

Regulations for PhD Program- 2019

(Revised and effective from JULY 01, 2019)



National Institute of Technology Durgapur

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The Institute/ NITD means ‘National Institute of Technology Durgapur’
The Student/ Scholar means ‘Research Scholar’

1.0. Introduction

1.1. The Institute offers doctoral research program leading to the degree of Doctor of Philosophy (PhD).

1.2. Deleted.

1.3 Notwithstanding any of the clauses provided in the Regulations, the Senate can exercise its powers to amend/interpret/implement decisions and actions concerned with academic matters.

1.4 A joint PhD degree may be awarded by NIT Durgapur and another premier academic institution in India or abroad with which NIT Durgapur has MoU to this effect. However, each such case shall have to be approved by the respective Senate.

1.5. All the provisions of the UGC will be covered in the PhD program at NIT Durgapur as far as possible. (UGC Regulations, 2016; The Gazette of India, July 5, 2016, Part III, Section 4)

1.6. The Board of Governors of the Institute may, on the recommendation of the Senate, change any or all parts of the Regulations at any time.

1.7. The medium of communication, instruction, examination, seminars and the defense of PhD thesis will be English.

2.0. Admission

2.1. Status of research scholar: The status of the candidates admitted to the PhD program shall be classified under any one of the following categories:

- A. Full-time research scholar with Institute Scholarship.
- B. Full-time research scholar with financial support from Government programs (sponsored by DST/CSIR/UGC, etc.).
- C. Full-time research scholar selected in externally sponsored projects in the Institute.
- D. Full-time research scholar under QIP/ EFIP scheme.
- E. Full-time foreign research scholar admitted through Government of India.
- F. Part-time research scholar from the Institute (NIT Durgapur) Faculty/ Staff.
- G. Full time sponsored research scholar from Government/ Semi-Government/ other highly reputed organizations/academic or research institutions.
- H. Part-time sponsored research scholars from reputed industries (Industry Research Program).
- I. Part time research scholars from academic/ research institutions.
- J. Part time sponsored research scholars under Government of India schemes like TEQIP, etc. as approved by the Senate.

Beside above categories, admission of research scholar from foreign institution/organization shall be made as per laid down terms and conditions in MoU with respective institute / organization.

The PhD degree awarded to all categories of students shall be treated as the same and equivalent.

2.2. Eligibility for Admission

2.2.1 The minimum qualification required for admission to PhD program is one of the following:

<i>Qualifying Degree*</i> (for relevant discipline)	<i>General/ OBC</i>	<i>SC / ST</i>	<i>Academic and other Qualifications</i>
M. Tech./ M.E./ M. Arch/ M. Pharm / M. S. / MBA/ PGDBM/ PGDM	6.5 CGPA or 60% marks	6.0 CGPA or 55% marks	<u>Category A:</u> B. Tech/ B.E./ B. Arch/ B. Pharm / Equivalent with valid GATE. M. Tech./ M.E./ M. Arch/ M. Pharm degrees with or without GATE qualification. Other Post Graduate or Graduate degrees (as listed) with any relevant NET qualification. <u>List of NETs:</u> CSIR, UGC, GATE, JAM, GPAT, DBT-JRF, JEST, ICMR, ICAR, NBHM, Bioinformatics National Certification Examination etc. However, these NET qualifications will have to be relevant to the qualifying degree of the candidate concerned. (OM No. SB/S9/2-01/2015 dated 07.01.2015) <u>Categories B, C, D and E:</u> As per the terms and conditions of the funding or sponsoring agency. <u>Categories F, G, H and I:</u> Same as category A, but GATE/NET qualification is not mandatory.
M. Sc./ M. Com./ MBBS/ BDS	6.5 CGPA or 60% marks	6.0 CGPA or 55% marks	
MA	6.0 CGPA or 55% marks	5.5 CGPA or 50% marks	
MCA	7.5 CGPA or 70% marks	7.0 CGPA or 65% marks	
B. Tech/ B.E./ B. Arch/ B. Pharm / Equivalent	7.5 CGPA or 70% marks	7.0 CGPA or 65% marks	
CA/ ICWAI/ CS with a graduation degree	6.0 CGPA or 55% marks	5.5 CGPA or 50% marks	

*All the degrees will be from an institute / university recognized by UGC/AICTE/MHRD.

The preceding qualifying degrees of the candidates required for admission shall be decided by the respective DRPC. Minimum eligibility criteria for admission to part time PhD program 2019-20 onwards will be same as full-time PhD program under Category A. However, qualification in National Eligibility Tests etc., is not mandatory.

2.2.2. Scholars under categories C and F must submit a no-objection certificate from the Institute / PI of the project respectively during admission. They shall work for the PhD program without affecting their normal duties.

2.2.3. Research scholars of categories G, H, I and J shall submit a Sponsorship and No-objection certificate, as applicable, from the employer during admission. In case the candidate joins a new organization, submission of a fresh NOC obtained from them is mandatory.

2.2.4. Deleted.

2.2.5. Mere possession of required degree and a good academic record does not guarantee admission to a candidate for the Ph.D. program. Apart from academic record, the DRPC will take into consideration the research aptitude, ability to work in a team, subject interest, availability of supervisors, facilities in the department and the research focus of the department while selecting candidates to the Ph.D. program through a pre-defined process.

2.3. Residential Requirement

2.3.1. Normally all full-time candidates admitted to the PhD program will be required to stay in the Institute till they complete all assigned work and submit thesis. However, for full-time candidates sponsored from Government / Semi-government / major industry with established R&D facilities, the DRPC may recommend to reduce the minimum residential requirement to one year or higher (for completing the course work and formulating the research problem).

2.3.2. If a full-time sponsored candidate intends to carry out a major part of his research work in his place of employment, s/he must convince the DRPC at the time of selection that adequate research facilities and research tradition exist in his organisation. While taking the decision DRPC will examine all the documents presented to it regarding adequacy of the R&D facilities available in the sponsoring organisation. These documents have to be furnished by the candidate during the time of interview. In general major Central Govt. (CSIR, DRDO, DAE, ISRO, CDRC etc.) labs, research organisations, industries (public or private) with established R&D facilities are taken as organisations with adequate facilities. Regarding recognition of other organisations the DRPC has to make a recommendation on the basis of the material available to it to the Director through Dean (Academic) for approval. In every case, the Senate will decide the residential requirement.

