**Guidelines for Preparation of Thesis Proposal Report**

for

Ph.D. Students

by

**Academic Section**



THESIS PROCESSING OFFICE

# INDIAN INSTITUTE OF TECHNOLOGY ROPAR

## 2022

### Introduction

This short guide is aimed at helping you to write and deliver a better thesis proposal seminar at IIT Ropar. It is intended to help you to think about your proposed Ph.D. research in a clear, structured, and meaningful way. This document attempts to provide essential guidelines to Ph.D. candidates for preparation of their Thesis Proposal Report for consideration of the student's doctoral committee (DC)/evaluation committee. As per the provisions of the Academic Regulations, a Ph.D. student, after passing the comprehensive examination (written and oral), has to deliver a Thesis Proposal Seminar (TPS). Students are advised to submit the thesis proposal report to DC, and the student will deliver the thesis proposal seminar in the institute after their approval. This is an open seminar that any student/faculty/staff along with the evaluation committee, will attend and provide their comments/suggestions. After including all the comments/suggestions, the thesis proposal report and the seminar evaluation form should be submitted to the academic office.

Thesis proposal report is essential as it formally outlines your intended research. This means you need to provide details on how you will go about your research during PhD program, including:

* + your approach and methodology
	+ timeline and feasibility
	+ all other considerations required to progress your research, such as resources.

Think of it as a tool that will help you clarify your idea and make conducting your research easier. In a good research proposal, you will need to demonstrate following key things:

1. evidence of intellectual purpose and originality (What is the ‘gap’ in knowledge that you wish to fill?).
2. that you are capable of independent critical thinking and analysis
3. that you are capable of communicating your ideas clearly, concisely and coherently
4. define the topic you are interested in and show good awareness of the research context.

You are not expected to be an expert and to be familiar with all the specific details of your subject. However, you are expected to have a good level of knowledge about the subject and where you might make a valuable contribution to research.

Please note that this research proposal is not ‘set in stone’. Good PhD proposals evolve as the work progresses. It is normal for students to refine their original proposal in light of updated literature reviews (new work may be published after your TPS), further consideration of research approaches and comments received from the supervisors (and other sources such as presentation in conferences etc.). It is useful to view your proposal as a clear tentative outline rather than a summary of the ‘final product’.

### Characteristics of Good Research Proposal

The research proposal involves a considerable amount of preparation. You will be expected to have refined your initial research ideas through critical analysis of some of the academic literature relevant to your topic. You will also be expected to have reflected on the nature of your proposed research and its impact. In essence, your research proposal should answer three questions:

* + What do you want to investigate?
	+ Why do you want to investigate it?
	+ How are you going to investigate it?

Your aim is to demonstrate that you have begun the process of refining your ideas for a research topic and that you have the capability to research at the level of the program.

Typically, a strong research proposal has the following characteristics:

* + formulates a precise, interesting research question
	+ establishes the relevance and value of the proposed research question in the context of current academic thinking or in the context of previous work.
	+ Highlights your awareness of current debates within the field
	+ Demonstrates a suitable level of analysis,
	+ Identifies relevant gaps in current knowledge
	+ outlines a clear and practical methodology in sufficient detail, which enables you to answer the research question or to fill some of the research gaps
	+ states clearly what you hope to discover at the end of your research and what new areas it might open up or implication to real world policy that your PhD proposal may invite.

The exact content and structure of your research proposal will depend on your subject area. While writing your thesis proposal follow the '3 Cs' rule:

CLEAR: is what you have written intelligible and clearly articulated? Does it make sense, or is it vague and confusing? For e.g. Is the research problem, question or hypothesis made clear? Is it clear what the impact will be? Be as specific as you can as often as you can.

CONCISE: have you written your proposal in a succinct and focussed way? Does it use short sentences and paragraphs that convey your ideas in a concise way?

COHERENT: does your proposal link together well so that it tells the reader a short story about what you want to do, why you want to do it and how you will do it?

The next section provides typical content and structure of thesis proposal report. The structure of thesis proposal report to be submitted at Academic office is given at the end of document (after the title page).

### Outline of the Typical Thesis Proposal Report

The purpose of the thesis proposal is to describe clearly and precisely the nature and scope of the PhD program. The outline of the proposed topic of research should include the following sections.

#### Tentative/ Working Title

Your proposed title should clearly and accurately indicate your area of study and/or proposed approach. It should be catchy, informative and interesting. Title specifies the area of the proposed research work and is not the exact title of the thesis. Title of the thesis emerges at a stage when the candidate is almost ready to submit his/her thesis.

