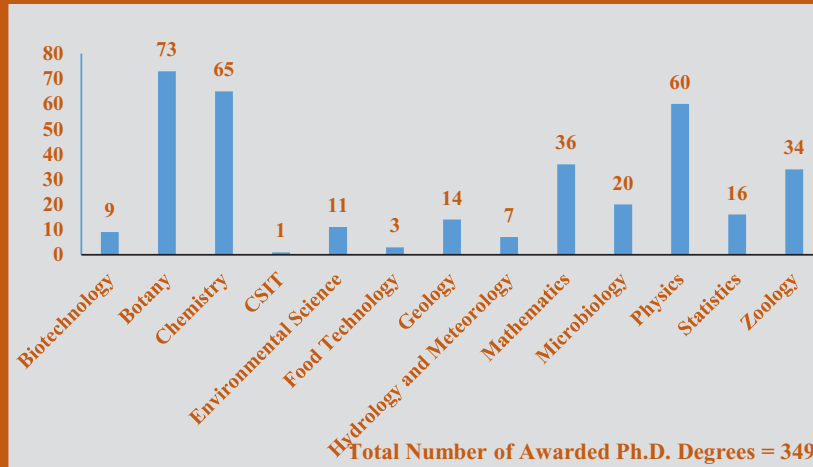


Number of Ph.D. Degrees Awarded by IoST till November 17, 2025



Central Departments of IoST, TU



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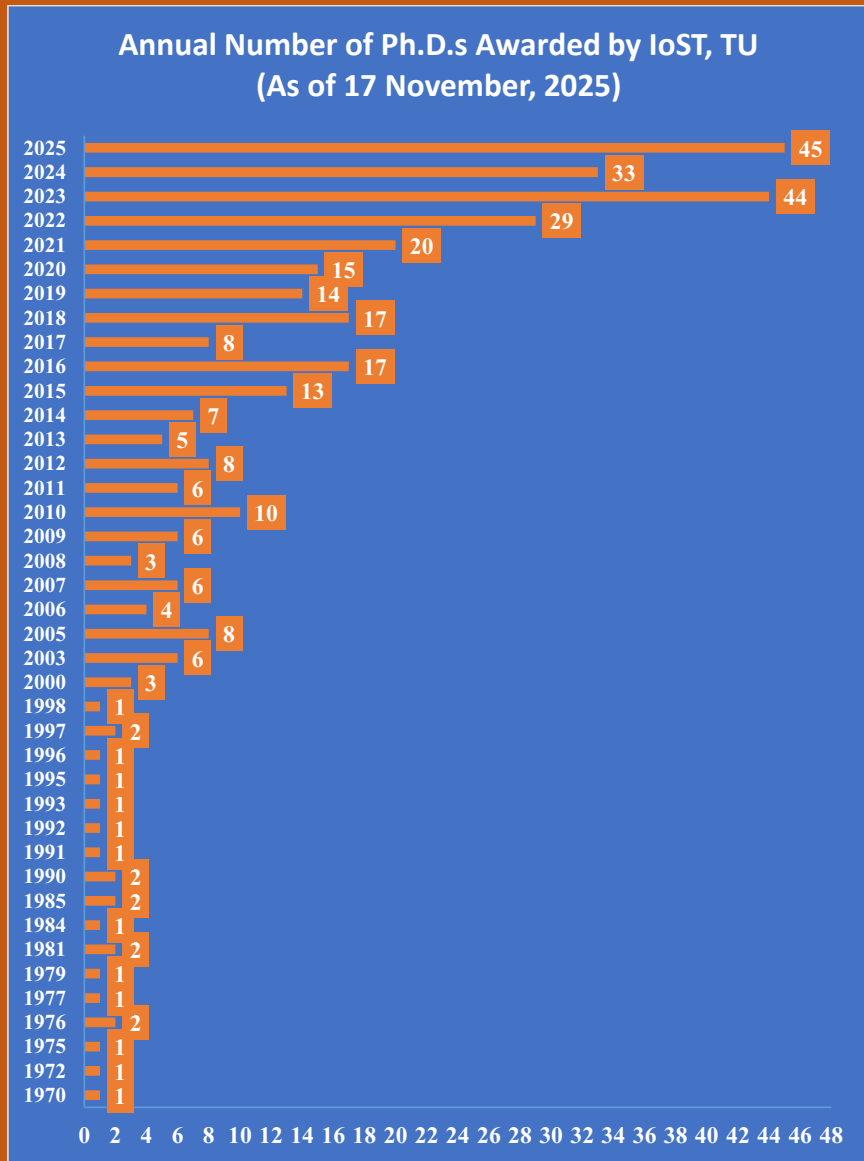
RESEARCH REGULATION



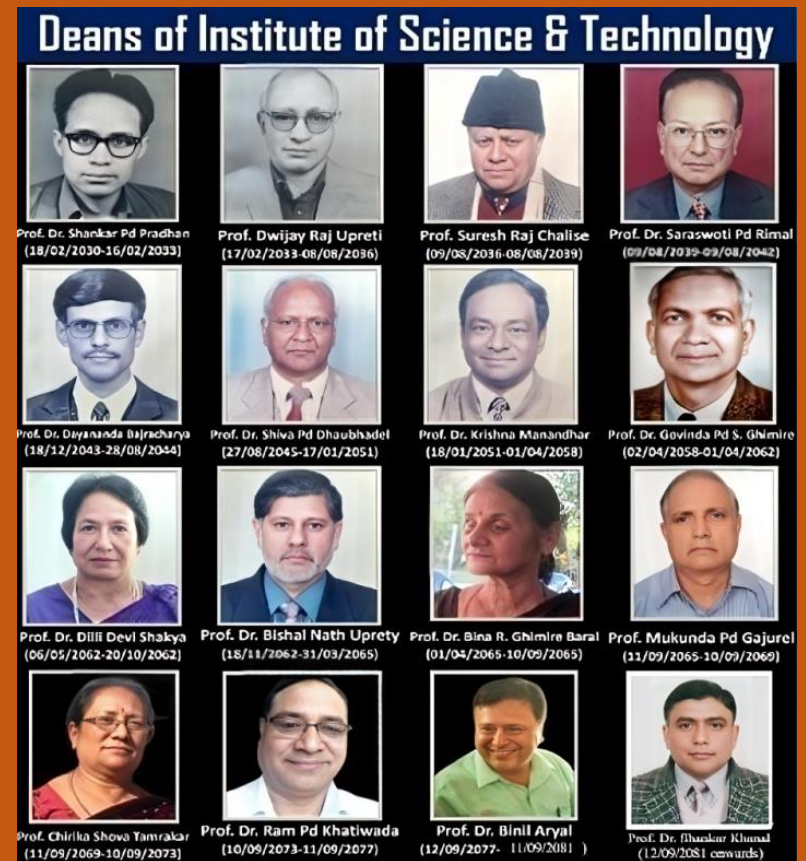
- Ph.D. Program : Regulation (2025)
- : Dissertation Format (2025)
- : Curriculum (First Trimester) (2025)
- Mini Research : Directorate (2023)
- Post Doc Program : Regulation (2025)

Tribhuvan University
Institute of Science and Technology (IoST)
Dean's Office, Kirtipur, Kathmandu, Nepal

November 2025



Tribhuvan University was established in the year BS 1966 (AD 1960). The very next year of the establishment, Faculty of Science was initiated under the leadership of Prof. Prashanna Man Singh (BS 1917 – 1919). He was the first Dean of the Faculty. Later, following personalities took in charge of Faculty of Science as Dean: Prof. Asutosh Ganguli (BS 1919 – 1922), Prof. Jagat Bd Singh Budathoki (BS 1922 – 1923), Prof. Phanindra Pd Lohani (BS 1923 – 1925), Prof. Bhrami Dutta Pandey (BS 1925 – 1927), Prof. Shiv Shankar (BS 1927 – 1929). Thereafter, name of the Faculty was changed to 'Institute of Applied Science & Technology'. Prof. Parasar Narayan Suwal (BS 1929 – 1930) remained the Dean. Finally, the name was again changed to 'Institute of Science & Technology' in the year BS 1930, and Prof. Shankar Pd. Pradhan became the Dean, followed by the Deans as shown below.



RESEARCH REGULATION

Ph.D., Postdoctoral & Mini Research Program



- Ph.D. Program : Regulation (2025)
: Dissertation Format (2025)
: Curriculum (First Trimester)
(2025)
- Mini Research : Directorate (2023)
- Post Doc Program : Regulation (2025)

Tribhuvan University
Institute of Science and Technology
Dean's Office
Kirtipur, Kathmandu, Nepal
November 2025

Acronyms and Abbreviations

ACS	American Chemical Society
AIP	American Institute of Physics
Adv.	Advance
AMS	American Mathematical Society
BS	Bikram Sambat
CDRC	Central Department Research Committee
CGPA	Cumulative Grade Point Average
CH	Credit Hour
CV	Curriculum Vitae
DOI	Digital Object Identifier
ID	Identification
IoST	Institute of Science and Technology
M. A.	Master in Arts
M. Phil.	Master in Philosophy
M. Sc.	Master in Science
MOU	Memorandum of Understanding
NepJOL	Nepal Journals Online
Ph.D.	Doctor in Philosophy
RC	Research Committee
SAARC	South Asian Association for Regional Cooperation
TU	Tribhuvan University
UGC	University Grants Commission

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Tribhuvan University
Institute of Science and Technology
Dean's Office, Kirtipur

Regulations of Ph.D. Program

Revised as per the guideline of UGC-Nepal-2074

Revised as per the guideline of UGC-Nepal-2080

The doctoral (Ph.D.) program of Institute of Science and Technology (IoST), Tribhuvan University is intended for those who wish to develop career in teaching, research and advanced knowledge in the field of Science and Technology. The Ph.D. candidates are expected to achieve a high standard of academic excellence and contribute to scientific theory and/or experiment through original research.

The Ph.D. program of IoST is regulated by the Research Committee (RC) constituted under the chair of the Dean in accordance to ***Tribhuvan University Organization and Academic Administration Rule 2050, chapter 3, section 9.*** The research committee frames its necessary working rules in compliance with the existing regulation. The Ph.D. program should be conducted in accordance with the following rules and regulations.

1. Admission and Eligibility Criteria

- 1.1** Applicant must hold Master's Degree of Science (M.Sc. in respective discipline OR M. Sc. / M.A. in Mathematics or Statistics) OR equivalent degree in respective subject offering Ph.D. under IoST with minimum grade CGPA 3.0/4.0 OR equivalent grade OR equivalent division.
- 1.2** Candidate must submit a research proposal which must be accepted by the Central Department Research Committee (CDRC). He / She must pass entrance exam conducted by IoST, TU to enroll in a Ph. D. program.
- 1.3** For interdisciplinary research, a candidate must complete required conversion courses of specified credit hour (CH) as decided by the subject

Ph.D. Program

committee based on candidate's prior knowledge in the subject matter. These courses will be recommended by the concerned subject committee to the CDRC.

2.

Ph.D. Curricular Requirement

2.1 Ph.D. students (without having M.Phil. Degree) should complete following courses within the first two trimesters (8 months) after the enrollment. The course details are as follows.

Duration of course work:	2 trimesters
Total Credit Hour (CH):	18

First Trimester

<i>Course Title</i>	<i>CH</i>
Research Methodology (General):	3
Philosophy of Science:	3
Seminar:	3

Second Semester

<i>Course Title</i>	<i>CH</i>
Research Methodology (Adv.):	3
Specific Course:	3
Seminar:	3

2.2 Lecture hour of each courses will be 45 hours (15 hrs. × 3 CH) per semester. There will be 15 hours additional Tutorial Class for each courses. Therefore, the total learning hour will be 60 hours for each courses.

