Tribhuvan University

# Institute of Engineering

Dean's Office

# Rules and Regulations of PhD Program 2025

(March 2025)

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## 1. INTRODUCTION

Doctor of Philosophy (PhD) program at Institute of Engineering (IoE), Tribhuvan University (TU) is intended to both Nepali and foreign nationals who wish to pursue career in applied science, architect and engineering-related fields with a focus on teaching and/or research and/or policy and/or practice. Through PhD program, IoE expects to contribute in advancing knowledge and 'research for development' program of Nepal and beyond. The PhD scholars are expected to maintain high ethical standard, achieve a high standard of academic excellence, and contribute to advancing knowledge in respective areas through theoretical advancement and/or methodological development and/or other forms of original research. The research contributions characterized by either discovery of new facts or a new interpretation of known facts and theory or an independent design and development or development of a new instrument or technology should be summarized in the form of PhD dissertation.

Under the academic authorization of TU, all the 'Departmental Research Committees (DRCs)' at the IoE are eligible to offer study and research program leading to the award of the degree of PhD. Institute of Engineering Research Committee (IERC) regulates the PhD program. IoE started PhD program in 1997, however, until 2015, PhD scholars enrolled through few specific project fundings. IoE started to take regular intake of PhD studies since 2015. Accordingly, PhD Rules and Regulations was formulated in 2015, which was subsequently amended in 2017, 2018 and 2019. This updated regulation considers the latest decisions and/or updates in rules/regulations/ guidelines/directives of University Grants Commission (UGC), TU's Executive Council and Academic Council.

## 2. ENROLLMENT

### 2.1 Enrollment mode

IOE accepts applications under following two modes.

- **Full Time Scholar (FTS)**: A scholar applying for fulltime PhD scholar but working on full-time basis at any organization or academic institute at the time of application, must also submit leave acceptance letter for three years from the respective authority as it generally requires three (3)-years for graduation. The scholar having benefits of scholarship of any type have to be enrolled as an FTS.
- **Part Time Scholar (PTS)**: Part time scholars generally require three (3) to five (5) years of enrollment before the graduation.

### 2.2 Enrollment category

There will be three categories of enrollment based on mode of coverage of costs related to PhD studies.

- **Regular Scholar (RS)**: A scholar enrolled on regular fee-paying scheme will manage the overall PhD study program expenses by himself/herself.
- **Agency Sponsored Scholar (ASS)**: A scholar enrolled on regular or typical fee-paying scheme with or without any compensation will manage the overall PhD study program expenses from the corresponding agency, where the scholar is being engaged or employed or have other relations. Special fee and additional compensation scheme, if any, will be applicable as per the MOU between IOE and the corresponding agencies. Agency here refers to government ministries, departments or any private institutes or international organizations.

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- **IOE-Sponsored Scholar (ISS):** As per the typical engagement of the PhD scholar with IOE, IOE-Sponsored Scholar falls one of the following two types:
  - **ISS-1 (GTA/GRA):** These scholars are termed as Graduate Teaching Assistant (GTA)s and Graduate Research Assistant (GRA)s. Under this category PhD scholar will be enrolled in FTS study mode and will get full support from the **Campus/Dean's Office/IOE Center(s)/Project**, where the scholar is enrolled, as per the GTA/GRA compensation scheme.
  - **ISS-2 (Permanent Faculty/Staff. PFS):** Any scholar, who is also a full-time permanent faculty/staff member working within the IOE-Campus, can get enrolled on this scheme. Study mode of this scheme is either FTS with proper study leave approval or PTS and the scholar will get support from **Campus/Dean's Office/IOE Center(s)/Project** as per the PFS compensation scheme.

## 3. ELIGIBILITY FOR APPLICANTS

The minimum qualification required for the prospective scholars seeking admission for PhD program at IoE is a Master's degree in 'Engineering-related', 'Architecture-related', 'Science related to Engineering' field from TU or other institutions of higher education recognized by TU. Both Nepali and foreign nationals are eligible to apply. Furthermore, a prospective scholar should have published at least one paper in a peer-reviewed journal/conference (national or international), as a lead or corresponding author. Articles in predatory journals or published by predatory publishers as per Bell's list (https://beallslist.net/) will not be eligible.

Applications for Joint and/or Sandwich PhD programs shall also be considered. Rules/Regulations/ Guidelines for such programs shall be as decided by IoE.

## 4. APPLICATION SUBMISSION

IERC, in consultation with DRCs, prepares a tentative number of PhD scholars that different DRCs in IOE will likely to accept for a call. IERC will release a call for applications for prospective PhD scholars through a public notification, generally two times in a year. The call released on IOE's website should be prepared as per the template provided in **Annex D01**. Only those, who meet all the requirements of the university, institute and the departments as set forth in the 'call for applications' as well as outlined in Section-2 (above) may consider to apply. Applications should be submitted following the template shown in **Annex D02** along with the following documents;

i. Preliminary research proposal: The preliminary research proposal shall outline the research that the applicant is proposing to undertake in PhD degree. The proposal should generally consist of background, problem statement (research gap), specific objectives, literature review (to outline knowns and unknowns and indicate validity of research purpose and research questions), methodology, expected outputs, research plan (Gantt chart), and references (please see **Annex D03** for template).

ii. Copies of academic degrees (from Bachelor and above (equivalent certificates if necessary)).

iii. Curriculum Vitae (CV) with clearly highlighting research-related experiences and publication.

iv. Copy of relevant publication(s).

v. Two letters of recommendations from referees, one of which shall be preferably from faculty member from previous academic institutions.

vi. Proof of payment of application fee.

vii.  A copy of leave acceptance letter for three years, in case FTS-mode candidate is working full-time.

## 5. FEES AND PAYMENTS

Fee structure as well as mode of payment will be as decided by IoE.

## 6. APPLICATIONS PROCESSING, EVALUATION, AND ADMISSION

Overall calendar for call, processing and decision on application is provided in the following Table 1. IOE has two-layered institutional arrangement for evaluating overall process of PhD studies and award of degree (please see **Annex D04** for details). Application documents will be reviewed by respective DRCs (please see **Annex D04** for formation, roles and responsibilities of DRC). DRC shall appoint (if required) a subject specialist to review and evaluate preliminary research proposal. DRC shall arrange a presentation session for PhD applicants to present their research proposal with DRC as well as subject specialist with the spirit of understanding the applicant's ideas and providing feedback for further revision of the proposal. PhD applicants should submit revised proposal within a week to DRC. Then, DRC will review application documents including recommendation from subject specialist and recommend to IERC for admission or otherwise generally within five (5) working days from the receiving of revised proposal from the PhD applicants. The recommendations shall be made in view of strength of proposal, potential of applicant to pursue PhD studies, availability of supervisors and other relevant aspects (as appropriate).

Table 1

| S.N. | Activity | Intake 1/ Intake 2 (Odd/Even Semester) |
|------|----------|----------------------------------------|
| 1. | Request from IERC to DRCs for potential numbers for PhD scholars that can be enrolled | 16 weeks before the start of class |
| 2. | Submission of the tentative numbers for PhD scholars that can be enrolled by DRC to IERC | 14 weeks before the start of class |
| 3. | Call for application for PhD by IERC | 13 weeks before the start of class |
| 4. | Application submission by prospective PhD scholars | 9 weeks before the start of class |
| 5. | Screening of application documents by Dean Office | 8 weeks before the start of class |
| 6. | Forwarding of eligible applications to concerned DRC by IERC | 8 weeks before the start of class |
| 7. | Appointment of reviewer by DRC | 7 weeks before the start of class |
| 8. | Proposal presentation (DRC) | 5 weeks before the start of class |
| 9. | Recommendation of scholars for PhD admission by DRC to IERC | 4 weeks before the start of class |
| 10. | Finalization of successful scholars for PhD admission and Circular to the Campus | 3 weeks before the start of class |
| 11. | Publication of admission schedule and admission by the campus | 2 weeks before the start of class |
| 12. | Commencement of class (coinciding with MSc Regular Class) | |

*Note: In case of project-funded PhD scholars, enrollment can be made any time as recommended by project leader or principal investigator (PI).*

The IERC shall make a final decision on admission or otherwise of PhD scholars in the related Departments and communicate to respective PhD scholars.

## 7. SUPERVISION OF PhD SCHOLARS

### 7.1 Minimum qualification and conditions of supervisors/co-supervisors

- S/he should be a permanent faculty member of IoE with a PhD degree from a higher education institute recognized by Tribhuvan University.
- S/he should have at least two years of fulltime working experience at least as Assistant Professor or equivalent level in the university or recognized research institutions. Retired professor from the same institute will also be eligible to be a supervisor.
- S/he should have published a minimum number of research papers of required quality, as a lead or corresponding author, as suggested by UGC. The papers, however, should be published in peer-reviewed international journals.
- A faculty member can have a maximum of five (5) PhD scholars (only regular) at a time, either as a supervisor or co-supervisor. In case PhD of scholars cannot complete DRC process within three years from the date of enrollment, those PhD scholars shall not be counted within the limit of five (5) numbers anymore. Furthermore, in case a faculty member is leading a project that have funding for PhD scholars, additional students can also be allocated with approval from IERC.

### 7.2 Supervisor allocation

After receiving the final list of PhD scholars approved for admission from IERC and subsequent proof of admission in the Campus, DRC prepares a list of PhD scholars along with proposed supervisor, and their key academic and other attributes. DRC will also prepare an updated list of faculty members eligible to be supervisor and co-supervisor, their publication record (as a proof of eligibility), current student allocation (to make sure new allocations will not exceed the limit) and other relevant information. Based on observation of these documents and aligning well with proposed supervisors by the applicant, DRC recommends IERC, for supervisor allocation.

