are distributed to each MI, and at the RCs and other conferences. Due to this strong intention to establish an engineering journal of ASEAN, as of March 2012, 116 papers have been received. Over 20% of them are submitted in the EnvE field, followed by ME/AE. The SI with the largest number of papers submitted are HCMUT, while HUST and UP rank second, which signifies that the Journal is most well-known among Vietnamese academicians.

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Database Development

To strengthen the engineering network and to manage data and workflow efficiently, AUN/SEED-Net database system has been developed to be a fundamental tool for ASEAN engineering research gateway, storing records of scholars, professors, and publications from our ASEAN Engineering Journal as well as regional conference proceedings. Apart from web-based information archives, it will also provide online application and monitoring of scholarship and support programs along with submission of papers to the ASEAN Engineering Journal.

In the end of JFY2011, demonstration versions of scholarship and supporting programs have been done and would be launched for internal trial for a few months before opening for public access. The journal section will be completed very soon.
Alumni Network

At the end of JFY2011, the AUN/SEED-Net had 441 alumni all over the region, 63 of which received both Master’s and PhD scholarships from the Project. Most alumni were from Indonesia (115), Vietnam (113), Laos (68), and Cambodia (66). In view of profession, over 50% of our alumni have worked in academic areas comprising 219 faculty staff, 9 university employees, and 9 researchers in institutes. Fifteen alumni have worked for their governments and 99 have been pursuing doctoral degrees. Around 13% or 55 persons have been employed by the private sector.

Despite working in different areas and locations, those alumni stay connected through the AUN/SEED-Net JICA group on Facebook, thanks to social network technology. Nowadays the group embraces 478 members, including some staff from MIs, JSUs, and AUN/SEED-Net Secretariat who join to keep relationship with the alumni. This forum has been utilized not only for networking but also for sharing any news or academic information. Besides, alumni coordinators have been appointed by the MIs to help coordinate with other alumni coming from the same institutions.

The alumni are important assets of the AUN/SEED-Net especially for network sustainability. Maintaining the alumni network and polishing their capabilities are among the Project’s main activities in order to help strengthen academic qualifications of the MIs as well as solidarity of the ASEAN region. Several programs were invented for these purposes, e.g. Short-term Research Program in Japan (SRJP), Research Program for Alumni Members (RA), Special Research Program for Alumni Members (SRA), and participation in Regional Conferences (RCs). In return, our alumni can give back to the Project in-kind supports in many ways such as supervision of AUN/SEED-Net students, organization of RCs and Open Houses, and promotion of the AUN/SEED-Net to the outsiders.

The AUN/SEED-Net Project has come to my life as a predestination and has influenced on my career. The project has a wide vision rarely found in any other projects because it provides alumni with many opportunities for training and establishing their careers with the project’s sponsorship. As an alumnus of the very first batch, I should be responsible for active cooperation to help enhance the project, to increase the quality of training, and to serve the solidarity and sustainable development of the ASEAN community.

Since graduation, I have been assigned as the AUN/SEED-Net alumni coordinator of HUST. I have realized that our alumni are outstanding individuals; thus it will be very beneficial if we can connect and maintain regular activities as well as actively support the project. While not all alumni are working in universities - a large number of them are in the industry, a connection between enterprises and scientists can also be built upon a common purpose and a common language.

Besides the activities supported by AUN/SEED-Net, I am always looking forward to working with the project to broadcast widely, comprehensively about AUN/SEED-Net and to plan for other related activities. I wish the project will be enhanced and more popular.

Open House

This is the fourth year that the open house activity has been fully launched. To date, it has become one main activity for AUN/SEED-Net alumni in contributing to the network promotion and sustainability and also a forum for young students and faculty staff at many MIs who look for bright future in higher education. They gathered at this event to see what AUN/SEED-Net offers to them as a scholar, to find out courses and research interests conducted by each HI, and to hear first-hand experiences from our alumni of different HIs. Face-to-face interview can also be performed here.
Every year we have seen more number of attendants to the open houses. For JFY2011, over 600 young students altogether joined six open houses arranged by AUN/SEED-Net alumni and International Relations Office in different MIs. Reasons of this 75% increase might be that most events in this year were arranged back to back with other conferences or meetings. Such kind of arrangement helps promote not only the number of students but the number of representatives from MIs to the open house as well. Evident examples are the open house at ITC back to back with the AUN/SEED-Net Steering Committee Meeting and Annual Meeting and the open houses at HCMUT, UGM, and HUST with AUN/SEED-Net regional conferences.

