

e-Asia Joint Research Program (the e-ASIA JRP)
Japanese-Thai-Filipino Research Cooperation in the field of
“Functional Materials”
Joint Call for Proposals to be submitted by 7th May 2014

I. General Description

I-1. New Scheme for Joint Funding of Japanese-Thai-Filipino Research Cooperation

Based on the MOU, Japan Science and Technology Agency (hereinafter referred to as “JST”), National Science and Technology Development Agency of Thailand (hereinafter referred to as “NSTDA”) and Department of Science and Technology of the Philippines (hereinafter referred to as “DOST”), hereinafter singularly referred to as a “Party” and plurally as “Parties”, have agreed to establish a new scheme for joint funding of Japanese-Thai-Filipino cooperative activities. After consultations among the Parties, “**Functional Materials**” has been selected as the field of research in the e-Asia Joint Research Program (hereinafter referred to as the “e-ASIA JRP”).

I-2. Aim of Joint Call and Research Field

By strengthening multilateral collaboration among Japanese, Thai and Filipino researchers in the field of Functional Materials, the aim of the Joint Call is to pursue state-of-the-art technologies and solutions to issues common across the region, towards realization of an innovative and robust economy and society in East Asia.

I-3. Invitation of Proposals and Prospective Applicants

The Parties shall invite researchers from their countries to submit joint proposals for cooperative research projects in the field of Functional Materials, concentrating on:

1. Functional Surface Coating and Functional Surface Modification such as
 - Electroplating
 - Hydrophilic and Hydrophobic Coating
2. Innovative Materials and their Processing such as
 - Photocatalytic Materials
 - Graphene
 - Tungsten / Titanium Nano Wire
 - Carbon Nano Tube
 - Nanosheet

All applicants must:

- (1) Identify regional issues in the field of “Functional Materials” and how their research proposals are expected to solve these issues; and
- (2) Abide with their respective national eligibility rules for research grant application.

Researchers from industry may participate in the joint collaboration in accordance with national eligibility rules.

I-4. Financial Support

The Parties plan to support cooperative activities including sending and inviting researchers to the counterpart countries. In principle, JST will support expenses for Japanese researchers, NSTDA will support expenses for Thai researchers and DOST will support expenses for Filipino researchers.

I-5. Intellectual Property Rights

If a part of a research project funded by a Party, which is conducted by a researcher belonging to a single university or research institute, etc. (hereinafter referred to as the “Institution”), gives rise to a project result and that result can be separated from results arising from other parts of the project conducted by researchers belonging to another Institution or jointly conducted by researchers of more than one Institution, and said project result is protected as intellectual property, the Party which funds that part of the research project giving rise to the protected project result, or the Institution to which the researcher who conducted that part of the research project belongs, as the case may be, shall be entitled to the intellectual property in accordance with the provisions in II-3.1 or II-3.2 or II-3.3 which are relevant to each Party.

If a project result is a result of part of the research project jointly conducted by researchers belonging to more than one Institution, and said project result is protected as intellectual property, the intellectual property shall be jointly owned by a Party or Parties and an Institution or Institutions, as the case may be, and in accordance with provisions in II-1.5 or II-2.5 or II-3.5 which are relevant to each Party and those of the contract according to II-4, in proportion to the contribution of each participating Institution. The expenses required for the application procedure, etc., and the maintenance of rights shall also be shared by those which are jointly entitled thereto in the same proportion as that of joint ownership.

II. Support by JST/NSTDA/DOST

It is anticipated that one or two trilateral projects will be funded per call.

II-1. JST

II-1.1. Budget for Cooperative Research Projects

The budget for a project may differ each year, depending on the content of activities, but the total budget for the Japanese researcher over a full 3-year period (i.e. 36 months) should not exceed 15.6 million Japanese Yen (including overhead expenses) in principle. (For example, a proposal may envisage a budget of 5.6 million yen for the first year, 4 million yen for the second year and 6 million yen for the final year.) In case there will be clear scientific impact or merit which justifies the budget, applicants may request the total budget approximately 31.2 million Japanese Yen, including overhead expenses.

According to the budgetary limitations for this program, the amounts will be adjusted each year.

II-1.2. Cooperative Research Period

The duration of a cooperative research project will be three years (36 months) in total from the start date.

II-1.3. Details of Support

This program is designed to support additional expenses related to cooperation with Filipino and Thai counterparts for a Japanese researcher, such as expenses for travel and/or conducting seminars/symposia. A precondition for applying to this Joint Call is that the main research infrastructure is already ensured by each research group.

