Proposal ver. 2020

1. Research Title (not longer than 100 letters in English)

2. Date of Submission to Advisor or Supervisor (Format: PDF)

3. Names of Researchers & Target Degree

Student:

Target Degree: Bachelar, Master, or PhD

Advisor (Intermediate Supervisor):

• Supervisor will suggest an advisor depending on the research scope.

4. Title of Review (-> Chapter 2 of the thesis)

5. Relevant Journal Articles ()

• Choose and attach three papers to clarify the originality of this research

1) Authors, year, title, journal, volume, page

2) Authors, year, title, journal, volume, page

3) Authors, year, title, journal, volume, page

Important Notice

*1. The content of this proposal will be a draft of your thesis.*

*2. Doctoral students should use English and master students should use English or Japanese.*

*3. Students are recommended to consult senior students and PDs while designing a plan.*

*4. Fill out all the items in this format unless otherwise specified.*

*5. Do not delete any text (incl. subtitles and notices) provided in this format.*

*6. Use Times New Roman and 11 points for all letters.*

*7. Submit this proposal in PDF format (including MSDS for the final version at the end).*

*8.* ***To conduct proposed research, a proposal needs to be presented in lab defense and accepted by supervisor OR more than half of PDs and PhD students. Defense will be held at the end of every month and entries for defense are accepted by 15th day every month.***

6. Research background and objectives

6.1 Objective of Research (not more than 5 lines)

• What do you wish to find out or develop?

• How will your research question advance scientific knowledge and technology?

• Write it as sharp as possible.

6.2 Research background (not more than 30 lines)

Please describe the position of the study, including the background of the situation and issues in the field, and the background that led to the idea of this research plan.

7. Knowledge Gap that You Are Going to Fill (not more than 20 lines)

• Provide the relevant peer-reviewed references in the description.

8. State-of-the-Art (not more than 30 lines)

• What is the latest scientific knowledge in a focused scope?

• Provide the relevant peer-reviewed references in the description.

• Write it as sharp as possible without general knowledge that is written in books.

• Describe the characteristics and originality/novelty of your research (comparison with previous research, expected impact upon completion of this research, future prospects, etc.).

9. Flowchart of Your Research in the Thesis (-> A part of Chapter 1)

• Show a flowchart and connections of major components (chapters) in your thesis.

• Indicate the numbers of all the chapters.

10. Approach (not more than 1 page)

• Describe in detail what you plan to do, what you will do, and to what extent you will do it.

• How will you achive the objective or test the hypothesis?

• Approach can include lab/field experiments, field surveys, modeling, statistical analysis, etc.

• What data will you collect? Where will you do the research?

• What equipment or technical resources will you need?

11. Anticipated Results (not more than 1 page)

• How do anticipated results like like? Provide important graphs and tables with imaginary data.

12. Self-analysis of research conducting ability (not more than 1.5 page)

*In addition to the research plan described in this application form, please provide specific information on (1) "Your own strengths in research" and (2) "Factors you consider necessary for further development as a researcher" in the relevant field, based on your experience in research activities in which you have been involved.*

*For example, please describe your independence in research, ability to think of ideas, ability to solve problems, breadth and depth of knowledge, skills, communication skills, and presentation skills. Please be sure to itemize your points of view.*

*If there is anything noteworthy about the impact on your research caused by the interruption, please enter it.*

12.1 Strengths of your research

*(1) Strengths of your research: Please describe your research strengths, showing the results of your past research activities (e.g., papers) as appropriate to provide the basis for your description.*

*Please provide sufficient information to identify the publications (papers, etc.).*

*(e.g.) Academic papers (Please clarify whether they are peer-reviewed or not. (If peer-reviewed, the paper must have been accepted for publication.*

*Please list the author(s), title, journal name, volume number, pp start page - end page, and year of publication.*

*(e.g.) Research presentation (please clarify whether it is oral or poster, and whether it is peer-reviewed or not)*

*Please list the author(s), title, name of the conference, number of the paper, location, month and year of presentation. (Exclude papers to be presented. However, those for which the application for presentation has been accepted may be included.*

12.2 Factors that you think are necessary for further development as a researcher in the future

12. Reference

• Provide a list of the literature you cited in this proposal.

• The **indent** of the reference list should be:

Boltz, J. P., Johnson, B. R., Daigger, G. T., and Sandino, J. 2009. Modeling integrated fixed-film activated sludge and moving-bed biofilm reactor systems I: Mathematical treatment and model development. *Water Environment Research* 81(6), 555–575.

Not like…

Boltz, J. P., Johnson, B. R., Daigger, G. T., & Sandino, J. 2009. Modeling integrated fixed-film activated sludge and moving-bed biofilm reactor systems I: Mathematical treatment and model development. Water Environment Research 81(6), 555–575.

That’s it. Well done!

Appendix

The following sections need to be filled after qualification.

13. Schedule of Research Activities

• What is the effective monthly schedule of this research?

• A schedule should also include the steps of analyzing results and writing thesis/journal articles.

• Please include plans to present your outcomes in international and domestic conferences.

14. Required Equipment

• List material, equipment, software, and others to be used in this research.

• Clarify items which are not available in our lab at the moment.

• Among them, highlight items which equipment roughly cost more than JPY 100,000-.

15. Risk Management

• If you plan to conduct some laboratory experiment and/or field work, please implement risk management by answering the following questions.

• Otherwise, please state that there will be no laboratory experiment or field work.

(1) List poisonous chemical substances to be used in your experiment and field work.

• Specify steps of your approach in which you plan to use those chemicals.

(2) Have you checked MSDS for the poisonous chemical substances used in your work?

Yes or No (Please attach the printed MSDS of all the poisonous chemicals at the end of this proposal.)

(3) Lest equipment to be used in your experiment and field work.

• Specify steps of your approach in which you plan to use the equipment.

(4) Any risks present in your experiment and field work?

Yes or No (If yes, please conduct risk management below.)

(5) What are the potential risks? Describe the worst scenarios caused by those risks.

(6) How are you going to reduce each of those risks?

(7) Material Safety Data Sheets (MSDS)

• Attach the relevant Material Safety Data Sheets (MSDS) at the end of this proposal.

16. Curriculum Vitae (CV)

< This section is only for doctoral students. >

• The following format will be used for mid-term and final defenses for your evaluation, and thus please try to update time to time.

(1) Your name

(2) Current affiliation

(3) Email address

(4) Educational history

(5) List of publications

- Peer-reviewed journal papers (including review papers)

- Peer-reviewed international conference papers
(specify whether each of them was peer-reviewed or not)

- Domestic conference papers

- Others

(6) Award and scholarship