Specially this year we had Japanese professors from Hokkaido University (HJ) and Toyohashi University of Technology (TUT) extended their trips to RC in MatE for the open house at HUST to promote the joint supervision feature of the AUN/SEED-Net and academic atmosphere at their universities.

Beyond the open house, some MIs travel on their own to promote their institutions as well as AUN/SEED-Net scholarships. For example, NTU visited ITB-Brunei, ITC, and NUOL in February 2012 for graduate program promotion and relationship building.

### Public Relations

For JFY 2011, the number of page views increased to 51,342 times although the number of visitors to our web site slightly decreased. This was because of the rise of returning visitors from 6,126 in JFY2010 to 8,053 in this fiscal year, meaning the visitors returned to our web site for several times particularly during August – November and February – March. Highly possibly, they were interested in applying for our programs, not just come-and-go visitors.

<table>
<thead>
<tr>
<th>MI</th>
<th>Date</th>
<th>Estimated Number of Participants</th>
<th>Attending MIs</th>
</tr>
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<td>79</td>
<td>ITB</td>
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<td>10-Nov-11</td>
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</tr>
<tr>
<td>BLU</td>
<td>15-Dec-11</td>
<td>120</td>
<td>ITB</td>
</tr>
</tbody>
</table>

When we look at referring links, almost half of the visitors directly typed www.seed-net.org while some came from our Facebook page. Thailand was still the top country using the web site, followed by Japan and Laos which remarkably mounted to the third rank in this year.

The official Facebook page of AUN/SEED-Net, www.facebook.com/aunseednet, received 412 Likes at the end of JFY2011 from 150 in JFY2010. Most of our fans were in the age of 25-34 coming from Thailand, Indonesia, and Cambodia. However, visitors to the page include other ASEAN countries as well as Japan aged 18 - 54.

Four issues of newsletter were released to all stakeholders in this year. With environmental concern, from next year the distribution of paper newsletters will be limited to ministries and regional conferences only. Subscription of e-newsletters is thus strongly encouraged.

### Sustainability

In this year, the Directorate General of Higher Education of Indonesia (DGHE) continually waived tuition fees for AUN/SEED-Net students in Indonesia and the Office of Commission on Higher Education of Thailand (OHEC) supported Collaborative Research fund of THB 1,000,000 (USD 32,972.47) for AUN/SEED-Net students in Thailand. Apart from the cost-sharing committed in the beginning of Phase II, this year has seen more items of contribution from the MIs. For example, ITC sponsored one-way travel cost for three new scholars and CU topped up the budget of Collaborative Research received from OHEC for the whole lot of students enrolling in 2011. The total cost-sharing from the MIs in this fiscal year could be estimated at around USD 764,209 excluding the supports of which value were unknown (see Appendix 4).

The budget structure of the AUN/SEED-Net Project in this fiscal year are as illustrated in the chart below. Compared to last year’s budget, JICA budget has soared by 36% to reach USD 6,113,145 in this year mainly for operating three pilot programs and subsidizing 14 regional conferences in place of the ASEAN Foundation whose sponsorship was finished in the end of JFY2010. This generated the higher proportion of the JICA budget to 89% while the proportion of the MIs’ budget was at 11% only, although the amount of MIs’ cost-sharing has increased by almost 15% from the previous year.

For sustainability of the network, collaboration and external funding are anticipated from other organizations including the industrial sector. In JFY2011, the AUN/SEED-Net thus initiated the pilot program called Collaborative Research with Industry (CRI) to promote research collaboration between universities and industries. In order to acquire external financial support, the program defined one condition that the proposed research project must obtain at least 20% of the total budget from the industrial sector. At the end we received more than 20 qualified proposals, all with 20 – 44% of the industry’s budget. This shows that the industry seems to trust in academic services provided by the university while the university tends to pay more attention to answering needs of the industry. Seeing this trend, we deduce that one possible means to sustain the AUN/SEED-Net is to promote more collaboration with the industry.
Recommendations for Phase III

The current phase of the AUN/SEED-Net Project is approaching an end in March 2013; at the same time many changes or reforms can be anticipated around the Southeast Asia, especially the integration of ASEAN expected in 2015. Therefore, JICA set up the Advisory Committee for the AUN/SEED-Net Project to investigate situation and trends of ASEAN and envision how the AUN/SEED-Net could involve in the advancement of the region, in order to make recommendations for the Phase III of the project.