2.3.3 The part-time candidates of categories H, I and J are mandated to have contact with the supervisor(s) for discussion and research in the Institute for at least 90 days a year in a single/multiple visits.

2.4. Admission procedure

2.4.1. Admission of scholars under categories A and B shall be made once in each semester as per a pre-decided schedule indicating the total number of seats available. Dean (Academic) will publish the admission notice on the Institute website. The departments will screen the applications based on pre-defined criteria sent by the Academic Section and prepare the shortlist. They will conduct admission tests (for category A), followed by shortlisting based on pre-defined criteria, if needed, and viva voce, and select the candidates on the basis of overall academic performance, written test and viva voce. The department will send the list of selected candidates to the office of the Dean (Academic). One expert from other department, selected from a panel of experts nominated by Director, will act as an observer in the viva voce.

2.4.2. Admission of scholars under categories C shall be made once in each semester along with the scholars under categories A and B. The candidate shall submit the application through the Dean (R&C) in the prescribed format of Sponsored Research and Consultancy Cell (SRCC) on recommendation of concerned PI and Head of the Department. The selection procedure will be the same as category A.

2.4.3. Admission under categories F, G, H, I and J shall be made once in every academic year, during Odd Semester only.

2.4.3.1. The admission under categories F, H and J shall be made directly subject to fulfilment of eligibility criteria fixed by the respective departments, and submission of requisite documents and no-objection/ sponsorship certificate. The admission shall be subject to the availability of suitable supervisor(s) and the endorsement by the department.

2.4.3.2 Admission of candidates under categories G and I shall be made against the admission notice on the Institute website. The departments will conduct admission tests and viva voce, select the candidates on the basis of overall academic performance, written test and viva voce and send the list of selected candidates to the office of the Dean (Academic). Dean (Academic) shall publish the selection list on the Institute website. The candidates need to produce a sponsorship / No objection

certificate in the prescribed format of the Institute during the admission test. For the category I, a Board of external examiners shall be constituted by the Chairman, Senate for the selection process.

2.4.4. Admission of research scholar from foreign institution/organization shall be made as per laid down terms and conditions in MoU with respective institute / organization during the odd Semester only.

2.4.5. Applications of candidates shall be received by the office of Dean (Academic) and forwarded to the departments for screening. Dean (Academic) shall publish the short-list of the candidates screened by the departments on the Institute website along with the date, time and venue of the admission test and viva voce.

2.4.6. Dean (Academic) shall publish the selection list on the Institute website. All communication related to the admission procedure shall be made through the Institute website www.nitdgp.ac.in only. Regular reservation policy of the Government of India shall apply.

2.4.7. All selected candidates will fill in the admission form (vide Annexure-I) and submit an undertaking that s/he would abide by all rules and regulations and codes of conduct of the Institute.

2.4.8. Respective departments shall be responsible for the selection of research scholars.

2.5. Withdrawal from Residency

2.5.1. A sponsored student, pursuing PhD by staying on campus, can become non-resident by taking withdrawal from the residency. She/he may return to his place of work on completion of residential requirement, provided that such a scenario was mentioned in his application for admission and the student has a co-supervisor from his place of employment. The minimum period of work will be extended by one year, except when the student is employed in a superior R&D organization and is engaged in full time research on the same topic as his PhD works. The Deputy Registrar (Academic) will issue a withdrawal order.

2.5.2. When a regular PhD student received the registration number fulfilling all the registration requirements and he/she gets a new job, he/she should apply through DSC for withdrawal of residency. However, the No Objection Certificate must be submitted from the employer.

2.5.3. In case of students, who secure a new job or otherwise wish to move outside the institute and end their doctoral program prematurely, need to refund any scholarship received.

3.0. Supervisors (to be read with clause 17.4)

3.1. The assignment of Ph.D. students to supervisor(s) by DRPC and constitution of Doctoral Scrutiny Committee (DSC) following enrolment/admission of the Ph.D. students will be made within a period of fifteen days from the date of enrolment. Chairperson (DRPC), in consultation with the supervisor/co-supervisor(s), shall constitute the DSC (vide Annexure-III). The supervisor/co-supervisor(s) shall finalize the broad (tentative) title of the research topic of a selected candidate after mutual discussion.

3.2. All supervisors/co-supervisors of PhD program shall be at least in the rank of Assistant Professor or equivalent having a PhD degree. If a person from outside the Institute, not satisfying these criteria, is proposed to be a co-supervisor, the matter shall be referred to the Senate for decision.

3.3. The maximum number of enrolled research scholars that one supervisor can supervise, is 6. The number of candidates who have already submitted the thesis will not be considered for the purpose.

3.4. There can be one supervisor and maximum one co-supervisor for a research scholar from the Institute, with maximum one additional co-supervisor from outside.

3.5 The supervisor/co-supervisor must be a regular faculty member of the Institute belonging to the department in which the research scholar will be registered for doctoral studies.

3.6. The co-supervisor(s) may be from the same department of the Institute or other departments / outside.

3.6.1. A person from abroad satisfying the qualification criteria may become a co-supervisor. NIT Durgapur will have, however, no financial responsibility, whatsoever, in the research visits, if any, required for the collaborative research.

3.6.2. Deleted.

3.6.3. Co-supervisors from other institutions/ organizations shall submit curriculum vitae, a consent letter and a no-objection certificate from the employer during formation of DSC, if they do not have MoU with NIT Durgapur.

3.7. Any change in supervisor/co-supervisor shall have to be recommended by the DSC and forwarded to the office of Dean (Academic) for approval of Senate.

3.7.1. Change of supervisor/co-supervisor under exceptional circumstances shall be permitted on the recommendation of the DSC, subject to the consent of the research scholar, the present supervisor/co-supervisor and the proposed supervisor/co-supervisor. However, the candidate shall not be permitted to present pre-submission seminar within one year from the date of change of supervisor/co-supervisor.

