

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

Application procedures for IMaSS joint usage/joint research program (international collaboration) in FY2025

1. Objective of joint usage/joint research

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 the center, the center calls for research proposals joint usage/joint research[※] for the development of environment-friendly and sustainable energy-saving and energy-creating technologies, to be carried out in cooperation with faculty members belonging to IMaSS.

※ Joint usage/joint research

Joint usage/joint research is research conducted jointly by research teams (see Section 2) including faculty members of IMaSS and outside of IMaSS, using, among other, the facilities, equipment, and data of IMaSS.

2. Project Members

In this international joint research, the project members must include at least one researcher based overseas as the principal investigator or co-researcher. Additionally, the project members must include at least one IMaSS staff member as the corresponding researcher in IMaSS. Please have sufficient

discussions in advance with the corresponding researcher in IMaSS regarding the research subject, contents, and expenditure, etc.

The principal investigator and co-investigator must meet one of the following requirements (excluding faculty members of NU):

- ① researcher belonging to national, public or private university or research institute, or similar researcher;
- ② researcher belonging to overseas research institute (including emeritus professor and postdoc, holding a doctoral degree);
- ③ researchers approved by the director of IMaSS.

3. Research expenditure and number of projects

- ① Maximum Amount for New Applications: 1,000,000 yen (2 years)

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 4 proposals

- ② Maximum Amount for Renewal Applications: 500,000 yen (1 year)

For projects wishing to continue at the end of the second year, it is possible to apply for renewal for an additional year with a maximum budget of 500,000 yen.

4. Research period

The research period is two years from the date of adoption until the end of February 2027. However, the research period for continuing applications will be one year.

5. Application procedure

- (i) Each researcher can apply for only one research proposal as a principal investigator.
Please note that principal investigators applying for project renewals cannot submit new applications.
- (ii) The applicants are expected to discuss, among others, the joint usage/joint research subject, contents, expenditure, etc., with the corresponding researcher in IMaSS in advance.
- (iii) The facilities of IMaSS (see the attached document "List of main facilities") 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 new or continued joint usage/joint research, please send "Proposal for IMaSS joint usage/joint research program in FY2025" (Form 1) in MS-Word format by e-mail to "11. 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 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, 2025 (Wednesday)

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 2025. Please note that the adopted joint usage/joint research projects will be posted on the website (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 IMaSS website. The plan and research results of the adopted joint usage/joint research projects are expected to be presented at the "International Conference on Materials and Systems for Sustainability (ICMaSS)" hosted by IMaSS. The next ICMaSS is scheduled to be held around November 2025.

- (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 11.
- (iv) The deadline for submitting research reports is March 1, 2027 (Monday). Please be sure to submit the research report for the relevant year, even if the project is continued to the next year. Additionally, if a one-year extension is granted, please submit the report for the extended period by March 1, 2028 (Wednesday).
- (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 visit 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 for 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. Submission address/inquiries

Research Funding Division, Research Cooperation Department, Nagoya University, Tokai National Higher Education and Research System

Furo-cho, Chikusa-ku, Nagoya 464-8601

TEL: +81-52-789-4508

E-mail: k-kyoten@t.mail.nagoya-u.ac.jp