The Advisory Committee consists of high profile members from Japanese ministries, universities, organizations, and JICA. Led by Prof. Dr. Tsutsumi Kunimi, Advisor to Ministry of Education, Culture, Sports, Science and Technology (MEXT), the committee members include Prof. Dr. Yuichiro Anzai, Executive Advisor for Academic Affairs of Keio University, Mr. Mitsuya Araki, President of the International Development Journal, H.E. Mr. Masayuki Inoue, President of Japan Educational Exchanges and Services, Prof. Dr. Takashi Shirouzu, President of National Graduate Institute for Policy Studies (GRIPS), Mr. Mitsuori Suemori, Senior Advisor of JICA, Assoc. Prof. Dr. Atsushi Sunami, Director of Science and Technology Policy Program, GRIPS, Prof. Dr. Kazuo Tsutsumi, Former Chief Advisor of JICA Project for AUN/SEED-Net, Prof. Dr. Chitoshi Miki, Chief Advisor of JICA Project for AUN/SEED-Net, and Mr. Satoshi Tsuzuki, Director of Industrial Technology Bureau, Japan Business Federation (Nippon Keidenren).

According to the Advisory Committee, the integration of regional economy and technology level in the Southeast Asia have been progressed in the past decade and would not deaccelerate in the near future. In response to these changes, the industrial sector increasingly hopes for development of highly-skilled human resources by educational institutions and partnership between the industry and the university. Likewise, the governments have recognized the importance of human resource development and higher education improvement.

A number of critical global issues have emerged over the region in these ten years such as pollution, climate change, earthquake, etc. Collaboration across the border to mitigate these issues is desperately required, not only in aid action but also in research and education.

In consequence of achievements and outputs from the earlier phases, the AUN/SEED-Net has the potential to function as a platform for promotion of science and technology for the ASEAN region. However, in order for such platform to be truly beneficial for both ASEAN countries and Japan, the educational and research levels of the MIs must be enhanced to an international standard to enable liberated and even exchange of ideas, opinions, and resources. The ASEAN countries and Japan should work together to strengthen capacities of the MIs, which would concurrently help Japan to activate and globalize its industry and higher education sectors.

The Advisory Committee therefore recommends that JICA continue to implement the AUN/SEED-Net Project after the second phase with the following objectives:
• To contribute to advancement of industry in the region;
• To respond to common global issues in Asia;
• To contribute to advancement of industry in the region;
• To strengthen the capacity of MIs and the academic network in order to establish a platform for the promotion of science and technology in East Asia;

Following the recommendations from the Advisory Committee, JICA and the AUN/SEED-Net Secretariat have started to lay out a proposal for the third phase of the project to be discussed with all stakeholders of the AUN/SEED-Net. The discussions would take place from April to May 2012 in all member countries, before submitting the proposal to the AUN/SEED-Net Steering Committee for approval in September 2012.

Other Activities

April

1 Mr. Kenichi Shirouzu and Mr. Rungchialai Punninda welcomed representatives from University of Boras, Sweden who visited AUN/SEED-Net in order to get to know each other and project activities.
26 Mr. Kenichi Shirouzu, Mr. Atsushi Takahashi, Ms. Siriporn Rungrueangtanya, and Ms. Namtian Siriboon welcomed Dr. Taro Sonobe from Kyoto University who visited the office to give a report of Kyoto AUN workshop and explain about preparation of the 8th Sustainable Environment and Energy (SEE) Forum to be held in June 2011. The forum invited Dr. Inman K. Rekowski from ITB to join in order to seek a possibility to collaborate with the AUN/SEED-Net, especially in the NRE field.

May

25 The Secretariat welcomed Mr. Kazuhiro Yoneda, Chief Representative of JICA Thailand Office, who visited the office to learn more about the AUN/SEED-Net Project. Mr. Yoneda also paid courtesy call to CU Dean of Engineering Faculty and visited Electrical Engineering Department laboratories.
27 Prof. Dr. Chitoshi Miki, Mr. Shirouzu, and Mr. Takahashi received the visit of Prof. Dr. Hiroiyasu Ohitsu from Kyoto University. Involved mainly in CE field, Prof. Ohitsu discussed possible collaboration between Kyoto University and AUN/SEED-Net. On the same day, Prof. Dr. Miki and Mr. Shirouzu accompanied by Ms. Rungchialai paid a courtesy call to the AUN Secretariat on the occasion of the assignment of Prof. Miki as Acting Chief Advisor succeding Prof. Dr. Kazuo Tsutsumi. The team met AUN Executive Director Assoc. Prof. Dr. Nantana Gajaseni and Program Officer Mr. Rakit Waropas and discussed future direction of AUN/SEED-Net and related activities implemented by AUN, e.g. ASEAN Credit Transfer System (ACTS) and AUN – Kyoto University proposal of collaborative activities.