### 7.3 Supervising committee

Following the UGC Guidelines for PhD (2080), each PhD scholar will be supervised by a **Supervising Committee**. The committee consists of a maximum of three members, which includes one or more Supervisor and/or Co-Supervisor(s) either from IOE itself or from outside depending upon expertise need. One of the Supervisors must be from IOE permanent faculty or retired Professor from IOE. DRC recommends Supervising Committee for each PhD scholar based on recommendation of Main Supervisor after Supervisor is appointed by IERC. The Supervising Committee can be reformed in due course as per requirements. The Supervising Committee shall be fully responsible for ensuring technical quality control of the PhD scholar. DRC shall allow a PhD scholar to present in regular progress meetings and final DRC presentation based on recommendation of the supervising committee.

## 8. GRADUATION REQUIREMENTS

DRC shall recommend a PhD scholar for further processing of PhD degree award to IERC after all requirements outlined in the following sub-sections are fulfilled.

## 8.1 Course works

Depending upon area of research and academic foundation requirements, the DRC upon recommendation of Supervising Committee shall design and assign a package of course works to each PhD scholar right in the beginning of the first semester. Such a package will constitute of a minimum of 3 courses with a total of 12 credit hours[1] from among pre-PhD/MSc courses applicable to the subject area and additional one course with 4 credit hours on directed study/research[2]. Research methodology should be compulsory course for all PhD scholars. If 'Research Methodology' course is already completed in Master Degree, it's not recommended to take that course again for credit. Altogether, the scholar has to take a minimum of 16 credit hours. The course can be taken from any institutions within Nepal and abroad and credit can be transferred as long as TU rules/regulations allows.

Normally, the course works should be completed within the first three semesters (for FTS students) and first five semesters (for PTS students) of registration into the program. Completion of a course requires a minimum attendance of 75% and a score of 50% of marks or an equivalent performance standard and should maintain a score of 65% or equivalent in aggregate. PhD scholars who fail to meet the performance standards prescribed for the course, may be offered an additional chance to repeat the same course or take another course. In that case all the course works should be completed within five semesters of registration. A PhD scholar who fails to meet the aforementioned course work requirements will be severed from the program.

## 8.2 Regular progress presentations

A PhD scholar is required to submit a progress report in prescribed format (**Annex D05**) and make progress presentation to DRC twice a year, one to be started in the second week of April and the another in the second week of September. The progress report is to be submitted to DRC at least two weeks ahead of the progress presentation. DRC will not allow progress presentation if progress report is not submitted on time and all the dues are not cleared. Failure to present on regular progress presentations will lead to potential termination, as elaborated in **Quality Assurance Framework** to be followed by DRCs (**Annex D06**).

## 8.3 Comprehensive examination

A comprehensive examination shall be held coinciding third regular progress presentation (i.e., after completion of around one and half years from registration). DRC shall appoint **two examiners** – one from IoE and one from outside – to evaluate feasibility of dissertation proposal including potential of the scholar to complete the dissertation. DRC shall conduct comprehensive examination of each scholar in the presence of DRC members, Supervising Committee, and Examiners. Evaluation shall be made by two Examiners and, Supervising Committee using an appropriate criterion to be decided by DRC. The scholar can continue as PhD scholar only if both Examiners provide positive evaluation of the progress. If a candidate has already published a paper related to his/her PhD by the time of comprehensive examination, s/he shall be exempted from this comprehensive examination.

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[1] A course of 1 credit hour would generally mean a course lasting a semester with 1 hour of direct faculty-student contact. It will require an additional 2 hours of self-study (in library, laboratory, etc.)

[2] Directed study – A research or special study on specific topic, aligning with PhD dissertation, as guided and evaluated by Supervisor.

## 8.4 Publication of peer-reviewed articles

At least **two research papers** are required for graduation with a PhD degree. One among them should be **research article** on the findings of the PhD works. At least one of such papers should be published in journals indexed in Science Citation Index (SCI) or Science Citation Index Expanded (SCIE) or Social Sciences Citation Index (SSCI). In case one of the papers is published in UGC accredited Journal or Emerging Sources Citation Index (ESCI), the scholar must be the first author for the published articles together with supervisors. The papers can also have other co-authors depending upon collaboration of the PhD scholar in the course of PhD studies.

## 8.5 Credit and dissertation requirements

As per the PhD scholar enrollment mode (either FTS or PTS), IOE allows varying overall duration of the study, however each PhD scholar has to earn **80 (Eighty) credits** or more for graduation from the PhD program. For the FTS enrollment recommended credit earning schedule is as per the following table.

| Credit Type | Semester and Credit | | | | | | Total Credits for Graduation |
|---|---|---|---|---|---|---|---|
| | I | II | III | IV | V | VI | |
| Course Work | 8 | 8 | - | - | - | - | |
| Research Work | 8 | 8 | 12 | 12 | 12 | 12 | |
| **Sub-Total** | **16** | **16** | **12** | **12** | **12** | **12** | **80** |

The minimum requirement of **course work is 16 credits** and the minimum cumulative **research credit requirement is 64**, while **per semester recommended research work credit is 12 credits** only. Students enrolled on PTS mode have to plan appropriate credit earning schedule based on distribution for FTS mode student with consent of supervisor(s).

Final PhD dissertation should be prepared and submitted as per the template provided in **Annex D07**. Five (5) hard copies of the dissertation and one electronic copy are required to be submitted by a PhD scholar before issuing certificate. A FTS PhD scholar can submit dissertation to DRC after completion of at least five semesters and PTS PhD scholar can submit dissertation to DRC after completion of at least six semesters.

## 8.6 Plagiarism assessment on dissertation

The research work carried out by the PhD scholar shall be based on original ideas, which might include abstract, summary, hypothesis, observations, results, conclusions and recommendations only and shall not have any similarities.

The similarity checks for plagiarism shall exclude the following, as decided by TU's Academic Council on 2080/03/26:

i)   A common knowledge or coincidental terms, up to ten (10) consecutive words and small sources match up to 1%.

ii)  All quoted work reproduced with all necessary permission and/or attribution.

iii) All references, bibliography, table of content, preface, foreword, quotations, phrase, acknowledgements, list of abbreviations and acronyms, table of contents.

iv)  All generic terms, laws, standard symbols and standards equations.

The final PhD dissertation submitted will be checked for overall similarity with **standard similarity matching index** which should be **less than or equal to 10%.** The small matches indicated on similarity checking tools are to be verified through exclusion items defined above.

### 8.7 Completion of DRC presentation and approval by DRC

A PhD scholar shall complete DRC presentation following the procedure outlined in "DRC Quality Assurance Framework (**Annex-D05**)" and subsequent approval from DRC to be eligible for further process for graduation requirements with IERC.

### 8.8 Completion of IERC presentation and approval by IERC

Upon receiving of recommendation from DRC for further processing of evaluation of a PhD scholar, IERC appoints three (3) examiners (2 national, 1 international) to evaluate the PhD research, conducts pre-viva and final defense/presentation in due course as elaborated in **Section 9**. Upon successful completion of IERC defense/presentation, IERC awards PhD degree to the PhD scholar.

### 8.9 Payment of all dues

All dues must be cleared in respective semesters to be eligible to present progress report. Similarly, PhD scholar should submit a due clearance note from Finance/Accounts along with Dissertation for DRC presentation.

### 8.10 Extension, FTS to PTS conversion, and re-registration

If a FTS fails to fulfill the graduation requirements, but has worked substantially, then s/he can request for extension as a FTS for up to two (2) years or conversation from FTS to PTS by submitting a fresh application to the DRC at least one month before the expiry of registration. If a PTS or 'FTS after 2-years or extension' fails to fulfill the graduation requirements, but has worked substantially, then s/he can request for re-registration on the same topic and under same supervisor(s) at least one month before the expiry of registration. After re-registration, the PhD scholar can submit dissertation within two years, but not before six months from the date of re-registration. If the PhD scholar again fails to submit the dissertation within two years of re-registration, then her/his re-registration will be automatically cancelled.

## 9. EXAMINATION OF DISSERTATION

DRC shall be primarily responsible for smooth driving of overall process of PhD studies within the Department level, including quality assurance. Details of roles and responsibilities of DRC in this endeavor is outlined in **Annex D04** and quality assurance framework to be followed by DRC in this process is outlined in **Annex D06**. DRC shall conduct a comprehensive exam **within third semester for FTS and within fifth semester for PTS** to confirm candidacy of a PhD student following the procedure outlined in **Section 8**. Upon completion of all necessary requirements and after recommendation of supervisor, DRC shall complete the case of DRC presentation within three (3) months (excluding extraordinary circumstances) from the submission of request from a PhD scholar through supervisor. After successful completion of DRC presentation, DRC must recommend IERC for further processing for PhD award within one month.

IERC shall complete the process of final evaluation of PhD dissertation within six months. IERC shall appoint two national and one international examiner within one month, conduct pre-final within 4 months, and conduct final presentation/defense generally within six (6) months from the date of receiving recommendation from DRC to IERC. National examiner shall be from outside IOE.

## 10. AWARD OF PhD DEGREE

The award of PhD degree is in recognition of high achievement in independent research and application of knowledge present in the form of dissertation. The degree of PhD of the Institute of Engineering is awarded upon fulfillment of all the requirements of graduations as outlined in **Section 8**.

## 11. PROVISION FOR GRIEVANCE HANDLING

If a PhD student has any grievance-related to PhD process, conflicts with supervisors or any other aspects related to his/her PhD study at IoE, s/he can submit application to IERC highlighting his/her concerns. The procedure for handing grievances shall be as decided by IERC.