3.7.2. Addition of co-supervisor shall be permitted on the recommendation of the DSC, subject to the consent of the research scholar. However, the candidate shall not be permitted to present pre-submission seminar within one year from the date of addition of supervisor/co-supervisor.

3.8. When a supervisor leaves the Institute permanently or temporarily for a period exceeding 6 months, the DSC shall appoint a new supervisor for the research scholar before his/her departure.

3.9. Deleted.

3.10. The DSC may consider continuation of the original supervisor on his/her return to the Institute as one of the supervisors.

3.11. A supervisor/co-supervisor after superannuation shall continue to act as the co-supervisor. However, if the research scholar has no supervisor from the department in which s/he is registered, one faculty member of the same department shall be made the supervisor after consultation with the superannuating supervisor and the research scholar. In case of the candidate already presented pre-submission seminar successfully, no additional supervisor shall be necessary.

4.0. Semester Registration

4.1. A student enrolled in the PhD program will be required to register every semester along with endorsement of satisfactory progress by the DSC (vide Annexure-II) and by paying tuition fees and other Institute dues. The Semester registration is different from PhD registration. A research scholar shall appear before the DSC at the end of each semester to make a presentation of the progress of his/her work for evaluation and further guidance. The DSC shall submit the approved progress report along with the registration form to the Academic Section.

4.2. Sponsored students who have been sanctioned withdrawal also need to do semester registration. They may, however, be permitted to send registration form by post to their supervisor, who will present them to the Academic Section through the HOD.

4.3. Failure to do semester registration within the stipulated dates as per Academic Calendar will result in termination of studentship, which in a very special case can be restored by the Senate on consideration of all circumstances, payment of additional fines and extension of thesis submission date.

4.4. It shall be the responsibility of the student to bring any deviation in his status in matters of course work, registration, withdrawal etc. to the attention of Dean (Academic) at the time of semester registration, if s/he has not done so earlier.

4.5. A student may be exempted from semester registration by Dean (Academic) / Director if s/he submits thesis within 30 days of scheduled semester registration. However, the student will lose his fellowship (if any) during the said period. If s/he fails to submit the thesis within 30 days, s/he must do the semester registration before the thesis is accepted for evaluation.

4.6. When the examined PhD thesis require revision and sent back to the examiner or the PhD thesis is not recommended / rejected by the examiner, the scholars have to pay semester registration fees to keep his / her studentship valid for the period till his / her thesis is recommended by the examiners. However, the scholarship will not be revived for such cases.

5.0. PhD Registration

5.1. Every student enrolled in the Ph.D. program is given provisional admission soon after his/ her enrolment. The provisional admission defines:

- (a) The broad area of research and
- (b) The course work to be carried out by the student.

The student continues to work for close to a year before his research plan is properly formulated.

5.2 An enrolled Ph.D. student will be formally registered (vide Annexure-V) for the degree of Ph.D. on completion of following steps:

- (a) The candidate has successfully completed all assigned course work,
- (b) Worked out a road map of the program and submitted a formal work plan to the DSC and
- (c) Delivered an open seminar (Pre-registration seminar) to the satisfaction of the DSC. A tentative research title should be indicated in this seminar.

5.3. Subsequent to obtaining a favourable recommendation from the DSC, the PhD registration fee (as applicable at the time) shall be paid by the candidate. The date when the candidate deposits the PhD registration fee shall be treated as the date of registration.

5.4. The registration of PhD candidates may be approved by Chairperson, Senate and be ratified by the Senate in its subsequent meeting.

5.5. Candidates should normally present the registration seminar not later than five semesters from the date of enrolment, failing which the registration shall be cancelled.

5.6. The final title of PhD thesis shall have to be indicated in the synopsis of the PhD thesis at the pre-submission seminar and shall have to be approved by the DSC, along with the final synopsis of the PhD thesis (clause 7.3).

6.0. Course Work

6.1. Course work is compulsory for all students enrolled for Ph.D. program including those with Master Degree in the same discipline. PhD scholars will have to qualify all the course work as assigned by the DSC.

6.2.1 All Ph.D. scholars are required to qualify the course “Research Methodology”.

6.2.2 The DSC will prescribe additional courses as follows:

- i) Scholars with M. Tech./ equivalent degree obtained within last 5 years- Minimum 8 credits.
- ii) Scholars with B. Tech./ MSc/ MA/ MCA degree or M. Tech. degree obtain more than 5 years ago- Minimum 16 credits.
- iii) While this is a general guideline, the DSC may decide on higher credits requirement.
- iv) Online courses offered by MOOCS/ NPTEL etc. and conduct online examination may also be utilised for the purpose of credit requirement, as assigned by the DSC.

6.3. Deleted

6.4. The scholars admitted to the Ph.D. programs shall be required to complete the coursework prescribed by the DSC within the first four semesters. Any extension will require the approval of the Senate.

6.5. The scholars will take courses based on the recommendation of the supervisor/co-supervisor(s) and approved by the DSC. The list of courses to be taken by a research scholar during a particular semester shall be endorsed by the DSC and informed to the PG & Research Cell (Academic Section) within seven days from the start of the semester or within seven days from the date of enrolment. In case a course is taken from another department, it is to be endorsed by the Head of the concerned department.

6.6. The scholars enrolled in courses are subject to the same regulations as applicable to other students in the courses with regard to attendance, grading, discipline and assessment.

6.7. The concerned teachers shall forward the grades of the research scholar at the end of a semester to the Associate Dean (A&E) for publication of results.

6.8. The scholar must pass each of these courses with at least C grade in a 7-point scale / equivalent. The result will be published as “QUALIFIED” for grades obtained ‘C’ and above and as “NOT QUALIFIED” for grades obtained below ‘C’. A student shall get maximum three chances to pass a course assigned by the DSC, through grade improvement examinations which will be held concurrently with supplementary examinations of other academic programmes.

