

**ASEAN University Network /  
Southeast Asia Engineering Education Development Network**

**AUN/SEED-Net**

**Implementation Guidelines  
for  
Collaborative Research Program (CR)**

**For the Japanese Fiscal Year 2012 (1<sup>st</sup> batch)**

**AUN/SEED-Net Project**

**As of 10 January 2012**

## 1. Background and Concept

To further develop human resources as well as research and educational capabilities of the Member Institutions and to provide solutions to common issues of the ASEAN region, the **Collaborative Research (CR) Program**, designed primarily to support research supervision activities of advisors at Host Institutions (HIs) and co-advisors at Japanese Supporting Universities (JSUs) and Member Institutions (MIs), has extended *its scope to involve the five interdisciplinary areas* which are addressed as the common critical issues of ASEAN *while retaining the existing nine fundamental engineering fields*. Therefore, not only the CR Program will strengthen research and educational capabilities of the MIs and enable the HIs to provide graduate degree programs with the international standard and high quality thesis research, but also it will strive to contribute more to the development of the ASEAN region by encouraging the collaborative research activities that address the region's common issues and have economic and social impacts on regional industry and community.

The CR Program will be facilitated and supplemented by other supporting programs, namely Japanese Professors Dispatch Program, Short-Term Research Program in Japan, and Short-Term Visit Program in ASEAN, which will enhance communication and collaboration between advisors at HIs (principal investigators) and co-advisors (co-investigators) at JSUs and MIs. Besides, involvement of government, industry, community, non-MIs, and other networks/regions will be promoted. Regional Conference Program is also provided to give an opportunity for all collaborators to develop and discuss the research collaboration as well as to publicize research results. The relationship between the CR Program and other supporting programs is depicted in the concept structure below.



## 2. Objectives

- 1) To create joint research activities among HIs, MIs, and JSUs;
- 2) To implement joint research by assigning thesis research topics to AUN/SEED-Net students and conducting “joint thesis research supervision” by HIs, MIs, JSUs;
- 3) To ensure high quality thesis research of master’s and doctoral students;
- 4) To ensure completion of the graduate degree within reasonable duration through the involvement of Japanese professors;

- 5) To promote research collaboration among HIs, MIs, and JSUs, with involvement of non-MIs, the industry, the community, and other networks;
- 6) To closely link scholars, alumni members, as well as local graduate students among MIs;
- 7) To contribute to the development of the ASEAN region by addressing common critical problems or needs.

### 3. Features of the Program

- 1) The collaborative research to be supported by the Collaborative Research (CR) Program must be conducted by AUN/SEED-Net master's or doctoral students under the joint supervision of advisors at HIs (principal investigators), Japanese co-advisors (co-investigators), and co-advisors (co-investigators) from MIs, preferably Sending Institutions (SIs) of the students.
- 2) It is expected that each HI sets up a few well-defined and focused *collaborative research themes (or research umbrellas)*, each of which is a sub-area of research defined by several key words leading to a collection of interrelated and progressively conducted possible thesis research topics. The title of each research theme should remain unchanged during the Project period, although annual proposals may update a few thesis topics during the year. The framework of research themes and possible thesis topics under each research theme should be “master planned” by the HI in consent with Japanese Field Coordinating University(s) by taking account of discussions with and suggestions by other MIs, particularly Sending Institutions (SIs) of students.

The research umbrellas of each field can be found at AUN/SEED-Net's website via the URL: [http://www.seed-net.org/research\\_umbrella.php](http://www.seed-net.org/research_umbrella.php).

- 3) The thesis research topics must be under the current nine host fields of the Project; however, they can be related either to the fundamental (or basic engineering) fields or to the interdisciplinary areas addressing the common issues of the ASEAN region.

a) Collaborative research in the fundamental fields

The CR in the fundamental fields will be led by the respective HIs and joined by other MIs and JSUs. The list of the nine fundamental engineering fields and the responsible HIs is as following:

The 9 Fundamental Fields	Host Institutions
Chemical Engineering (ChE)	De La Salle University (DLSU)
Civil Engineering (CE)	Chulalongkorn University (CU)
Electrical and Electronics Engineering (EEE)	Chulalongkorn University (CU)
Environmental Engineering (EnvE)	University of the Philippines-Diliman (UP)
Geological Engineering (GeoE)	Gadjah Mada University (UGM)
Information and 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 and Aeronautical Engineering (ME/AE)	Institut Teknologi Bandung (ITB)

b) Collaborative research in the interdisciplinary areas

Importantly, the CR in the interdisciplinary areas will be encouraged and emphasized in the second phase, with all MIs and JSUs joining and sharing knowledge as well as responsibility. With two or more of the current nine engineering fields working together, the CR activities in the interdisciplinary areas will be facilitated and coordinated by Main Facilitating Institution (Main FI). The list of the five interdisciplinary areas and the Main FIs are provided in the table below:

The 5 Interdisciplinary Areas	Main Facilitating Institutions
Biotechnology	De La Salle University (DLSU)
Disaster Mitigation	Gadjah Mada University (UGM)
Global Environment	University of the Philippines-Diliman (UP)
Natural Resources/Materials	Universiti Sains Malaysia (USM)
New/Renewable Energy	Institut Teknologi Bandung (ITB)

It is important to note that the interdisciplinary research **is not to be implemented as new fields**, but to be implemented under the collaboration of the existing nine host fields. AUN/SEED-Net students who will conduct the CR in these interdisciplinary areas must be accepted by the HIs for the respective host fields where the interdisciplinary research areas are included in their research themes.

