

## 2020 4th Call(December Round) for Proposals for GIMRT Collaborative Research

### Special note for GIMRT operation in covid-19 epidemic

There are many uncertainties in user program operation in 2020 and 2021. Therefore, the operation of GIMRT will be performed in flexible manners considering availability of user travel, operation status of IMR facilities and the safety of users and IMR members. For domestic users, we ask you to renew your proposal in 2020 December call for the technical reason of the budget control of this physical year. Even if your proposal cannot be conducted for covid-19 related reasons, there will be no-penalty for the non-complication of your proposal or for submitting an identical proposal for 2021 round. If it is partly performed, we ask user to submit a full report or a progress report (instead of final one). For oversea users, we will apply the flexible extension of proposal expiring time. We encourage users to keep proposal rather than to cancel it for uncertainty. GIMRT is now considering to accept the online collaborative work. In this case, user send a sample to IMR, then the local contact performs onsite experiments with online discussions and exchanges. The part of your travel expense will be converted to the expenses needed to perform such work. GIMRT office will announce you when the protocol of such application is ready. However, please understand that the availability may be limited for restrictions of researches in covid-19 epidemic.

### 1. Outline and objectives of international collaborative research

Institute for Materials Research (IMR) was reorganized in 1987 as a National Collaborative Research Institute. To contribute materials science community in Japan, IMR has provided open accesses for its original facilities, instruments, and knowledge of materials science for researchers belonging to universities and research institutions nationwide. Since FY2010, IMR have been authorized as a “Joint Usage / Research Center for Materials Science” by the Japanese Government.

In November, 2018, IMR’s Global Institute for Materials Research Tohoku(GIMRT) program was certified as an “International Joint Usage /Research Center for Materials Science” by the Government. In this new international collaboration scheme, GIMRT will play the role as a core institute for the collaborative researches in materials science communities in both national and international levels. GIMRT offers open access to IMR’s resources of materials science for global researchers through variety of research collaboration programs and bridges domestic and overseas researchers for multi-core international collaborative research.

### 2. Area

First of all, please choose one from following 7 proposal areas sorted by section/center where users run their collaboration researches.

- (1) Standard collaboration at Research Divisions and Groups
- (2) IRCNMS : International Research Center for Nuclear Materials Science
- (3) CRDAM : Cooperative Research and Development Center for Advanced Materials
- (4) HFLSM : High Field Laboratory for Superconducting Materials
- (5) CCMS : Center for Computational Materials Science
- (6) CN: Center of Neutron Science for Advanced Materials
- (7) ICC-IMR : International Collaboration Center

The area (1) is to perform collaboration with IMR members of each research division and group without using facilities at research centers. In areas (2)-(6), users can use facilities and instruments installed in research centers. The area (7) accept visiting guest professors, research fellowships for PhD course students and proposal for workshops. For

details of each area, please read the related guideline. The amount of financial support is independent of area choice.

In area (1), there were sub-categories, 1)Challenging Research, 2)General research, 3)Challenging project, 4)Workshop. The general research is the standard one to which most of user should apply. Those who stays in Japan for a long term research visit such as visiting professor can apply for Challenging project. If one stays in Sendai, a limited amount of research consumable(maximum 0.2 MJPY) can be applied instead of the travel expenses.

The workshop must be applied to ICC-IMR by sending a related application from by e-mail. For details, please visit the web site <http://www.icc-imr.imr.tohoku.ac.jp>. The application form is common between GIMRT and ICC-IMR. The review committee will differentiate workshop proposals into two categories during the review process, GIMRT workshop and IMR workshop. For example, a joint workshop between IMR and some overseas institution opened only to limited members will be categorized to IMR workshop, which is supported by IMR internal budget.

We accept limited numbers of Challenging projects and the budget will be below 0.5 MJPY for each.

A challenging research is a proposal consists of only young members of 37 or younger as of 1<sup>st</sup> Jan. 2021. The filling rate which will be determined by the review scoring will be raised for a challenging research. To use this benefit, please state that one is going to apply a challenging research in the beginning of your proposal(background, purpose section). The challenging research can be stated for any of areas (1)-(6).