7.0. Submission of Thesis

7.1. The research scholars of all categories shall normally submit their PhD thesis within a period of six years from the date of enrolment in the PhD program. However, for satisfactory reasons, the period may be extended by one more year. The female scholars and Persons with Disability (more than 40% disability) shall be allowed a relaxation of two years in the maximum duration. However, the fellowship tenure shall be applicable as per the guidelines of the MHRD/ sponsoring agency.

The extension shall have to be recommended by the DSC. In case, no extension for registration is applied for, the registration shall automatically stand terminated at the end of the above-stipulated period.

7.2. A research scholar shall submit his/her PhD thesis not earlier than two years from the date of registration in the PhD program.

7.3. Prior to submission, when the thesis is nearly ready and can comfortably be submitted within three months the scholar will submit the synopsis of the thesis [typically 10 pages including tables, graphs and references] and present a seminar to an open audience (pre-submission seminar), which will include members of DSC. Soft and hard copies of the thesis should be submitted to the members of the DSC at least one week before the date of the seminar.

7.4. The DSC shall assess the work through a pre- submission seminar in presence of all supervisor/co-supervisor(s). It is mandatory that all the supervisor/co-supervisor(s) are present during the seminar. The DSC should confirm that the scholar has completed the required number of courses. The scholar shall respond to the suggestions of every DSC member. If and when the DSC is satisfied with the extent of work done and the quality of the thesis the scholar will be allowed to submit the thesis. The DSC shall forward one hard copy, signed by the scholar and the supervisor/co-supervisor, and a soft copy of the synopsis of the PhD thesis along with recommendations (vide Annexure-VII) to the office of Dean (Academic).

7.5. The scholar must have at least two papers published / accepted for publication based on his/her doctoral research in a SCI/ SSCI/ AHCI/ Non-paid Scopus/ Web of Science journal and preferably two paper presentations in conferences/ seminars before the submission of the dissertation/ thesis for adjudication, and produce evidence for the same in the form of presentation certificates and/or reprints.

7.6. A general format and guidelines (Clause 19.0) shall be used for writing PhD thesis.

7.7. Plagiarism check shall be made for PhD thesis to satisfy maximum permissible match of 20% excluding publications of the research scholar and corresponding supervisor/co-supervisor(s). The plagiarism check certificate should be included in the thesis.

7.8. The thesis examination fee, as applicable at the time, shall be deposited, subject to completion of all formalities.

7.9. The research scholar shall submit two copies of the PhD thesis with soft cover for the external examiners to the office of the Dean (Academic) within three months from the date of successful pre-submission seminar. The soft copy of the thesis shall be emailed to Dean (Academic). After successful defense of the thesis and incorporation of revision as per the comments of the examiners, the candidate shall submit one hardbound copy of the final version and a soft copy of the PhD thesis to the office of Dean (Academic).

7.10. Electronic copies of the theses should be posted on Institute web site for wide distribution.

8.0. Examination of PhD Thesis *[applicable to all scholars]*

8.1. The DSC shall prepare and submit two panels of five external examiners each in the area of the submitted research work each from India and abroad, to Dean (Academic) in hard and soft copies, for the appointment as external examiners of the thesis. The list must include the name, designation, affiliation, full postal address, telephone number, email IDs and webpage address of the examiners. The examiners should be selected by the DSC from amongst the eminent faculty members or experts, Professors / Associate Professors/ Retired Professors / Emeritus Professors, and researchers with Ph.D. in institutes / universities / research laboratories / industries of repute. The area of his/ her specialization is to be mentioned explicitly along with a hyperlink to his/ her web page. In the list of examiners from abroad, there shall be at least three experts not of Indian origin. There should not be any conflict of interest in the selection of the panel of examiners.

It shall also include the name and registration number of the research scholar, thesis title, the department registered and the name of the supervisor/co-supervisor(s) etc. (vide Annexure-VIII). Director as the

Chairperson of the Senate shall select one external examiner each from India and abroad from the recommended panel.

8.2. It is expected that the DSC submits the panels of examiners immediately after the pre-submission seminar to the Dean (Academic), so that the consent of examiners is obtained before submission of the thesis.

8.3. Dean (Academic) will arrange to dispatch the synopsis to the external examiners by email. On receipt of their acceptance to become the external examiner of the PhD thesis, the Academic Section will arrange to dispatch the thesis to them by post. The soft copy of the PhD thesis shall also be sent through email. Normally, the examiner will be required to submit the evaluation report within six weeks.

8.4. Deleted.

8.5. When a thesis is unanimously accepted by the board of examiners for the award of the PhD degree (Annexure-IX), the scholar shall be required to defend the work in an open seminar followed by a viva-voce conducted in presence of the external examiner from India. DSC members and other interested persons. It is not mandatory for the co-supervisors from abroad to be present during the viva voce. In case the Indian external examiner is not able to attend the seminar and viva-voce, Director shall appoint an alternate examiner for the purpose from the existing panel of external examiners from India. The defence of the thesis shall be held after at least three weeks from the date of dispatch of the thesis.

8.6. If an external examiner does not respond within three weeks from the date of dispatch of the synopsis or within three months from the date of dispatch of the thesis, Director may select an alternate name from the recommended panel of Experts as the external examiner. The examiners may be reminded of sending the report of the thesis after two months of dispatch of the thesis.

The examiners may send the report on the thesis by email and / or post with a “confidential” label on the mail.

8.7. If a thesis in the present form is not found to be acceptable by any one of the external examiners for award of the PhD degree and is likely to be accepted after revision in line with the modifications suggested by the external examiners in their report, the research scholar must re-submit the thesis, after making payment of necessary re-submission fees, incorporating the suggested amendments within three months from the date of the earlier decision of the DSC.

8.8. If a thesis is recommended by one external examiner for the award of the PhD degree but is rejected by the other external examiner, the thesis may be sent to another examiner. The DAC, if needed, may submit a fresh panel of external examiners. The research scholar may submit another copy of the thesis after depositing an additional thesis examination fee, as applicable at the time.

8.9. If a thesis is rejected by both the external examiners, or if it recommended by one examiner but is rejected by two examiners consecutively, the student shall submit a fresh thesis after a period of one year from the date of the decision. The thesis examination fee of as applicable at the time, shall be deposited again before the submission of the thesis. The DAC will recommend a fresh panel of external examiners in the area of the submitted research work each from India and abroad for appointment as external examiners of the thesis.