4) To promote more involvement with the regional industry and community, the CR should be implemented in any of the two orientations: industry-oriented research with hi-end technology and community-oriented research with lower-end technology/appropriate technology, whether the research is in fundamental fields or interdisciplinary areas.

a) Industry-oriented research

For ASEAN development, the CR should meet the needs of and involve core industries in the region, with focus on regional small and medium enterprises (SMEs). Any industries can get involved in the CR projects if they are interested.

b) Community-oriented research

To help solve common issues of the region and to create new inventions for upgrading living quality, the CR for community should be conducted with focus on appropriate technology suitable and applicable for different areas/countries.

#### 4. Persons Involved in a Collaborative Research Project

Persons involved (compulsory)	Role
Advisor of AUN/SEED-Net student at HI	Principal investigator <b>(submit the proposal)</b>
Faculty staff of JSU	Co-investigator
Faculty staff of other MI, preferably SI	Co-investigator
AUN/SEED-Net student(s)	(conduct thesis research under CR project)

Persons involved (not compulsory)	Role
Co-advisor at HI	Co-investigator
Alumni	Co-researcher
Local graduate student(s) at HI	Research assistant
Governmental/industrial sector, community, non-MIs, other networks/regions, etc.	Co-researcher, co-sponsor (not financially supported by the Project)

**Remarks:** (1) A faculty staff can be principal investigator for maximum four (4) AUN/SEED-Net students in total.

(2) The CR support of this 1<sup>st</sup> batch call is basically for AUN/SEED-Net students who enrolled at HIs before April 2012.

## 5. Expectations

- 1) CR themes and topics should be discussed thoroughly and selected with consensus among MIs and JSUs.
- 2) CR projects are encouraged to have involvements of AUN/SEED-Net alumni, local graduate students, non-MIs, the government, the industry, the community, and other networks/regions if possible.
- 3) CR projects are expected to challenge regional comparative study or innovative solutions for the common problems of the ASEAN region.
- 4) Direction, progress and results of the CR projects are expected to be discussed and presented regularly at the AUN/SEED-Net Regional Conferences.
- 5) Collection of research results should be published as a comprehensive book of each identified CR theme under the AUN/SEED-Net Project.
- 6) Research results should be accepted for publication in proceedings and/or journals including ASEAN Engineering Journal supported by AUN/SEED-Net.

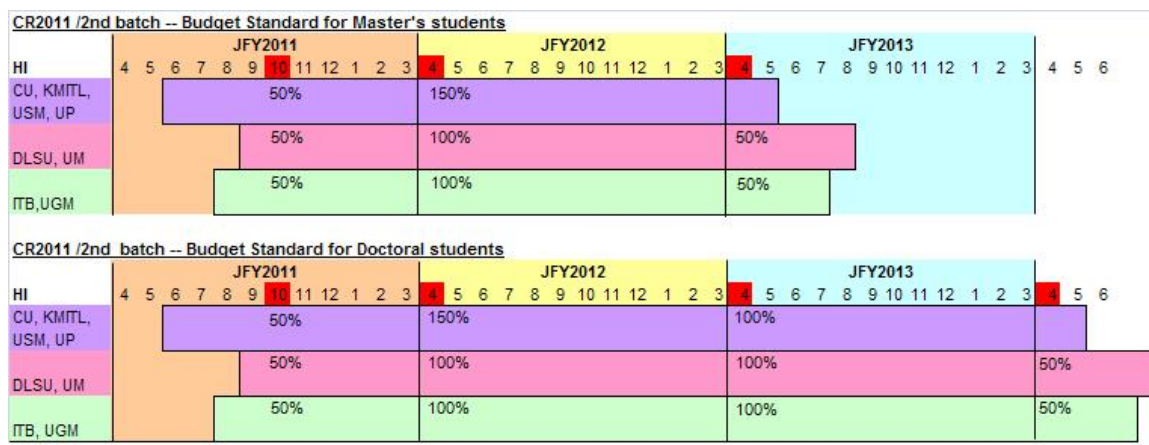
## 6. Ceiling Amount of Support for Collaborative Research / 1st batch

This ceiling amount as well as the breakdown of support in Item 7 will be applied to all research funds given under the Collaborative Research Program, regardless of the funding sources.