## 12. PROVISIONS FOR GTAs/GRAs

IOE has envisioned funded PhD programs with the aim of supporting them through GTA/GRA programs. The major tasks related to GTAs/GRAs are to have assistance on teaching and/or research including practical and research experimentation. GTA/GRA shall be closely working with their supervisor/guide, and they assist in teaching and evaluations, research activities, which will build better environment for consistent and regular evaluations to students, and additional tutoring in addition to regular class conduction. Not only limiting to the teaching, research related aspects of projects, like experimental setup, exposing our undergraduate and graduate students to better research environment by organizing research related events are also expected from GTAs/GRAs. The overall aim of introducing GTAs/GRAs is to strengthen our undergrad and graduate programs. Estimated work load of GTAs/GRAs shall be 15 periods/week.

### 12.1 Number of GTA positions and allocations across departments

Each year, Campus shall allocate a certain number of GTA positions in consultation with each Department as per the need of the department. It will be determined based on need of teaching assistants, availability of resources, and ensuring that total number of GTAs in each Department will not exceed 1/3rd of full-time permanent faculty positions. As a general principle, it is recommended to planning towards allocating at least one GTA annually in each Department of PhD degree awarding campus. Additional number of GTA positions for an academic year can be fixed by Campus authority as per the departmental requirement and aligning with resource availability.

### 12.2 Number of GRA positions

There will be no limit for GRA positions, as each GRA position is to be supported through either any specific projects within Campus or Department or any typical project, which is led by faculty members (s) in the Campus. Such GRA positions can also be supported through Dean's Office and IOE's centers.

### 12.3 Selection for GTA positions

The scholar for GTA position in each department shall be selected on merit basis, where merit score is calculated based on following criteria and

- **Evaluation of Proposal and its Presentation [50%]**
  - Proposal Evaluation [25]: Average of 2 Expert's Evaluation
  - Proposal Presentation/Q&A/Interview [25]: Average of Evaluation of 1 Internal Expert and DRC Members

- **Evaluation of Past Records [50%]**
  - Publication Records [10]
  - Academic performance [30]: Bachelor [10]; Masters [20]
  - Professional/Teaching/Experience [10]

## 12.4 Selection for GRA positions

As GRA is funded by specific project to fulfill specific objectives of the project, a scholar for GRA shall be selected by project leader (or assigned person) of the project that supports GRA.

## 12.5 Fellowship amount to GTAs/GRAs

The Fellowship amount for GTA/GRA shall be equivalent to salary scale of Assistant Lecturer at Institute of Engineering, Tribhuvan University at the time of admission. PhD application and Campus Admission processing related cost shall be covered by PhD applicant. Monthly fellowship to GTA/GRA is adjusted after the deduction of next semester fee for a semester.

Sponsoring modality of GTAs/GRAs, and respective work load for different position titles of GTAs/GRAs are provided in the following Table.

| Position | | Sponsor Modality | | Work Load | |
|---|---|---|---|---|---|
| Code | Title | Campus | Project | Teaching | Project |
| GTA | Graduate Teaching Assistant (Teaching Concentration) | 100% | - | 100% | - |
| GTA-PS | Graduate Teaching Assistant (Project Supplement) | As per agreement between Project Leader (or Principal Investigator) and Campus | | | |
| GRA-PS | Graduate Research Assistant (Project Supplement) | | | | |
| GRA | Graduate Research Assistant | - | 100% | - | 100% |

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**Annex D01: Template for "Call for Applications for PhD Studies at IOE" to be released at IOE's website**

## Call for Applications for PhD Studies at IOE

<Date of release>

Institute of Engineering (IOE) is pleased to invite eligible candidates for the enrollment to PhD Studies in upcoming cycle expected to start from xxx<month, year>. This call is open for following campuses, programs/disciplines, and themes.

| S.N. | Campus | Major, Department | Theme | Number of Scholars |
|------|--------|-------------------|-------|--------------------|
| 1 | Example: Pulchowk | Example: Water Resources, Civil Engineering | Example: Hydro-climatic extremes and impact on water infrastructure | 2 |
| 2 | | | | |
| 3 | | | | |
| | | | | |
| | | | | |

The application should be submitted online/electronically by clicking in this link <please insert a link> date/month/year. Please read the IOE PhD Rules and Regulations (provide hyperlink to the website to the word version of the document). The application package should have following documents;

1. Filled-in application form
2. Preliminary research proposal (please see IOE PhD Rules and Regulations (Updated in 2024; link: xxxx) for the template as well as guidance notes)
3. Copies of academic degree certificates (Bachelor and above)
4. Copy of **relevant** publications (up to 5)
5. Curriculum Vitae (CV)
6. Letters of recommendations from two (2) referees
7. Proof of payment of application fee (details of bank application fee and bank accounts are to be provided).

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# Application for PhD Studies at Institute of Engineering

## Application Form

I hereby apply for admission to the PhD program at Institute of Engineering (IOE), Tribhuvan University in the topic/theme (specify your topic) ................................................ ...............
..............................................................................................................................................
........................ for the upcoming session expected to start in ................(month, year).

If accepted as a student, I shall comply with all rules and regulations of the IOE.

## 1. General Information

| | | | |
|---|---|---|---|
| Name of Applicant: | | | |
| Email: | | | |
| Date of Birth: | | Citizenship Number: | |
| Phone: | | Sex: | |
| Marital Status: | | Date of Application: | |
| Enrollment Mode (FTS or NFTS): | | Enrollment Category (RS, ASS, ISS): | |
| Photo: | | | |

## 2. Academic Background of Applicant

| Name of the Degree | Major (or Major Subjects) | Year of Graduation | Score/GPA/ % | Duration [mm/yyyy - mm/yyyy] |
|---|---|---|---|---|
| Master Degree in xxxx | | | | |
| Bachelor Degree in xxxx | | | | |
| HSEB/HEB or Diploma or Equivalent | | | | |
| SLC/SEE | | | | |

## 3. Major Achievements (Awards/Recognitions

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Please list all significant scholarships, awards, and academic prizes, if any, that you have received so far.

## 4. Motivation for PhD Studies (within 1,000 words)

## 5. List of Publications (if any)

## 6. Your Preference on Prospective Supervisor

*Please provide name and areas of expertise of the potential supervisor,*

## 7. List of References

*Please provide name, contact details, and affiliation of the 2 referees and attach their letter of recommendation. Letter of recommendation can be prepared in general format, preferably in letter head of institute where the referee is affiliated with, by highlighting duration that s/he knows the applicant, strengths, weakness, behavioral aspect, maturity, potential of the applicant to complete PhD studies, etc.*

## 8. Preliminary Research Proposal

*Please prepare a preliminary research proposal following the guideline and template provided in IOE PhD Rules and Regulations (Updated 2025) and attach separately.*

## 9. Application Fee

Please insert evidence of paying Application Fee.

## 10. Source of Funding

You may consider selecting multiple options too, as relevant.

| Type of Document | Submitted (x) | Type of Document | Submitted (x) |
|---|---|---|---|
| Self-support | | Family support | |
| External sponsorship | | Looking for financial support | |

## 11. Application Check List

| Type of Document | Submitted (x) | Type of Document | Submitted (x) |
|---|---|---|---|
| Application form | | Motivation letter | |
| Preliminary research proposal | | List of referees | |

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| Copies of academic degrees (SLC and higher) | | Letter of recommendation from 2 referees | |
|---|---|---|---|
| Copies of relevant publications | | Evidence of payment of application fee | |
| CV | | | |

**Annex D03: Template for Research Proposal for PhD Application**

Title of Proposal:

Name of Applicant:

Department Applying for:

# 1 INTRODUCTION

## 1.1 Background

*Few paragraphs about the research topic – about half a page, with citation of relevant literatures*

## 1.2 Key Research Gaps and Problem Statement

*The key problem statements related to the research area – research gap and problem statements should be supported with citation of appropriate recent literature. And, the problem statement should be aligned with the research questions*

## 1.3 Research Questions

- *Research Question 1*
- *Research Question 2*
- *Research Question 3*

## 1.4 Objectives

(General and specific objectives)

## 1.5 Limitations

*State any extent of work that is out of scope*

# 2 LITERATURE REVIEW

*Please insert literature review by dividing it into appropriate sub-chapters aligning well with specific research questions*

# 3 METHODOLOGY

*Start with an opening paragraph with the overall approach, key aspects/components, etc., and then refer to the Methodological Framework diagram and Coordination Schema Table (which has the following columns: problem statement, research question, methods, data/tools, expected outputs) for the details.*

*Then divide the Methodology into different sub-chapters, each dedicated to each specific research question, followed by the last sub-chapter related to Data and Sources (where, please insert a table*