### 3. Types

For each area, there are several different types of applications which are differentiate by a content of collaboration team, a range of support and places of researches. It is summarized in the table of overview of GIMRT program, which can be found at the application web site : <https://imr-kyodo.imr.tohoku.ac.jp>.

- (1) Type S : Basic single visit is the standard application to support a research visit to IMR. There is no special form for Type S, but any proposal applied for areas (1)-(6) is treated as Type S proposal. In another word, all overseas applications will be treated as Type S proposal automatically. The request amount of your travel support should be written in the research plan section. The estimated airfare, length of stay(how many days?), expected visiting time(when?) and staying expense/per day and the total amount of support request should be indicated.
- (2) Type O : Type O supports a research visit of young scientist of Japan to perform research at overseas institutes. The program provide opportunities to conduct researches in abroad. It requests a stay of two weeks or longer and does not support a travel to attend an international conference. There is no clear age limit is set, however, we do not expect an application from a well-established full professor level researcher. Moreover, a priority will be given to younger researchers below 40 years old in the review process.
- (3) Type B(domestic) : Bridge proposal is an additional proposal to ask an additional travel support for a multi-core collaboration research. Hence, a Bridge proposal should be combined with a Type S proposal. In the bridge domestic, one can request a travel budget to support Japanese collaborators who will join your research at IMR or at some non-Tohoku Univ(TU). institutions. Examples of such non-TU institutions are J-PARC or SPring-8 where IMR is operating some instruments. Another example is a home institution of one of your Japanese collaborators in your proposal, where a complementary collaboration research should be conducted. In the Type B document, necessity of such multi-core collaboration must be stated.

If you do not need an additional support, but is going to have a short stop at the home institution of your collaborator on the way to/from IMR, you can state that plan in the Type S proposal. The range of support for this additional part may differ from case to case and GIMRT may ask you to submit Type B proposal in some cases. If you have any questions, please consult with GIMRT coordinator by sending an e-mail.

- (4) Type B(overseas): In Type B overseas, one can combine Type S and Type O. Overseas researchers visit IMR by the support of Type S and a young scientist of Japan visits overseas institute by the support of Type O. The contents of Type B(overseas) form contains the contents of Type O form. Therefore, one should submit Type S and Type B(overseas) forms for this type.
- (5) Type B(special): This is the special type of proposal at IRCNMS to conduct material irradiations at overseas institutions. It will be coordinated by IRCNMS and is not a standard user application program.
- (6) Type W(workshop): Type W is an application for domestic/international workshop organization. The maximum support are 1, 1.5 and 2 MJPY for domestic, international and the large size joint(domestic and international) meetings. In the joint meeting, one can support both domestic and overseas participants, but the latter must be more than 2/3 of the total budget. In international ones(international or joint), the language must be English throughout the meeting. The budget can be used for travel support of overseas participants, a printing cost such as abstract booklet and a cost for a venue. When a conference is supported by multiple sources, it should be stated clearly in the application.
- (7) Other types: For other types of applications, visiting guest professor, research fellowship and others, one is requested to apply to ICC-IMR. Please visit ICC-IMR web site for details.

#### **4. Urgent Proposal Calls for Domestic Researchers**

For domestic proposal, we strongly recommend to apply at December round to ensure the travel support. A limited numbers of urgent research proposal can be accepted for other calls in areas (1), (2), (3), (4), (5), and (6).

#### **5. Applicant qualifications**

- (1) Full-time researchers(including postdoc researchers) belonging to national /public/private universities, technical colleges, incorporated administrative agencies, national research and development corporations, special corporations, and national public research institutions or equivalent institutes at overseas can apply as research representatives.
- (2) Graduate students can be included as collaborators. For domestic application, undergraduates (for technical colleges, major college students and academic advisors shall be specified) can be included.
- (3) Participants in the Challenging Research are limited to researchers 37 years old or younger as of 1<sup>st</sup> January 2021. Graduate students or domestic undergraduates (major students at technical colleges) may participate.
- (4) Regarding persons who have foreign nationality or persons belonging to foreign organizations, security export control procedures are required prior to conducting research. Please consult with your local contact for details.
- (5) Although researchers of non-academic organizations can apply, the proposal shall be academic and its achievement shall be published. For proprietary research, use the scheme of "Collaborative Research Program with the private sector".