2.3 Examinations of the courses will be taken by the teaching faculties. In case, courses are taken by more than one faculty, RC will appoint a 'focal faculty' to plan/manage/conduct trimester examination. Focal faculty will opt following procedure for the trimester examination.

- 2.3.1 Eighty percent attendance is compulsory to appear in the written examination of any course.
 - 2.3.2 Examination should be completed within 4 months from the commencement of the trimester.
 - 2.3.3 There should be at least two written examinations in a trimester. One written examination should cover the curriculum. In addition, there should be at least one presentation and a viva exam. The recommended weightage for these examinations are 15 (written) +15 (written) +15 (presentation) +15 (viva). The focal faculty may revise the weightage.
 - 2.3.4 As per the requirement, faculty can take class tests, organize activities, study visit, report writing and debates. The weightage of these (any two) will be 15.
 - 2.3.5 Focal faculty need to send grade sheet of students to the Dean's Office in the given format within the deadline. Exam copies, presentation files and viva evaluation sheet should be sent to the Dean's Office for the record.
- 2.4 After two trimesters course work, students are expected to focus exclusively on the research work according to proposals submitted.
 - 2.5 Dean's Office will announce the result with grade sheets.
 - 2.6 Examinations for the conversion courses will also be taken by the Focal Faculty adopting the identical procedure.
 - 2.7 For non-full time Ph.D. candidate, first two trimesters should be regular as per trimester calendar and regulation of TU (Not mandatory regular for those who are M. Phil. Degree holders in their respective subjects).

3. **Ph.D. Supervisor Qualification**

- 3.1 Ph.D. supervisor should be a permanent faculty member of TU with a Ph.D. Degree.
- 3.2 The supervisor should be working as Professor or Reader or Lecturer in the concerned central departments, constituent campuses or schools of

Ph.D. Program

TU and must have earned Ph.D. degree at least one year before the supervision.

- 3.3** The supervisor must have a minimum of 5 publications (*Scimago-listed* or *NepJol star-rated* Journals) of which at least two should have been published in Scimago-listed journal (s). The publications listed in predatory journals (or publishers) will not be counted, except for publications listed in Scimago.
- 3.4** Supervisors should have at least 5 years of working experiences as teaching faculties or researchers in TU or any other universities, institutes, research centers, academies, etc. recognized by TU. The recognition can be obtained (or approved) by the concerned subject committee.
- 3.5** Those supervisors who do not fulfill the above mentioned criteria (3.1 to 3.4) but supervising Ph.D. candidates at IoST can remain supervisors. The given criteria should be fulfilled from the new Ph.D. supervisions.
- 3.6** A supervisor can supervise a fixed number of Ph.D. candidates at a time as follows:

Professor	5
Reader	4
Lecturer	3

- 3.7** A Ph.D. supervisor with joint supervision is accepted as per MOU with concerned universities, research centers/institutions and academies. The MOU should be for dual or double degree program. In any case, supervisor from TU is considered as the main supervisor and candidate should strictly obey rules and regulation of Ph.D. program of IoST, TU.

4.

Ph.D. Co-supervisor Qualification

- 4.1** Ph.D. co-supervisor should be Ph.D. degree holder and faculty member in any central department or constituent campus of TU or any other university/institution (including university/institution from abroad).
- 4.2** Technical experts, scientists of the relevant discipline working in the government sector, public sector, private sector, hospital, industry, research

center, academy, laboratory, etc. or a retired professor of TU can be co-supervisor.

- 4.3 A co-supervisor must have a minimum of 2 publications (*Scimago-listed* or *NepJol star-rated* Journals) of which at least one should have been published in Scimago-listed journal. The publications listed in predatory journals (or publishers) will not be counted, except for publications listed in Scimago.
- 4.4 A co-supervisor should have at least 1 year working experience as a teaching faculty or researcher in TU or any other university, institute, research center, academic institution, etc. recognized by TU or in government sector, public sector, private sector, etc. The recognition can be obtained from or approved by concerned subject committee.
- 4.5 At a time, an expert can co-supervise a maximum of three Ph.D. scholars.

5.

Requirement for Conducting Ph.D. Program

- 5.1 Institution/Department must have been conducting Master's program as a regular program at least for 5 years.
- 5.2 Institution/Department must have permanent faculties as follows: Professor - 2, Reader or Lecturer - 6.

6.

Role of Central Department Research Committee (CDRC)

- 6.1 In order to coordinate Ph.D. research activities at Central Departments, there shall be a Central Department Research Committee (CDRC).
- 6.2 CDRC shall work to evaluate Ph.D. progress in coordination with IoST, TU. In each Central Department, 5 members CDRC shall be formed by the Head of the Central Department. During the formation of CDRC priority shall be given to those senior professors or faculties who have already supervised the Ph.D., committee should be inclusive as far as possible.

Ph.D. Program

- 6.3 Tenure of CDRC members shall be for 3 years. No person shall be appointed as member for more than 2 consecutive terms as far as practicable.
- 6.4 The Central Department shall manage meeting allowance for the CDRC meetings and try to generate resources for research.
- 6.5 The CDRC shall certify that most of the research work offered by the candidate is the one, which can be pursued in the Department or Campus. Concerned CDRC will take the responsibility to access laboratories to non-full time Ph.D. candidates for his/her research work. CDRC will decide a mode or mechanism in order to evaluate 'seminar' (3 CH Full Marks: 75) of first and second trimesters. IoST recommends the nature of the seminar as follows.

6.5.1 First Trimester Seminar

- Should be focused on rigorous review of conceptual framework or detailed methodology of the Ph.D. proposal.

6.5.2 Second Trimester Seminar

- Should be focused to his/her Ph.D. work or 'Novelty in the Method of Analyses' of his/her Ph.D. work.
- Should be focused to the novel model/idea, own publication, etc. applicable to his/her Ph.D. work.

- 6.6 CDRCs are suggested to take care deadlines while forwarding CDRC recommendations regarding Ph.D. work as follows.

- 6.6.1 Final Dissertation Forward:** The final Ph.D. dissertation of a candidate, meeting all requirements (pre-submission seminar approval, national/international publications, and participation in conferences) should be submitted by CDRC to the IoST after 3 years (or 2.5 years for candidates having M. Phil. degree of the concerned subject of the Ph.D. research) of the candidate's registration date by the IoST (or within 5 years in case of timely approval of an extension) for full time Ph.D. candidates. For non-full-time Ph.D. candidates, CDRC is responsible for ensuring that all the mentioned measures are taken, and the dissertation should be submitted to IoST after 5 years (or 4.5 years for candidates having M. Phil. degree of the concerned subject of the Ph.D. research)

(or within 7 years in case of timely approval of an extension). CDRC should plan/organize the pre-submission seminar at least a couple of months before the deadline to meet these requirements.

- 6.6.2 Re-registration Forward:** CDRCs are suggested to recommend for re-registration at least one month before the deadline (5 years for full time and 7 years for non-full time Ph.D. candidates).
- 6.6.3 Extension of Ph.D. Period:** If the Ph.D. candidate need extension for their Ph.D. work (3+ years and 5+ years for full and non-full time Ph.D. candidates, respectively), CDRCs are suggested to recommend at least a month before the deadline.
- 6.6.4 Co-supervisor Addition:** A Ph.D. co-supervisor can be added with the mutual consensus between supervisor and Ph.D. candidate, by recommendation from the CDRC and approval from the RC. This entire process must be completed at least six months before pre-submission seminar.
- 6.6.5 Co-supervisor Withdrawal:** A Ph.D. co-supervisor can be withdrawn by the mutual consensus between the supervisor & candidate after recommendation from CDRC and approved by RC.
- 6.6.6 Ph.D. Dissertation Title Revision:** CDRCs are suggested to recommend revised title at least 6 months before the submission of his/her Ph.D. to CDRC. If the Ph.D. title need to be changed, CDRC should organize proposal presentation and send recommendation with the new revised proposal. In this situation, candidate need to pay additional seminar fee to CDRC.
- 6.7** In case if non-Ph.D. faculty is the Head of the central department, Dean of IoST can appoint any other senior working professor/faculty member of the central department with Ph.D. degree as the chairperson of the CDRC.

7. **Enrollment and Registration**

- 7.1** A candidate interested to enroll into Ph.D. program shall apply to the concerned Central Department, where he/she intends to work in a subject

Ph.D. Program

related to his/her research. The application form will be available in the webpage of the Dean's Office. Two copies of the Ph.D. Application Form should be filled and submitted to the concerned central department.

- 7.2 The candidate must include a research proposal and his/her complete Curriculum Vitae (CV) as well as CV of supervisor and co-supervisor (s) including list of publications. In addition, consent of the supervisor/co-supervisor, no objection letter from employer, assurance letter of study leave from the employer, letters from the collaborators (if needed), declaration letter from the supervisor/co-supervisor stating that the published articles meet the requirements stated in section 3.3 (for supervisor) and 4.3 (for co-supervisor), etc. are required with the application.
- 7.3 CDRC shall evaluate the research proposal and application. The candidate shall have to defend the proposal at the Central Department to justify that he/she possesses adequate knowledge in the field of study proposed for the Ph.D. research. The CDRC shall also certify that the subject offered by the candidate is one which can be pursued either within the department, or any other concerned department or a research center of Tribhuvan University or any other research institute recognized by the RC. A letter of permission/consent of the Head of Department / Laboratory / Institute / Research Center shall be attached along with the application.
- 7.4 Ph.D. applicant should appear in the Entrance Examination conducted by IoST. The CDRC shall recommend the entrance exam passed applicants to the RC of IoST, for registration into the Ph.D. program.
- 7.5 IoST will organize RC meeting to approve the recommendation of CDRC after verifying criteria/documents. The applicant will be registered as a Ph.D. candidate after RC approval. He / she will get ID-card, official e-mail account, e-access to the TU Central Library and *eduroam* facility (if needed) after the admission at IoST. The Dean's Office will inform the Central Department Head, the concerned institute/department, the candidate and supervisor about the registration.

- 7.6 The title of Ph.D. dissertation shall be provisional at the time of registration. It can be finalized six months before the submission of the dissertation, and approved by the RC after recommendation from CDRC.
- 7.7 The candidate pursuing interdisciplinary research shall fulfill requirement as suggested by the CDRC before and after the registration (see condition for interdisciplinary research).
- 7.8 A Ph.D. candidate must attend the course/seminar organized by the concerned department (CDRC). Only seminar (excluding other courses) is mandatory for those candidates with M. Phil. degree in their respective subjects.
- 7.9 After enrollment for Ph.D., the candidate shall not undertake any responsibility except research without approval of CDRC and recommendation of the supervisor.
- 7.10 A Ph.D. candidate is not allowed to enroll for any other degree during the Ph.D. research period in TU or other universities except for dual degree candidate though candidates are allowed to take value added courses offered by the same or any other institutions on recommendation of CDRC.
- 7.11 A Ph.D. candidate's registration would be cancelled if he/she violates any regulations and/or recommended by CDRC for the cancellation mentioning the reason and justifying it.
- 7.12 The trimester fee and other fees will be recommended by the Faculty Board of IoST, TU.

8. Condition for Interdisciplinary Research

- 8.1 IoST promotes interdisciplinary research. The candidate willing to enroll for Ph.D. in a subject different from his/her M.Sc. subject must complete pre-requisites such as course work/ bridge courses in order to gain required background knowledge. This can be accomplished before and after the Ph.D. registration.
- 8.2 IoST recommends subject committee to work out for conversion course for Ph.D. candidate as mentioned in 1.3. The decision regarding

Ph.D. Program

conversion courses should be forwarded to the Dean's Office by the concerned subject committee. The Faculty Board will finally approve it and will send to the RC and concerned CDRC.

- 8.3 IoST recommends subject committees to facilitate interdisciplinary research by making/planning special academic procedures.
- 8.4 In order to facilitate the conversion courses, the subject committee can approach other central departments for the particular courses. Ph.D. candidate can take those conversion courses in the regular M.Sc. semester classes. But the examination will be conducted by the 'focal faculty' appointed by the subject committee and approved by the RC of IoST.