*with the type of data required, data characteristics, and data sources). Please make sure each sub-chapter provides a clear idea for readers on ways of achieving each specific objective or answering each research question.*
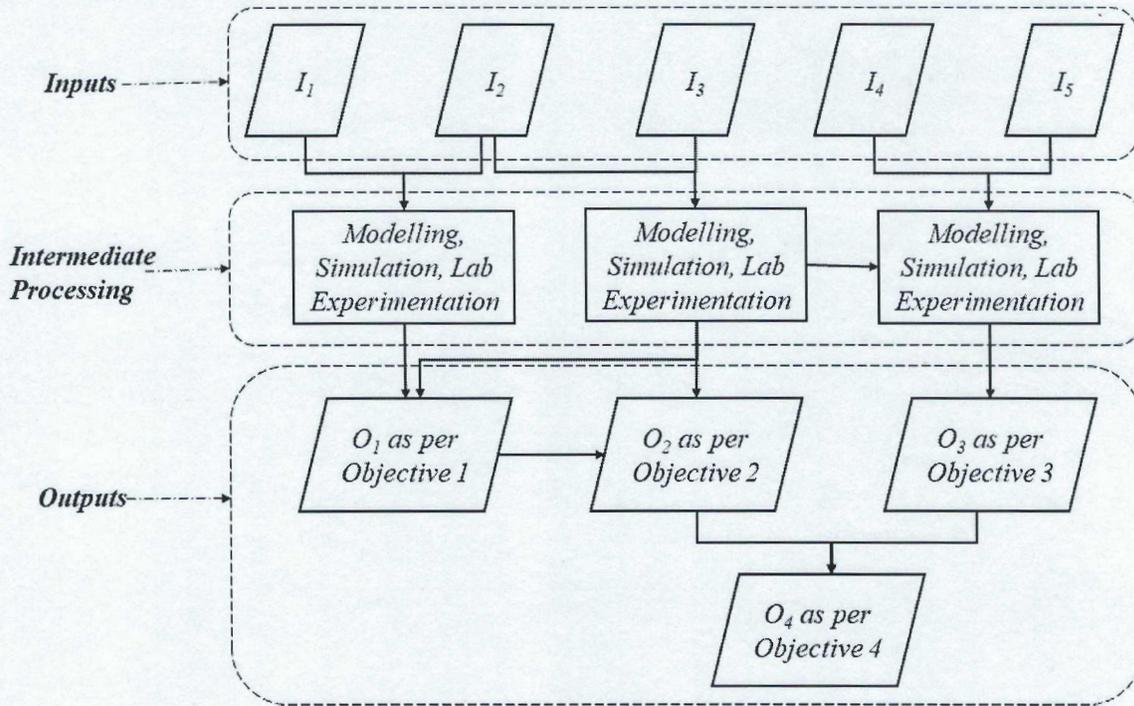


*Figure 3.1: A sample of methodological flow chart. $I_1$ refers to input-1; O1 refers to output 1; For intermediate processing please elaborate a bit details of tools, approach, etc. so that readers can clearly understand what exactly is to be done.*

**Notes**: *i) Same input can go for multiple processes/models; ii) Same process can feed to multiple outputs and/or multiple processes can feed for a single output; iii) Outputs should be aligned with each specific objective; iv) There should be a clear linkage between the outputs and objectives.*

### 3.1 Sub-chapter 1

*Detailed description on ways of answering the first research question*

### 3.2 Sub-chapter 1

*Detailed description on ways of answering the second research question*

### 3.3 Sub-chapter 1

*Detailed description on ways of answering the third research question*

### 3.4 Data and Sources

*Insert a data table - type of data required, data characteristics, and data sources*

## 4 EXPECTED OUTCOMES

*The expected outcomes from this research work are:*

- *Outcome -1*
- *Outcome - 2*
- *Outcome - 3*

## 5 TIMELINE AND BUDGET

*The timeline consists of a tentative work plan schedule (usually in a Gantt Chart).*

*Furthermore, please provide an estimated budget for implementing this research work. The budget should be detailed (maybe in tabular format).*

## REFERENCES

*Please insert reference in APA (latest edition) style. A sample of reference for Journal article as per APA style is provided hereunder.*

*Bonin, O., & Rousseaux, F. (2005). Digital terrain model computation from contour lines: How to derive quality information from artifact analysis. GeoInformatica, 9(3), 253–268. https://doi.org/10.1007/S10707-005-1284-2*

**Annex D04: Institutional Arrangement for Evaluating PhD Studies and Awarding Degree**

### AD04-1: Institute of Engineering Research Committee (IERC)

The IERC shall be the apex authority for all the research/study programs at the Institute of Engineering. The PhD program of IOE shall be regulated by the IERC constituted under the chairmanship of the Dean of IOE in accordance with the Rules/Regulations/Guidelines/Directives of the Tribhuvan University. The Assistant Dean of Planning will function as secretariat of IERC. Roles and Responsibilities of IERC shall be;

- Frame operating guidelines or rules/regulations for Ph.D. program.
- Take overall policy responsibility for the design, management and implementation of research/degree study programs and their standards.
- Take responsibility for the examination/evaluation of performance of PhD programs as well as other research/degree study programs.
- Design and approve standard, rules, regulations admission, study/research, examination and other processes for all research/degree programs.
- Appoint supervisor/co-supervisor/supervising committee on recommendation of DRC.
- Oversee and coordinate the research study programs leading to Doctoral degrees through member secretary.
- After receiving recommendation from DRC for a PhD candidate, perform further evaluation including appointing internal and external examiners, conducting pre-viva and final defense/presentation
- Award PhD degree to the PhD candidates who successfully accomplish all the criteria required for awarding the PhD degree.

### AD04-2: Departmental Research Committee (DRC)

**Formation of DRC**

For each Department offering doctoral research study programs, a Departmental Research Committee will be constituted under the chairmanship of one of the senior professors (with PhD degree) appointed by the Dean. The structure of DRC will be as follows:

Chairperson: From among the senior professors.

Members: 3 Senior Faculties of the Department as per relevancy

Member: From among the Campus Chief / HoD / Faculties as per relevancy

All the members of DRC are appointed by the Dean on recommendation of the chairperson. Dean has the authority to change the name of the recommended DRC member. The chairperson will appoint one of the members as member secretary

**Roles and Responsibilities of DRC**

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1. Broader Role/Responsibilities: The DRC, apart from management, supervision and execution of the research program at the departmental level as per policies, rules and regulations setup by IERC, will also be responsible for reviewing the applications and making appropriate recommendations.

2. PhD application evaluation: DRC shall appoint a subject specialist to review and evaluate preliminary research proposal. DRC will arrange a presentation session for PhD applicants to present their research proposal with DRC as well as subject specialist with the spirit of understanding the applicant's ideas and providing feedback for further revision of the proposal. PhD applicants should submit revised proposal within week to DRC. Then, DRC shall review application documents including recommendation from subject specialist and recommend to (IERC for admission or otherwise generally within 5 working days from the receiving of revised proposal from the PhD applicants.

3. Approve course work for PhD scholar: The DRC in consultation with supervisor will be responsible for design and implementation of individual package of course works required for each candidate admitted to Doctoral study programs.

4. Recommend Supervisors and Members of Supervising Committee of each PhD candidate to IERC.

5. Prepare "PhD Candidate Information Pack" with details as elaborated in this document and hand it to PhD candidate.

6. Maintain an updated file of each PhD candidate with at least following documents.
   o Summary sheet – personal information, contact details, date of enrolment, and key activities accomplished, including records of publication, conference presentations, conference papers, etc.
   o Enrolment confirmation letter
   o Drafts of proposal, progress reports, DRC presentations, etc.
   o Response matrix submitted over the time
   o Curriculum Vitae
   o Other relevant information of the candidate

7. Prepare a summary of status of each candidate for review in each DRC meeting
   o Total number of PhD candidates enrolled with the department
   o Disaggregation based on their status, in various ways, such as
     ▪ Number of years elapsed (< 1, 1-2, 2-3, 3-4, > 4)
     ▪ Course requirements completed: Yes/No
     ▪ Journal requirements completed: Completed, in Progress (paper under review), No (paper yet to submit)
     ▪ Candidates in different zones: green (on track), yellow (about to lose the track), red (lost the track)
     ▪ Others reverent indicating markers

8. Conduct regular meetings: DRC shall meet at least once in three months to review various aspects of enhancing quality of research of PhD scholars, including facilitate to provide conducive environment for carrying out research activities for quality outputs.

9. Develop and implement standard templates (as per requirements) for various aspects related to quality assurance of PhD degree
   o Check-list of minimum requirements for DRC presentation
   o Template for internal review report
   o Template for response matrix

- o Template for progress report submission
- o Template for dissertation draft report submission
- o Template (slide design) and contents for progress presentation
10. Review regularly candidate's progress through semester-wise progress reports and subsequent presentations
11. Define and implement actions for no-compliance of requirements (e.g., fail to complete defined course credits, fail to submit regular progress report, fail to attend regular progress presentations, etc.) defined by DRC
12. Appoint internal reviewers (at least 2) before allowing DRC presentation
13. Deliberate the case for allowing DRC presentation and recommend to IERC, along with names of six potential examiners (based on recommendation of Supervisor).
14. Take overall lead on research-related activities associated with academic program run by the department.

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*(1 blank line)*

**TRIBHUVAN UNIVERSITY**
**INSTITUTE OF ENGINEERING**
**…… …… ……CAMPUS**
**DEPARTMENT OF xxx**

# A PhD progress report on TITLE?

By:

*(1 blank line)*

PhD Candidate's name

**Supervisors**:

*(1 blank line)*

Name of Supervisor 1

Name of Supervisor 2

**MONTH YEAR**

# ABSTRACT

*(2 blank lines)*


The length should **not exceed 500 words.** The font size is 12, Times of New Roman, line spacing is 1.5.

# SUMMARY

*(2 blank lines)*

## 1. About PhD Candidate

Name of PhD Candidate:

Home Address:

Email Address:

Telephone/Mobile:

Date of Enrollment:

Progress Report Log:
- 8th Progress: when?
- 7th Progress: when?
- 6th Progress: when?
- 5th Progress: when?
- 4th Progress: when?
- 3rd Progress: when?
- 2nd Progress: when?
- 1st Progress: when?

Progress Period (e.g. June – Sep, 2021): ??

## 2. Supervisors

Supervisor: Name, Email, Telephone/Cell

Co-supervisor: Name, Email, Telephone/Cell

## 3. Progress

3.1 List of course works completed

...