II-1.4. Funded expenses

Funding provided within this call is intended to enhance the capacity of the applicants to collaborate. Funding will therefore be provided mainly in support of collaborative activities and may include some of the local research that is necessary for the collaboration.

(1) Travel expenses

In principle, travel expenses should be based on the rules of the institution to which the Principal Investigator (hereinafter referred to as the PI) belongs.

- (2) Expenses for holding symposia, seminars and meetings
- (3) Expenses for facilities, equipment and consumables
- (4) Expenses for personnel
 - Stipend or salary for a PhD student, or salary for a post-doctoral fellow.
- (5) Others
 - Expenses for creating software, renting or leasing equipment, transporting equipment, etc.
- (6) Overhead expenses
 - Overhead expenses should be, in principle, 30% of direct costs comprised of (1) to (5) above.
- (7) Expenses not covered/funded in the program
 - No expenses stated below will be covered under this program:
 - 1) Expenses related to acquiring real estate or constructing buildings or other facilities
 - 2) Expenses related to procurement of major equipment
 - 3) Expenses related to dealing with accidents or disasters which occur during cooperative research periods
 - 4) Other expenses unrelated to implementation of this cooperative research project

II-1.5. Contract between Applicant and JST

Support will be implemented according to a contract for commissioned research entered between JST and a university or research institute, or similar (hereinafter referred to as the “institution”).

The contract for commissioned research will be renewed each year over the cooperative research period.

Since the contract is agreed on condition that all administrative procedures related to this project be handled within the institution, the PI should consult with the department in charge at his/her institution.

As for the contract between the Japanese institution and JST, it stipulates that Article 19 of the Industrial Technology Enhancement ACT (Japanese version of the Bayh-Dole Act) and the Article 25 of the ACT on Protection of the Creation, Protection and Exploitation of Content (tentative translation) will be applied to all intellectual property rights belonging to the Japanese institution generated as a result of this project, and that these can be the properties of the institution with which the PI is affiliated.

II-2. NSTDA

II-2.1. Budget for Cooperative Research Projects

Despite expenditure of a project may differ in each year, depending on the content of activities, the total budget for the Thai researcher over a full 3-year period (i.e., 36 months) should not exceed 5 (five) Million Baht (about 150,000 United States Dollars) in principle.

II-2.2. Cooperative Research Period

The duration of a cooperative research project will be three years (36 months) in total from the start date.

II-2.3. Details of Support

This program is designed to support cooperative research activities with Filipino and Japanese counterparts for a Thai researcher, such as expenses for travel and/or conducting seminars/symposia. A precondition for applying to this Joint Call is that the main research infrastructure is already ensured by each research group.

II-2.4. Funded expenses

Funding provided within this call is intended to enhance the capacity of the applicants to collaborate. Funding will therefore be provided mainly in support of transportation to enable collaboration, and of local research endeavours that are necessary for collaboration.

All budget items must conform to the rules and regulations issued by of NSTDA.

II-2.5. Contract between Applicant and NSTDA

Support will be implemented according to a funding contract for the research, development and engineering project entered into between NSTDA and the Institution to which the researcher belongs.

Since it is the Institution which shall enter into the contract with NSTDA, the PI should consult with the officials responsible for coordination of receipt of research funding and the legal representative of the Institution.

The contract between Thai Institution and NSTDA shall be governed by the regulations of the National Science and Technology Development Board on funding for research, development and engineering projects, and all other relevant rules and

regulations of NSTDA. All intellectual property rights (patents, utility model or design rights, rights to programs, databases and other intangible property and know-how, and so on) which are results of the project funded under the contract shall be managed in accordance with the regulations of the National Science and Technology Development Board on management of results of projects funded by research, development and engineering project funding. In principle, NSTDA and the Institution(s) shall be jointly entitled to all intellectual property rights in the project results. The Institution, however, is entitled to a share of revenue generated from commercialization of the project results.

II-3. DOST

II-3.1. Budget for Cooperative Research Projects

The budget for a project may differ each year, depending on the nature and number of activities to be undertaken, but the total budget for the Filipino researcher group over a full 3-year period (i.e. 36 months) should not exceed about 15,000,000 Philippine pesos (350,000 United States Dollars) in principle.

II-3.2. Cooperative Research Period

The duration of a cooperative research project will be three years (36 months) in total from the start date.

II-3.3. Details of Support

This program is designed to support cooperation with Thai and Japanese counterparts for a Filipino researcher, such as expenses for travel and/or conducting seminars/symposia. A precondition for applying to this Joint Call is that the main research infrastructure is already ensured by each research group.