9. **Supervision of Research Work**

- 9.1 A candidate must pursue research work at the Central Department or any other departments of constituent colleges/schools/ research center of TU for a duration of three years from the date of enrollment. However, with the recommendation of the supervisor and permission from the CDRC, part of the work can be carried out in the research center or laboratory or institute or hospitals, etc.
- 9.2 In case of MOU with research organizations, laboratories, hospitals, academies, etc., Ph.D. work can also be conducted at that organization (s).
- 9.3 Ph.D. Research shall be monitored regularly by the CDRC. A Progress Report by the Ph.D. candidate should be submitted in every six months to the Dean's office through the CDRC. The Ph.D. candidate shall present a seminar about his/her research work at the Central Department at least once in each six months or as decided by the CDRC.
- 9.4 Responsibility of the supervisor shall be to guide the candidate in research, keep the log book of Ph.D. student, send the annual confidential report of the candidate, check the dissertation and recommend for examination to CDRC, if satisfied. The CDRC may seek advice or any other cooperation from supervisor and co-supervisor.

- 9.5** The supervisor and the concerned department/campus/ research center shall keep records of the progress and attendance of the candidate and forward a brief report on approved format about the progress of the candidate's work conducted by him/her as well as carried out outside the central department or some other institute. The candidate shall request the Head where he/she is working to send the attendance and progress report to the CDRC for approval.
- 9.6** Once the supervisor accepts the candidate for Ph.D., it is his/her responsibility to guide the candidate, and if the Ph.D. student is not regular, or incapable in working, then he/she should inform CDRC in written.
- 9.7** If a candidate requests the CDRC to change his/her supervisor showing a genuine reason, the CDRC can entertain the application and recommend it if justified to the RC. In case of such situation with co-supervisor, supervisor shall report CDRC accordingly with justification.
- 9.8** In case of a difference arising between a candidate and his/her supervisor and concerning other matters viz. transfer of supervisor, health problem, etc., the CDRC shall report the matter to the RC with recommendation for the decision.
- 9.9** A faculty member who is going to retire within one year from TU cannot enroll a Ph.D. student under his/her supervision. However, he/she can continue supervision for already registered student, and can undertake Ph.D. student as co-supervisor.
- 9.10** If in case a retired or emeritus faculty of TU has international research project having provision of Ph.D. dissertation (or Master's thesis) as mandatory, then those retired or emeritus faculties can supervise Ph.D. candidate upon the recommendation of concerned CDRC and approval by the RC. In this situation, a working faculty as a co-supervisor is expected.
- 9.11** There can be at most 2 co-supervisors for a candidate's Ph.D. research work.

10. Status of Ph.D. Candidate and Duration

10.1 Full Time Ph.D. Candidate

10.1.1 As provision of IoST, a full time researcher is considered as a researcher who will give his/her full time in research work by taking leave from their jobs. Otherwise, the candidate will be considered as a non-full time Ph.D. candidate.

10.1.2 Full time Ph.D. candidate should submit his / her Ph.D. dissertation to the concerned central department after three years of registration requesting for the pre-submission seminar. In case of full time Ph.D. candidates having M. Phil. degree of the respective subject of Ph.D. research, Ph.D. dissertation can be submitted after 2.5 years.

10.1.3 If the candidate fails to submit the dissertation within five years of registration, it will be considered cancelled unless the candidate requests for re-registration.

10.2 Non-full time Ph.D. Candidate

10.2.1 The Ph.D. dissertation of non-full time Ph.D. candidate shall be submitted to the department after five years from the date of registration asking for the pre-submission seminar. In case of non-full time Ph.D. candidates having M. Phil. degree of the respective subject of Ph.D. research, Ph.D. dissertation can be submitted after 4.5 years. Non-full time Ph.D. candidate should be regular in the first and second trimester classes (Except for M. Phil. degree holder candidate though such candidates must follow guidelines mentioned in sections 6.5.1 and 6.5.2 regarding the seminar papers).

10.2.2 The dissertation must be submitted within seven years of registration, and if not submitted, it will be considered cancelled unless the candidate requests for re-registration.

10.3 Conversion of the Status of the Ph.D. Candidate

Upon the recommendation of CDRC, full time and non-full time Ph.D. candidate can be converted into non-full time and full time,

respectively. This recommendation will be applicable only within the first year of registration of a candidate's Ph. D. research. Thereafter, the status (full time or non-full time) will NOT be changed.

10.4 Re-Registration

- 10.4.1** If a candidate fails to submit dissertation within the deadline, but has worked substantially, then he / she can request for re-registration on the same topic and under the same supervisor. He / she can get re-registered by submitting fresh application to the Central Department within a month of expiry of registration.
- 10.4.2** In such a case, the candidate can submit dissertation within two years, but not before six months of re-registration (full time Ph.D. candidate) whereas for non-full time Ph.D. candidate, it will be within three years from the date of re-registration but not before six months of re-registration.
- 10.4.3** Before submission of the dissertation to the Dean's Office, the candidate has to present research work in a pre-submission seminar organized by the CDRC. The CDRC must send the report of this presentation with recommendation to the RC of IoST. IoST recommends CDRC to appoint an internal examiner for pre-submission seminar.
- 10.4.4** If candidate fails to submit the dissertation within two years of re-registration for full time candidate and three years for non-full time candidate, then his / her re-registration will be cancelled.
- 10.4.5** The fee shall be double compared to their fee of normal registration period for both full time and non-full time Ph.D. candidates.

11. Attendance

All the Ph.D. candidates must show at least 80% attendance in the register kept at the Department or Campus log book. The supervisor must forward the attendance to CDRC through Campus Chief/ Department Head.

12.

Dissertation Format and Submission Requirements

- 12.1 On completion of the research work, the candidate must submit a softcopy and a copy of neatly computer-printed spiral bound dissertation with all publications, etc. in a format approved by the RC along with the recommendation of CDRC, which shall be forwarded to the Dean, IoST with necessary recommendations.
- 12.2 A candidate shall submit a declaration in writing in dissertation through the supervisor to the effect that:
- (a) He / she has not submitted the dissertation to any other institute (except for dual degree candidate).
 - (b) The dissertation submitted by the candidate is the work of his / her own and is not on the basis for which the Ph.D. degree has been already awarded by any other university / institute.
 - (c) The candidate must declare the percentage of writing he / she took from AI help.
- 12.3 The dissertation submitted for examination shall satisfy the following requirements:
- (a) The dissertation must be written in English language.
 - (b) The dissertation must render substantial contribution to knowledge and show evidence of originality through the discovery of new facts and findings or the exercise of independence and critical power in interpretation of facts and theories, or the new interpretation of facts and theories.
 - (c) The plagiarism level of the Ph.D. dissertation should be checked using *iThenticate* software (or as recommended by the Dean's office, IoST) keeping the setting and level as recommended by IoST, TU.
 - (d) It must also be satisfactory in terms of its language and presentation.

- 12.4 The 'Abstract' of the dissertation must also be written in Nepali language.
- 12.5 The final dissertation submission should also contain the names and affiliations of the external examiners.
- 12.6 At least two original research papers of the Ph.D. research work must be published in an indexed Journal (e.g., *NepJol star rated Journal*) including one in international Journal (e.g., *Scimago listed Journal*). Publications listed in predatory journals (or publishers) will not be counted, except for publications listed in Scimago.
- 12.7 Ph.D. candidate should participate in one national and one international symposium / conference / meeting / workshop with his / her oral / poster presentation.

13. Evaluation of Dissertation

- 13.1 Candidate should obtain plagiarism clearance certificate before the submission of Ph.D. dissertation to the department. The plagiarism level of Ph.D. dissertation should be well within the limit as suggested by the IoST, TU.
- 13.2 The RC shall ask the supervisor to submit a minimum of nine names of experts in the related subject as a panel of dissertation examiners, out of which three examiners must be from overseas, three from SAARC countries (excluding Nepal) and three from Nepal. External examiner should have following achievements:
 - 13.2.1 Should be at least Reader (or equivalent) with Ph.D. degree.
 - 13.2.2 Should have at least five publications in the Scimago listed Journal, or should have carried out a couple of policy researches with appropriate publications.
- 13.3 The dissertation shall be sent to three external examiners, including one examiner from overseas, one from SAARC nations (excluding Nepal), and the third from Nepal. All examiners are appointed by the RC. The Nepalese expert may be affiliated with universities (either working or retired), academies, governmental and non-governmental research

Ph.D. Program

centers, institutions. Working experts should be experts from outside IoST, TU in order to be an external examiner. A retired professor of IoST, TU or any other university can also be an external examiner. It is mandatory that at least one external examiner should be physically present during the final viva voce examination.

- 13.4** The Ph.D. candidate is required to incorporate all comments suggested by the examiners. The revised version must be submitted by the candidate through the supervisor.

A form will be developed / sent by IoST to external examiners. It will contain options like (i) accept (ii) revise with minor changes (iii) revise with major changes (iv) does it violate any fundamental principles of subject matter (v) new findings (v) novelty, etc.

- 13.5** If there is a difference of opinions among the examiners in regard to the acceptance of the dissertation, the following arrangements shall be made for the final decision.

- 13.5.1** The dissertation will be rejected, if two out of three external examiners reject the dissertation.

- 13.5.2** If one external examiner rejects the dissertation, it will be referred to a new examiner, for final decision.

- 13.5.3** In case any one of the examiner suggests that the dissertation be allowed to be resubmitted with improvements or major revision, the candidate will be asked to make the necessary improvements and revisions according to the suggestions made by the examiner (s). Revision should be completed within 6 months and verified by the examiner and/or supervisor.

- 13.5.4** The dissertation must be resubmitted to the RC with incorporation of comments, if so recommended by the external examiner.

- 13.5.5** A revised dissertation must be resubmitted by the candidate within six months from the date of information on the decision of the RC to him/her.

- 13.6** If the dissertation is accepted, the candidate shall have to take an open oral examination (viva voce), which will be conducted by the external

examiner appointed by the RC in the presence of the Dean, RC, CDRC of the concerned department, supervisor / co-supervisor (s) and other interested persons. In case the examiner appointed to conduct the oral examination (viva voce) is not available, the RC may appoint another examiner to conduct the oral examination (viva voce) on given time. The examiner of the viva voce examination will represent all three external examiners and ask the questions/comments incorporating all their comments.

- 13.7** If any of the external examiners have recommended, in their written comments, a revision of the title of the Ph.D. dissertation, the Ph.D. candidate is required to address this issue with the consent of the supervisor. Further discussion on this matter may take place during the viva voce examination. Based on the discussions, the RC meeting may suggest revising the title of the Ph.D. dissertation, which will be officially announced.
- 13.8** The reports of the examiners on the dissertation as well as the examiner conducting oral examination (viva voce) shall be finally considered by the RC, and forward it for the award of Ph.D. degree to the concerned authority.
- 13.9** In case of successful defense by the candidate, the Dean shall notify the result in accordance with the decision of the RC and publish the result and communicate it to the news media. The Dean shall forward the result of the Ph.D. degree to the concerned authority for conferring the degree.

14. Ethical Issues

The Ph.D. candidate should maintain all the ethical issues pertinent to research. He / She must obtain ethical approval for the dissertation proposal involving human and animal subjects from the Ethical Review Committee (ERC) of the IoST or relevant ethical committees, as required. Additionally, he / she should also get permissions from council or community or individual as per the nature of the research.

The Ph.D. candidate will conduct all the research activities complying with the existing laws, and rules / regulations of the country. TU-IoST will not be responsible for any consequences in failing to do so by the candidate.