3.2 List of activities after last semester's progress presentation

ii

...

3.3 List of remaining works
...

3.4 List of publications

3.4.1 Peer-reviewed journal articles
...

3.4.2 International conference proceedings
...

3.4.3 Domestic conference proceedings
...

3.5 Expected completion date
...

## 4. Supervisor's Comments on Overall Progress




Signature of supervisor                                    Date:


Signature of PhD candidate                                 Date:

# TABLE OF CONTENTS

*(2 blank lines)*

# 1.    INTRODUCTION

## 1.1 Background

The font size is 12, Times of New Roman, line spacing is 1.5, Justified.......

- This section should clearly provide overall context and need of the study, in a focused way, with adequate citation of relevant recent literatures

## 1.2  Literature Review

The font size is 12, Times of New Roman, line spacing is 1.5, Justified.......

- In literature review should have a clear link with specific objectives and relevant works

## 1.3  Problem Statement

The font size is 12, Times of New Roman, line spacing is 1.5, Justified.......

- Problem statement should have a clear link with each specific objectives
- Problem statement should be based on research gap, supported by citation of appropriate literature

## 1.4  Objectives

The font size is 12, Times of New Roman, line spacing is 1.5, Justified.......

- Please provide broad as well as specific objectives
- Please make sure objective statements are NOT like activity, and each specific objective is linked with corresponding problem statement and focusing in research gap

## 1.5  Scope and/or Limitations

The font size is 12, Times of New Roman, line spacing is 1.5, Justified.......

### 1.6 Summary of Progress in This Progress Period (duration?)

The font size is 12, Times of New Roman, line spacing is 1.5, Justified.......

- Please present progress against each objective in tabular form

Table 1 Example 1

| Specific objective | Key progress | % progress | Plan for next progress period |
|---|---|---|---|
| SO1 | • | | • |
| SO2 | • | | • |
| SO3 | • | | • |
| SO4 | • | | • |
| SO5 | • | | • |

### 1.7 Response to Comments Provided in the Last Progress

- Please synthesize all the comments from different professors in a coherence way
- No need to separate them by name of professors. When similar comments are there, merge them together and prepare a final list of comments
- Then provide response to each of them, in consultation with your supervisor and insert in the following Table.

Table 2 Example 2

| SN | Key Comments | Response |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

## 2.    MATERIALS AND METHODS

- Insert a section related to study area and other aspects (as relevant)
- In methodology, please insert an opening paragraph summarizing overall methodological framework
- The framework should highlight objectives, interlinkage among the objectives, and how each objectives are achieved (inputs, processing, etc.).  It needs a critical thinking and several round of improvements.
- Then also insert a coordination schema of the entire methodology, i.e. ways of achieving each objective.
- Elaborate methods for each objective in brief, with appropriate sub-chapters
- Then in the last paragraph, with bold letter, please mention which part of the entire work was covered in this progress period.

## 3.    PROGRESS IN THIS REPORTING PERIOD

- Insert an opening paragraph focusing on which part of the entire methodological framework was covered in this progress period.
- Then sub-divide the section into following sub-chapters
    - Theoretical foundation → What is the theoretical foundation of the objective or sub-objective that you are presenting in this progress presentation? It demonstrates actually the research gap and theories behind the topic that you are presenting
    - Methods: Elaborate the methods used for that specific objective or sub-objective
    - Results/discussion: Please present key findings with appropriate discussion
    - Conclusion – please present key conclusions supported by your analysis/findings
- Problems/Issues faced – please enlist them as well, as appropriate.

### 3.1 Theoretical Foundation

**3.2 Methods**


**3.3 Results and Discussion**


**3.4 Conclusions**

## Annex D06: Quality Assurance Framework for DRCs

The quality assurance framework for DRCs consists of clearly defining DRC's role in terms of quality assurance of PhD degree; defining and implementing a systematic flow chart outlining activities and time-line of a PhD candidhate from the date of enrolment to recommendation from DRC to IERC; defining role of DRC in various activities of a PhD candidate; developing and implementing various templates related to the PhD study process, etc.

## 1. DRC's roles and responsibilities in terms of quality assurance of PhD degree

- Prepare "PhD Candidate Information Pack" with details as elaborated in this document and hand it to PhD candidate.
- Maintain an updated file of each PhD candidate with at least following documents.
    - o Summary sheet – personal information, contact details, date of enrolment, and key activities accomplished, including records of publication, conference presentations, conference papers, etc.
    - o Enrolment confirmation letter
    - o Drafts of proposal, progress reports, DRC presentations, etc.
    - o Response matrix submitted over the time
    - o Curriculum Vitae
    - o Other relevant information of the candidate
- Prepare a summary of status of each candidate for review in each DRC meeting
    - o Total number of PhD candidates enrolled with the department
    - o Disaggregation based on their status, in various ways, such as
        - Number of years elapsed (< 1, 1-2, 2-3, 3-4, > 4)
        - Course requirements completed: Yes/No
        - Journal requirements completed: Completed, in Progress (paper under review), No (paper yet to submit)
        - Candidates in different categories: on track, verge of losing track, lost the track
        - Others, if any?
- Facilitate to provide conducive environment for carrying out research activities to ensure quality outputs
- Develop and implement standard templates for various aspects related to quality assurance of PhD degree
    - o Check-list of minimum requirements for DRC presentation
    - o Template for internal review report
    - o Template for response matrix
    - o Template for progress report submission
    - o Template for dissertation draft report submission
    - o Template (slide design) and contents for progress presentation
- Review regularly candidate's progress through semester-wise progress reports and subsequent presentations
- Define and implement actions for no-compliance of requirements (e.g., fail to complete defined course credits, fail to submit regular progress report, attend regular progress presentations, etc.) defined by DRC
- Appoint internal reviewers (at least 2) before allowing DRC presentation
- Deliberate the case for allowing DRC presentation and recommend for Institute of Engineering Research Committee (IERC)

## 2. Stages of PhD Study Process with Department

The key activities of a PhD scholar from the date of enrolment to recommendation from DRC to IERC are summarized in the following **Table 1**.

**Table 1**: Key activities of a PhD candidate and DRC's role

| Activity | Description | DRC's Role |
|---|---|---|
| Enrolment | • A candidate to provide all relevant information to DRC – Copy of citizenship certificate, copies of earlier degree certificates, enrolment letter, copy of proposal, etc. – within 1 week after the enrolment. | • Maintain a file of each Candidate and make sure they are updated periodically |
| Progress Presentations | • A PhD candidate is required to submit a progress report in prescribed format (**Annex 7**), detailing of courses taken, progress against each objectives, etc., with signature of supervisor(s). <br> • The candidate is also required to present the progress in a meeting organized by DRC. <br> • The progress report is to be submitted 2 weeks ahead of the progress presentation. <br> • Progress presentations will start in the second week of April and second week of September in a year | • Fix time for each candidate: 45 minutes per candidates (i.e., 15 minutes. for presentation and 30 minutes for Q&A) <br> • Define template/guideline for progress report submission (**Annex 7**) and DRC presentation (**Annex 6**) <br> • Fix time-line for submitting report and presentation; and follow up with a candidate. |
| Response to Comments | • Candidates are required to submit a written Response to the Comments provided in each progress presentation following a template provided by DRC (**Annex 5**). The responses are to be submitted within **3 weeks** after the date of progress presentation. | • Develop a template for submitting response matrix <br> • Follow-up with the candidate to make sure response matrix is submitted on time <br> • Insert that in the Candidate's personal file |
| Submission of Draft Report & Deliberation of the Case in DRC | • After required criteria are fulfilled, the candidate submits a draft dissertation to DRC following a template suggested by DRC (**Annex 8**), with signature of supervisor <br> • The supervisor submits the case to the DRC following a format as defined in **Annex 1**. | • Deliberate the case for allowing or not for DRC presentation following a procedure as defined in **Annex 2**. <br> • Check whether required academic criteria is fulfilled (**Annex 3**) <br> • Provide written feedback for improvements, if any. If required for improvements, ask candidate to submit revised report along with response to Comments from DRC <br> • After the report becomes satisfactory, send it to at least 2 professors with relevant expertise for Internal Peer Review, with at least one week, with |

| | | |
|---|---|---|
| | | a request to submit feedback in written-form in prescribed format (**Annex 4**) within 4-weeks.<br>• Based on recommendation from Internal Reviewers, allow the Candidate for DRC presentation |
| DRC Presentation | • The candidate submits response to comments from DRC as well as Internal Reviewers to the DRC before DRC presentation<br>• Candidate presents to DRC following a standard template, with clearly highlighting context, problem, objectives, methods, selected results, conclusions, and achievements and/or fulfilments of requirements | • Fix date: DRC presentation will be held once in every quarter (2nd week of January, April, July, October)<br>• Fix duration of DRC presentation: each candidate will have 45 minutes for presentation followed by another 45 minutes for Q &A (DRC chair to keep the time)<br>• DRC chair allows first to DRC members and then other professors/participants to provide feedback<br>• At the end, DRC chair asks supervisor for remark<br>• Finally, DRC chair formally closes the session<br>• After the DRC presentation, DRC sends a summary of key comments to the PhD Candidate and follows up to submit response to comments within 3 weeks. |
| Submission of Revised Dissertation Report | • The Candidate is required to submit a revised report incorporating feedback in the DRC presentation, from internal reviewers as well as other experts, along with a response matrix, along with recommendation from supervisor | • DRC will review the response sheet and revised report<br>• Re-confirms fulfilment of requirements<br>• Recommends to IERC if revised report complies with template, formatting, etc., and all academic requirements are fulfilled. |

**Table 2** outlines overall PhD research progress monitoring matrix for full time (3-years) PhD scholars and **Table 3** outlines that for part-time (5-years) PhD scholars.