II-3.4. Funded Expenses

Funding provided within this call is intended to enhance the capacity of the applicants to collaborate. Funding will therefore be provided mainly in support of transportation to enable collaboration and, of local research endeavours that are necessary for collaboration.

All budget items must conform to the rules and regulations issued by DOST.

II-3.5. Contract between Applicant and DOST

DOST and the Philippine Institution to which the Filipino PI belongs shall enter into a Memorandum of Agreement for the implementation of the project. The Filipino PI shall be the one primarily responsible for all project activities in the Philippines.

Matters related to intellectual property resulting from a project shall be governed by the provisions of the Philippine Technology Transfer Act of 2009 and other related rules and regulations.

II-4. Contract among Researchers

A contract for cooperative research shall be made for implementing actual research collaboration. The contract for cooperative research shall include conclusions of discussions among Parties which are entitled to intellectual property arising as a result of research collaboration, and Institutions concerned, on the issues regarding treatments of research information brought by researchers involved for the implementation of research collaboration, of research achievements as a result of research collaboration and of intellectual properties with among the concerned parties.

The agreement so concluded shall be reported to the Parties.

III. Application

A common application including researchers from three countries shall be submitted to each of the Parties in parallel. The application shall be written in English. For the Japanese applicants, project titles and a summary of the project shall also be submitted in Japanese.

The application shall include:

- a) Project description including how collaboration will be carried out, with clear statements of what roles Japanese, Thai and Filipino researchers will play respectively in the project;
- b) Description of the regional issues to be tackled by the proposed project and the expected outcome when the proposed project is conducted, scientifically as well as in terms of its relevance for the industry and society;
- c) Description on the ongoing activities and specific advantages of each group

- respectively, which form the basis for the proposed joint project;
- d) Description on the expected value added from the proposed joint project, including how the competence, technology and other resources in each group complement each other;
 - e) Description of how the project is expected to help strengthen multilateral research collaboration over the longer term;
 - f) Description on the expected value added from the multidisciplinary approach in the proposed joint project; and
 - g) Description on how the proposed joint project interacts with or impacts on other comparable activities worldwide.

III -1. Application Forms

For Japanese researchers applying to JST, the following application forms shall be prepared in English (“E”) and partially in Japanese when indicated as “J”.

- Form 1J/E Application outline (title of cooperative research project, names of PIs, cooperative research period)
- Form 2J/E Summary of the Project
- Form 3E Information on PIs (their CVs*)
- Form 4E List of individuals committed to the cooperative research project in the Philippines, Thailand and Japan
- Form 5E Description of the cooperative research project including the points stated above *-maximum of 6 pages-* (including funds provided from other sources that support the existing on-going activities)
- Form 6E Research Networking Plan
- Form 7 E Papers and other publications by the Japanese-side PI in the past 5 years
- Form 8 E Papers and other publications by Thai-side PI in the past 5 years
- Form 9 E Papers and other publications by Filipino-side PI in the past 5 years
- Form 10E Budget plan for the project

For the Thai researcher applying to NSTDA, the project proposal shall be prepared in English in accordance with the form specified by NSTDA.

For the Filipino researchers applying to DOST, the project proposal shall be prepared in English in accordance with the [form specified by DOST](#).

** The description shall include short Curriculum Vitae (CV) from Japanese, Thai and Filipino PIs, which include basic information on education, past and present positions*

and membership of relevant organizations/associations. Each description should not be more than 1 page of A4.

III-2. Preparation of Application Forms

Applicants should fill in the particulars in all the application forms listed in III-1 above.

III-3. Submission of Application Forms by Filipino, Thai and Japanese Applicants

Japanese applicants should send their application forms to JST by 17:00 (Japanese Standard Time) by 7 May 2014, through the on line application system (<http://www.e-rad.go.jp/index.html>).

Thai applicants should send their application forms to Department of International Cooperation, Ministry of Science and Technology by the end of 7 May 2014.

Filipino applicants should send their application forms to DOST at the Office of the Undersecretary for Research and Development by the end of 7 May 2014.

IV. Evaluation of Project Proposals

IV-1. Evaluation Procedure

A Review Panel specializing in the field of Functional Materials, consisting of one expert from each country represented will evaluate all proposals.

Based on the results of the evaluation, a decision will be made at the Board Meeting of the e-ASIA JRP regarding which proposals to select for funding.

IV-2. Evaluation Criteria

The following general evaluation criteria will apply to each application:

1) Conformity with the Aims of the Joint Call and the Research Field

The proposed activity shall conform to the aims and the research field of the Joint Call. It is considered as a pre-requisite that the applicants shall have sufficient research infrastructure to pursue the proposed activity.