15. Effectiveness of the Guideline

- 15.1 The sections 6.6, 13 and dissertation format of this Ph.D. Research Regulation (2025) will be effective for those Ph.D. dissertations submitted from 15th Mangsir, 2082 (1st December, 2025) onwards.
- 15.2 All the sections of this Ph.D. Research Regulation (2025) will be effective for those candidates who enroll from the year 2025 (BS 2082 intake) onwards.
- 15.3 This Ph.D. Research Regulation (2025) shall not obstruct the tasks which are initiated before the implementation of this Research Regulation.

General Guidelines for Ph.D. Dissertation Format



Tribhuvan University
Institute of Science and Technology (IoST)
Kirtipur, Nepal

2025

16. General Guidelines: Format of the Dissertation

In order to maintain the uniformity of the Ph.D. dissertation carried out in different departments under Institute of Science and Technology (IoST), Tribhuvan University, Nepal, the following guidelines are prepared.

16.1 Front Matter

The front matter should be strictly maintained, which are as follows:

- i. Cover Page
- ii. Blank Page
- iii. Inner Cover Page
- iv. Declaration
- v. Recommendation
- vi. Letter of Approval
- vii. External Examiners
- viii. Acknowledgements
- ix. शोधसार (in Nepali language)
- x. Abstract
- xi. List of Acronyms and Abbreviations (if any)
- xii. List of Symbols (if any)
- xiii. List of Tables (if any)
- xiv. List of Figures (if any)
- xv. Table of Contents

The details of these items with examples are given below.

Note: In the examples, font (which should be Times New Roman), font size, normal/boldface, caps, etc. are given in the italic as comments or in bracket.

(Format for cover page)

**[TITLE OF THE Ph.D.
DISSERTATION]**

Comment [s1]: All caps, Bold, Font size: 18

[Logo of T.U.]

A DISSERTATION SUBMITTED TO THE

Comment [s2]: All caps, not bold, font size: 14

CENTRAL DEPARTMENT OF

INSTITUTE OF SCIENCE AND TECHNOLOGY

TRIBHUVAN UNIVERSITY

NEPAL

Comment [s3]: All caps, Boldface, Font size: 14

FOR THE AWARD OF

DOCTOR OF PHILOSOPHY

IN

Comment [s4]: (All caps, Boldface, Font size:14)

BY

Comment [s5]: All caps, not bold, Font size:14

[FULL NAME OF THE RESEARCH SCHOLAR]

[MONTH YEAR]

Comment [s6]: All caps, Bold, Font size:14

(Example of Cover page)
**INVESTIGATION ON INORGANIC SALTS
BASED ION SELECTIVE ELECTRODES**



A DISSERTATION SUBMITTED TO THE
**CENTRAL DEPARTMENT OF CHEMISTRY
INSTITUTE OF SCIENCE AND TECHNOLOGY
TRIBHUVAN UNIVERSITY
NEPAL**

**FOR THE AWARD OF
DOCTOR OF PHILOSOPHY
IN CHEMISTRY**

BY
**NAME OF THE CANDIDATE
JULY 2023**

BLANK PAGE

(Format for inner cover page)
[TITLE OF THE Ph.D. DISSERTATION]

[Logo of T.U.]

A DISSERTATION SUBMITTED TO THE
CENTRAL DEPARTMENT OF
INSTITUTE OF SCIENCE AND TECHNOLOGY
TRIBHUVAN UNIVERSITY
NEPAL

FOR THE AWARD OF
DOCTOR OF PHILOSOPHY
IN

BY
[FULL NAME OF THE STUDENT]
[MONTH YEAR]

(Example of inner cover page)

INVESTIGATION ON INORGANIC SALTS BASED ION SELECTIVE ELECTRODES



**A DISSERTATION SUBMITTED TO THE
CENTRAL DEPARTMENT OF CHEMISTRY
INSTITUTE OF SCIENCE AND TECHNOLOGY
TRIBHUVAN UNIVERSITY
NEPAL**

**FOR THE AWARD OF
DOCTOR OF PHILOSOPHY
IN CHEMISTRY**

**BY
NAME OF THE CANDIDATE
JULY 2023**

(This should be in the Letter Head of the Dean’s office, IoST)

EXTERNAL EXAMINERS

(Font size – 16, Boldface, all caps)

[Date: DD / MM / YYYY]

- 1.**
- 2.**
- 3.**

Text: 12 points font size

Mention Name, Affiliation and Address.

Name of the Asst. Dean
Assistant Dean

Note: This page should be included in the final dissertation submission only after the successful completion of the Ph.D. viva voce examination.

DECLARATON

Comment [s7]: All caps, Bold, Font size: 16

Dissertation entitled “..... **(in boldface letter)**” which is being submitted to the Central Department of....., Institute of Science and Technology (IoST), Tribhuvan University, Nepal for the award of the degree of Doctor of Philosophy (Ph.D.), is a research work carried out by me under the supervision of Prof. Dr.....,..... of Central Department of....., Tribhuvan University and co-supervised by Prof. Dr..... of

This research is original and has not been submitted earlier in part or full in this or any other form to any university or institute, here or elsewhere, for the award of any degree. I hereby declare that approximately% of my dissertation content have been used with artificial intelligence help.

Comment [s8]: Times New Roman, Font size:12

[Signature]

[Name of research scholar]

Comment [s9]: Times New Roman, not bold, Font size:12

RECOMMENDATION

Comment [s10]: All caps, Bold, Font size: 16

This is to recommend that **(official name of research scholar in boldface letter)**.....has carried out research entitled“.....**(in boldface letter)**.....” for the award of Doctor of Philosophy (Ph.D.) in**(subject in boldface letter)**.....under my/our supervision. To my/our knowledge, this work has not been submitted for any other degree.

He/She has fulfilled all the requirements laid down by the Institute of Science and Technology (IoST), Tribhuvan University, Kirtipur for the submission of the dissertation for the award of Ph.D. degree.

Comment [s11]: Times New Roman, Font size: 12

.....

Name of Supervisor

Supervisor

(Designation.....)

Comment [s12]: Times New Roman, Bold, Font size: 12

Central Department of

Tribhuvan University

Kirtipur, Kathmandu, Nepal

Comment [s13]: Times New Roman, no bold, Font size: 12

.....

Name of Co-Supervisor (if any)

Co-Supervisor

(Designation

Comment [s12]: Times New Roman, Bold, Font size: 12

Central Department of

Tribhuvan University

Kirtipur, Kathmandu, Nepal

Comment [s15]: Times New Roman, no bold, Font size: 12

[Month Year]

Comment [s16]: Times New Roman, Bold, Font size: 12

(This content should be in Letter Head of Concerned Department)

LETTER OF APPROVAL

Comment [s17]: All caps, Bold, Font size: 16

[Date: Day/Month/Year]

Comment [s18]: Times New Roman, Font size: 12

On the recommendation of Prof. Dr. (**official name of supervisor/co-supervisor** (if any), this Ph.D. dissertation submitted by (**official name of research scholar**), entitled “.....” (**in boldface letter**)” is forwarded by Central Department Research Committee (CDRC) to the Dean, IoST, T.U..

.....

Name of Head of Department

Comment [s19]: Bold, Times New Roman, Font size: 12

(Designation

Head

Central Department of

Tribhuvan University

Kirtipur, Kathmandu, Nepal

Comment [s20]: Times New Roman, Font size: 12

ACKNOWLEDGEMENTS

(Font size – 16, Boldface, all caps)

Text: 12 points font size

Page size: Not more than 2 pages in justified form

.....

(Name of Research Scholar)

Month Year

Comment [s21]: Times New Roman, Font size: 12, normal

शोधसार

(Font size – 16, Boldface, Font – Nepali Unicode)

मुख्य शब्दहरू:

- Text: 12 points font (*Unicode*) size
- Page size: Preferably one page but not more than 2 pages in justified form
- Note: The content of शोधसार should be as per the guideline provided by Research Committee of IoST, TU. The contents of the guideline is as follows.

नेपाली भाषामा सार लेख्ने सम्बन्धमा

- नेपाली भाषाको व्याकरण प्रयोग गर्ने ।
- नेपाली बृहत् शब्दकोश (प्रकाशक: नेपाल प्रज्ञा प्रतिष्ठान, नेपाल) मा रहेका प्राविधिक शब्दहरू मात्र प्रयोग गर्ने । अन्य अङ्ग्रेजी शब्दहरू अङ्ग्रेजी भाषामै लेख्न सकिने ।
- कुनै पनि Language Translator Tool (Google, Chat GPT etc.) प्रयोग गरी अनुवाद गर्न नहुने ।
- Dissertation /Thesis मा रहेको Abstract को शब्द अनुवाद नगरी भाव अनुवाद गर्ने ।
- सार (Abstract) लाई नेपाली युनिकोडमा (कालीमाटी फन्टमा) १२ साइजमा टाइप गरेको हुनुपर्ने ।

ABSTRACT

(Font size – 16, Boldface, all caps)

Text: 12 points font size

Page size: Preferably one page but not more than 2 pages in justified form.

Keywords: There should be keywords (at least six) at the end of the abstract. The format should be as follows:

Keywords: *X-ray Galaxy, Interstellar Medium, Radiation Pressure, Monte Carlo Simulation, Random Walk, Cepheid Variable, Lyre Star*
(New Times Roman / Font Size 12 / Italic)

LIST OF ACRONYMS AND ABBREVIATIONS

(Font size – 16, Boldface, all caps)

Example:

(Text: 12 points font size/ in alphabetical order)

DC : Direct Current

DTA : Differential Thermal Analysis

LIST OF SYMBOLS

(Font size – 16, Boldface, all caps)

Example:

(Text: 12 points font size/ in alphabetical order)

- γ : Activity Coefficient
- ϵ_0 : Dielectric Permittivity
- ϵ : Relative Dielectric Constant

LIST OF TABLES

(Font size – 16, Boldface, all caps)

Example:

(Text: 12 points font size)

	Page No.
Table 1: <i>(caption not in boldface)</i>	1
Table 2: <i>(caption not in boldface)</i>	2
	<i>(not in boldface)</i>

LIST OF FIGURES

(Font size – 16, boldface letter, all caps)

Example:

(Text: 12 points font size)

	Page No.
Figure 1: (figure caption <i>not in boldface</i>)	1
Figure 2: (figure caption <i>not in boldface</i>)	2
	<i>(not in boldface)</i>

TABLE OF CONTENTS

(Font size – 16, Bold faced letter, all caps)

	Page No.
Declaration	ii
Recommendation	iii
Letter of Approval	iv
External Examiners	v
Acknowledgements	vi
शोध सार (in Nepali language)	vii
Abstract	viii
List of Acronyms and Abbreviations	ix
List of Symbols (if any)	x
List of Tables (if any)	xi
List of Figures (if any)	xii
<i>(Text: 12 font size, normal)</i>	
CHAPTER 1 <i>(boldface, all caps, 14 font size)</i>	
1. INTRODUCTION <i>(boldface, all caps, 12 font size)</i>	1
1.1 Introduction <i>(normal, 12 font size)</i>	
1.2 Rationale	
1.3 Objectives	
CHAPTER 2 <i>(boldface, all caps, 14 font size)</i>	
2. LITERATURE REVIEW <i>(boldface, all caps, 12 font size)</i>	
2.1 (Sub headings, if any) <i>(normal, 12 font size)</i>	
2.2....., etc.	

CHAPTER 3 (*boldface, all caps, 14 font size*)

3. MATERIALS AND METHODS (*boldface, all caps, 12 font size*)

3.1 (Sub headings, if any) (*normal, 12 font size*)

3.2....., etc.

CHAPTER 4 (*boldface, all caps, 14 font size*)

4. RESULTS AND DISCUSSION (*boldface, all caps, 12 font size*)

4.1 (Sub headings, if any) (*normal, 12 font size*)

4.2....., etc.

