

Center of energy-friendly and sustainable energy-saving and energy-creating materials and systems research

Application procedures for IMaSS joint usage/joint research program in FY2024

1. Objective of joint usage/joint research

The Institute of Materials and Systems for Sustainability, Nagoya University (hereinafter referred to as IMaSS) was established on October 1, 2015 by reorganizing the Ecotopia Science Institute which was the only science and engineering institute attached to Nagoya University. The purpose of establishing this institute is to contribute to the realization of an environment-friendly and sustainable society by engaging in research on new materials and systems.

Since 2016, IMaSS had been certified as a joint usage/joint research center of materials and systems for innovative energy management by the Ministry of Education, Culture, Sports, Science and Technology. To realize innovative energy management (involving energy creation/conversion, storage, transmission, advanced consumption, and ultraefficiency), the center has consistently taken a bird's-eye view from basic research on elemental technologies, such as cutting-edge materials and devices to system technologies, for social implementation and has been promoting the development of innovative energy management technology through joint usage/joint research with domestic and overseas researchers.

From FY2022, the center has been newly certified as a "Center of joint usage/joint research on energy-friendly and sustainable energy-saving and energy-creating materials and systems research" by the Ministry of Education, Culture, Sports, Science and Technology, and it is aimed at realizing the development of environment-friendly and sustainable energy-saving and energy-creating technologies (energy conversion, energy storage, energy transmission, and sophisticated and ultraefficient energy consumption). To realize the development of energy-saving and energy-creating technologies, the center further promotes energy-saving and energy-creating technologies through joint usage/joint research by domestic and overseas researchers.

As part of the activities of this center, the development, joint usage, and joint research of environment-friendly and sustainable energy-saving and energy-creating technologies are carried out in cooperation with faculty members belonging to IMaSS.

※ Joint usage/joint research

A research team including faculty members of this institute and faculty members or researchers belonging to institutions other than this institute (for the research team, refer to "2. Qualified applicants") uses, among others, the facilities, equipment, and data of this institute.

2. Qualified applicant

Principal Investigator (PI)

PI must meet one of the following requirements.

- (i) researcher belonging to national, public or private university or research institute, or similar researcher;

(ii) researcher approved by the director of IMaSS.

Co-investigator (Co-I)

Co-I must meet one of the following requirements;

- (i) researchers belonging to national, public or private university or research institute, or similar researcher;
- (ii) technical staff and graduate student;
- (iii) researcher approved by the director of IMaSS.

3. Research expenditure and number of projects

Maximum amount: 200,000 JPY

Research expenditure is limited to travel expenses, consumables (excluding stationery items that are not directly required for joint usage/joint research), and usage fees of the facility equipment, related to joint usage/joint research.

Number of projects to be adopted: about 100 proposals

4. Research period

The research period is from the date of adoption to February 28, 2025 (-Friday). Applications for the continuation of the same research project can be made up to three times, including the first application.

In addition, from 2022, our institution has been renewed as the new "Research base for materials and systems for environmentally friendly and sustainable energy saving and energy creation". Therefore, we have treated all the projects adopted in 2022 as new projects. The number of continuations will start from 2022.

5. Application procedure

- (i) Each researcher can apply for only one research proposal (not more than two) as a principal investigator. (Co-investigator of other proposals)
- (ii) The applicants are expected to discuss ,among others, the joint usage/joint research subject, contents, and expenditure with the corresponding researcher in IMaSS in advance.
- (iii) The facilities of IMaSS (refer to "List of main equipment" <https://www.imass.nagoya-u.ac.jp/joint/>) can be used in the joint usage/joint research. Please consult with the corresponding researcher in IMaSS and the manager of the equipment in advance.
- (iv) When applying for joint usage/joint research, please send "Proposal for IMaSS joint usage/joint research program in FY2023" (Form 1) in MS-Word format by e-mail to "12. Submission destination".
- (v) The application form can be downloaded from the IMaSS website at the following URL:
<https://www.imass.nagoya-u.ac.jp/joint/> .
- (vi) The application form can be prepared in in either Japanese or English.
- (vii) Students who participate in joint usage/joint research are requested to take out Personal Accident Insurance for Student Pursuing Education and Research (Gakkensai).

6. Submission deadline

January 15, 2024 (Monday)

7. Screening

- (i) The adoption or rejection of joint usage/joint research proposals will be judged by the director of IMaSS after the screening by the joint usage/joint research committee.
- (ii) The joint usage/joint research committee may ask the principal investigator about the proposal document as necessary.
- (iii) The results of the screening will be notified to the principal investigator by the end of April 2024. Please note that the adopted joint usage/joint research projects will be posted on the website (including joint usage/joint research project names, principal investigator names, and institution to which the principal investigator belongs).

8. Joint usage/joint research report

The submitted joint usage/research report will be published on the institute website. In addition, for the joint usage/research projects that have been adopted, the plan and research results may be announced in the research group sponsored by the Institute.

- (i) The IMaSS joint usage/joint research report (forms 2-1 and 2-2; hereinafter referred to as "research report") should be submitted by the deadline (see (iv)). Please submit it as an MS-Word document to the e-mail address shown in Section 11.
- (ii) The research report forms 2-1 and 2-2 must be within 1 page and 3 pages, respectively, in A4 format including figures and tables.
- (iii) When publishing a paper (including oral presentations) on the results of joint usage/joint research, please add that it is the result of joint usage/joint research of IMaSS in the acknowledgements column of the paper. The following is an example of such a statement.
 - This work was carried out through the joint usage/research program of the Institute of Materials and Systems for Sustainability (IMaSS), Nagoya University.In addition, please submit the published paper (electronic or printed matter) to the address shown in Section 12.
- (iv) The deadline for submitting research reports is March 3, 2025 (Monday). Please be sure to submit the research report for the relevant year, even if the project is continued to the next year.
- (v) Please note that if the research report is not submitted, the application for the following year will not be accepted.
- (vi) The report format file can be downloaded from the IMaSS website at the following URL:
Research report: <https://www.imass.nagoya-u.ac.jp/joint/>.

9. Handling of intellectual property rights generated by joint usage and research

The Nagoya University Joint Research Regulations is applied mutatis mutandis to the handling of

intellectual property rights arising from the implementation of joint usage/joint research.

Academic Research & Industry-Academia-Government Collaboration HP:

<http://www.aip.nagoya-u.ac.jp/index.html>

10. Accommodation facility

Those who require accommodation during joint usage/joint research can use the guest house of NU. Please apply to the corresponding researcher in IMaSS or the Research Funding Division, Research Cooperation Department.

11. Miscellaneous

It is recommended that the results of joint usage and joint research be presented at the "International Conference on Materials and Systems for Sustainability (ICMaSS)" held biennially by the Institute. We also encourage the publication of results in academic journals. The next ICMaSS is scheduled to be held around November 2025.

12. Submission address/inquiries

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