#### Abstract and Keywords

The abstract is a brief summary (a concise statement) of your intended Ph.D. Research Proposal, and should be no longer than 200 words. It starts by describing in a few words the knowledge domain where your research takes place and the key issues of that domain that offer opportunities for the scientific or technological innovations you intend to explore. Taking those key issues as a background, you then present briefly your research statement, your proposed research approach, the results you expect to achieve, and the anticipated implications of such results on the advancement of the knowledge domain. For writing abstract, you may refer thesis preparation guidelines.

Additionally, provide keywords (alphabetically ordered list of the more appropriate words or expressions) that you would introduce in a search engine to find a similar research.

#### Background / Context of the Proposed Research

This section is typically written after reading the contemporary literature and researches done in the same area as available from current research journals, conference proceedings etc. It is expected that a broad summary of the present status of work and unresolved academic issues in the area are highlighted while giving the background of the proposed research. It is important to make clear the impact of the proposed research and the particular aspect of the problem that is anticipated to produce an original contribution(s) by the candidate. The background of his proposed research may include the following parts.

##### Introduction

The introduction gives an overview of the research project you propose to carry out. It explains the background of the project, focusing briefly on the major issues of its knowledge domain and clarifying why these issues are worthy of attention. It then proceeds with the concise presentation of the research statement, which can take the form of a hypothesis, a research question, a project statement, or a goal statement.

The introduction should attempt from the very beginning, to catch the reader's interest and should be written in a style that can be understood easily by any reader with moderate background. Students normally prefer to postpone writing the Introduction section till the rest of the document is finished. This makes sense because during writing many changes are introduced in the initial plans of writing and writer gets a clear view of how to construct an introduction may be after finishing the document.

##### State of the Art / Literature Review

This section of your PhD proposal discusses the most important theories, models and texts that surround and influence your research questions, conveying your understanding and awareness of the key issues and debates. The literature review serves several very important objectives. First of all, it demonstrates that you have built a solid knowledge of the field where the research is taking place, that you are familiar with the main issues at stake, and that you have critically identified and evaluated the key literature. Additionally, it shows that you have created an innovative and coherent view integrating and synthesising the main aspects of the field, so that you can now put into perspective the new direction that you propose to explore. The literature review must give credit to the authors who laid the groundwork for your research, so that when, in the following chapter, your research objectives are further clarified, the reader is able to recognise beyond doubt that what you are attempting to do has not been done in the past and that your research will likely make a significant contribution to the literature.

To identify the research gap, the candidate should refer latest peer-reviewed journal articles. The literature review is usually the more extensive part of a research proposal. Try to answer the following questions. Question are intended to make you think about the relationship between the existing academic literature and your own research idea.

* What are the main concepts introduced in this literature and how are they defined?
* What are the main questions this literature attempts to address?
* What are the different theories that exist in this literature?
* What is the empirical support for these theories?
* In what ways do you think this literature will help you understand more about the research idea you wish to research?

Avoid giving a history of the evolution of a concept or a body of knowledge. Instead, focus on the contemporary state of knowledge on your topic.

##### Gap in the Existing Literature

Unresolved issues on the topic of research and their importance of the proposed project in the context of current status are to be given in this part. Furthermore, possible utilization of research outcome can also be suggested.

#### Tentative Objective of the Proposed Research

It should be clearly indicating the perception of the research work and should not be a mere repetition of the topic of research. What is to be achieved as an outcome of the research has to be visualized while mentioning the objective of the research. This section is a short summary of your PhD project. Your aims should be two or three broad statements that emphasise what you ultimately want to achieve, complemented by several focused, feasible and measurable objectives i.e. the steps that you'll take to answer each of your research questions.

#### Originality of /Novelty of Research Work

Clearly it is not possible at this stage to know what your findings will be but on the basis of the rationale you have provided about the background literature, gaps in the knowledge base and proposed methods, it should be possible to speculate about the ways in which your research will make a contribution to knowledge. This could be about influencing educational policy and/or practice, developing theoretical ideas or about equipping teachers/students/managers with particular skills. This section involves clearly and briefly outlining:

* + - how your research addresses a gap in, or builds upon, existing knowledge
		- the academic, cultural, political and/or social significance of your research questions.

#### Research Methodology and Work Plan

In the first paragraph of methodology, provide experimental/infrastructural/ computing facilities which are necessary to carry out proposed research work. Additionally, also describe where the research will be executed (place of experiment/analysis). Then describe the logical phases, which are to be followed in investigating the current problem.

This section should identify the information or data that you will need in order to address the central issue of your research, how you are going to access the material and the possible research methods or techniques that you will use. You should also include some reflection on potential problems that you may face in the research process (e.g. access to primary material or interview subjects). A strong, well- written methodology is crucial, but especially so if your project involves extensive collection and significant analysis of primary data. While writing about the methodology you may address following question for better clarity.