CHAPTER 5 (*boldface, all caps, 14 font size*)

5. CONCLUSION AND RECOMMENDATIONS

(*boldface, 12 font size*)

CHAPTER 6 (*boldface, all caps, 14 font size*)

6. SUMMARY (*boldface, 12 font size*)

7. REFERENCE

APPENDIX: Scientific publications, questionnaires, long computational algorithms (if necessary), conference certificates, necessary photographs (if any), etc.

Note: *Ph.D. dissertation for some of the departments such as Statistics and Mathematics may not fit into the above mentioned patterns (Introduction, Review of Literature, Materials and Methods, Results and Discussion, Conclusion, Summary and Recommendation for Further Work). For such situations, the body part of the dissertation should be of having the following order:*

1. Introduction
2. Chapters with the specific heading covering the research work done by the Ph.D. research scholar.
3. Summary and conclusions (*This includes the overall summary, conclusions and the recommendation for further work, if applicable*).

Hence, the Ph.D. research scholar may follow either one of these two patterns whichever suits based on the nature of the work. This alternative format is given below.

Alternative Format of Ph.D. Dissertation

TABLE OF CONTENTS

(Font size – 16, Bold faced letter, all caps)

	Page No.
Declaration	ii
Recommendation	iii
Certificate of Approval	iv
External Examiners	v
Acknowledgements	vi
शोधसार (in Nepali language)	vii
Abstract	viii
List of Acronyms and Abbreviations (if any)	ix
List of Symbols (if any)	x
List of Tables (if any)	xi
List of Figures (if any)	xii
<i>(Text: 12 points font size)</i>	
CHAPTER 1 <i>(boldface, all caps, 14 font size)</i>	1
INTRODUCTION <i>(boldface, all caps, 12 font size)</i>	
1.1 Introduction <i>(not bold, 12 font size)</i>	
1.2 Rationale	
1.3 Objectives	

CHAPTER 2 (*Bold face, all caps, 14 font size*).....

Chapter 2 (Chapters with specific heading based on research work)

CHAPTER 3 (*Bold face, all caps, 14 font size*).....

Chapter 3 (Chapters with specific heading based on research work)

CHAPTER 4 (*Bold face, all caps, 14 font size*).....

Chapter 4 (Chapters with specific heading based on research work)

CHAPTER 5 (*Bold face, all caps, 14 font size*).....

5. SUMMARY AND CONCLUSIONS

5.1 Summary

5.2 Conclusions

5.3 Recommendations for further work

REFERENCES

APPENDIX: Scientific Publications, questionnaires, conference presentation certificates, long computational algorithms (if necessary), necessary photographs (if any), etc.

16.2 Shape, Margin, Size and Outlook of Ph.D. Dissertation

Length

(a) Preferably in between 100 to 300 pages including all pages of the dissertation.

Printing

- (a) High contrast laser printing (single sided printing only).
- (b) Good quality of white bond paper of A4 size (210 mm × 297mm).
- (c) Photocopy is not acceptable.

Typeface and Font Size

- (a) Must be written in **Times New Roman**.
- (b) The font size should be 12 points throughout the text including page numbers except other things mentioned in some preliminary pages.
- (c) The font size for headings should be 12 (boldface) and for subheadings 12 (boldface).
- (d) The scientific names should be in italics.
- (e) Equations and formulae should be preferably typed in 10 or 12 point font size.

Tables and Figures

- (a) Should appear in the text closely following the point where it is first discussed.
- (b) The table number and heading should be placed above the body of the table.
- (c) The figure number and the caption should be in general placed below the figure except some constraints for the software generated figures.
- (d) The text font size in the table and figure should be 10 and font is Times New Roman.

Example: **Figure 1 (Bold):**..... (Title: Not bold).....

Table 1 (Bold): (Title: Not bold).....

Figure and table numbering must be continuous throughout the dissertation.

Margins

- (a) Top, right hand, and bottom margins: 1 inch.
- (b) Left hand margin: At least 1.5 inches so that binding should be accommodated.
- (c) Page numbers must be at least 0.5 inch from the lower edge of each page.
- (d) The text should be justified.

Spacing

- (a) Spacing throughout body of text: 1.5 spacing.
- (b) Spacing for references: 1.5 spacing *within* each entry but double spacing *between* each entry.
- (c) Spacing for table of contents, list of tables, list of figures or illustrations, and lengthy tables: 1.5 or even single spacing may be used.

Binding

- (a) Good quality of hard binding (in black color and printed with golden ink) is required.
- (b) The following information must be printed on the spine of the binding:
 - ✓ Title (the student should provide a shortened version if necessary)
 - ✓ Author's last name
 - ✓ Year of submission of the dissertation
 - ✓ There should be printed Spine and Corner Bumps in the hard cover of the dissertation. In the Corner Bumps 'Ph.D. / TITLE / NAME / YEAR should be printed (all caps / font size as per required)

Pagination

- (a) Every page in the dissertation has a number.
- (b) For the preliminary pages (such as *declaration, letter of approval, table of contents, list of tables, list of figures, list of symbols, etc.*) use small Roman numerals (i, ii, iii, iv, v...). These may be placed at the bottom of the page. Count the inner cover page as page i and the other pages such as declaration, certificate of approval, dedication page (if any) ii, iii, iv, etc.

Ph.D. Program

- (c) *but do not print the page number on inner cover page. Print the page numbers from “Declaration”.*
- (d) For the text, use Arabic Hindu numbers (1, 2, 3, 4, 5...) starting with page one (the first page of the text itself i.e. Chapter 1).

Sub-units in the Contents

- (a) Subunits of the contents should be as follows:

- 1.1
- 1.1.1
- 1.1.1.1
- 1.1.1.1.1
- 1.1.1.1.1.a

Page numbers can be at the center bottom and should be at least half an inch from any edge of the paper to avoid loss when the dissertation is trimmed. Since page numbers are used to demonstrate that the dissertation is complete, every page must be consecutively numbered, including the pages containing tables, graphs, illustrations, and references.

Photographs

- (a) The clear with high resolution (at least 300 pixel/inch) photographs should be used wherever necessary.
- (b) Color photos with RGB (at least 500 pixel/inch in glossy paper) are recommended. The color or black and white photographs can be used in the dissertation.

Use of Color

- (a) All color plots, graphs, topography, etc. should be printed in color in all copies.
- (b) Color graphics can be used when appropriate. However, all copies of the dissertation must be identical.

Language

- (a) Must be written in English language
- (b) Presentation of dissertation in viva voce examination should be conducted in English medium.

16.3 Reference and Citation

The references should be arranged in alphabetical with chronological order by surname of the first author. American Psychological Association (APA) format should be preferably followed for references and citations in the text. Spacing for references should be of 1.5 spacing *within* each entry but double spacing *between* each entry. Also use hanging indents: entries should begin flush left with subsequent lines indented. However, any other standard format such as AMS (American Mathematical Society), AIP (American Institute of Physics), ACS (American Chemical Society), etc. can also be accepted in their respective subjects but the format must be uniform throughout the dissertation. DOI of the reference should be added at the end of each references. If DOI is not available, link should be given. Typical style of writing the references and citations in APA format are given below.

Books:

One Author

Surname, initials, (year), Title of the book, Place, Publication

Gore, A. (2013). *An inconvenient truth: The Planetary emergency of global warming and what we can do about it*. Emmaus, PA: Rodale.

Citation in the text: (Gore, 2013) or Gore (2013) explained.....

Two Authors

Michaels, P.J., & Balling, R.C. (2000). *The satanic gases: Clearing the air about global warming*. Washington, DC: Cato Institute.

Citation in the text: (Michaels & Balling, 2000) or Michaels and Balling (2000) stated that.....

Multiple Authors

Shapit, A., Yadav, R., & Khanal, S. (2013). *Fundamentals of Statistics*. Ashmita Publications, Kathmandu.

Ph.D. Program

Citations in the text: (Sthapit, *et al.*, 2013) explained

Journal Articles:

Single Author

Khanal, S. P. (2011). Achievements, Challenges and Opportunities of Statistics for the Twenty First Century. *Management Dynamics*,**15**(1):15-21.

Citations in the text: (Khanal, 2011) or Khanal (2011) highlighted...

Multiple Author

Thapa, S.S., Khanal, S.P., Paudel, I., Gurung, R., Ruit, S., & Van Rens, H.M.B. (2012). A Population based Survey of the Prevalence and Types of Glaucoma in Nepal: The Bhaktapur Glaucoma Study. *Ophthalmology*, **119**(4): 759-764.

Citations in the text: (Thapa *et al.*, 2012) or Thapa *et al.* (2012) found that.....

The names of the Journals should be typed exactly as the name of the Journal such as Stat. Med. J. Am. Stat. Assoc., J. Chem. Phys., Nat. Commun., etc.

Ph.D. /Master's Dissertation

Rajbhandari (Nyachhyon), A. (2011). *Investigation on Inorganic Salts based Ion Selective Electrodes* (Unpublished doctoral dissertation). Central Department of Chemistry, Institute of Science and Technology, Tribhuvan University, Kathmandu, Nepal.

Conference Proceedings

Smith, J.M. (1990). Proceedings of the *Topical Meeting on CP Symmetry*, 20-24 Sept. 1989, ed.: W. Bhattacharya, PHI.
doi:10.18454/IRJ.2015.0001

Internet Article based on a Point Source (Exact Duplication) with DOI Assigned.

Stultz, J. (2006). Integrating Exposure Therapy and Analytic Therapy in Trauma Treatment. *American Journal of Orthopsychiatry*, **76**(4):482-488. doi:10.1037/0002-9432.76.4.482

Internet Article (e-journal / Open Access) with no DOI Assigned (only link)

Sillick, T. J., & Schutte, N. S. (2006). Emotional Intelligence and Self-esteem 'Mediate Between Perceived Early Parental Love and Adult Happiness. *E- Journal of Applied Psychology*, **2**(2): 38-48.
<http://ojs.lib.swin.edu.au/index.php/ejap/article/view/71/100>
Accessed on (21/04/2014)

Mini Research Program: Guideline

विज्ञान तथा प्रविधि अध्ययन संस्थान लघु-अनुसन्धान सञ्चालन सम्बन्धी
निर्देशिका-२०७९
(IoST, Mini Research Operational Directives-2079)

प्रस्तावना

त्रिभुवन विश्वविद्यालय विज्ञान तथा प्रविधि अध्ययन संस्थानबाट सञ्चालन हुने लघु अनुसन्धानले विज्ञान, प्रविधि तथा नवप्रवर्तनको क्षेत्रमा सैद्धान्तिक ज्ञान, सीप र क्षमताको प्रयोगद्वारा निर्दिष्ट विषय अन्तर्गत रहेका समस्या पहिचान गरी समस्याको गहिराइ र प्रभावको समेत अध्ययन गरेर अनुसन्धानको माध्यमबाट वैज्ञानिक एवम् तार्किक ढङ्गले समस्या समाधान गरी निष्कर्षहरूलाई प्रभावकारी रूपले प्रस्तुति गर्ने योग्यता हासिल गर्ने अवसर दिनेछ। यस कार्यमा एकरूपता कायम रहोस् भनी प्रस्तुत निर्देशिका जारी गर्न वाञ्छनीय रहेकाले यो निर्देशिका जारी गरिएको छ।

परिच्छेद १ प्रारम्भिक

१. संक्षिप्त नाम र प्रारम्भ:

क) यस निर्देशिकाको नाम, “विज्ञान तथा प्रविधि अध्ययन संस्थान, लघुअनुसन्धान सञ्चालन सम्बन्धी निर्देशिका-२०७९” र अङ्ग्रेजीमा 'IoST, Mini Research Operational Directives-2079' रहेको छ।

ख) यो निर्देशिका विज्ञान तथा प्रविधि अध्ययन संस्थानको विद्यापरिषद् (Faculty Board) ले तोकेको मिति देखि प्रारम्भ हुनेछ।