#### **6. Items to Note**

- (1) Each research representative may only submit one international proposal in each year. GIMRT is willing to support researchers from varieties of institutions and nations. Hence it is our policy to avoid the multiple supports for a specific researcher.
- (2) The allocation of research expenses will be adjusted based on the evaluation of the proposal, status of research implementation and achievement submission, the total number of proposals and budget allocation, and will be confirmed through discussions by the proposal committee.
- (3) If you continue with the same research subject, one can submit a renewed proposal as a continuing one. The renewal is accepted up to two times. However, one has to show good research results to have supports in successive years. Please understand that the supporting rate might be lower for successive proposals to encourage new users.
- (4) When graduate students and undergraduate students (major students for technical colleges) use the laboratory in IMR, they must have Personal Accident Insurance for Students Pursuing Education and Research or equivalent one. All other users also must hold a proper insurance. IMR will not provide any insurance for users.
- (5) By the export control of Japan, researchers belong to overseas institutes cannot be the main proposer of CCMS. However, one can participate as a collaborator or as co-PI to the proposal submitted by a researcher belongs to a domestic institute.

## **7. Application procedure**

- (1) Apply electronically via the GIMRT user system at the following URL. To submit a proposal, one has to obtain User ID of the system. It will take one or two working days to activate your user ID and so please register in advance.  
<https://imr-kyodo.imr.tohoku.ac.jp/?lang=en>
- (2) Type W must be submitted to ICC-IMR.
- (3) Application deadlines  
10th December 2020(Thursday) in Japan Standard Time(JST). Considering the time difference, the application will be cut at the beginning of December 11th. JST. Next call is expected in the end of February. Please note that there is no technical support in the weekend.
- (4) Applications should be either in Japanese or English. For the review process, all overseas applications are requested to be written in English.

## **8. Research period**

The research period for domestic application for December round is from 1st April 2021 to 31 March 2022. For overseas applications, one year from the acceptance.

## **9. Contact address**

GIMRT-office, Research Cooperation Division, General Affairs Section, Institute for Materials Research, Tohoku University

2-1-1 Katahira, Aoba-ku, Sendai, Miyagi 980-8577, Japan

Phone +81-22-215-2183

FAX +81-22-215-2184

Email [gimr-office@imr.tohoku.ac.jp](mailto:gimr-office@imr.tohoku.ac.jp)

## **10. Review process and selection**

Each proposal is reviewed by three referees, and decision is made by the corresponding proposal committee based on the review results. The review of the continuing proposals includes the status of the previous proposal and the registration status of the research

results on the previously accepted proposal. For new proposal, please be sure to include related research activities in the “Previous Research Results” column.

Applicants will be notified of the review results around the end of February 2021.

### **11. Research Report**

The research representative of the accepted proposal shall register the “Research Report” and the output results such as publications via GIMRT user system. Every result that is obtained in the collaborative research, even partly, shall be included in the results. The dead line of research report of the December call is the mid. April of 2021. For other call, it will be informed after the finish of your research visit. We request users to publish research results within 3 years. Papers may be published after the research period and thus please be sure to register at the GIMRT user system even after submitting the research report for each fiscal year.

If the collaborative research was not carried out due to some reasons, submit a Usage Status Report. After the arrival by the committee, register it in place of the report.

### **12. Submission of paper, Miscellaneous**

Submit one copy of the reprint of the paper published as research achievements by an electronic file to the Collaboration Research Office. Additionally, register it via GIMRT user system. Please be sure that IMR is in the Acknowledgments section by stating “by the Collaborative Research (subject number) at the Institute for Materials Research, Tohoku University.” Since the important objective of the GIMRT is to train young researchers, please register master’s or doctoral thesis, if the thesis partially includes results of collaborative research as well as awards, promotion, project launch, patent or industrial application through the use achievements. Documenting these achievements is important to maintain the collaboration budget.