June

13-17 The Secretariat welcomed Mr. Mitsuru Suemori, Senior Advisor, JICA Headquarters. Mr. Suemori also made courtesy calls to Deputy Secretary General of the Office of Commission on Higher Education of Thailand (OHEC) Assoc. Prof. Dr. Pinit Ratanaanukul and CU Dean of Engineering Faculty Assoc. Prof. Dr. Boonsom Nakhumphong.
21 Prof. Dr. Miki, Mr. Shirouzu, and Ms. Rie Sato from JICA Thailand Office made a courtesy visit to the Ambassador of Japan to Thailand H.E. Mr. Kojima Seiji to introduce Prof. Miki as Acting Chief Advisor of the AUN/SEED-Net Project and to explain progress of the Project.
26-28 Mr. Takahashi and Ms. Karnkitti Patanasuthikul joined the 8th SEE Forum and the 1st Clean Energy and Technology (CET) in Kuala Lumpur to promote the AUN/SEED-Net Project.
29 Prof. Dr. Miki, Mr. Shirouzu, and Mr. Takahashi participated in the Japanese Supporting University Consortium (JSUC) Meeting 2011 to report the progress of the Project.

July

1 Assoc. Prof. Dr. Prakit Tangtsinason received a courtesy visit from Tokai University. The visitors comprising Board Member Prof. Hirohisa Uchida, Prof. Kohri Cho of Research and Information Center, and Asst. Prof. Kazumi Tenada of Department of Civil Engineering lived in with professor of CU Department of Civil Engineering about research interests and future collaboration.
4 Mr. Shirouzu welcomed Prof. Masaru Araki, Vice President, Prof. Hideki Ogawa, International Center, and Mr. Masahiro Yamazaki, Vice Director of International Center from Okayama University. The visitors shared current situation of internationalization at their university.
12 Mr. Shirouzu and Ms. Rungchialai visited the AUN secretariat to get information about joint degree programs.
23 Asst. Prof. Dr. Vachara Peansupap, Mr. Shirouzu, Mr. Takahashi, and Ms. Rungchialai joined the Business – University Forum Round Table organized by the Business – University Forum of Thailand and Siam University. The forum was established to promote international cooperative and work-integrated education in response to the foundation of the ASEAN Economic Community.
August
3. The Secretariat welcomed Mr. Tomoyuki Kawabata, Senior Representative of JICA Thailand who would be in charge of operations including AUN/SEED-Net Project.
26. Mr. Shirouzu and Mr. Takahashi received a visit of Ms. Ikuko T. Matsumoto and Mr. Yasushi Hirokato from Human and Social Development Division, Asian Development Bank (ADB). The visit was to discuss the ADB’s tentative supporting plan for higher education in ASEAN and to obtain information about AUN/SEED-Net.

September
8. Mr. Shirouzu and Mr. Takahashi received a visit of Prof. Takuo Utagawa from Hokkaido University of Education.
29. Mr. Shirouzu, Mr. Takahashi and Ms. Siriporn received a visit by Asst. Prof. Dr. Taro Sonobe from Kyoto University who updated activities of the SEE Forum. The AUN/SEED-Net team shared information on supporting programs which could promote further collaboration between the two networks.

October
21. The 18th Steering Committee Meeting and Year 2011 Annual Meeting took place in Phnom Penh, Cambodia. The meeting was presided at the opening ceremony by H.E. Dr. Phoeurng Sackona, Secretary of State, Ministry of Education, Youth and Sports, and H.E. Masafumi Kuroki, Ambassador of Japan to Cambodia, and chaired by Director-General of ITC Assoc. Prof. Dr. Om Romny. Highly interested by Cambodian journalists, the meeting gathered 60 participants from all MIs, AUN, and ASEAN Foundation discussing mostly on Doctoral Degree Sandwich program promotion and future direction of the AUN/SEED-Net Project. In this year, the meeting was organized back to back with two activities: AUN/SEED-Net Open House and Roundtable on Joint Graduate Programs on October 20. The first activity was to promote AUN/SEED-Net scholarship programs at His while in the second was to discuss a possibility of joint graduate program between His and JSUs.