8.10. The thesis resubmission fees will have to be paid as applicable from time to time as stated in the clauses 8.7., 8.8. and 8.9.

9.0. Defense of Ph.D. work

9.1. The Dean (Academic) shall invite the examiners, on approval of Chairman, Senate.

9.2. Open Ph.D. seminars and viva will be conducted at respective departments in presence of DSC members.

9.3. Recommendations of the external examiner and DSC will be forwarded to the Dean (Academic) for its onward submission to the Chairman, Senate (vide Annexure-X).

10.0. Award of Degree

10.1. On the recommendation of the Doctoral Scrutiny Committee, the Senate or the Chairperson, Senate (when the Senate is not sitting early) shall decide whether the candidate should be awarded the degree of Doctor of Philosophy. If the Chairperson, Senate has approved the award of degree, the award needs to be confirmed by the Senate.

10.2. Deleted

10.3. A provisional degree certificate will be issued to the scholar on successful defense of the thesis and approval of Chairperson, Senate. The final degree certificate will be issued in the convocation or by any other mode approved by the Senate. The date of the defense examination shall be the effective date of award of degree and will be mentioned in the provisional certificate and degree certificate.

10.4. Any deliberate false statement or plagiarized text will lead to summary disqualification, in addition to other punitive measures commensurate with the offence. Degrees, even after being awarded, may be revoked if gross violation of academic ethics is established.

11.0. Fellowship [*applicable to Institute scholars, Category A*]

10.1. Institute doctoral fellowships shall be governed by the rules of MHRD. When the number of Institute fellowships is limited; they will be distributed among different departments by the Director on recommendation of Dean (Academic). Generally, the number of fellowships will be proportional to the faculty strength, but changes can be made to ensure that the positions are filled to the extent possible.

11.2. In case of students awarded a scholarship by an external agency or from a research project operating in the Institute; the provisions specified by the sponsor shall govern the rules.

11.3. Deleted

11.4. Deleted

11.5. Deleted.

11.6 The scholarship for the category A students shall normally be given initially for a period of three years, which can be renewed on year-to-year basis on satisfactory performance up to a maximum period of 5 years (including project fellowship, if any) / tenure of the research scheme. The scholarship shall, however, automatically be terminated after the date of PhD thesis defence or 5 years from the date of enrolment whichever is earlier.

11.7. Enhancement in rate of fellowship, after two years of enrolment, may be considered on successful assessment by the DSC and submission of report (vide Annexure-VI) to the Dean

(Academic) towards satisfactory progress in the research activity. The student will submit a summary of the progress of the work to the Chairperson, DSC through the supervisor/co-supervisor(s) and deliver an open seminar. In case the recommendation of the DSC is not favourable, the candidate may deliver a fresh seminar after six months from the previous one for consideration of enhancement in scholarship. Enhancement of scholarship shall be effective from the date of successful enhancement seminar.

11.8. Deleted.

11.9. If a student with Institute fellowship fails to complete registration formalities within 24 months of enrolment, payment of fellowship will be suspended (with permanent loss) till registration formalities are over.

11.10. All research scholars with fellowship (Institute sponsored/ Externally funded, including UGC/ CSIR/ DST etc.) will be required to assist the Department in teaching activity (sessional, laboratory etc.) and other academic activity for up to 8 hours per week; the quantum of such contribution being decided by the administration from time to time.

11.11. Change of fellowship, other than project fellowship (due to completion of project duration), shall not be permitted.

12.0. Leave rules [*applicable to Institute scholars, Category A*]

12.1. A research student, except when granted withdrawal by the Institute must attend to his work on a whole time basis. The departments will maintain attendance record of the student. The DSC will examine the attendance record of students, and if it is found unsatisfactory, will recommend extension of minimum duration for submission of thesis, deregistration or termination of studentship, as it thinks fit.

12.2. Research scholars other than Institute employee are eligible to enjoy 30 days leave as and when necessary in a calendar year.

12.2.1. Request for the sanction of any type of leave, formal application should be addressed to the HOD which should usually be recommended and forwarded by the supervisor before availing any leave excepting exigencies.

12.2.2. The HOD and his/her office would take care of the leave applications and approvals. The same office would also keep the records of the leave as usual and submits the attendance report to the appropriate authority for scholarships or other grants. The HOD may refer appropriate cases to the Dean (Academic) to issue leave certificate, as and when required, and to settle and dispute or cases of exigency.

12.2.3. Leaves of research scholars under CSIR/UGC/DST sponsored research schemes and other categories will be governed by the rules of the bodies, which provide financial support.

12.2.4. In case of medical leave, the Institute Medical Officer must endorse the medical certificate.

12.2.5. Maternity and child care leave are applicable to female student only. A female student is entitled to avail maternity leave for a maximum of 180 days and childcare leave for a maximum of 60 days once during the tenure of their studentship. Similarly, a male student is entitled to avail paternity leave for a maximum of 15 days. If availed, the loss of days due to these leaves may be augmented by extending their registration period, by the same number of days, on the basis of written prayer from the scholars to the Dean (Academic) with due recommendation of DSC.

12.2.6. There will be no loss of scholarship/fellowship for the female students availing the maternity and childcare leave but the total time period of scholarship will remain same and will not be extended.

12.2.7. In all cases, an application for medical/maternity leave must be accompanied by all relevant medical papers - prescriptions, admission and discharge reports, diagnostic reports, medicine purchase slips etc.

12.2.8. All leave application must be filed within 3(three) working days after joining.

12.2.9. Absence without sanctioned leave will entail loss of financial assistantship for the period of absence and may result in the termination of the students' program.

12.3. There shall be no summer or winter vacation for research students.

12.4. For part of a year, the entitlement will be on pro-rata basis.

12.5. In matter of course work, leave rules applicable to other program will also be applicable to PhD students.

12.6. Leave on duty - If a scholar require to visit any laboratory/ institute in connection to his/ her research work, such absence from NIT Durgapur will be treated as leave on duty. However, the scholar will require to have prior approval for the same, on recommendation of the concerned supervisor, from the Chairman of DSC (up to 7 days) or Dean, Academic (more than 7 days up to 30 days) or the Chairman, Senate (more than 30 days).

