

## **Application Guidelines for RIEC Nation-wide Cooperative Research Projects in FY 2021**

Tohoku University's Research Institute of Electrical Communication (hereinafter RIEC) has been conducting joint studies with researchers from outside RIEC to make public the results of research widely as a center of excellence (COE) in information and communication technology (ICT) and, at the same time, to help further develop the community of researchers as a joint usage/research center for collaborative research in ICT. This joint research program does not presume simple joint use of RIEC facilities by participants; it features the precondition that participants conduct cooperative studies with research collaborators of RIEC. The Cooperative Research Project Program calls for the implementation of research projects in cooperation with excellent researchers at home and abroad by planning and coordinating various studies on technologies and systems in the information and communication sector.

Participants in RIEC Nation-wide Cooperative Research Projects in fiscal 2021 are invited in line with the following guidelines.

### **1. Application details**

- (1) The following subthemes are to be invited in fiscal 2021.
  - 1) Advanced Nano-Information Devices Utilizing Physical Phenomena
  - 2) Next-Generation Systems for Ultra-Broadband Communication
  - 3) Creation of Information Systems Harmonizing People and Environments
  - 4) Advanced System and Software for Information Society
  
- (2) The RIEC Nation-wide Cooperative Research Projects Program consists of two categories. One is "Type A: Research Projects" which uses RIEC facilities, equipment, etc. to conduct research. The other, known as "Type B: Research Projects Seminar," focuses on study meetings.
  
- (3) The following six types of research are in place to diversify the Cooperative Research Projects program.
  - LRG: Large Research Project– themes aimed at proposing a major project
  - YNG: Young Researcher's Project – both Principal Investigator (PI) and research collaborator of RIEC (see section 5 for details) must be 39 years old or younger as of April 1, 2021.
  - EXP: Exploratory Research Project– exploratory themes
  - ADV: Advanced Research Project– advanced themes
  - ITL: International Cooperative Research Project– themes that involve researchers belonging to overseas research institutes who will act as principal investigators or share studies with RIEC researchers
  - IUC: Industry-University Cooperative Research Project– themes that involve private-sector R&D staff who will act as principal investigators or share studies with RIEC researchers (restricted to Type B)

- (4) In case research is continued beyond the first year on the same theme, the maximum period shall be three years, including the first year.

## 2. Qualifications

Qualified for application are teachers and researchers belonging to universities, technical colleges and public-sector research institutes; and researchers belonging to private-sector companies, organizations, etc.

Postgraduate students of universities and advanced course students of technical colleges may join research teams as members.

## 3. Research term

From the date of decision of adoption to March 15, 2022.

## 4. Application terms

From Jan. 13 to Feb. 26, 2021 <strictly abide by the deadline>

## 5. How to apply

- (1) A researcher representing his/her research team, called the Principal Investigator (PI), shall apply only after consulting a selected research collaborator of RIEC about a research theme/plan, etc. in advance.

For the overview of RIEC, please visit its website: <http://www.riec.tohoku.ac.jp/en/>

- (2) Please file an application through “RIEC Nation-wide Cooperative Research Projects System.”

[About “RIEC Nation-wide Cooperative Research Projects System”]

<http://www.riec.tohoku.ac.jp/en/nation-wide/koubo/user-registration/>

[“RIEC Nation-wide Cooperative Research Projects System” login]

<https://fsa.fir.riec.tohoku.ac.jp/crp/>

- (3) User registration

Those who use the system for the first time are required to complete user registration beforehand to get a login ID and a password. As user registration may take a few days, please complete it not later than 10 days before the application deadline.

[About user registration]

<https://www.riec.tohoku.ac.jp/crp/en/registration/>

## 6. Application documents

	Application documents	
	Web application form	Attached file (Upload PDF version to web system)
Type A	RIEC Nation-wide Cooperative Research Projects Application	1) Research execution plan (Attachment :Type A )  2) Statement of items 1 (Research Organization & Trip Expenses)  3) Statement of items 2 (Equipment & Consumables)  4) Letter of Acceptance (Get organization head's signature & upload PDF version)
Type B		1) Research execution plan (Attachment :Type B)  2) Statement of items 1 (Research Organization & Trip Expenses)  3) Letter of Acceptance (Get organization head's signature & upload PDF version)

※Please download the attached file from the following URL.

<http://www.riec.tohoku.ac.jp/en/nation-wide/koubo/r3/>

※The average allocation amount per case in 2021 is as follows.

Type A : about 293,000yen

(Trip expenses 199,000yen, Equipment & Consumables 94,000yen)

Type B : about 267,000yen

## 7. Notice of outcome

Whether applications have been accepted or not will be notified in mid-April 2021 after decisions by the Cooperative Projects Selection Committee, which includes external intellectuals.

When an application is adopted, the PI and research team members will be regarded as “RIEC cooperative researchers” commissioned by Tohoku University.

## 8. Others

(1) Treatment of intellectual property rights

When intellectual property is created as a result of RIEC Nation-wide Cooperative Research, the handling is determined by mutual consultation of parties concerned.

(2) About expenses

Each project will be provided with expense allocations equivalent to expenses for traveling to RIEC for research, participation in study meetings, etc. and equipment/consumables expenses necessary for research at RIEC (restricted to Type A only). Allocated amounts are subject to change according to the number of research projects adopted.

(3) Accommodation

As RIEC has no lodging facilities, researchers are required to secure accommodation individually.

(4) Submission of reports on cooperative research

PIs shall submit research reports online through the “RIEC Nation-wide Cooperative Research Projects System” by March 31, 2022 (strictly observe the deadline).

(5) Description of acknowledgment

In publishing reports on the outcome of research as theses, researchers are requested to add at the end of such papers a sentence to the effect that their studies were conducted as “research under the Cooperative Research Project Program of the Research Institute of Electrical Communication, Tohoku University.” In that case, please send a copy of your paper to the postal address shown in “9. Contact” below.

Please refer to the following examples in writing acknowledgment.

- 1) Part of this work was carried out under the Cooperative Research Project Program of the Research Institute of Electrical Communication, Tohoku University.
- 2) This work was performed in the Cooperative Research Project of the Research Institute of Electrical Communication, Tohoku University.
- 3) We acknowledge the stimulated discussion in the meeting of the Cooperative Research Project of the Research Institute of Electrical Communication, Tohoku University.
- 4) This conference was partially supported by the Research Institute of Electrical Communication, Tohoku University.

You may use RIEC, an acronym for the Research Institute of Electrical Communication, instead of writing its full name.

(6) RIEC Annual Meeting on Cooperative Research Projects

You may be asked to make a presentation on your research at the RIEC Annual Meeting on Cooperative Research Projects scheduled around the end of fiscal 2021.

(7) Facilities and equipment related to RIEC Nation-wide Cooperative Research Projects.

The facilities and other facilities of this institute can be used for conducting RIEC Nation-wide Cooperative Research Projects.

- Laboratory for Nanoelectronics and Spintronics : <http://www.nanospin.riec.tohoku.ac.jp/index-e.html>
- Fundamental Technoogy Center: <http://www.ftc.riec.tohoku.ac.jp/>
- Tohoku University Technical Support Center: <https://ses.tsc.tohoku.ac.jp/>

## 9. Contact

RIEC Cooperative Research Project Office, Tohoku University

2-1-1 Katahira, Aoba-ku, Sendai 980-8577, JAPAN

TEL: +81-22-217-5422

FAX: +81-22-217-5426

E-mail: [crpp@riec.tohoku.ac.jp](mailto:crpp@riec.tohoku.ac.jp)