2) *Capability of Research Leaders and Current Research Activities*

The PIs in each country shall have the vision and the experience (or the potential in the case of younger researchers) to reach the project goals during the period of support.

3) *Effectiveness and Synergy of the Joint Research Activity*

The proposed research activity shall be advanced, novel and internationally highly valued. The activity shall have a significant impact on science and technology development or shall contribute to solving internationally shared issues. The activity shall create innovative technological seeds to trigger new industrial capabilities in the future.

Activities producing synergetic effects from collaboration are especially desirable. For example, activities which can leverage the knowledge, skills and experience of all counterparts, activities which can utilize the special resources and the geographical features of all counterparts, etc.

4) *Validity of the Research Plan*

The research activities and their expenses, including the sharing of research activities with counterpart research institutes, shall be appropriately planned.

5) *Effectiveness and Continuity of Exchange*

The proposal shall contain activities to enhance sustainable research exchange. For example:

- (a) Nurturing of young researchers through research activities;
- (b) Sustainable development of research exchanges initiated by this activity;
- (c) Expanding international research networks among researchers, including those other than the PIs and members of this activity.

6) *Validity of the Exchange Plan*

Research exchange activities and their expenses shall be appropriately planned.

IV-3. Announcement of Decision

Applicants will be notified of the final decision by September 2014 regarding which projects will be funded.

V. Responsibilities of PIs After Proposals are Approved

After the proposal has been approved, PIs and their affiliated institutions will observe the following when carrying out the cooperative research and utilising supported expenses.

V-1. Annual Progress Report

V-1.1 Annual Progress Report to the Scientific Advisory Council

At the end of each fiscal year, the PIs shall promptly develop and submit an integrated progress report to the Scientific Advisory Council of the e-ASIA Joint Research Program on the status of joint research.

V-1.2 Annual Progress Report to JST

At the end of each Japanese fiscal year (March), the Japanese PI shall promptly submit a progress report on the status of research exchange, and the institution with which the PI is affiliated shall promptly submit a financial report on supported expenses.

V-1.3 Annual Progress Report to NSTDA

Thai researchers funded by NSTDA shall submit a progress report every 6 (six) months. The report shall include updates on financial status and on technical aspects of the project. The transfer of the installment of funding for the next period shall be subject to submission and duly acceptance of progress report of the previous period.

V-1.4 Annual Progress Report to DOST

At the end of each fiscal year, the Filipino PI shall submit to DOST a regular semi-annual progress report within a month after the first semester of implementation. For multi-year projects, an annual technical report shall be submitted to DOST after each year of implementation.

In addition to the progress report, a financial report, duly noted by the Head of Agency or its duly designated representative and certified by the agency accountant, shall likewise be submitted to DOST within two (2) months after the end of each year of implementation.

V-2. Final Report

V-2.1 Final Report to the Scientific Advisory Council

After completion of the period of joint research, the PIs shall, within one month, jointly produce and submit an integrated final report to the Scientific Advisory Council on the results of the joint research.

V-2.2 Final Report to JST

After completion of the period of joint research, the Japanese PI shall, within one month, submit a final report on the results of the joint research. The final report should include a general summary (maximum five A4 pages) compiled jointly by all members of the Japanese research group. If papers describing the results of research exchange are presented to academic journals and/or societies, etc., which is expected by the Parties, copies of those papers should be attached separately to the final report.

The institution with which the PI is affiliated shall submit a financial report on supported expenses within the same time frame.

V-2.3 Final Report to NSTDA

After completion of the period of joint research, the Thai PI shall submit a final report on the results of joint research within one month to NSTDA. The final report shall include a general summary (maximum five A4 pages) compiled jointly by all of the Thai research groups, and elaborate on financial and technical aspects of the project. If papers describing results of research exchange are presented to academic journals, societies and so on, which is expected by the Parties, copies of such papers shall be attached to with the final report.

V-2.4 Final Report to DOST

Upon completion of the project, the Filipino PI shall submit to DOST a technical terminal report no later than three (3) months after completion. The report shall include a pre-print manuscript and information on patentable inventions, if applicable.

A terminal financial report shall be submitted within three (3) months after project completion. Any balances/savings and income/interest earned shall be reported and reverted to DOST within three (3) months after project completion.

Japanese applicants should contact the following for further information:



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Email: easiajrp@jst.go.jp

Thai applicants should contact the following for further information:



Dr. Somnuk Sirisoonthorn (for technical issues)
Dr. Pattharaporn Suntharasaj and Sininard Wangdee (for coordination)
International Cooperation Division
National Science and Technology Development Agency
111 Thailand Science Park
Klong Luang, Pathumthani 12120
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