13.0. Miscellaneous

13.1. All seminars and viva voce for the PhD program shall be open house, with a notice normally circulated to all departments of the Institute at least seven days in advance.

13.2. All seminars; pre-registration, enhancement and pre-submission seminars must be conducted within a maximum period of one month from the date of application by the candidate, subject to concurrence of the DSC.

13.3. If the DSC finds the performance of the research scholar unsatisfactory, it will give at least two warnings (in writing) to the candidate. If there is no improvement in her/his performance even after the warnings, the DSC may recommend termination of the PhD program for the scholar through DRPC for approval of the Senate.

13.4. The Institute may revise the fee structure from time to time.

13.5. The list of documents, which need to be submitted at various stages of Ph.D. program starting from the time of admission are listed in Annexure- forms.

13.6. External co-supervisors will submit a willingness certificate (vide Annexure-XII) and no objection certificate (vide Annexure-XIII) from their organization and from their end during formation of DSC or at a time when appropriate.

13.7. The Institute shall submit the soft copy of the thesis to INFLIBNET after 2 years from the date of the PhD thesis defence.

13.8. The Institute will issue a declaration to the effect that the degree has been awarded in accordance with the provisions of UGC regulations, 2016, if sought by a degree awardee.

14.0. Termination of Studentship *[applicable to all students]*

The studentship of a Ph.D. scholar may be terminated by the Senate on exceptional grounds. They are:

- Recommendation of Institute's Disciplinary Committee.
- Failure to do semester registration.
- Failure to complete registration within two years from the date of enrolment.
- Poor progress as noted by DSC. Such a decision may be implemented only after approval of the Senate.
- Prolonged absence (exceeding two months) from the Institute without prior intimation.

15.0. Transition issues

The revised regulation shall come into effect from 1st July 2019. Students enrolled prior to this date shall be generally covered by the regulation in vogue at the time of their enrolment. However, some of the clauses in the present regulation shall be applicable to them where these are specifically mentioned. The final decision on each specific issue will be taken by the Senate (or Chairman Senate on its behalf), on case-to-case basis.

16.0. Exceptions

Notwithstanding anything stated in the rules, the Senate can make special provisions and exceptions depending on the merit of a case. Such cases shall not be cited as precedence in future occasions of similar nature, because two situations appearing similar may not be identical.

In emergency situations, the Director in capacity of the Chairman Senate, can exercise powers of the Senate and discharge the functions of the Senate. Such decisions must be reported to the Senate at its next meeting.

17.0. Committees / Functionaries

The following committees shall be constituted for the research program.

17.1. Research Academic Committee (RAC)

17.1.1. Constitution:

- i) Dean (Academic)- Chairperson
- ii) Dean (R&C)- Members
- iii) Chairman of all DRPCs OR any one faculty (with Ph.D.)
nominated by Chairman of respective DRPCs- Members
- iv) One representative with Ph.D. degree from industry / R&D organization - Member
- v) Associate Dean (A&E)- Member
- vi) Deputy Registrar (A&E)- Convener

17.1.2: Functions:

- i) To consider the recommendations of the DRPC on matters relating to research program and to make suitable recommendations to the Senate.
- ii) To ensure that all norms and regulations pertaining to research programme are strictly followed
- iii) To make periodic review of ordinances, regulations and instructions pertaining to research program and to recommend to the Senate any modification thereof.
- iv) To review the academic performance and make suitable recommendations to the Senate regarding the award of degrees.
- v) To conduct at least one meeting each semester and send the proceedings to Secretary, Senate.
- vi) The quorum for each meeting will be ten.

17.2. Departmental Research Program Committee (DRPC)

17.2.1. Constitution

- i) Head of the Department- Chairperson
(In case, Head of the department does not possess PhD degree, the Director shall nominate Chairperson)
- ii) All faculty members of the department having PhD degree- Members
- iii) One Professor from a premier national academic institution /
one expert from industry / R&D organization with PhD degree- Member

17.2.2. Functions

- i) To ensure academic standard and excellence of the PhD program offered by the department.
- ii) To assign the supervisor/co-supervisor(s) to the research scholar in consultation with the Scholar and the supervisor/co-supervisor(s)
- iii) To conduct admission test/ interview
- iv) To consider any general matter related to the research program of the department and propose change in policy pertaining to the PhD program.
- v) The external expert to be present in the non-routine DRPC meetings where policy decisions are recommended.

17.3. Doctoral Scrutiny Committee (DSC)

There shall be a Doctoral Scrutiny Committee for each Ph.D. scholar. The Supervisor shall be the Convener of this Committee. The DSC shall vigilantly monitor the quality of the research work and the PhD thesis.

17.3.1. Constitution

- i) Chairperson (DRPC)/ A senior Faculty member of the Department
(if Chairperson is a supervisor/co-supervisor) – Chairperson
- ii) Two faculty members of the department having PhD degree- Members
- iii) One faculty member in the rank of Professor/ Assoc. Professor having PhD from other department of the institute, preferably having interest in related area of research- Member
- iv) Concerned supervisor/co-supervisor(s) for the research scholar- Member(s)

17.3.2. Functions

- i) To review the research proposal and finalize the topic of research;
- ii) To guide the research scholar to develop the study design and methodology of research and identify the course(s) that he/she may have to do.
- iii) To periodically review and assist in the progress of the research work of the research scholar.
- iv) A research scholar shall appear before the DSC once in six months to make a presentation of the progress of his/her work for evaluation and further guidance. The six monthly progress reports shall be submitted by the DSC to the Academic Section before each Semester registration.
- v) In case the progress of the research scholar is unsatisfactory, the DSC shall record the reasons for the same and suggest corrective measures. If the research scholar fails to implement these corrective measures, the DSC may recommend with specific reasons for cancellation of the registration of the research scholar.
- vi) To conduct registration, enhancement and pre-submission seminars, viva voce.
- vii) To act as the examiners in the above seminars and viva voce.
- viii) To oversee and advise on all matters related to the PhD work of the scholar.