An example acknowledgment is as follows.

This work was performed under the GIMRT Program of the Institute for Materials Research, Tohoku University (Proposal No. \*\*\*\*\*).

The formal names of the facilities of IMR are given in the section 2. Area.

### **13. Accommodations**

Visitors may use the accommodation facility of the Institute (three single rooms, two twin rooms; total capacity of seven). To apply, contact your local contact or GIMRT user office. For details of the accommodation facility, please consult with your local contact.

### **14. Handling of intellectual property rights**

Intellectual property rights generated as a result of research shall conform to the Tohoku University Joint Research Regulations.

### **15. Security export control for use of supercomputers**

As of FY 2014, applicants for the use of supercomputers who are of foreign nationality or belong to a foreign organization must demonstrate necessity. Such applicants must submit a permission application to the Ministry of Economy, Trade and Industry of Japan through the Security Export Control Office of Tohoku University. Note that the applicants cannot use the supercomputers until the application is approved. Upon approval, we may ask such applicants to submit additional documents such as certificate of enrollment.

### **16. Other important notes**

(1)When graduate students and undergraduate students (major students for technical colleges) use the laboratory in IMR, they must have Personal Accident Insurance for Students Pursuing Education and Research or equivalent one. All other users also must hold a proper insurance. IMR will not provide any insurance for users.

(2) Please submit a Collaborative Research Agreement (Attachment 1) by the three weeks before your visit. It is requested only for accepted proposal. Submit the Agreement signed by the head of visitor's home institution by postal mail or by e-mail. We accept electronic signature, if this is the standard procedure at user's home institution.

(3) As of April 2019, an income tax will be applied for a travel budget payment of overseas users unless a proper tax exemption document is submitted. However, the tax will not be requested if an air ticket and a hotel coupon are purchased by IMR and these are provided to user instead of reimbursement. Hence, GIMRT strongly recommend for us to purchase your tickets and coupons.

## Attachment 1

### Collaborative Research Agreement and Notice

To Director of Institute for Materials Research, Tohoku University

Proposal Number:

Proposal Title:

Name of Researcher:

Job Title:

Home Institute:

Date of visit:      from DD/MM/Year      to      DD/MM/Year

We acknowledge that the above person will perform above proposal at Institute for Materials Researches, Tohoku University.

Day Month Year

Director of Home institution

Affiliation/Title/Name

Seal or Signature

Personal

I acknowledge that the undergraduate (major student for technical colleges) among the aforementioned persons will become collaborators.

Supervisor:                      Personal Seal or Signature

#### Notes

1. For a proposal submitted by GIMRT user system, the form can be created in the system. A word form is also available from the GIMRT website.
2. “Director of Research Institution” is the head of the home institution: such as president, dean, director of the department, head of center, or person in the equivalent position who has the responsibility for this agreement.
3. If an undergraduate (major student of a technology college) is included as a collaborator, the supervisor must acknowledge the student.
4. Handling of intellectual property rights: Intellectual property rights generated as a result of research shall conform to the Tohoku University Joint Research Regulations.
5. Insurance: When graduate students and undergraduate students (major students for technical colleges) use the laboratory in IMR, they must have Personal Accident Insurance for Students Pursuing Education and Research or equivalent one. All other users also must hold a proper insurance. IMR will not provide any insurance for users.
6. Collaborators are required to comply with the new coronavirus infection control measures at the Institute for Materials Research.
7. Contact Information: GIMRT-office, Research Cooperation Division, General Affairs Section, Institute for Materials Research, Tohoku University 2-1-1 Katahira, Aoba-ku, Sendai, Miyagi 980-8577, Japan Phone +81-22-215-2183 FAX +81-22-215-2184 Email gimrt-office@imr.tohoku.ac.jp