

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

AUN/SEED-Net

**Implementation Guidelines
for
Collaborative Research Program with Industry
(CRI)**

For the Japanese Fiscal Year 2011

AUN/SEED-Net Project

As of 11 August 2011

1. Background

Since the ASEAN University Network / Southeast Asia Engineering Education Development Network (AUN/SEED-Net) was first established in 2001, through several joint academic and research activities in engineering field between ASEAN member countries and Japan, the Project has made significant progress in human resources development in engineering fields. At the same time, through several joint activities such as Collaborative Research (CR) and Regional Conference (RC) Programs, the Project has also successfully established the strong network among researchers in ASEAN as well as between ASEAN and Japan. And at the same time, linkage with industries / private sector could also be witnessed partly through local companies' participation in these two programs, although not in a very big scale or number.

Meanwhile Japanese Government recently approved additional fund to accurate overseas development of Japanese Infrastructure and the fund is allocated to AUN/SEED-Net to promote research activities in ASEAN countries. Therefore, aiming at further improvement of academic and research capability of Member Institutions (MIs) with industrial linkage, from the Japanese Fiscal Year 2011, the AUN/SEED-Net Project has launched a new supporting program, namely **Collaborative Research Program with Industry (CRI)** which covers AUN/SEED-Net's fundamental fields and interdisciplinary areas. The Program provides opportunity for research collaboration between faculty staff of Member Institutions and industries in ASEAN countries (Japanese, local, or other organizations in respective fields) as well as universities in Japan. Through this new program activity, research capability of faculty staff of Member Institutions can be improved and enabled to directly respond to the needs of industries. At the same time, the program is also expected to help reinforce the networking between universities and industries both within ASEAN and with those in Japan which will become a solid foundation for further research collaboration with industries.

Under this CRI Program, in addition to 11 universities in the Japanese Supporting University Consortium (JSUC), the Project also receives academic input from Japanese universities funded by Global 30 (G-30) Project* which includes 13 core universities** as also listed in the table of all universities that can be involved in this CRI Program below:

List of universities that can be involved in CRI Project		
AUN/SEED-Net Member Institutions (MIs)	Japanese Supporting Universities (JSUs)	Japanese Universities under Global 30 Project (G-30)***
Institute of Technology of Cambodia (ITC)	Hokkaido University	Tohoku University
Institut Teknologi Bandung (ITB-INA)	Keio University**	Keio University**
Gadjah Mada University (UGM)	Kyoto University**	Kyoto University**
National University of Laos (NUOL)	Kyushu University**	Kyushu University**
University of Malaya (UM)	National Graduate Institute for Policy Studies	University of Tsukuba
Universiti Sains Malaysia (USM)	Shibaura Institute of Technology	Nagoya University
University of Yangon (UY)	Tokai University	Osaka University
Yangon Technological University (YTU)	Tokyo Institute of Technology	Sophia University
De La Salle University (DLSU)	Toyohashi University of	Meiji University

	Technology	
University of the Philippines – Diliman (UP)	University of Tokyo**	University of Tokyo**
Burapha University (BUU)	Waseda University**	Waseda University**
Chulalongkorn University (CU)		Doshisha University
King Mongkut’s Institute of Technology Ladkrabang (KMITL)		Ritsumeikan University
Hanoi University of Science and Technology (HUST)		
Ho Chi Minh City University of Technology (HCMUT)		
Institut Teknologi Brunei (ITB-BRU)*		
Universiti Brunei Darussalam (UBD)*		
National University of Singapore (NUS)*		
Nanyang Technological University (NTU)*		

Remarks:

(*) Member Institutions that can be involved in research activity but are neither eligible to apply for the grant.

(**) 5 Japanese universities that are members of both the Japanese Supporting University Consortium (JSUC) and Global 30 (G-30) Project

(***) For further information on G-30 Project, please visit www.uni.international.mext.go.jp

2. Objectives

- To create joint research activities and promote research collaboration among MIs, JSUs (plus G-30) and industry
- To strengthen human network among MIs, JSUs (plus G-30) and industry
- To contribute to the development of the ASEAN region by addressing the needs of industry or common critical issues
- To develop human resources through involvement of young researchers and master’s and doctoral students in ASEAN and Japan

3. Features of the Program

- 1) The collaborative research must be 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.
- 2) To promote more involvement with the regional industry through this program, the CRI should be able to contribute to industry with hi-end technology, whether the research is in fundamental fields or interdisciplinary areas.
- 3) The applicant must obtain the counter budget from industries which is approximately 20% of the total budget excluding from this CRI fund. The management and control of it is separated from JICA, but the summary report should be submitted to JICA Project for AUN/SEED-Net.
- 4) Rights and ownership to all intellectual property rights (IPRs) generated by the program such as patents, trade secrets, and copyrights, shall follow the policy of the Member Institution to which the applicant belong.

4. Applicant Eligibility

Principal investigator must be full-time faculty members of MIs (except Singapore and Brunei) who assumes full responsibility for the implementation of the research project.

5. Research Areas

List of research areas are as follows.

a. Fundamental Fields

Chemical Engineering (ChE), Civil Engineering (CE), Electrical and Electronics Engineering (EEE), Environmental Engineering (EnvE), Geological Engineering (GeoE), Information and Communication Technology (ICT), Manufacturing Engineering (ManuE), Materials Engineering (MatE), Mechanical and Aeronautical Engineering (ME/AE)

b. Interdisciplinary Areas

Biotechnology, Disaster Mitigation, Global Environment, Natural Resources/Materials, New/Renewable Energy

6. Persons Involved in a CRI Project and Roles

The research project shall be an integration of different parties as listed below.