17.4. Supervisor/co-supervisor

The functions and responsibility of the supervisor/ co-supervisor are:

- i) To assign a topic for research to the research scholar in consultation with the scholar.
- ii) To recommend the courses to be taken up by the research scholar.
- iii) To provide or arrange for facilities to carry out research and supervise the research scholar for the entire research studies.
- iv) To monitor the progress of the research scholar.
- v) To report to the DSC the performance of the student at the end of each semester.
- vi) To recommend a panel of PhD thesis external examiners to DSC.
- vii) To forward all applications of the research scholar working under him to the DRPC

Utmost care must be taken by the supervisor(s) with respect to the content, organization and language of the PhD thesis before endorsing it for submission.

17.5. Central Admission Committee (CAC)

17.5.1. Constitution

- i) Dean (Academic)- Chairman
- ii) Chairman of all DRPCs- Members
- iii) Associate Dean (A&E)- Member
- iv) Deputy Registrar (A&E)- Convener

17.5.2. Functions

To prepare the final list of the selected candidates based on the selection lists prepared by the departments and communicate it to the office of Dean (Academic).

17.6. Departmental PhD Programme Coordinator

The PhD Coordinator will be appointed by the HOD on rotation basis, who will be in charge of PhD program in the Department with the following function and responsibilities.

- i) To help the department with allotment of PhD students to faculty members.
- ii) To maintain a detailed record of departmental PhD students.
- iii) To organize PhD admission test and viva voce in each semester as required.
- iv) To keep a record of various course works being taken by the PhD students.
- v) To monitor that DSC assigned course works are being taken by the PhD students.
- vi) To compile the marks of all the course works and submit the same to the Academic Section.
- vii) To work in conjunction with the academic section for any relevant issue.
- viii) To circulate any departmental PhD related seminar notices as soft copies.
- ix) To report to the Academic section, as required, through HOD.
- x) Any other function as assigned by the HOD.

18.0 Guidelines for Utilization of Contingency Grant (for attending National/International Conference/Lab visit etc.) [Applicable to Institute scholars, Category A]

18.1 The financial assistance shall be provided to a research scholar in different heads as follows for attending National/International Conferences within India:

Head	Eligibility	Remarks
Registration Fee	Maximum up to Rs. 5000	On production of fee receipt
Travel	Train(AC III Tier)/AC Bus (by the shortest route)	As per actuals on production of ticket. In case the scholar travels by flight or any other mode, the reimbursement should be actual subjected to an upper ceiling of 3- tier AC Train fare.
Local Travel	Auto/Bus	As per actuals subjected to an upper limit of Rs 100 per day on production of bills/self-certification
Lodging	Hostel/Guest House/Hotel for the conference days plus one day each prior to and after the conference days	Actuals subjected to a ceiling of Rs 1000 per day
Per diem	The conference days plus one day each prior to and after the conference days	Rs. 250 per day (No bills required)

18.2 Maximum two conferences can be attended in a calendar year subjected to availability of contingency grant.

18.3 A research scholar will be given the support provided he/she continues to be a student for at least three months after attending the conference.

18.4 The scholar has to obtain an approval from competent authority before attending the conference and should submit settlement of financial assistance granted by the Institute (by listing all the expenses incurred in an orderly manner and duly enclosing all supporting documents) within ten days to the Academic Section.

18.5 In case the purpose of the travel is for data collection/lab visit for conducting experiments, the scholar will be permitted to travel within India, subjected to availability of contingency grant, and the entitlements will be the same as that of conference travel within India.

18.6. List of items, which can be purchased under contingency grant

- i) Acquisition of books and documents of relevance to the research topic provided these are not available in the library of the University/Institute.
- ii) Chemical/consumable items required for the research work.
- iii) Equipment required exclusively for research.
- iv) Photographic materials for research or thesis work.
- v) Computation charges.
- vi) Reprints/ Off- print of research papers.
- vii) Stationery and postal charges.
- viii) Registration fee for attending conference in India and abroad.
- ix) For registration of Ph. D and submission of thesis.
- x) Any other purpose, specially authorized by NIT Durgapur administration.

Contingency grant cannot be used for:

- i) Foreign travel or other expenses for visit abroad.
- ii) Stationery items such as pen, pencils, folders, file covers, carbon papers etc. and furniture items.
- iii) Tuition fees

19.0. Guideline for composing PhD thesis

19.0. INTRODUCTION

Purpose

This document, herein after referred to as the Thesis Guide, lists the general and specific requirements governing thesis preparation including guidelines for structuring the contents. For style, structure and presentation of the thesis, students may refer to additional style manuals or reference guides (some of which are listed below) and to the published literature in their respective field of study.

Style Manuals or Reference Guides

- i) Michaelson, H.B. *How to Write & Publish Engineering Papers and Reports*. 3rd ed. Phoenix: Oryx Press, 1990.
- ii) Turner, R.P. *Technical Report Writing*. 2nd ed. San Francisco: Rinehart Press, 1971.
- iii) Turk, C. and Krikman, J. *Effective writing: Improving Scientific, Technical and Business Communication*. 2nd ed. London: E & FN Spon, 1989.
- iv) Campbell, W.G., Ballou, S.V. and Slade, C. *Form and Style: Theses, Reports, Term Papers*. 4th ed. Boston: Houghton Mifflin Co., 1974.
- v) *MLA Style Manual and Guide to Scholarly Publishing*. 3rd ed. New York: Modern Language Association, 2008.
- vi) Sternberg, D. *How to Complete and Survive a Doctoral Dissertation*. New York: St. Martin's Press, 1981.
- vii) Day, R.A. and Gastel, B. *How to Write and Publish a Scientific Paper*. Westport: Greenwood Press, 2006.
- viii) Booth, W.C., Colomb, G.G. and Williams, J.M. *The Craft of Research*. Chicago: The University of Chicago Press, 2003.
- ix) *Publication Manual of the American Psychological Association*. 6th ed. Washington, DC: APA, 2009.