-- (Regular Annual Amount) --

Type of students	Regular annual amount
<u>Students Enrollment: From April 2008 onwards</u>	
per one AUN/SEED-Net master's student	US\$ 3,500
per one AUN/SEED-Net doctoral student	US\$ 5,000

The CR budget for each student for the 1<sup>st</sup> batch of the Japanese Fiscal Year 2012(April 2012– March 2013), is allocated as shown below:



## 7. Breakdown of Support

Item	Sub-item, Definition		Regular Ceiling	Remarks		
Honorarium	Advisor's supervision fee & all other minor personnel costs		<b>Enroll after APR 2008</b> - US\$ 875 - US\$ 1250	per one AUN/SEED-Net master's student per one AUN/SEED-Net doctoral student		
Research Expenses	International travel	SN student (for research activity in his/her home city and other ASEAN countries)	Air ticket (discounted economy) Accommodation (*) Travel insurance (***)	Research trip plan is required (2 weeks prior to the trip).		
		SN student (for research activity in Japan)	Air ticket (discounted economy) Accommodation - US\$ 100 / night Travel insurance (***)	-maximum supporting period : <u>10 days</u> -Research trip plan is required (2 months prior to the trip).		
		SN student (for presentation in <u>AUN/SEED-Net Regional Conference or any International Conference</u> in ASEAN or in Japan) (****)	Air ticket (discounted economy) Accommodation - Japan : US\$ 100 / night - ASEAN : (*) Travel insurance (***) Seminar registration fee	Acceptance letter from the conference organizer & paper accepted by the conference are required. -during conference only		
	Principal or Co-investigator (within ASEAN only) (Not for Conference)		Air ticket (discounted economy) Daily Allowance (*)& Accommodation (*) Travel insurance (***)	-Research trip plan is required (2 weeks prior to the trip).		
			Domestic travel	Principal or Co-investigator (not for conference)	Transportation Daily Allowance (**) & Accommodation (**)	Research trip plan is required (2 weeks prior to the trip).
			SN student including graduate student of HI	Transportation Accommodation (**)	Research trip plan is required (2 weeks prior to the trip).	
	Small equipment & spare parts			In case sub-total of this category is over 70% of grand total budget, please give reason to justify your proposal.		
	Reference books					
	Report printing					
	Consumables	incl. office supplies				
Experiments						
Seminar registration fee	Only for SN students					
Short course training	SN student		With approval / justification from advisor.			

(\*) Please refer to the maximum rate for trip allowance under the AUN/SEED-Net Project (in Application Form, Item 8). In case of a student's research and/or conference trip to his/her home city, the accommodation cost will be supported only if it is necessary for the student to stay outside his/her own residence.

(\*\*) Follow the rate of each HI.

(\*\*\*) Insurance

- Insurance during the trip is strictly required. Insurance policy must cover not only death and accident, but also medical treatment for illness.
- Traveler must submit a trip plan and a copy of insurance policy before the trip starts.
- For those who already have insurance for death, accident, and illness with world-wide coverage, they can submit only a photocopy of their own insurance before the start of the trip, without the need to purchase additional insurance.

(\*\*\*\*) CR Support for Participation in International Conference

- In case of international trip to participate in AUN/SEED-Net Regional Conference or international conference, student's presentation at the conference is a must.
- In case of conference (international / domestic) within the Host Country, student's participation can be supported with or without presentation.

## 8. Submission of Reports

Principal Investigators are required to submit the following reports to the AUN/SEED-Net Project. *Failure to submit the required reports will result in withholding future installments.*

Report Type	Submission Time
Technical Report	At the end of the Japanese Fiscal Year (end of March) (The Financial Report Guidelines will be forwarded to each Principal Investigator whose proposal is approved after the signing of the Project Contract.)
Financial Report	

## 9. Financial Management

- 1) Contract period of the CR projects approved in 2012 (1<sup>st</sup> batch) is 1 April 2012 - 15 March 2013.
- 2) The Project Contract will be signed every single Japanese Fiscal Year.
- 3) New Project Contract for an on-going research project will be signed upon the AUN/SEED-Net Project's confirmation on validity of the project and its adequate implementation under the previous contract.
- 4) Only official bank account of the university or equivalent to which the principal investigator belongs is applicable.
- 5) Carryover of funds (surplus or deficit) from one financial year (April – March) to the next is not permitted. Expenditure incurred before the Contract signing date and/or after the Contract termination date will not be accepted.

## 10. Application Endorsement

Item	Required endorsement
Individual proposal	Head of Department
Entire set of proposals	Cover letter from Dean or Representative of HI

## 11. Deadline

**Proposals either in hard or soft copies (PDF or JPG format) should be submitted to the AUN/SEED-Net Project before 30 March 2012 (Friday).**

*Remarks: This Implementation Guidelines and other information of AUN/SEED-Net Member Institutions and Japanese Supporting Universities are available on the website [www.seed-net.org](http://www.seed-net.org).*