

Tokyo Polytechnic University Wind Engineering Research Center  
2020 Fiscal Year Joint Usage / Research  
Application Guide

November 16, 2019

Wind Engineering Research Center  
Tokyo Polytechnic University

Wind Engineering Research Center at Tokyo Polytechnic University was founded in 2000 and has been involved in educational and research activities with various domestic and overseas institutes. It was recognized as the 21<sup>st</sup> Century Center of Excellence Program (Wind effects on Buildings and Urban Environment) in 2003 and the Global Center of Excellence Program (New Frontier of Education and Research in Wind Engineering) in 2008 by Japanese Ministry of Education, Culture, Sports, Science and Technology (MEXT). Through these programs we have achieved fruitful research results in both educational and research activities. Furthermore, in order to promote collaborations with international research institutes worldwide, we are adopted by as the Joint Usage Research Center (JURC) by of MEXT. Currently under the JURC program, more than 20 research activities in total are ongoing annually after 2013.

We plan to keep JURC research activities and plan to carry out innovative Joint Research Programs with further promotions of the collaborations with various agencies such as domestic and international research institutes, industry-academia-government.

The following activities have been proposed for 2020FY :

1. Types of research topic

There are four types of joint research topics, and applicants can apply for plural themes. A period of research is 1 year (April 1<sup>st</sup>, 2020 ~ March 31<sup>st</sup>, 2021).

(1) Specific research topic

Tokyo Polytechnic University (TPU) Wind Engineering Research Center (WERC) sets up specific research topics in wind engineering and seeks applicants to work together with members of TPU. If applicants want to use our facilities and data, they need to make arrangements with TPU members before applying.

Research workshops are required to present research results. The budget of any specific research topic will not exceed JPY 600,000 including travel expenses and costs for research meetings. However, when researchers who have made remarkable achievements are invited, additional costs will be considered separately.

- Wind hazard mitigation and wind resistant design  
(TPU/WERC member: Masahiro Matsui\*, Akihito Yoshida, Yong Chul Kim)  
Specific theme
  - Evaluation and mitigation of wind related disasters due to intensified severe typhoons
  - Risks and loads of tornadoes and other storms
  - Researches on wind-resistant safety of facilities related to natural energy
  - Researches on characteristics of wind forces acting on high-rise buildings
  
- Indoor environment  
(TPU/WERC member: Kunio Mizutani\*, Yoshihide Yamamoto)  
Specific theme
  - Researches on indoor air flow and thermal comfort by thermal manikin
  - Researches on building ventilation in urban areas
  - Researches on indoor airflow, thermal environment and energy issues
  
- Outdoor environment  
(TPU/WERC member: Kunio Mizutani\*, Xuan Yingli)  
Specific theme
  - Researches on urban ventilation and pollutant dispersion
  - Researches on pedestrian-level wind environment in urban areas
  - Researches on wind effects on outdoor thermal environment in urban areas
  
- Transdisciplinary・Cross-disciplinary  
(All TPU members)
  - This is the transdisciplinary joint research that some researchers from the multiple fields related to wind engineering (Transdisciplinary research theme). Or cross-disciplinary joint research with some researchers who are not related to the wind engineering. This research provides the advantages for both research fields (Cross-disciplinary research theme). In the case of applying Transdisciplinary and Cross-disciplinary research theme, you need to describe the advantages for all area of all participant.

\*: person in charge of each field

(2) General research topic

Applicants set up their own research topics related to wind engineering and work

together with TPU members. Please refer to specific research topics.

If applicants want to use facilities and data, they need to make arrangements with TPU members before applying. Research workshops are required to present research results. Budget of general research theme will not exceed JPY 400,000 including travel expenses and costs for research meetings. However, when researchers who have made remarkable achievements are invited, additional costs will be considered separately.

(3) Research workshop

Applicants set up the workshop topics and hold together with TPU members.

Research workshops need to be prepared with a precise aim. Please refer to specific research topics. Budget of research workshop will not exceed JPY 150,000 including travel expenses. However, when researchers who have made remarkable achievements are invited, additional costs will be considered separately.

(4) Fund prepared research

Applicants together with TPU members should prepare their own funding for a research separately. Applicants can use facilities and data but no budgets are provided for this type of research. Applicants need to make arrangements with TPU members before they apply. Research meetings are not necessarily held for this type of research.

2. Application procedure

(1) Qualifications

Researchers from universities, research institutions, independent administrative agencies and companies can be applicants. However, researchers from private companies should have no commercial objectives and there should be no impediments to announcements of research results or ownership of intellectual property rights.

(2) How to fill in application form

Before applying, read this guide carefully and consult with TPU members in charge about the research topic and contents. For each research topic a specific TPU member will work with the applicant to determine an applied research. Basically, applicants will select collaborative TPU members but if an applicant has no preference about who should be a collaborator they should contact a person in charge of each research field (see 1. (1) Specific research topic).

To apply, fill in the forms of "2020 Fiscal Year Tokyo Polytechnic University Wind

Engineering Research Center Joint Usage/Research Center Application (New Form1)", and submit as below;

(3) Submission and deadlines

Each application form for specific research, general research and research meeting must be filled out and sent as a Microsoft Word file via e-mail to the below address by the deadline. When an application is received a notification e-mail will be sent within 3 work days. If an applicant did not receive confirmation, he or she must contact the Wind Engineering Research Center Office.