२. परिभाषा: विषय वा प्रसङ्गले अर्को अर्थ नलागेमा यस निर्देशिकामा,

क) “लघु अनुसन्धान निर्देशिका” भन्नाले “विज्ञान तथा प्रविधि अध्ययन संस्थान, लघु अनुसन्धान सञ्चालन सम्बन्धी निर्देशिका-२०७९” र अङ्ग्रेजीमा 'IoST, Mini Research Operational Directives-2079' भन्ने बुझिन्छ।

ख) “विश्वविद्यालय” भन्नाले त्रिभुवन विश्वविद्यालयलाई सम्झनुपर्दछ।

ग) “विज्ञान तथा प्रविधि अध्ययन संस्थान” भन्नाले त्रिभुवन विश्वविद्यालयको विज्ञान तथा प्रविधि अध्ययन संस्थान भन्ने सम्झनुपर्दछ।

- घ) “क्याम्पस प्रमुख” भन्नाले त्रिभुवन विश्वविद्यालयका आङ्गिक तथा सम्बन्धन प्राप्त सामुदायिक क्याम्पसको प्रमुख व्यक्ति भन्ने सम्झनुपर्दछ ।
- ङ) “विभागीय प्रमुख” भन्नाले सम्बन्धित विभाग वा शिक्षण समितिको प्रमुखलाई सम्झनुपर्दछ ।
- च) “शिक्षक” भन्नाले विश्वविद्यालयमा स्नातक वा सो भन्दा माथिल्लो तहमा सम्बन्धित विषयमा अध्यापन तथा अनुसन्धानमा संलग्न व्यक्ति भन्ने सम्झनुपर्दछ ।
- छ) “निर्देशक (Mentor)” भन्नाले अनुसन्धान कर्ताले आफ्नो अनुसन्धान सम्पन्न गर्न आवश्यक सल्लाह लिनका लागि तोकेको व्यक्ति भन्ने सम्झनुपर्दछ ।
- ज) “विशेषज्ञ” भन्नाले विज्ञान तथा प्रविधि अध्ययन संस्थानले लघु अनुसन्धानको प्रस्तावहरू, प्रतिवेदनहरू तथा अन्तिम प्रस्तुतीकरणको मूल्याङ्कनका लागि तोकेको सम्बन्धित विषयको विज्ञ भन्ने सम्झनुपर्दछ ।
- झ) ‘लघुअनुसन्धान समिति’ भन्नाले यसै कार्यविधिको परिच्छेद ५, दफा ८ (क) बमोजिम गठित समिति सम्झनुपर्छ ।

परिच्छेद २

अनुसन्धान कार्यको मापदण्ड

३. त्रिभुवन विश्वविद्यालय विज्ञान तथा प्रविधि अध्ययन संस्थानबाट प्रदान गरिने लघु अनुसन्धान वृत्ति प्राप्त गर्नका लागि पेस गरिने प्रस्तावमा निम्न मापदण्ड पूरा भएको हुनुपर्नेछ ।
- क) सम्बन्धित विषय अन्तर्गत रही समस्या पहिचान गरी सो सम्बन्धमा पूर्व कार्य समीक्षा गरी मूल समस्या पहिचान गरिएको र यसका आधारमा समस्या समाधान गर्ने हेतुले अनुसन्धान परिकल्पना तयार पारिएको हुनुपर्नेछ ।
- ख) पहिचान गरिएका समस्याहरूलाई अनुसन्धानका विधि र पद्धतिद्वारा हल गर्न सक्ने हुनुपर्नेछ ।
- ग) प्रस्तावमा उल्लेखित शीर्षक/उप शीर्षक भित्र रही अनुसन्धान कार्य तथा लेखन मौलिक प्रकृतिको हुनुपर्नेछ ।
- घ) अनुसन्धान कार्यको प्रतिवेदन लेखन गरी समापन गर्दासम्म उक्त कार्य अनुसन्धानका विधि, पद्धति र सीमा भित्र रही गरेको हुनुपर्नेछ ।
४. अनुसन्धान कार्य गर्दा माथि उल्लेखित दफा ३ (क), (ख), (ग) र (घ) अनुसारको मापदण्ड पुरो नपुगेको अन्तिम निर्णय लघुअनुसन्धान समितिले गर्नेछ ।

परिच्छेद ३
निर्देशक (Mentor) को योग्यता

५. सम्बन्धित अनुसन्धानकर्ताले अनुसन्धान कार्य सञ्चालन तथा सम्पन्न गर्न एक निर्देशक समेत राख्नुपर्नेछ ।
६. निर्देशकको योग्यता: अनुसन्धान कार्यको निर्देशकका लागि तलका मध्ये कुनै एक योग्यता पुगेको हुनुपर्नेछ ।
 - क) विश्वविद्यालयमा कार्यरत सम्बन्धित विषयमा मुख्य लेखक (Principal author) वा सम्बद्ध लेखक (Corresponding author) भै SCImago Listed जर्नलमा कम्तीमा तीनवटा लेख प्रकाशित गरेका विद्यावारिधि उपाधि प्राप्त स्थायी प्राध्यापक, सहप्राध्यापक वा उपप्राध्यापक, हुनुपर्नेछ ।
 - ख) विगतमा सम्बन्धित विषय वा क्षेत्रमा अनुसन्धान कार्य गरेका वा गराएका त्रिभुवन विश्वविद्यालयका अवकाश प्राप्त विद्यावारिधि गरेका प्राध्यापक, सहप्राध्यापक हुनुपर्नेछ । सम्बन्धित विषयमा मुख्य लेखक (Principal author) वा सम्बद्ध लेखक (Corresponding author) भै SCImago Listed जर्नलमा कम्तीमा तीनवटा लेख प्रकाशित गरेका हुनुपर्नेछ ।
 - ग) नेपाल सरकार निजामती सेवा वा नेपाल सरकारद्वारा मान्यताप्राप्त निकाय वा अनुसन्धान केन्द्रमा रही अनुसन्धान गर्ने गराउने कार्यमा संलग्न कम्तिमा उपसचिव तहको सम्बन्धित विषयमा विद्यावारिधि गरेका अनुसन्धान कर्ता हुनुपर्नेछ । सम्बन्धित विषयमा मुख्य लेखक (Principal author) वा सम्बद्ध लेखक (Corresponding author) भै SCImago Listed जर्नलमा कम्तीमा तीनवटा लेख प्रकाशित गरेका हुनुपर्नेछ ।

परिच्छेद ४
लघु अनुसन्धानकर्ताको योग्यता सम्बन्धी व्यवस्था

७. यस विज्ञान तथा प्रविधि अध्ययन संस्थान अन्तर्गतका देहायबमोजिमका शिक्षकहरूले लघुअनुसन्धान कार्यका लागि आवेदन दिन पाउनेछन् ।
 - क) विद्यावारिधि नगरेका शिक्षकहरू ।
 - ख) पूर्णकालीन शिक्षकहरू ।
 - ग) निम्नानुसारका योग्यता पुगेका आंशिक शिक्षकहरू—

- अ) B.Sc. चौथो वर्षको कार्यक्रममा संलग्न भएको ।
- आ) कम्तीमा ३ जना विद्यार्थीहरूको project work को सुपरिवेक्षण वा सहसुपरीवेक्षण गराइसकेको वा SCImago Listed जर्नलमा प्रथम लेखक भई कम्तीमा एउटा लेख प्रकाशित गरेको ।
- घ) यस अध्ययन संस्थान अन्तर्गतका क्याम्पसहरूमा अनवरत ३ वर्षदेखिको कार्यअनुभव भएका शिक्षकहरू ।
- ङ) देहाय बमोजिमको अवस्थामा लघुअनुसन्धान कार्यका लागि निवेदन दिन पाइनेछैन ।
- अ) आवेदन दिने बेलामा अध्ययन, स्वाअध्ययन वा बेतलवी विदामा बसेका वा सम्बन्धित क्याम्पस बाहिर बेतलवी काजमा गएका शिक्षकहरू ।
- आ) विश्वविद्यालयको कुनै पनि सावधिक प्रशासनिक पदमा पूरा समय काम गर्ने गरी नियुक्त शिक्षकहरू सो पदमा कायम रहुन्जेलसम्म ।
- इ) विज्ञान तथा प्रविधि अध्ययन संस्थानबाट यसभन्दा अगाडि दुई पटकसम्म PI वा Co-PI भई अनुसन्धान वृत्ति पाएका शिक्षकहरू ।
- ई) त्रि.वि.को अनुसन्धान केन्द्र, विश्वविद्यालय अनुदान आयोग, नेपाल विज्ञान तथा प्रविधि प्रज्ञा प्रतिष्ठानबाट सोही आर्थिक वर्षमा Co-PI वा Group Member भई अनुसन्धानकर्ताका रूपमा वृत्ति पाएका शिक्षकहरू ।

परिच्छेद-५

अनुसन्धान प्रस्ताव आह्वान तथा आवेदन दिने प्रक्रिया

- क) हरेक आर्थिक वर्षमा अनुसन्धान समितिको सिफारिसमा सहायक डीनको संयोजकत्वमा डीनबाट लघुअनुसन्धान समिति गठन गरिनेछ ।
- ख) हरेक आर्थिक वर्षका लागि लघुअनुसन्धान समितिले वार्षिक कार्यतालिका सहित लघु अनुसन्धान प्रस्ताव पेस गर्नका लागि सूचना प्रकाशित गर्नेछ ।
- ग) दफा ७ (क) र (ख) बमोजिम योग्यता पुगेका लघु अनुसन्धान गर्न इच्छुक व्यक्तिहरूले अनुसूची १ बमोजिमको ढाँचामा रीत पूर्वक आवेदन दिई अनुसूची २ बमोजिमको ढाँचामा सम्बन्धित आवेदक र निर्देशक दुवैले हस्ताक्षर गरेको लघुअनुसन्धान प्रस्ताव, सम्बन्धित आवेदकको वैयक्तिक विवरण, नियुक्ति पत्रको प्रतिलिपि र सम्बन्धित क्याम्पस वा विभागको सिफारिस पत्र अनिवार्य रूपमा राखी डीनको कार्यालयमा समय सीमा भित्र पेस गर्नुपर्नेछ ।

परिच्छेद ६

प्रस्ताव मूल्याङ्कन, छनौट प्रक्रिया तथा सम्झौता

९. क) रीत पुगी आएका अनुसन्धान प्रस्तावहरूलाई लघुअनुसन्धान समितिले निर्धारित योग्यता पुगे नपुगेको जाँच गरी योग्यता पुगेका उक्त प्रस्तावहरूलाई सम्बन्धित विषयका दुई जना विज्ञहरू/विशेषज्ञहरूद्वारा मूल्याङ्कन गराउनेछ। विशेषज्ञकहाँ प्रस्ताव मूल्याङ्कनार्थ पठाउँदा अनुसन्धानकर्ताको नाम हटाएर गोप्य रूपमा पठाइनेछ। प्रस्ताव मूल्याङ्कनका आधारहरू अनुसूची ३ बमोजिम हुनेछन्।
- ख) कुनै एक मूल्याङ्कनकर्ताको रिपोर्टमा उत्तीर्णाङ्क नआएमा अर्को मूल्याङ्कनकर्ताकहाँ मूल्याङ्कनका लागि पठाइनेछ।
- ग) मूल्याङ्कनमा सफल भएका स्वीकृत भएका अनुसन्धान प्रस्तावका प्रस्तोताले तोकिएको समयमा प्रस्तावको मौखिक प्रस्तुतीकरण गर्नुपर्नेछ र प्राप्त सुझावका आधारमा शोधप्रस्तावलाई आवश्यक परिमार्जन गरी डीन कार्यालयमा बुझाउनुपर्नेछ।
- घ) अनुसन्धान प्रस्ताव मूल्याङ्कन कार्य सकिएपछि प्राप्तङ्कको आधारमा छनौट भएका आवेदकहरूको योग्यता सूची लघुअनुसन्धान समितिले लघु अनुसन्धान वृत्तिका लागि प्रकाशित गर्नेछ।
- ङ) अन्तिम नामावलीमा परेका आवेदकहरूले तोकिएको समयभित्र डीनको कार्यालयमा सम्पर्क राखी अनुसूची ४ बमोजिमको फाराममा सम्झौता गर्नुपर्नेछ। सम्झौता भएको ३ महिनापछि अनुसन्धानको प्रगति विवरण डीन कार्यालयमा बुझाउनुपर्नेछ। तोकिएको समयभित्र डीनको कार्यालयमा सम्झौता गर्न नआएमा निजलाई अनुसन्धान वृत्ति प्रदान गरिनेछैन।