November
27-29. Prof. Dr. Miki, Mr. Shirouzu, Ms. Kalayaporn Tsangfung, and Ms. Kanchana Patanashakul helped prepare and joined the JICA-AUN/SEED-Net Seminar on Disaster Prevention and Mitigation: Learning from the Experience of the Great East Japan Earthquake for Better Disaster Preparedness in East Asia in Japan organized by JICA and AUN/SEED-Net with Center for Urban Disaster Engineering of TIT and Global Center for Education and Research on Human Security Engineering of Kyoto University as co-hosts.

January
13. Prof. Dr. Shinichi Ago, Vice President of Kyushu University, visited CU and AUN/SEED-Net Secretariat to learn about activities.
16-27. AUN/SEED-Net welcomed Ms. Ayane Kotake from Keio University as internship student.
20. Ms. Rieko Kubota and Ms. Chisa Umemyia from National Institute for Environmental Studies, Japan, made a courtesy visit to the Secretariat after participation in the Regional Conference on Global Environment in Bangkok. On the same day, Mr. Witoshi Nara, Deputy Director General, Higher Education Bureau, Ministry of Education, Culture, Sports, Science, and Technology of Japan (MEXT) visited the Secretariat to discuss with Prof. Dr. Miki and Assoc. Prof. Dr. Prakit Tangtisanon about the AUN/SEED-Net Project.

February
13-15. CU with cooperation from AUN/SEED-Net arranged the Seminar on Flood. Joining the seminar were some MI staff as well as AUN/SEED-Net staff. After the seminar, a plan to implement special research on flooding issue was discussed among CU, GRIPS (ICARM), and AUN/SEED-Net.
27-29. AUN/SEED-Net promoted our activities at the 9th SE Forum arranged in Bangkok. The forum gathered around 300 international participants from academic and professional areas to present research works as well as discuss future trend and cooperation in energy and environment areas.

March
13-16. Assoc. Prof. Dr. Prakit Tangtisanon and Mr. Shirouzu joined the Opening Symposium of the Consortium for International Human Resource Development for Disaster-Resilient Countries, which was held by Kyoto University. Assoc. Prof. Dr. Prakit also made a presentation on Expectation of Collaboration between Kyoto University and Universities in ASEAN.
19-20. The Secretariat organized the Taskforce Meeting on Formulation of the AUN/SEED-Net Phase III in Bangkok with participation of 20 taskforce members from several MIs and JSUs, in order to discuss the AUN/SEED-Net’s Phase III plan proposed by the Secretariat based on recommendations from the JICA Advisory Committee. The taskforce members polished vision and missions of the AUN/SEED-Net as well as purpose and expected outputs of Phase III to reflect updated situation and expectations of the stakeholders in ASEAN and Japan. They agreed in principle with proposed activities, reorganization of fields and implementation structure, as well as network expansion. However, several details and criteria were yet to be discussed and clarified during the Secretariat’s visits to all Member Countries in April - May 2012.
## List of Successful Applicants in Collaborative Research with Industry Program

**Award Type A: Approved with full amount of proposed budget**

<table>
<thead>
<tr>
<th>No.</th>
<th>Research Title</th>
<th>Field/Area</th>
<th>Principal Investigator</th>
<th>PhD Scholarships</th>
<th>9</th>
<th>Department</th>
<th>Realize</th>
<th>Chairperson 1</th>
<th>Chairperson 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Development of Coating for Multi-Material Structure using Cold-Hydrothermal Engineering</td>
<td>Nanotech</td>
<td>Dr. Anupam Datta</td>
<td>PhD P</td>
<td>4</td>
<td>Mechanical and Aerospace Engineering</td>
<td>Lecturer</td>
<td>Prof. S. DasGupta</td>
<td>Prof. S. DasGupta</td>
</tr>
<tr>
<td>2</td>
<td>Design of a Novel Anti-Irrigation System</td>
<td>Civil Engineering</td>
<td>Prof. A. Kumar</td>
<td>PhD P</td>
<td>1</td>
<td>Chemical Engineering</td>
<td>Lecturer</td>
<td>Prof. A. Kumar</td>
<td>Prof. A. Kumar</td>
</tr>
<tr>
<td>3</td>
<td>Advanced Structural Materials for High-Temperature Environments</td>
<td>Materials Science</td>
<td>Dr. R. DasGupta</td>
<td>PhD P</td>
<td>1</td>
<td>Mechanical Engineering</td>
<td>Lecturer</td>
<td>Prof. R. DasGupta</td>
<td>Prof. R. DasGupta</td>
</tr>
</tbody>
</table>