Principal & Co-investigator (compulsory)	Persons involved
Principal investigator (submit the proposal)	Full-time faculty member of MI (1 person)
Co-investigator	Full-time faculty member of JSU or Japanese universities under Global 30 Project (1 person)
Other Co-researchers (not compulsory)	Persons involved
Co-researcher – 1 (max. 2 persons)	Other full-time faculty member of any MI (incl. those in Singapore & Brunei Darussalam)*
Co-researcher - 2 (Research Assistant)	Graduate or Postgraduate student at JSU or Japanese universities under Global 30 Project
Co-researcher - 3	Co-researcher from industrial sector*
Co-researcher - 4	Co-researcher from governmental sector, community, non-MIs, other networks/regions, etc.*
Co-researcher - 5	Other full-time faculty member of JSU or Japanese universities under Global 30 Project*

() Co-researchers from MIs in Singapore and Brunei Darussalam, Co-researchers from industrial and governmental sector, community, non-MIs, and other networks/regions, as well as other Co-researchers from Japan, although are welcome to be involved in research activity, **are not eligible to take part in CRI budget spending.***

7. Research Period

1 October 2011 – 10 March 2013 (by the end of AUN/SEED-Net Project Phase II)

8. Research fund (budget) supported by AUN/SEED-Net

- 1) Number of research funded under Collaborative Research Program with Industry :
5 projects
- 2) Ceiling Amount of Support
The ceiling amount is US\$ 50,000 per grant for the whole research period (October 2011 – 10 March 2013). The research fund shall be allocated based on the proposal once it is approved.
- 3) Project Contract and Financial Management
 - 1) Contract period of the CRI projects approved in 2011 is between 1 October 2011 - 15 March 2012.
 - 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.
 - 6) Expenditure incurred before the Contract signing date and/or after the Contract termination date is unacceptable.
- 4) Breakdown of Support

The breakdown of support will be applied to all research funds given under the Collaborative Research Program with Industry (CRI).

a. Research expenses (within US\$50,000)

**Only Principal Investigator, Co-researcher and student from MIs (excl those in Singapore and Brunei) are eligible to take part in this budget spending.*

Item	Sub-item, Definition	Regular Ceiling	Sub Ceiling	Remarks	
Research Expenses (*)	International trip	Only for research activity in other ASEAN countries	Air ticket (discounted economy)	Max. ceiling for trips (international & domestic) : 25% of total budget (25% of 50,000USD = 12,500USD)	Excluding co-researchers and students from Singapore and Brunei Darussalam
			Daily Allowance (**)		
			Accommodation (***)		
			Travel insurance (****)		
	Only for research activity in Japan	Air ticket (discounted economy)			Excluding co-researchers and students from Singapore and Brunei Darussalam
		Daily Allowance (**)			
		Accommodation - US\$ 100 / night			
		Travel insurance (****)			
Domestic trip		Transportation Daily Allowance (**) & Accommodation (***)			

Equipment & spare parts(*)		-Ceiling of Unit cost is US\$3,000	Max. ceiling for Equipment & spare parts : 50% of total budget (50% of 50,000USD = 25,000USD)	In case unit cost is more than \$1,000, two quotations are required to purchase the cheaper one
Consumables				
Commissioned Work				
Others (Please specify)				

- (*) All travelling expenses (international & domestic trips) should not exceed 25% or US\$12,500 of the total budget. **Features of the Program**
- All expenses on equipment & spare parts should not exceed 50% or US\$25,000 of the total budget.
- (**) Please refer to Maximum rate for the trip allowance under AUN/SEED-Net Project shown in the table in the *Application form pp. 12*.
- (***) Follow the rate of the Institution but must not over the maximum rate set by AUN/SEED-Net of (**)
- (****) INSURANCE
Insurance during the trip is strictly required. Insurance policy must cover not only death and accident, but also medical treatment for illness.

b. Japanese professor dispatch (not included in US\$50,000)

Principal Investigator can invite professors or students (research assistant) from Japanese supporting universities and Japanese Universities funded by Global 30 project who are involved in this research for maximum eight (8) trips per project during the whole research period. The trip arrangements will be supported by JICA.

**Request should be made to AUN/SEED-Net at least 2 months before expected dispatch period.*

9. Counter Budget from Industry

Counter budget of at least 20% of the total budget from industry (e.g. Japanese company in ASEAN, local company, or other external sources such as governmental sector and/or any other foreign company) is required. The counter budget shall be managed by the Principal Investigator (PI) and summary balance report (any format acceptable) should be submitted to AUN/SEED-Net.

10. Submission of Reports

Principal Investigator is 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	

**The output of the research is encouraged to be published in ASEAN Engineering Journal or other journals within 1 year after the research period*

11. Application Preparation and Deadline

1) Application form

Principal investigator should complete the application form.

2) Application Endorsement

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

3) Application Review

Submitted applications are reviewed by reviewing committee members who are experts in the particular engineering fields assigned by AUN/SEED-Net.

All the submitted applications are reviewed based on following review criteria.

- a. Originality: The research nature is original and beneficial in the engineering aspect or industrial practice as follows.
 - The research purpose and topic are timely and useful.
 - The research findings have great potential of application, use or development, or can be put into practice.
- b. Relevancy and Feasibility
 - The research purpose and topic are relevant with the purpose of the Integrated Collaborative Research Program.
 - The research method is relevant to the purpose and expected output of the research.
 - Necessary data, facilities and equipments are well defined and prepared.
 - The budget proposal is reasonable and corresponds to the research nature.
- c. Research organization
 - The members of the research are adequate and the roles are clearly assigned to each member.

4) Deadline of proposal submission

Proposals either in hard or soft copies (PDF or JPG format) should be submitted to the AUN/SEED-Net Project (prog@aun-seed.net) before Monday 19th September 2011.

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.