**Table 2**: PhD research progress monitoring matrix for fulltime (3 years) PhD scholars

| SN | Semester | Expected Progress |
|---|---|---|
| 1 | First Semester | • Complete the formal documents of enrolment<br>• Preliminary proposal presentation in DRC (Context/need/problem statement, objectives, methodology, expected outputs, references) within 2 weeks of enrolment<br>• Enrol to relevant courses in consultation with DRC<br>• Develop a chapter of literature review, identify research gap clearly, and finalize specific objectives in consultation with DRC/Supervisor<br>• Final proposal submission and defense in DRC. |
| 2 | Second | • Continue or complete of the course work requirements |

| SN | Semester | Expected Progress |
|---|---|---|
| | Semester | • Finalize objectives, methodology, and literature review by the end of the semester. Literature review chapter should be structured well in-line with title, objectives and methodology<br>• Work out experimental planning/ model preparation/ data collection, etc.<br>• Develop a draft manuscript (for a journal) based on literature review (recommended) |
| 3 | Third Semester | • Complete the course work requirement<br>• Start the experimental works/ simulation of model/analytical calculation of model etc.<br>• Work out on validation of experiment or research model |
| 4 | Fourth Semester | • Continue the experimental works/ simulation of model/analytical calculation of model etc.<br>• Streamline most of the outputs/results and associated write-up |
| 5 | Fifth Semester | • Interpretation and discussion of results, logical agreement of results on the basis of theory and previous researches.<br>• Finalize and submit a manuscript ($2^{nd}$ manuscript, first being a review paper) to a journal based on PhD research. Submit the papers only in SCI-indexed journals approved by DRC. Be careful with predatory journals.<br>• Develop skeleton/outline of final thesis (including $3^{rd}$ level headings, and story-line and expected contents under each heading in a few bullets)<br>• Start populating some of the sections of the dissertation |
| 6 | Sixth Semester | • Finalize the conclusion of results, finalize the recommendations.<br>• Develop a final draft of the thesis report (in first 2 months of the $6^{th}$ semester)<br>• Get published second journal paper<br>• Submit thesis to DRC with recommendation of supervisor<br>• Get oriented/prepared in process of thesis defence |

**Table 3**: PhD research progress monitoring matrix for part-time (5 years) PhD scholars

| SN | Semester | Expected Progress |
|---|---|---|
| 1 | First Semester | • Complete the formal documents of enrolment<br>• Preliminary proposal presentation in DRC (Context/need/problem statement, objectives, methodology, expected outputs, references) within 2 weeks of enrolment<br>• Enrol to relevant courses in consultation with DRC<br>• Develop a chapter of literature review, identify research gap clearly, and finalize specific objectives in consultation with DRC/Supervisor<br>• Final proposal submission and defence in DRC. |
| 2 | Second Semester | • Continue or complete of the courses work requirement<br>• Finalize objectives, methodology, and literature review by the end of the semester. Literature review chapter should be structured well in-line with title, objectives and methodology<br>• Work out experimental planning/ model preparation/ data collection, etc.<br>• Develop a draft manuscript (for a journal) based on literature review (recommended) |
| 3 | Third Semester | • Complete the course work requirements<br>• Start the experimental works/ simulation of model/analytical calculation of model etc.<br>• Work out on validation of experiment or research model. |
| 4 | Fourth Semester | • Continue the experimental works/ simulation of model/analytical calculation of model etc.<br>• Document preliminary results |

| 5 | Fifth Semester | • Continue the experimental works/ simulation of model/analytical calculation of model etc.<br>• Continue documenting preliminary results; start validating the results |
|---|---|---|
| 6 | Sixth Semester | • Continue the experimental works/ simulation of model/analytical calculation of model etc.<br>• Streamline most of the outputs/results and associated write-up |
| 7 | Seventh Semester | • Interpretation and discussion of results, logical agreement of results on the basis of theory and previous researches. |
| 8 | Eight Semester | • Interpretation and discussion of results, logical agreement of results on the basis of theory and previous researches.<br>• Start developing write-up of the results/discussion section |
| 9 | Ninth Semester | • Finalize and submit a manuscript (2nd manuscript, first being a review paper) to a journal based on PhD research. Submit the papers only in SCI-indexed journals approved by DRC. Be careful with predatory journals.<br>• Develop skeleton/outline of final thesis (including 3rd level headings, and story-line and expected contents under each heading in a few bullets)<br>• Start populating some of the sections of the dissertation |
| 10 | Tenth Semester | • Finalize the conclusion of results, finalize the recommendations.<br>• Develop a final draft of the thesis report (in first 2 months of the 6th semester)<br>• Get published second journal paper<br>• Submit thesis to DRC with recommendation of supervisor<br>• Get oriented/prepared in process of thesis defence |

Key dates and associated activities for PhD study process are documented in **Table 3**.

**Table 3**: Key dates and associated activities of PhD study process.

| Key dates | Key activities | Remarks |
|---|---|---|
| Within 2 weeks of enrolment | Complete formal documentations of enrolment with the Department & preliminary proposal presentation to DRC | DRC to announce date for preliminary proposal presentation |
| Within 1 month | Enrol to relevant courses in consultation with DRC | Progress/Proposal presentations are scheduled to start in second week of April and second week of September |
| End of 1st semester | Submit final proposal to DRC in consultation with supervisor (at least 2 weeks before date for proposal presentation)<br>Present final proposal to DRC | Progress report or proposal is required to submit 2 weeks before the date of presentation |
| Last Week of Bhadra and Chaitra | Progress/Proposal presentation of PhD Scholar | DRC to compile and provide the comments to PhD scholar |
| 3 weeks after proposal/progress presentation | Submit response matrix to the comments made during progress or proposal presentation | Follow DRC defined format (Annex 5) |
| Within 3rd semester | Completion of course works | |

| | | |
|---|---|---|
| Within second semester | Develop a review paper for regular PhD scholars (recommended) | |
| Within fifth semester | Submission of research article to international indexed journal in consultation with supervisor | |
| Beginning of 6th semester | Submission of draft dissertation to DRC with a request letter for DRC presentation | Following template defined by DRC, along with recommendation letter from Supervisor following Template given in **Annex 1** |
| Within 2 weeks after submission of draft | DRC to convene and decide on the draft. If it's ready for DRC presentation, DRC will appoint 2 internal reviewers to review the report | DRC to deliberate the case following the procedure as defined in **Annex-2** |
| Within 4 weeks after DRC decides to allow for DRC presentation | Internal reviewer to submit comments and recommendations on the Draft Thesis, along with clear recommendation on whether DRC presentation can be allowed as it is or after revision | Internal reviewer to follow template defined by DRC **(Annex 4)** |
| Within 2 weeks after receiving of internal reviewers ' comments | PhD scholar to submit response matrix | Follow DRC defined format (Annex 5) to submit response matrix |
| Last week of Asar, Asoj, Poush and Chaitra | DRC Presentation of PhD Scholars who are recommended by DRC for DRC presentation | 45 minutes of presentation & 45 minutes of Q&A |

## 3. Key dates for progress and DRC presentations

Following are the key dates/schedules for presenting semester-wise progress as well as DRC presentations.

i)   Regular progress presentation will start in
   - Second week of September: progress report to be submitted within the last week of August
   - Second week of March– progress report to be submitted within the last week of February

ii)  DRC presentation (of final draft dissertation) will be held only four times in a year
   - Second week of January
   - Second week of April
   - Second week of July
   - Second week of October

## 4. Action against non-compliance to DRC's criteria/schedules

Non-compliance with DRC's schedule will lead to following next steps:

- If a candidate fails to successfully complete 16 credit course work within first 3 semesters, DRC will recommend IERC to terminate the PhD candidate. But, in case of special circumstances (e.g., severe sickness, etc.) DRC may allow for additional time.

- If a candidate fails to submit progress report and appear in progress presentation as per the DRC's schedule (in any semester) without convincing prior notice, DRC will recommend IERC to terminate the PhD candidate.
- If a candidate fails to submit progress report and not appear in progress presentation for **two consecutive semesters even with prior notice**, DRC may recommend IERC to terminate the PhD candidate.

**Annex 6.1: A Template for Submitting Recommendation to DRC Presentation by Supervisor**

**From**: <name of supervisor(s)>

**To**: DRC Chair

**Date**: <Please specify date of submission of the request letter>

**Subject**: Recommendation of <Student Name (Roll Number)> for DRC Presentation

---

Mr/Ms ..................................................................... enrolled with the Department of xxxxxx in ...................................(month/year). The candidate submitted ........................ number of progress reports and presented .................... progress presentations with DRC since enrolment. Based on following observations, I recommend the candidate for DRC presentation.

- Fulfilled criteria required for journal article publication in SCI-indexed journal: <please provide details of publication, including authors, title and journal details, publisher, year of publication including DOI>
- Fulfilled criteria for course work: <please mention details of courses and credits and time of completion>
- Participated in conferences, if any:
- Prepared draft of dissertation titled " .......................................................................................................................... ......................................................" following the templates provided by DRC and considering feedback provided in various progress presentations: <please provide key a summary highlighting novelty of the work>
- Similarity index of the draft report, as per Plagiarism checking software is: ...............%
- Remaining activities, if any:
- Overall observation on candidate's progress in terms of improvements in overall understanding of the subject matter, intellectual capacity, analysis skill, etc.:

## Annex 6.2: Procedure for deliberating a case of candidate (related to PhD dissertation)

- Supervisor(s) are required to submit a recommendation to DRC presentation of his/her PhD scholar following the format defined in **Annex 1**. It may cover contents like – date of enrolment; progress made so far, including participation in earlier progress meetings; key feedback provided in earlier DRC presentations (if any) and status of progress against them (also whether s/he has submitted written response matrix to each comment to supervisors and whether that is recorded in the candidate's personal file); status of achievement against each objective; novelty or contribution of the study; remaining activities; conferences, journal publications, etc.