**Award Type B: Approved with 85% of proposed budget**

<table>
<thead>
<tr>
<th>No.</th>
<th>Research Title</th>
<th>Field/Area</th>
<th>Principal Investigator</th>
<th>PhD Scholarships</th>
<th>9</th>
<th>Department</th>
<th>Realize</th>
<th>Chairperson 1</th>
<th>Chairperson 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Development of Structural Materials for High-Temperature Environments</td>
<td>Materials Science</td>
<td>Dr. R. DasGupta</td>
<td>PhD P</td>
<td>1</td>
<td>Mechanical Engineering</td>
<td>Lecturer</td>
<td>Prof. R. DasGupta</td>
<td>Prof. R. DasGupta</td>
</tr>
<tr>
<td>2</td>
<td>Advanced Structural Materials for High-Temperature Environments</td>
<td>Materials Science</td>
<td>Dr. R. DasGupta</td>
<td>PhD P</td>
<td>1</td>
<td>Mechanical Engineering</td>
<td>Lecturer</td>
<td>Prof. R. DasGupta</td>
<td>Prof. R. DasGupta</td>
</tr>
</tbody>
</table>

## List of Successful Applicants in Special Research Program for Alumni Members

<table>
<thead>
<tr>
<th>No.</th>
<th>Research Title</th>
<th>Field/Area</th>
<th>Principal Investigator</th>
<th>PhD Scholarships</th>
<th>9</th>
<th>Department</th>
<th>Realize</th>
<th>Chairperson 1</th>
<th>Chairperson 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Development of Coating for Multi-Material Structure using Cold-Hydrothermal Engineering</td>
<td>Nanotech</td>
<td>Dr. Anupam Datta</td>
<td>PhD P</td>
<td>4</td>
<td>Mechanical and Aerospace Engineering</td>
<td>Lecturer</td>
<td>Prof. S. DasGupta</td>
<td>Prof. S. DasGupta</td>
</tr>
<tr>
<td>2</td>
<td>Design of a Novel Anti-Irrigation System</td>
<td>Civil Engineering</td>
<td>Prof. A. Kumar</td>
<td>PhD P</td>
<td>1</td>
<td>Chemical Engineering</td>
<td>Lecturer</td>
<td>Prof. A. Kumar</td>
<td>Prof. A. Kumar</td>
</tr>
<tr>
<td>3</td>
<td>Advanced Structural Materials for High-Temperature Environments</td>
<td>Materials Science</td>
<td>Dr. R. DasGupta</td>
<td>PhD P</td>
<td>1</td>
<td>Mechanical Engineering</td>
<td>Lecturer</td>
<td>Prof. R. DasGupta</td>
<td>Prof. R. DasGupta</td>
</tr>
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Appendix 3

List of Successful Applicants in Special Research Program for Disaster Prevention and Mitigation

<table>
<thead>
<tr>
<th>No.</th>
<th>Research Title</th>
<th>Field/Area</th>
<th>Principal Investigator</th>
<th>SI</th>
<th>Dept.</th>
<th>Position</th>
<th>CN Alumni</th>
<th>Co-Investigator</th>
<th>Co-Researcher 1</th>
<th>Co-Researcher 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Flood Hazard Assessment and Disaster Prevention</td>
<td>CE</td>
<td>Assoc. Prof. Dr.</td>
<td>Civil</td>
<td>Assoc. Prof. N</td>
<td>Prof. KOHEE</td>
<td>Assoc. Prof. Dr.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Planning of Electric Power Systems in Metro Manila</td>
<td>Assoc. Prof. Dr.</td>
<td>Geological Engineering</td>
<td>Assoc.</td>
<td>Prof. KOHEE</td>
<td>Takeda</td>
<td>Prof. KOSHIDA</td>
<td>Assoc. Prof. Dr.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>and Other Interdependent Utilities</td>
<td>Assoc. Prof. Dr.</td>
<td>Assoc. Prof. N</td>
<td>Prof. KOHEE</td>
<td>Takeda</td>
<td>M. H. Takeda</td>
<td>Assoc. Prof. B.</td>
<td>Assoc. Prof. Dr.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Earthquake and Tsunami Mitigation: A Case in Palu Region, Sulawesi, Indonesia</td>
<td>Assoc. Prof. Dr.</td>
<td>Geological Engineering</td>
<td>Assoc.</td>
<td>Prof. KOHEE</td>
<td>Takeda</td>
<td>Assoc. Prof. Dr.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Development of Information Distribution Platforms</td>
<td>EEE</td>
<td>Dr. CHOW</td>
<td>Electrical</td>
<td>N</td>
<td>Prof. KOHEE</td>
<td>Takeda</td>
<td>Assoc. Prof. Dr.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Appendix 4