* + - How will you conduct your research?
		- Will you use existing theories, new methods/approaches or develop new methods/
		- approaches?
		- What type of data do you require, for example qualitative, quantitative or a combination?
		- How are you going collect and analyse the data?
		- How will these methods address your research aims, relating to current literature?
		- How might you design your project to get the best results/findings?

The work plan (activity schedule) and the time by which these are to be achieved are to be indicated in this section. It is desirable to establish specific milestones and timelines and a Gantt diagram. The plan should anticipate the problems likely to be found along the way and describe the approaches to be

followed in solving them. It should also anticipate the conferences and journals to which the work in progress is expected to be submitted along the way.

#### Tentative Time Line

Provide a realistic time plan for completing your research degree study. Your timetable should identify how long you'll need to complete each step - perhaps using bi-weekly or monthly timeslots. This helps the reader to evaluate the feasibility of your project and shows that you've considered how you'll go about putting the PhD proposal into practice.

#### References

In this section you should list all the references you have made throughout the research proposal, making sure that you comply with the referencing conventions or citation styles that have been established for your specific field. Your references should provide the reader with a good sense of your grasp on the literature and how you can contribute to it. Be sure to reference texts and resources that you think will play a large role in your analysis. Such references should be used throughout your research proposal to demonstrate that you have read and understood the work of others. Focus your reading so that your references are relevant and up-to-date.

### Points to Consider for Formatting the Report

##### General Points

* + Use A4 size paper for writing the thesis proposal. For guidelines related to font, margin, heading etc. use the thesis preparation guidelins.
	+ Try to be concise. Do not write too much – be as specific as you can but not wordy. It is a difficult balance to strike.
	+ Proposal should be stapled and NOT TO BE BOUND (spiral or otherwise).
	+ Paragraphs of the text should be justified
	+ The proposal should only be long enough to present the necessary information in around 2000- 3000 words.
	+ Each page of proposal has to be given page number at bottom & at center as in Arabic (1,2,3

....etc.) numerical.

* + Tables and figures should be only used only if relevant and absolutely necessary. If included please follow the instructions given below

##### Tables

* + Number tables consecutively in the order of their first citation in the text and supply a brief title for each. Give each column a short or abbreviated heading.
	+ Be sure to give caption to each table and they are cited in the text.
	+ If a Table has been published, cite the original source.

##### Illustrations (Figures)

* + Be sure to give caption to each Figure and all figures are cited in the text.
	+ Figures should be made as self-explanatory as possible.
	+ Letters, numbers, and symbols on Figures should be clear and uniform throughout, and of sufficient size so as to make legible.
	+ Figures should be numbered consecutively according to the order in which they have been first cited in the text.
	+ If a figure has been published, cite the original source.

##### Abbreviations and Symbols

* + Use only standard abbreviations. Avoid abbreviations in the title. The full term for which an abbreviation stands should precede its first use in the text except in case of measurement units.

##### Units of Measurement

* + Measurements of length, height, weight, and volume should be reported in consistently throughout the proposal.

##### References

* + Reference list should appear at the end of your report with the entries listed numerically (or alphabetically, if cited with authors name) and in the same order that they have been cited in the text.
	+ A list of references contains details only of those works cited in the text.
	+ Reference list should identify references cited (e.g. journal article, conference proceedings, book, dissertations, theses etc.) in sufficient detail so that others may locate and consult your references. References should contain all the necessary parts. No part should be missing.
	+ It is important to BE CONSISTENT with reference formatting and in-text use while referencing.
	+ Please consider references mostly from reputed journal articles while writing your research proposal report and that too from latest journals.

**Signature of the PhD Scholar**

**Signature of the Supervisor(s)**

**FORMAT OF TITLE PAGE**

**Type The Tentative Title of Your Thesis (Capitalize each word)**

Thesis Proposal Report for the Degree of

# DOCTOR OF PHILOSOPHY

by

**"Name of the Student"**

(Entry Number)



DEPARTMENT OF XYZ

# INDIAN INSTITUTE OF TECHNOLOGY ROPAR

**Month, Year**

### Structure of Thesis Proposal Seminar Report

Format for a short (4-5 pages) 2000-3000 words (except reference/bibliography) thesis proposal report submitted before thesis proposal seminar.

##### Tentative Title:

1. **Abstract/Summary; Keywords**

##### Background of Proposed Research

* 1. **Introduction**

##### International and national status (State of the Art)

* 1. **Need of the work/ Gap in existing research**

##### Tentative Objectives of Proposed Research

1. **Originality/Novelty of the work**

##### Research Methodology and Work plan

1. **Tentative Time line**

##### Key groups working in your area

1. **References:** ACS, APA, APS or Harvard referencing style or any other suitable style for the references could be used.

**Signature of the PhD Scholar**

**Signature of the Supervisor(s)**