- DRC chair briefly summarizes the case based on the information mentioned in the Supervisor's request letter. The Chair will also highlight the status of achievement against the Check list (Criteria) required to be accomplished before allowing a PhD candidate for DRC presentation

- DRC members will provide feedback in terms of compliance with templates, formatting, fulfilment of requirements, improvements required in terms of contents and their arrangements, etc.

- DRC chair or member secretary will note all specific comments related to the case by DRC members and pass it to the respective candidate (if relevant) as feedback for further improvement of the research/thesis report.

- Appoint internal reviewer (at least 2) based on recommendations (3-4 potential candidates) from supervisors along with following information, for DRC's considerations,
    - Name of the proposed reviewer (minimum qualification: PhD plus 8 years of experience; with priority to Prof./Assoc. Prof.)
    - Affiliation
    - Brief biography
    - A statement on relevancy to the thesis/report
    - Contact details – phone and email

- DRC chair summarizes the deliberations and action items and closes the meeting.

## Annex 6.3: Check-list for Evaluating Draft Dissertation Report to Allow for DRC Presentation

The draft dissertation report submitted to DRC through recommendation of supervisor will be evaluated based on following check-list.

| Check-list | Elaboration |
|---|---|
| Compliance with templates, consistency in formatting, appropriate citation/referencing formats, etc. | If the draft dissertation complies with defined template, entire report is consistent in various aspects of formatting, citations/referencing are done correctly, then this criterion is fulfilled |
| Flow of contents with appropriate story-line, in general. Supervisor(s) should have already taken care of it, however, DRC will re-confirm | If flow of contents is appropriate, overall story-line reads well, overall structuring of the contents is convincing to a general audience, then this criterion is fulfilled. |
| Requirements for coursework | If 16 credit course works are completed within 3 semesters, then this criterion is fulfilled. |
| Requirements for journal publication | If at least 1 journal article is published in SCI-indexed journal, then this criterion is fulfilled. |
| Plagiarism checking report | If there is less than 20% similarity index obtained from plagiarism checking software and complies with criteria fixed by IERC/TU, then this criterion is fulfilled. |

x

Internal/External reviewers are expected to submit review report in following format

## Review Report

**Candidate's Name (Enrolment)**: xxxx (March/2025)

**Dissertation Title**: xxxxx

**Internal/External Examiner's Name**:

**Date of Review Report Submission**:

| Aspects | Key questions | Comments |
|---|---|---|
| Overall | • Is the structure of report appropriate and well-organised?<br>• Is the language clear, concise and grammatically correct?<br>• Is the overall story-line clear, logically connected, and easy to follow?<br>• Is there consistency in formatting in the entire report?<br>• Overall impression? | |
| Originality/ Significance | • Is the study original, novel and important? Does it make a significant contribution?<br>• Does it present new application of known theories/concepts? | |
| Title | • Does it reflect the contents in the report?<br>• Is it specific, clear and short? | |
| Abstract | • Is it well-structured, with smooth flow of contents and clear/concise description of context/need of this study, objectives, methods, results and conclusions? | |
| Introduction | • Does it provide enough background information to set the scene and put the study into context?<br>• Does it adequately address the research gap based on a literature review? Does this work address a problem of current interest? Does it provide a rationale for performing the study?<br>• Are research questions and/or specific objective statements very clear and specific? | |
| Materials and Methods | • Does the report include a methodological framework that shows interconnection among the specific objectives?<br>• Is the methodology consistent with the objectives?<br>• Is the elaboration of methods adequate?<br>• Is the equipment, statistical method and software used adequately described?<br>• Are the assumptions, if any, reasonable and | |

| | | |
|---|---|---|
| | sound? <br> • Any potential bias in sampling and data collection? <br> • Any ethical concerns? | |
| Results and Discussion | • Are there appropriate structuring of Results and Discussion section (into 2n and 3rd level headings, as appropriate) in-line with specific objectives? <br> • Are the results consistent with methodology and the findings clearly and logically presented? <br> • Are the data sufficient, both in terms of quality and quantity? Are the units of measurement correct? <br> • Is the interpretation of the data reasonable? <br> • Is there enough evidence to back up the arguments made? <br> • Are main findings discussed in the light of existing literature? How does it confirm or contradict existing literature? <br> • Is there enough evidence to back up the author's generalizations? <br> • Are the study's limitations briefly mentioned? | |
| Conclusions | • Are the conclusion statements in-line with specific objectives? <br> • Are the conclusions logical, clear, and supported by the data? <br> • Have the implications of the findings for potential applications been discussed? | |
| Figures/ Tables | • Do the figures and tables present the data and results appropriately and clearly? Are the captions, legends and footnotes short yet self-explanatory? <br> • Can figures and tables be understood without referring to the text? <br> • Are the data presented in tables and figures consistent with the text? | |
| References & Citations | • Are references appropriate and, up-to-date? <br> • Do citations and referencing match? <br> • Are there any references redundant? Are the author's self-citations justified? <br> • Do all citations and references follow consistently a standard method, as specified by the Institute? | |

## Annex 6.5: Template for Response Matrix

The PhD candidates are required to prepare response matrix to each of the comments provided by DRC members and/or participants during DRC/progress presentation or internal/external examiners using following Template.

### Response to Comments

**Candidate's Name (Enrolment)**: xxxx (March/2025)

**Dissertation Title**: xxxx

**Comments from**: <Progress presentation on xyz date or DRC meeting or other: please be specific on event and date related to the comment>

**Date of Response Submission**: Day Month, Year

| Section | Comment | Response/Revision |
|---|---|---|
| Overall | xyz | xyz |
| | xyz | xyz |
| | xyz | xyz |
| 1. Introduction | xyz | xyz |
| | xyz | xyz |
| | xyz | xyz |
| 2. Materials and Methods | xyz | xyz |
| | xyz | xyz |
| | xyz | xyz |
| 3. Results and Discussion | xyz | xyz |
| | xyz | xyz |
| | xyz | xyz |
| 4. Conclusions | xyz | xyz |
| | xyz | xyz |
| | xyz | xyz |
| Citations and Referencing | xyz | xyz |
| | xyz | xyz |
| | xyz | xyz |
| Others | xyz | xyz |
| | xyz | xyz |
| | xyz | xyz |

*Notes: For rejected comments, proper reasoning are required.*

Each PhD scholar is required to make a progress presentation to DRC twice a year, in the second week of April and second week of September, respectively. A progress report is required to be submitted two weeks ahead of the progress presentation. A progress presentation will be of 45 minutes; first 15 minutes for presentation followed by another 30 minutes for discussion.

The progress should be presented using a Powerpoint template as shown hereunder and contents should be structured as suggested hereunder.

## \<Title of Presentation\>

**\<Name\>**
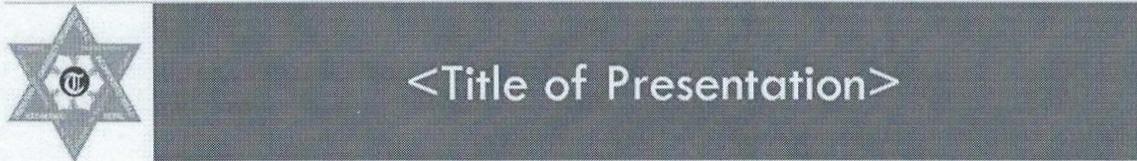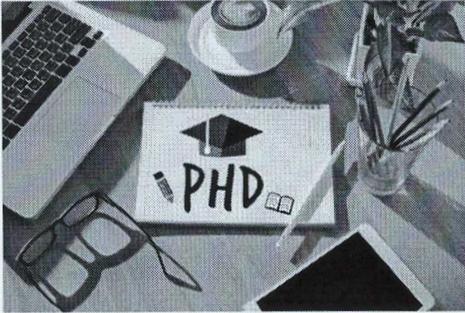
*PhD Candidate*
*Department of xxxxx, Pulchowk Campus*
*Institute of Engineering, Tribhuvan University, Nepal*
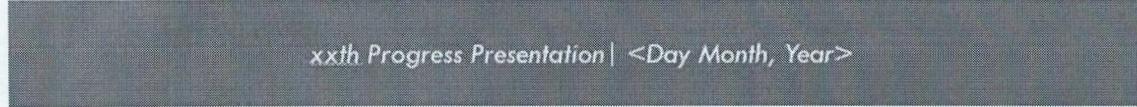
*xxth Progress Presentation | \<Day Month, Year\>*

### Contents for Regular Progress Presentations (Semester-wise)

- Context and problem statement of the entire thesis (to the point!) [1-3 slides]
- Table with objectives, progress (% completion, including a bit description on what are completed) and with which objective **THIS** presentation related to? [1 slide]
  - Highlighting followings (1-2 slides)
    * Progress since the last progress presentations
    * Key comments during last presentation & response (it can be a printed doc & distributed to all)
- Then Provide topic for **THIS** presentation & highlight following
  - Theoretical foundation [1-2 slides];
  - Methods [1-3 slides];
  - Results/Discussions [4-5 slides]; &
  - Conclusions [1 slide]
- Problems/Issues encountered, if any [1 slide]
- Plan for next semester (next reporting period) [1 slide, objective-wise, in Tabular form]

*Progress Presentation of PhD Scholars | Department of xxxx | IOE, TU | April, 2025*    2

*Figure: cover page (top) and inner pages (bottom)*

**Tribhuvan University**

**INSTITUTE OF ENGINEERING**

**PULCHOWK, LALITPUR**

Dissertation No: <Roll Number>

**<Dissertation Title>**

**<Name of Candidate>**

A DISSERTATION SUBMITTED IN FULFILLMENT OF THE

REQUIREMENTS FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY

DEPARTMENT OF <NAME OF DEPARTMENT>

Month, Year

*Dedicated to ..... <if you wish to insert>*

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**Department of xxxx,**

**xxx Campus, Institute of Engineering,**

**Tribhuvan University, Nepal**

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# Declaration of Authorship

Dissertation entitled **"Thesis Title"**, which is being submitted to the Department of xxx, xxx Campus, IOE, TU, Nepal for the award of the degree of Doctor of Philosophy in xxxx is a research work carried out by me under the supervision of <Name of Supervisors> [Date range: From - To]. I declare that this is my work and has not been previously submitted by me at any university for any academic award.