Cost-sharing by Member Countries and Member Institutions in JFY2011

| By/Through MI | Scope of Contribution | Status / Expenses (JPY) | Implementation |
|--------------|-----------------------|-------------------------|----------------|---------------|
| BUJ          | Travel cost for all scholars studying abroad | 600/student | 600 | 2008 onwards; 1 case in 2011 intake |
| BUJ          | Joint C project fund | 7,000/project | - | 2006 onwards; depend on proposal |
| CU           | Office space with necessary facilities including electricity, water supply, domestic phone charges, and parking space | 15,000 | Approximation: 2001 onwards |
| CU           | 100% tuition fee for maximum 6 months for PhD SW extension course | 2,681/student/month | 5,051 | 2006 onwards; 3 cases in 2011 |
| CU           | Collaborative research fund for MS students | 7,000/student/take | 63,000 | 2008 onwards by CUS fund, with top-up in 2011 by CS fund; 9 cases in 2013 intake |
| CU           | Travel cost and allowance for staff attending SR activities | n/a | n/a | Te 3 Open Houses in 2011 |
| DLSU         | 100% tuition fee for maximum 6 months for PhD SW extension course | 747/student/month | - | 2007 onwards |
| DLSU         | 100% tuition and other fees for MS students | 1,797/student/take | 1,797 | 2008 onwards; based on 1/2 year in 2011 intake |
| DLSU         | 100% tuition and other fees for PhD students | 2,145/student/take | 2,145 | 2008 onwards; based on 1/4 year in 2011 intake |
| HCMUT        | Travel cost for scholar studying abroad | 600/student | 6,800 | 2008 onwards; based on 6/4; years; 8 in 2011 intake |
| HCMUT        | Travel cost and allowance for staff attending SR activities | n/a | n/a | 3 cases in JUS & CS in 2011 |
| HUST         | Travel cost for scholar studying abroad | 600/student | - | 2008 onwards; based on 30/6 years |
| ITB          | 100% tuition fee for maximum 6 months for PhD SW extension course | 2,356/student/month | 2,356 | 2008 onwards; 1 case in 2011 |
| ITB          | 100% tuition fee for MS students | 8,090/student/take | 49,000 | 2008 onwards by CUS fund; based on 3/4 years; 6 in 2011 intake |
| ITB          | Travel cost and allowance for staff attending SR activities | n/a | n/a | Te 3 Open Houses in 2011 |
| ITB-BNU      | Travel cost and allowance for staff attending SR activities | n/a | n/a | 2008 onwards |
| ITF          | Travel cost (one-way) for scholar studying abroad and parking space | 300/student | 900 | 2011 onwards; 3 students in 2011 intake |
| ITF          | Allowance for staff attending SR activities | n/a | n/a | 1 case in JUS & CS in 2011 |
| KMEL         | 100% tuition fee for maximum 6 months for PhD SW extension course | 2,471/student/month | - | 2006 onwards |
| KMEL         | Collaborative research fund for MS students | 7,000/student/take | 7,000 | 2008 onwards by CUS fund; 1 case in 2011 intake |
| KMEL         | 100% tuition fee for MS students | 6,892/student/take | 49,460 | 2008 onwards; based on 3/4 years; 3 cases in 2011 intake |
| KMEL         | 100% tuition fee for PhD students | 14,518/student/take | 44,526 | 2008 onwards; based on 3/4 years; 3 cases in 2011 intake |
| NTU          | PhD scholarships with 100% tuition and 100% allowance for 4 years | 135,310/student | 135,310 | 2007 onwards; based on 10 direct PhD scholarships/year; 1 in 2011 intake |
| NTU          | Travel cost and allowance for staff attending SR activities | n/a | n/a | 2007 onwards |
| NUOL         | Travel cost for staff studying abroad | 600/student | 1,300 | 2008 onwards; based on 1 FIO and 1; 2 in 2011 intake |
| NUSP         | PhD scholarships with 100% tuition and 100% allowance for 4 years | 135,310/student | 135,310 | 2007 onwards; based on 10 direct PhD scholarships/year; 2 in 2011 intake |
| NUSP         | Travel cost and allowance for staff attending SR activities | n/a | n/a | 2007 onwards; to 3 Open House in 2011 |
Remarks:
n/a = Information is not available.
CU also provides personnel in capacity of Assistant Executive Director.
Calculation from average amounts in local currencies using March each year’s rate