Submit to

Tokyo Polytechnic University Wind Engineering Research Center Office

E-mail: collaborate@arch.t-kougei.ac.jp (or jurc\_office@arch.t-kougei.ac.jp)

Schedule

- Application period: November 15, 2019 ~ January 31, 2020\*1)
- Announcement of selection results and budget confirmation: March 31, 2020
- Submission due date of collaborative researchers list and Letter of Commitment: in two weeks after announcement of the selection
- Submission due date of permission from the top of the relevant organization: in one month after announcement of the selection
- Submission due date of financial report: End of February 2021
- Submission due date of result report: End of April 2021

\*1) No specific application period for Fund Prepared Co-researches

(4) Selection and announcement of successful candidates

Selection of successful applications will be based on an examination of the Wind Engineering Research Center Steering Committee constituted of TPU members and intellectuals from outside TPU. Notification of successful application will be sent to the representative researcher. Besides research contents, budget limit and availability of research facilities will also be considered for the selection.

(5) Inquiry

Research facilities, research topic, research contents, research period, etc., will need to be discussed thoroughly with TPU members.

Members of Tokyo Polytechnic University Wind Engineering Research Center

(Faculties of Graduate School Engineering/Department of Architecture and Wind Engineering)

- Field of strong wind disaster prevention, wind resistant Structure  
(TPU/WERC member: Masahiro Matsui\*, Akihito Yoshida, Yong Chul Kim)
- Field of indoor environment  
(TPU/WERC member: Kunio Mizutani\*, Yoshihide Yamamoto)
- Field of outdoor environment  
(TPU/WERC member: Kunio Mizutani\*, Xuan Yingli)

\*: person in charge of each field

### 3. Considerations

#### (1) Selection and announcement of selection

Application proposals will be fairly examined by the Wind Engineering Research Center Steering Committee and selection results will be sent to representative researchers.

#### (2) Required expenses

Expenses for researches including research equipment and travel expenses can be paid. However, as a result of examination, the required budget will not be provided fully. Budget execution will be carried by the Tokyo Polytechnic University Wind Engineering Research Center Office through TPU members.

#### (3) Publication of research results

When you publish the papers related to joint usage/research application, write clearly “this paper related to Joint Usage/Research Application in Tokyo Polytechnic University Wind Engineering Research Center”.

#### (4) Research result report

The representative researcher needs to submit a summary of research results on an attached form electronically (must be a Microsoft Word file) by the end of fiscal year. The report contents will be posted to the Wind Engineering Research Center publication and WERC web site.

#### (5) Accommodation

When research experiments are held in the Wind Engineering Research Center and

researchers require accommodation, accommodation near Hon-Atsugi station will be recommended. Please discuss with TPU members beforehand.

(6) Other

- 1) If necessary, an applicant will receive permission from the top of the relevant organization before application.
- 2) After an application is accepted, collaborative researchers need to receive permission from the top of the relevant organization and this will be submitted to the Wind Engineering Research Center Manager.

Participants are expected to follow the code of conduct of research activities at Tokyo Polytechnic University and are asked to submit a letter of commitment.

Please access to the below URL to see the code of conduct of research activities at TPU. <https://www.t-kougei.ac.jp/activity/fund/>

- 3) To use research facilities, discuss with TPU members and follow their instructions.
- 4) To apply, an application form must be submitted as an attached file via electronic medium. The application (Microsoft Word form only) form can be downloaded from <http://www.collaborate.wind.t-kougei.ac.jp/joint/>
- 5) TPU will not be responsible for any loss or accident during experimental tests. This is the responsibility of relevant organizations. When postgraduate students are participating researchers they must subscribe to an accident insurance policy “Education and Research Accident Insurance for Students” at their relevant institute and report to it about participating outside co-research with TPU.

For details, please contact the corresponding department.

- 6) Application forms and selection results can be found on the Wind Engineering Research Center Homepage.
- 7) Dealings and ownership of intellectual property rights resulting from co-research have to be decided by consultation unless already agreed in prior consultation. For details, please contact the Tokyo Polytechnic University Education and Research Support Office.
- 8) For any other inquiries contact TPU members or Tokyo Polytechnic University Wind Engineering Research Center Office.

Contact

Tokyo Polytechnic University Wind Engineering Research Center Office

E-mail: [collaborate@arch.t-kougei.ac.jp](mailto:collaborate@arch.t-kougei.ac.jp) (or [jurc\\_office@arch.t-kougei.ac.jp](mailto:jurc_office@arch.t-kougei.ac.jp))

Address: 1583 Iiyama, Atsugi, Kanagawa, Japan 243-0297

Tel: +81 (0) 46 242 9658

## Application Q&A

Q1. Are researchers from private companies qualified to be representative of joint researches at TPU?

A1. Researchers from private companies are qualified to be representative researchers providing that they have no commercial objectives and there are no impediments to announcement of research results or ownership of intellectual property rights.

Q2. What about intellectual property rights of research projects' results?

A2. Dealings and ownership of intellectual property rights resulting from research projects have to be decided by consultation unless already agreed in prior consultation.

Q3. Is there any limitation on the number of applications that a candidate can make in the same year?

A3. There is no limitation. However, it is necessary to consider the effort made for each research project to avoid interference with other works.

Q4. Is it possible to apply across multiple fiscal years?

A4. From fiscal year 2017 we accept applications for a single year only.