<Name of Candidate>

# Recommendation

The undersigned certify that they have read and recommended to the Department of xxx, xxx Campus, IOE, TU, Nepal for acceptance, a dissertation entitled **"Title of Dissertation"**, submitted by **Name of Candidate** in partial fulfilment of the requirement for the award of the degree of **Doctor of Philosophy in xxxx**.

..................................

**Name of Supervisor,**

**Supervisor,**

**Department of xxx,**

**xxx Campus, IOE, TU, Nepal**

..................................

**External Examiner, DRC**
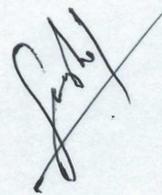
## Departmental Acceptance

The dissertation entitled **"Dissertation Title"**, submitted by **Name of Candidate** in partial fulfilment of the requirement for the award of the degree of **Doctor of Philosophy in xxx** has been accepted as a bonafide record of work carried out by him in the department.

..........................

**Name of DRC Chairperson**

**DRC Chairperson,**

**Department of xxx**

**xxx Campus,**

**Institute of Engineering,**

**Tribhuvan University, Nepal**

Month, Year

# Tribhuvan University

## INSTITUTE OF ENGINEERING

The undersigned certify that they have evaluated the dissertation entitled **"Dissertation Title"** submitted by **Name of Candidate** and have an external oral presentation for the partial fulfilment of the requirement for the degree of **Doctor of Philosophy in xxx** and recommended to the IOE for acceptance of this dissertation.

.....................

External Examiner

.....................

Internal Examiner

**Tribhuvan University**

**INSTITUTE OF ENGINEERING**

The dissertation **"Dissertation Title"** submitted by **Name of Candidate** for partial fulfilment of the requirement for the degree of **Doctor of Philosophy in xxx** has been accepted by the IOE Research Committee (IERC) upon the recommendation of the supervisor and the Departmental Research Committee (DRC) with the approval by the following examiners.

External Examiner:

     External Examiner

Internal Examiners:

     Internal Examiner Name1,

     Internal Examiner Name 2

..............................

IERC Chairperson
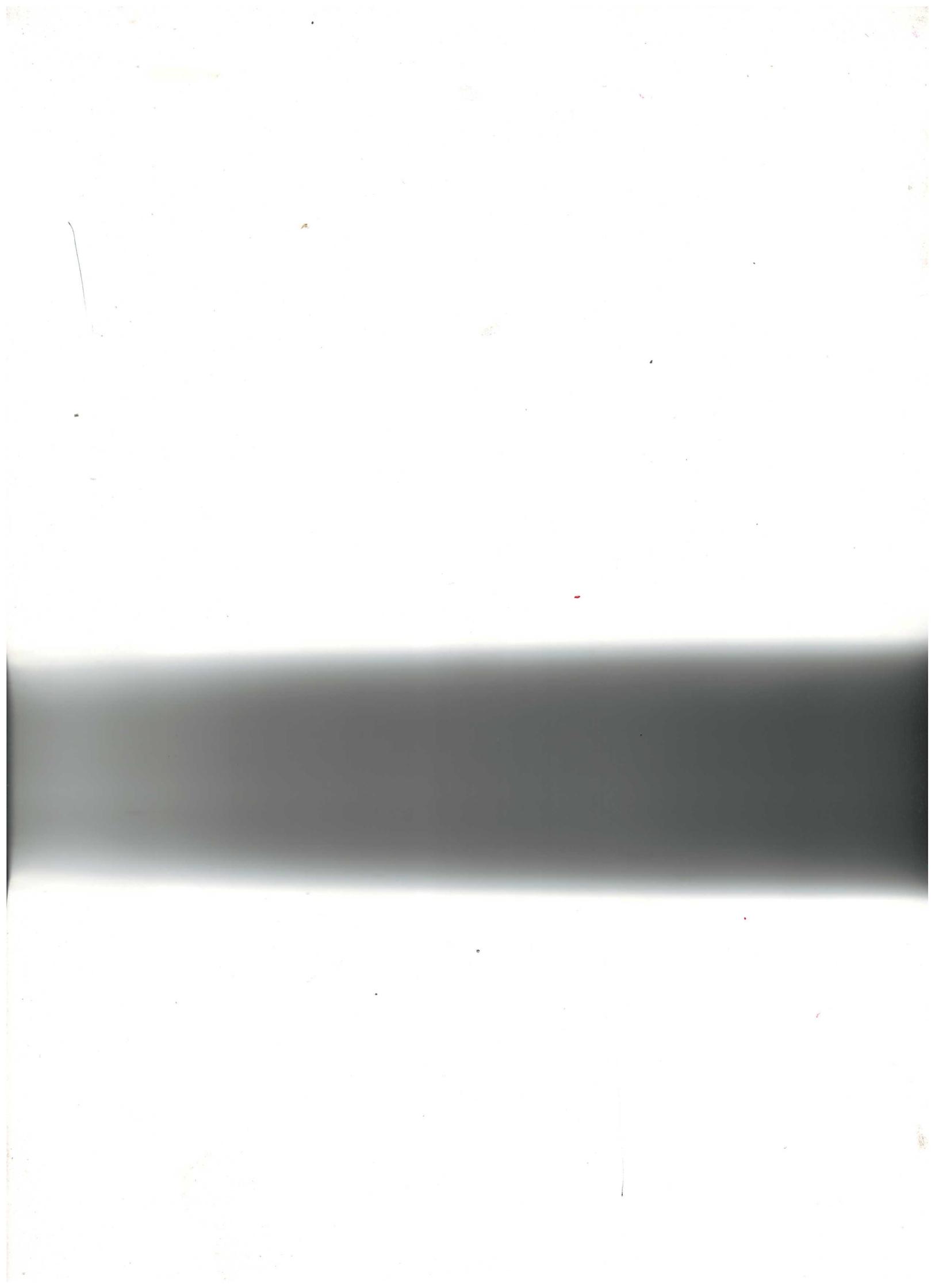
# Abstract

???

<please insert abstract>

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# Acknowledgements

???

<Please insert acknowledgements>

# List of Figures

# List of Tables

# Abbreviations and Acronyms

???

# Table of Contents

# Chapter 1: Introduction

## 1.1 Background

Use font tyle as "CMU Cerif" and font size for main contents as 12 points.

Use font size for Heading 1 as 16 point and heading 2 and 3 as 14 points.

Use line spacing of 1.15 and paragraph spacing of 6 pt before and after the paragraph

Use APA (latest possible edition) style for citation and referencing

Use table/figure number aligning with Chapter (e.g. 2nd figure of Chapter 4 has Figure number of Figure 4-2)

## 1.2 Statement of Problem

## 1.3 Hypothesis/Research Questions

## 1.4 Objectives

## 1.5 Limitations

## 1.6    Scientific Contributions

**Table 0.1** <Table Caption>.

| SN | Type (Journal or Conference Paper) | Details of publication (Authors, Year, Title, Journal Name, Volume/Issue No, Page Number, DOI Number) | Relevance to Dissertation Objectives (please mention with which objective the paper is related to) |
|---|---|---|---|
| 1. | Journal Article | | |
| 2. | Journal Article | | |
| 3. | Journal Article | | |
| 4. | Conference Proceedings | | |
| 5. | Conference Proceedings | | |

## 1.7    Dissertation Structure

# Chapter 2: Literature Review

## 3.1    ???

### 2.1.1  ????

## 3.2    ???

### 2.2.1  ????

## 3.3    ???

# Chapter 3: Study Area (or Lab Setup or Other related Contents>

## 3.1    ????

### 3.1.1  ????

**Figure 0.1** Location map of study area

<please use this format for figure/Table captions>

**Table 0.1** <Table Caption>.

# Chapter 4: Methodology

- Insert an opening paragraph with a brief summary of the entire methodology (high level summary)
- Insert a overall methodological framework with clearly visible linkage among specific objectives, inputs and processing for those objectives, inter-linkage among inputs (if any), etc.
- Then sub-divide entire methodology into appropriate sub-chapters and elaborate the method for each specific objective in detail.

## 4.1 ????

## 4.2 ????

# Chapter 5: Results and Discussion

## 5.1    ??

### 5.1.1 ????

### 5.1.2 ????

## 5.2    ??

### 5.2.1 ????

### 5.2.2 ????

### 5.2.3 ????

# Chapter 6: Conclusions and Recommendations

## 6.1    Conclusions

## 6.2    Recommendations

# References

<Follow APA (latest possible edition) Style>

**Annexes**