Note: Exchange rates as of March 2012
USD 1 = THB 30.32833
USD 1 = RM 3.00873
USD 1 = PS 42.76651
USD 1 = RP 9,017.62465
USD 1 = SGD 1.25309

<table>
<thead>
<tr>
<th>By/Through MI</th>
<th>Scope of Contribution</th>
<th>Status / Expenses (USD)</th>
<th>Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>UBD</td>
<td>Travel cost and allowance for staff attending SN activities overseas</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>UGM</td>
<td>100% tuition fee for maximum 6 months for PhD SW extension case</td>
<td>2,300/student/semester</td>
<td>-</td>
</tr>
<tr>
<td>UGM</td>
<td>100% tuition fee for MS students</td>
<td>8,000/student/term</td>
<td>40,000</td>
</tr>
<tr>
<td>UM</td>
<td>100% tuition fee for maximum 6 months for PhD SW extension case</td>
<td>897/student/semester</td>
<td>897</td>
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<tr>
<td>UM</td>
<td>100% tuition/research fee for MS students</td>
<td>7,071/student/term</td>
<td>35,355</td>
</tr>
<tr>
<td>UM</td>
<td>Travel cost and allowance for staff attending SN activities overseas</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>UP</td>
<td>100% tuition fee for maximum 6 months for PhD SW extension case</td>
<td>771/student/semester</td>
<td>771</td>
</tr>
<tr>
<td>UP</td>
<td>100% tuition and other fees for MS students</td>
<td>2,143/student/term</td>
<td>4,286</td>
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<tr>
<td>USM</td>
<td>Page charges for joint research paper with USM researchers under S/N program (excluding reprints)</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>USM</td>
<td>100% tuition fee and accommodation for maximum 6 months for PhD SW extension case</td>
<td>989/student/semester</td>
<td>1,978</td>
</tr>
<tr>
<td>USM</td>
<td>100% tuition fee and accommodation for MS students</td>
<td>3,772/student/term</td>
<td>18,860</td>
</tr>
<tr>
<td>USM</td>
<td>100% tuition fee and accommodation for PhD students</td>
<td>5,658/student/term</td>
<td>11,316</td>
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<tr>
<td>USM</td>
<td>Travel cost and allowance for staff attending SN activities overseas</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>All Mts</td>
<td>Liaison Office (personnel, admin cost, communication charges, etc.)</td>
<td>n/a</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Total: 764,209
AUN/SEED-Net Team

1. Prof. Dr. Chitoshi Miki, Chief Advisor
2. Assoc. Prof. Dr. Prakit Tangtisanon, Executive Director
3. Asst. Prof. Dr. Vachara Peansupap, Assistant Executive Director
4. Mr. Nobuyuki Konishi, Deputy Chief Advisor (since April 2012)
5. Mr. Kenichi Shirouzu, Chief Coordinator
6. Mr. Atsushi Takahashi, Deputy Chief Coordinator (until June 2012)
7. Mr. Toshiyuki Okui, Deputy Chief Coordinator (since June 2012)
8. Ms. Siriporn Rungrueangtanya, Program Coordinator
9. Ms. Kalayaaporn Teungfung, Program Coordinator (until August 2012)
10. Ms. Parichart Thammajinda, Program Coordinator
11. Ms. Rungchalai Punninda, Program Coordinator
12. Ms. Kanchana Patanasakdikul, Program Officer
13. Ms. Karnkitti Patanasuthikul, Program Officer
14. Ms. Kultira Tangtatswas, Program Officer
15. Ms. Natechanok Sarakoses, Program Officer
16. Ms. Siritharin Charoensiri, Program Officer
17. Ms. Supapim Wannopas, Program Officer
18. Ms. Pannipa Chinavanichkit, Secretary
19. Ms. Wipawan Ganinan, Secretary