परिच्छेद ७

अनुसन्धानको समय सीमा तथा प्रतिवेदन प्रस्तुतीकरण सम्बन्धी व्यवस्था

१०. क) दफा ९ ग) बमोजिम सम्झौता भएको मितिले ६ महिनाभित्र अनुसन्धानकर्ताले अनुसन्धानका प्रतिवेदन डीनको कार्यालयमा बौद्धिक चोरी परीक्षण (Plagiarism checking) को रिपोर्टसहित बुझाउनुपर्नेछ।
- ख) बौद्धिक चोरी परीक्षण (Plagiarism checking) मा similarity index १२ प्रतिशत भन्दा माथि भएको प्रतिवेदन स्वीकृत हुनेछैन। साथै Plagiarism Check गर्दा प्रयोग हुनुपर्ने सफ्टवेयर सेटिङ तथा self-citation/self-plagiarism बारेमा लघुअनुसन्धान समिति/डीन कार्यालयले निर्धारण गरेबमोजिम हुनेछ।

- ग) अनुसन्धान प्रतिवेदन प्राप्त भएपछि डीनको कार्यालयले उक्त प्रतिवेदन मूल्याङ्कन गराउन विशेषज्ञ समक्ष पठाउनेछ। अनुसन्धान प्रतिवेदन मूल्याङ्कन भई विशेषज्ञको सिफारिस अनुसार परिमार्जन गरेपछि मौखिक प्रस्तुति दिनुपर्नेछ। स्वीकृत प्रतिवेदनको मौखिक प्रस्तुतीकरणको समय तालिका लघुअनुसन्धान समितिले सूचना टाँस गरी जानकारी गराउनेछ। विशेषज्ञद्वारा प्रतिवेदनमा थपघट गर्नुपर्ने वा सामान्य संशोधन गर्नुपर्ने वा पूरै प्रतिवेदन पुनः लेखन गर्नुपर्ने भन्ने भएमा अनुसन्धान कर्ताले सोही अनुसार गर्नुपर्नेछ। प्रतिवेदन मूल्याङ्कनका आधारहरू अनुसूची ६ बमोजिम हुनेछन्।
- घ) प्रस्तुतीकरण भएको बढीमा एक महिनाभित्र विशेषज्ञहरूको राय समेटी लघु अनुसन्धानको अन्तिम प्रतिवेदन अनिवार्य रूपमा अनुसूची ५ बमोजिमको ढाँचामा प्रतिवेदनको २ प्रति Hard Copy र एक प्रति Soft Copy -CD/pendrive वा तोकिएको इमेल ठेगानामा pdf फाइल राखेर डीनको कार्यालयमा बुझाइसक्नुपर्नेछ।
- ङ) दफा १०.घ) बमोजिम अन्तिम पटक थप गरिएको समयभित्र पनि अनुसन्धान प्रतिवेदन पेस हुन नसकेको खण्डमा निजले लिएको रकममा लिएको मितिदेखि नै वार्षिक १२ प्रतिशत हर्जाना समेत थप गरी अनुसन्धानकर्ताबाट डीनको कार्यालयले असुल उपर गर्नेछ। यसको अन्तिम निर्णय गर्ने अधिकार डीनको कार्यालयमा निहित गर्नेछ।
- च) अनुसन्धानकर्ताले अन्तिम प्रतिवेदन डीनको कार्यालयमा बुझाइसकेपछि डीनको कार्यालयले अनुसूची ६ बमोजिमको ढाँचामा अनुसन्धान कार्य सम्पन्न गरेको प्रमाणपत्र सम्बन्धित अनुसन्धानकर्तालाई उपलब्ध गराउनेछ।

परिच्छेद ८

लघु अनुसन्धान कार्य सञ्चालनमा दिइने रकम र खर्च सम्बन्धी व्यवस्था

११. क) लघु अनुसन्धानको रकम डीनको कार्यालयले तोके बमोजिम हुनेछ।
- ख) स्वीकृत अनुसन्धान प्रस्ताव सञ्चालन गर्न पहिलो किस्तामा स्वीकृत लागतको ५० प्रतिशत रकम (कर कट्टी गरी) सम्बन्धित अनुसन्धानकर्ता सँग सम्भौता (करारनामा) गरेपछि पेस्की स्वरूप प्रदान गरिनेछ।
- ग) निज अनुसन्धानकर्ताले सम्भौता भएको चार महिनाभित्रमा निर्देशकको सिफारिससहित प्रगति विवरण पेस गरेपछि मात्र दोस्रो किस्ता स्वरूप २५ प्रतिशत रकम (कर कट्टी गरी) उपलब्ध गराइनेछ। दोस्रो किस्ता बापतको रकम भुक्तानी भएपछि पहिलो किस्ता स्वरूप प्रदान गरिएको पेस्की रकम स्वतः फछ्यौट भएको मानिनेछ।

Mini Research Program

- घ) तोकिएको समयभित्र अनुसन्धानकर्ताले पेश गरेको अन्तिम प्रतिवेदन मूल्याङ्कन भई विशेषज्ञको सिफारिस अनुसार परिमार्जन गरी मौखिक प्रस्तुतिमा प्राप्त सुझाव अनुसार परिमार्जन गरी प्रतिवेदन बुझाइसकेपछि अन्तिम किस्ता बापत स्वीकृत रकमको २५ प्रतिशत (कर कट्टी गरी) रकम भुक्तानी दिइनेछ ।
- ङ) स्वीकृत रकमको कम्तीमा २० प्रतिशत रकम प्रयोगशाला सामग्री, कम्प्युटर सफ्टवेयर आदि खरिद वा मर्मत कार्यमा अनिवार्य खर्च गर्नुपर्नेछ र उक्त खर्चको सम्बन्धित क्याम्पस प्रमुख वा विभागीय प्रमुखबाट प्रमाणीकरण गरी अनिवार्य रूपमा डीनको कार्यालयमा बुझाउनुपर्नेछ ।
- च) दफा १० घ) मा जुनसुकै कुरा लेखिएको भए तापनि अनुसन्धानकर्ताको काबु बाहिरको कारणले अनुसन्धान कार्य सम्पन्न गर्न नसक्ने भइ सामान्यतया: करारनामा अनुसारको कार्य सम्पन्न भइ सक्नुपर्ने समय भन्दा कम्तीमा एक महिना पहिले नै लिएको रकम फिर्ता गर्न आएमा अनुसन्धानकर्ताबाट अनुसन्धान बापत लिएको पेस्की रकम भन्दा बढी रकम असुल गरिनेछैन ।

परिच्छेद ९

पारिश्रमिक सम्बन्धी व्यवस्था

- १२.क) विशेषज्ञहरूलाई प्रदान गरिने पारिश्रमिक, अनुसन्धान समितिको बैठक भत्ता र प्रस्तुतीकरणको खर्च व्यवस्थापन डीनको कार्यालयले तोके बमोजिम हुनेछ । लघुअनुसन्धान समितिका संयोजक, सदस्यहरू तथा आमन्त्रितलाई अनुसन्धान कार्य व्यवस्थापनमा संलग्न भए बापत एक आर्थिक वर्षमा बढीमा १० बैठक (मौखिक प्रस्तुतीकरण बाहेक) सम्मको बैठक भत्ता उपलब्ध गराउन सकिनेछ ।
- ख) लघु अनुसन्धानको प्रस्ताव तथा प्रगति विवरण मूल्याङ्कन गर्ने प्रत्येक विशेषज्ञलाई प्रति प्रस्ताव तथा प्रगति विवरण रु १७२५ (एक हजार सात सय पच्चीसका का दरले वा डीनको कार्यालयले तोके बमोजिम पारिश्रमिक दिइनेछ ।
- ग) लघु अनुसन्धान प्रस्ताव मूल्याङ्कन गर्न मौखिक प्रस्तुतिकरण (Live Presentation) मा सहभागी भई मूल्याङ्कन गरेबापत विशेषज्ञलाई रु १,१७५- का दरले पारिश्रमिक दिइनेछ ।

परिच्छेद १०

संशोधन र खारेजी

१३. यो निर्देशिका विज्ञान तथा प्रविधि अध्ययन संस्थान को विद्या परिषद् (Faculty board) को बैठकले आवश्यक संशोधन वा खारेजी गर्न सक्नेछ ।

**Tribhuvan University Institute of Science & Technology
Mini Research Proposal Evaluation Form**

Title

Code No: Subject:

Evaluation of the proposed work

Indicators (Core merit indicators)	Rating (Please circle the number OR give your own marks)					Score
	Absent	Poor	Fair	Good	Excellent	
Format of the presentation <i>(Well-organized, format followed)</i>	0	2	3	4	6	
Association to National Priority Justified? <i>(Met and well-described)</i>	0	1	2	3	5	
Presentation (delivery/timely) <i>(fluency, content)</i>	0	3	5	8	10	
Budget Justified? (as per proposal?)	0	1	2	3	4	
Total score (out of 40)	0	4	8	10	15	
Result	Pass: 20 marks or more			Fail: Less than 20 marks		

Evaluators are suggested to give 50% as minimum score and 80% maximum. If the limit exceeds the lower or upper limit, evaluators are advised to give reason:

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

Reviewer's Signature:

Reviewer's Full Name:

Reviewer's Institution:

Reviewer's Subject of Expertise: Date:

Note: There will be similar evaluation form for the proposal presentation, progress report, final report and final report presentation.

Mini Research Program

त्रिभुवन विश्वविद्यालय
बिज्ञान तथा प्रविधि अध्ययन संस्थान
डीनको कार्यालय, कीर्तिपुर ।
सम्झौता पत्र

त्रिभुवन विश्वविद्यालय बिज्ञान तथा प्रविधि अध्ययन संस्थानलेमा संचालन गरेको लघु-अनुसन्धान कार्यक्रममा स्वीकृत भएको (विषय) विषयको अनुसन्धान परियोजना निम्न शर्तहरूको आधारमा संचालन गर्न य अध्ययन संस्थान र(क्याम्पसरके.विभाग) का(पद) श्री (नाम) वीच यो सम्झौता गरिएको छ ।

सम्झौताका शर्तहरू :

१. अनुसन्धान परियोजना संचालन गर्न डीन कार्यालयले अधिकतम रु.७५,०००। मा नियमानुसारको कर कटाई उपलब्ध गराउने छ । यस रकम मध्ये रु. ५,०००। Mentor लाईप्रदान गरिनेछ । उक्त रकम सम्झौतामा हस्ताक्षर भएपछि ५० प्रतिशत, प्राप्त प्रगति विवरण स्विकृत भएपछि २५ प्रतिशत र बाकी रकम अन्तिम प्रतिवेदन स्विकृत भएपछि प्रदान गरिनेछ ।
२. लघु अनुसन्धानकर्ताले तोकिएको मिति भित्र(६महिना) आफ्नो लघु अनुसन्धानको पूर्ण प्रतिवेदन बुझाइसक्नु पर्नेछ ।
३. अनुसन्धानकर्ताले चौथो महिना भित्रनोआप्रगति विवरण डीन कार्यालयमा बुझाउनु पर्ने छ । सो को मूल्य Presentation द्वारा हुनेछ ।
४. अनुसन्धान कार्यक्रम तोकिएको समयमा पुरा गरि प्लेजारिजम चेकको रिपोर्ट सहित प्रतिवेदन बुझाउनु पर्नेछ ।
५. उक्त प्रतिवेदन विशेषज्ञहरूबाट मूल्यांकन गराएपछि अनुसन्धानकर्ताले विज्ञहरूको समक्ष प्रस्तुतीकरण गर्नु पर्नेछ ।
६. उपयुक्त कारण बिना तोकिएको समयमा परियोजना समाप्त नभै लघु-अनुसन्धानको पूर्ण प्रतिवेदन नबुझाएमा लघु-अनुसन्धानको सम्पूर्ण रकम बिज्ञान तथा प्रविधि अध्ययन संस्थानमा फिर्ता गर्नुपर्नेछ ।
७. अनुसन्धान परियोजना संचालनको सिलसिलामा खरिद भएका कुनैपनि सामग्रीहरू सम्वन्धित क्याम्पस / विभागमा दाखिला गराएको प्रमाण पेश गर्नु पर्नेछ ।

उपरोक्तानुसारका शर्तहरू मान्य छन भनी सहि गर्ने :

डीन कार्यालयको तर्फबाट

अनुसन्धानकर्ताको तर्फबाट

(.....)

नाम :

सहायक डीन

पद :

क्याम्पस :

मिति :

Postdoctoral Program: Regulation 2025

The post-doctoral program of Tribhuvan University, Institute of Science and Technology (IoST) is intended for those who wish to develop career in teaching, research and advanced knowledge in the field of Science and Technology. The postdoctoral fellows are expected to achieve a high standard of academic excellence and contribute to scientific theory and/or experiment through original research. The aim of the program is mainly to strengthen the research program of IoST.

The post-doctoral program of IoST is regulated by the Research Committee (RC) constituted under the chair of the Dean in accordance with **Tribhuvan University Organization and Academic Administration Rule 2050, Chapter 3, Section 9**. The Research Committee frames its necessary working rule in compliance with the existing regulation. The post-doctoral research programme is conducted according to the following rules and regulations.

1. Registration

To be registered as a post doc fellow candidate must have following qualifications:

- 1.1 The candidate must have Ph.D. from Tribhuvan University (TU) or any other university recognized by Tribhuvan University.
- 1.2 On the date of registration as a post doc fellow at TU, the date of award of Ph.D. degree to the candidate should not be more than 4 years.
- 1.3 The candidate must have published at least 5 publications including at least three in SCImago listed international journals and remaining in NepJOL star-rated journals.
- 1.4 The candidate should not be working with any other institute/company during his post doc research work.
- 1.5 The candidate has to contact advisor whose expertise should be in the research area related to previous work of the candidate. There could be maximum two

advisors even though the collaboration could be carried out with as many people as the researchers want. At least one advisor must be from TU.

- 1.6** If any permanent faculty of IoST wants to pursue post doc research, the candidate may be allowed to pursue post doc research at IoST in study leave as per the rule to TU.

2. Qualifications of the Advisor

The advisors of post doc fellow should be professor. He/she must have following qualification:

Supervised or co-supervised or jointly supervised at least two Ph.D. scholars and published ten research articles in science indexed journals including at least 5 in SCImago listed international journals.

OR

Supervised or co-supervised or jointly supervised at least one Ph.D. scholar, should have at least one-year post-doctoral research experience in abroad and published ten research articles in science indexed journals including at least five in SCImago listed international journals.

OR

Supervised or co-supervised or jointly supervised at least one Ph.D. scholar and published fifteen research articles in science indexed journals including at least ten in SCImago listed international journals.

- a)** The number of post doc fellows to be advised by the advisors (alone or in collaboration) will be limited to be maximum two at a time.
- b)** The advisor is not qualified to enroll a post doc candidate if his/her compulsory retirement durations is less than one academic year at Tribhuvan University.

3. Post-Doc Researchers Responsibility

- a)** To conduct research activities as planned.

Postdoctoral Program

- b) To take part on the additional teaching/research activities assigned by the advisor(s).
- c) To present the research results in every three months in the department (group meeting or departmental seminar).
- d) To submit research report to supervisor/CDRC within every three months. CDRC must forward the research report to IoST research committee.
- e) To prepare and submit a manuscript to a SCImago listed journal of at least one research paper based on the research work carried out as post doc fellow at IoST, TU.
- f) All procurements should be done following the standard procedure of TU.
- g) All the equipment so procured must be handed over to the concerned Department of IoST after the completion of the research project.

4. Duration and Renew

- a) The postdoctoral position will be of one year and extendible for second year.
- b) An extension of the second year will be approved by IoST Dean under the recommendation of advisor(s) forwarded by the CDRC. There must be satisfactory research work to be extended. The evaluation by CDRC should be based on research work of the fellow.

5. Advisors' Responsibility

- a) Organize post doc researchers' oral presentation in the department in every three months.
- b) Forward the progress and evaluation report of overall project of the postdoctoral researcher in every six months to the Research Committee IoST through CDRC.
- c) Assign the additional responsibilities of the research fellow, for example, lectures, tutorials, student supervision, whenever necessary.

6. Role of CDRC

CDRC forwards the funded proposal and other necessary documents of post doc to Research Committee of IoST. It organizes departmental seminars by the post doc fellow(s) of the department.

7. Role of Research Committee (IoST)/Dean IoST

- a) To provide letter of appointment after evaluation of the research proposal based on recommendation of supervisor/CDRC.
- b) To provide letter of appreciation to the post doc fellow after finishing the project.
- c) To evaluate the progress reports and extend the period of the fellow.
- d) To provide other necessary and related suggestions to improve the research activities of the fellow.

8. Funding

Funding must be managed from sources within country or outside. It should be authorized by the respective advisors and approved by the IoST Dean. The post doc fellow will get fellowship or stipend from the funding according to the rules of the funding organization and mentioned in the proposal of the research project. It is not fixed, it will be approved by the IoST Dean as recommended by the advisor(s). The funds remain the corresponding department and it will be spent on the recommendation of advisor. The advisors are encouraged to plan external funding scheme to establish post-doctoral research activities at respective departments. The necessary expenditures to carry on the research by the post doc fellow have to be managed from the funds for the research work of the fellow.

There should be a mandatory provision of 10% administration service charge in addition to the overhead of the fund payable every year of the service.

Curriculum of Ph.D. First Trimester

Course Title:	Philosophy of Science	3 CH
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Philosophy deals with fundamental questions about the nature of reality, knowledge, and how we ought to act. Philosophy of Science (PoS) is an emerging sub-discipline of philosophy. Its aim is to understand science and scientific methods. PoS reflects the fundamental concepts and conceptions, aims, methods, and presuppositions of the various sciences and of the scientific enterprise in general. Questions that fall into the purview of PoS include: What distinguishes science and scientific knowledge from pseudo-science, ordinary knowledge or metaphysics? What is a scientific explanation? Are scientific methods reliable sources of knowledge? Can scientific theories be inductively confirmed or falsified? What is the general purpose of science?

The Institute of Science and Technology at Tribhuvan University (TU-IoST) offers a course on PoS for the Ph.D. research students. The course introduces key concepts of philosophy, its development and branches, explores features of science and examines core issues of scientific inquiry. It equips the participants with critical reasoning and analytical problem-solving skills, expressive precision, and the intellectual spaciousness to appreciate and engage rationally with arguments and points of view with which they profoundly disagree. The course encourages them to work beyond the parochialism of either the eastern or western philosophical tradition to do philosophy without boundaries and be familiar with famous thinkers in the subject.

The modality of teaching is mainly seminar presentation and discussion. In the seminars, the participating students are encouraged to interact and assign presentations. Assessment of the students' performance is as per TU-IoST guidelines.

Learning Outcomes

Knowledge: After completing the course the participants should have a good knowledge of the key concepts, arguments and positions in Philosophy of Science (PoS).

Skills: After completing the course the participants should be able to discuss orally and in writing central issues, concepts and arguments of PoS.

Learning Objectives

By the end of the PoS course, the scholars will be able to

1. Explain the basic concept and framework of the philosophy, and outline the branches and stages of philosophy,
2. Compare different schools of modern philosophy such as empiricism, rationalism, logic, positivism and describe their application in scientific methodology,
3. Discuss basic assumptions of science, define and distinguish it from other knowledge, explain why scientific theories change over time,
4. Describe the nature and values of science and examine its implications in human society.

Ph.D. First Trimester Curriculum

Course Contents

Unit	Unit Title	Description of topics	Duration (Hours)
1	Introduction to Philosophy	1 Philosophy: Meaning, practical and intrinsic values	5
		2 Branches of philosophy: Epistemology, Axiology Metaphysics	
		3 Stages of philosophy: Theological or Facticious, Metaphysical or Abstract, Scientific or positive	
2	Classical Philosophies	1 African	10
		2 Oriental: Confucius, Lao Tzu	
		3 Eastern: Vedic, Carvaka, Buddha, Samkya	
		4 Western: Socrates, Plato, Aristotle	
		5 Nepal folk philosophies	
3	Philosophy of New Times	1 Rationalism	10
		2 Empiricism	
		3 Logic and logical reasoning	
		4 Positivism	
		5 Perspectives on science, reason, and reality	
4	Nature and Methodology of Science	1 Basic assumptions of science	10
		2 Scientific method: Inductive and deductive	
		3 Science, pseudoscience and non-science	
		4 Importance of philosophy in science	
		5 Scientific objectivism	
5	Values and Ethics in Science and Technology	1 Scientific revolution and paradigm shifts	10
		2 Ethics and philosophy of technology	
		3 Science and values	
		4 Moral dilemmas and social implications of science	
		5 Interdisciplinary features: Philosophy of specific discipline in science and technology	

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Ph.D. First Trimester Curriculum

Course Title: Research Methodology

3 CH

Objectives: Main objective of this course is to introduce doctoral students to the process of conducting academic research effectively. It is expected that the researcher will be able to learn how to think and act like a researcher in conceptualizing, designing, executing, and evaluating the scientific research projects.

Course Outline:

Unit 1: Introduction to Research Methodology: Philosophical aspects of research methodology; Inductive and deductive research; Quantitative and qualitative research; Critical thinking & Creative thinking; Research paradigms
(5 Hours)

Unit 2: Research Problems, Objectives & Hypotheses: Problem Identification. Scientific research process, research objectives, formulation of research hypothesis, research hypothesis and statistical hypothesis, characteristic of research problem
(5 Hours)

Unit 3: Reviewing the Related Literature: Functions of literature review; Narrative review vs. Systematic review; Citation and referencing; Bibliography; Meta-analysis
(4 Hours)

Unit 4: Research Designs in Scientific Research: Purpose of research design; Observational and experimental study designs; Systematic and random errors; Internal & external validity, and threats for validity
(5 Hours)

Unit 5: Data Collection, Data Management & Statistical Analysis: An overview of measurement & Scaling; Reliability & validity of the instrument; Methods of data collection; Data collection using attitudinal scales; Data processing; An overview of descriptive & inferential Statistics for Data Analysis; Qualitative analysis; Grounded theory; FGD; KII; Interpretation of the results with reference to research problem; Role of computer and computer technology in research
(15 Hours)

Unit 6: Writing an Effective Research Proposal and Research Report: Purposes and components of research proposal; Guidelines for writing research proposal; GANTT chart; Evaluation of research proposal; Purposes, types and the format of research report; Guideline for writing an effective research report, evaluation of research report (5Hours)

Unit 7: Research Critique: Meaning; Guidelines and phases of critical appraisal; Research article critique guidelines, and peer review of research article (3Hours)

Unit 8: Ethical Issues: Ethical considerations in research; Ethical issues; Ethical committees; Commercialization; Copyright; Intellectual property rights and patent law; Plagiarism (3Hours)

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