Thesis Submission

To have the thesis examined, the number of thesis copies to be submitted to the Dean of Academic Section should correspond the number of thesis supervisors plus five copies for a Ph.D. degree student. Besides various existing requirements for thesis submission such as submission of a list of examiners, additional copies of synopsis/abstract, and payment of thesis examination fees (for Ph.D. only), students and their thesis supervisors should ensure that the guidelines have been adhered to. While submitting the thesis, every student is required to provide the Dean of Academic Section a signed checklist in the following format.

STATEMENT OF THESIS PREPARATION

1. Thesis title:
2. Degree for which the thesis is submitted:
3. Thesis Guide was referred to for preparing the thesis.
4. Specifications regarding thesis format have been followed.
5. The contents of the thesis have been organized based on the guidelines.
6. The thesis has been prepared without resorting to plagiarism.
7. All sources used have been cited appropriately.
8. The thesis has not been submitted elsewhere for a degree.

(Signature of the student with date)

Name: _____

Registration No.: _____

Department: _____

19.1. THESIS FORMATTING SPECIFICATIONS

19.1.1. Preparation of Manuscript and Copies

19.1.1.1. The thesis needs to be prepared using a standard text processing software and must be printed in black text (color for images, if necessary) using a laser printer or letter quality printer in standard typeface (Times New Roman or Sans Serif font). The font size should also be fixed at 12 in general; exceptions may be there only when it is really required. The medium of writing will be British English.

19.1.1.2. The thesis must be printed or photocopied on both sides of white paper. All copies of thesis pages must be clear, sharp and even, with uniform size and uniformly spaced characters, lines and margins on every page on good quality white paper of 75 gsm or more.

19.1.1.3. Thesis should be free from typographical and grammatical errors.

19.1.2. Size and Margins

19.1.2.1. A4 is the recommended thesis size. The total number of pages should preferably be limited to two hundred (considering both sides of the paper).

19.1.2.2. The top, bottom and right side margins should be 25 mm, whereas the left side margin should be 35 mm for both textual and non-textual (e.g., figures, tables) pages. If one takes print on either side of a page, margin on either right side or left side will be different for odd and even pages.

19.1.2.3. Content should not extend beyond the bottom margin except for completing a footnote, last line of chapter/subdivision, or figure/table caption.

19.1.2.4. A sub-head at the bottom of the page should have at least two full lines of content below it. If the sub-head is too short to allow this, it should begin on the next page.

19.1.2.5. All tables and figures should conform to the same requirements as text. Colour may be used for figures. If tables and figures are large, they may be reduced to the standard size (provided the reduced area is not less than 50% of the original) and/or folded just once to flush with the thesis margin (if the page size does not exceed 250x360 mm).

19.1.2.6. Students may choose to submit printed thesis copies either in the standard size (as in 2.2.1) or in a book format that is roughly half of A4. If the book format is adopted for submission, it should be

ensured that all textual and illustrative material is distinct and legible. Students should also submit the thesis in soft form (PDF) for storage and archival.

19.1.3. Page Numbering

19.1.3.1. Beginning with the first page of the text in the thesis (Chapter 1), all pages should be numbered consecutively and consistently in Arabic numerals through the appendices.

19.1.3.2. Page numbers prior to Chapter 1 should be in lower case Roman numerals. The title page is considered to be page (i) but the number is not printed.

19.1.3.3. All page numbers should be placed without punctuation in the upper right hand corner, 12 mm from the top edge and with the last digit even with the right hand margin.

19.1.4. Multi-Volume Thesis

A thesis may be in two or more volumes, if required. The volume separation should come at the end(s) of major division(s). The preliminary pages prior to Chapter 1 are contained only in Volume I, except the title page.

19.1.5. Line Spacing

The general text of the manuscript should be in one-and-half spacing. Long tables, quotations, footnotes, multi-line captions and bibliographic entries (references) should be in single spacing, with text size in 11 points.

19.1.6. Tables, Figures and Equations

19.1.6.1. All tables (tabulated data) and figures (charts, graphs, maps, images, diagrams, etc.) should be prepared, wherever possible, on the same paper used to type the text and conform to the specifications outlined earlier. They should be inserted as close to the textual reference as possible.

19.1.6.2. Tables, figures and equations should be numbered sequentially either throughout the thesis or chapter-wise using Arabic numerals. They are referred to in the body of the text capitalizing the first letter of the word and number, as for instance, Table 17, Figure 24, Equation (33), or Table 5.3, Figure 3.11, Equation (4.16), etc.

19.1.6.3. If tables and figures are of only half a page or less, they may appear on the same page as text but separated above and below by double line spacing. Font size for text should be the same as for the general text.

19.1.6.4. Good quality Line Drawings/figures must be drawn using standard software that provides vector rather than bit-map graphics. Figures must be scalable.

19.1.6.5. Images, Photographs, etc. must be scanned in resolution exceeding 200dpi with 256 grayscales for the monochrome images and 24 bit per pixel for the color images.

19.1.7. Binding

The student should submit the copies of the thesis in fully bound form (soft cover). Once the thesis is accepted, it is the student's responsibility to get it properly hard bound before submitting the required number of copies with the Academic Section / Central Library and the Department and Supervisors concerned. The front cover of the bound copy should be the same as the title page of the thesis. The front cover should have printing on the side to include the author's name, abbreviated thesis title (optional), degree, department, and the year. The color of the binding cover should be maroon for Ph.D. with golden color writings on it).

19.2. GUIDELINES FOR STRUCTURING THE CONTENTS

19.2.1. Sequence of Contents

The following sequence for the thesis organization should be followed:

(i) Preliminaries	Title Page	As per the format given at the end of the guidelines.
	Certificate	
	Abstract/Synopsis	
	Acknowledgement and/ or Dedication (where included)	
	Table of Contents	
	List of Figures, Tables, Illustrations,	
	Symbols, etc (wherever applicable)	
(ii) Text of Thesis	Introduction	
	The body of the thesis	
	summary and conclusions	
(iii) Reference Material List of References, Bibliography (where included)		
(iv) Appendices where included		
(v) Index where included		

All the headings are centered (without punctuation) 25mm down the top edge of the page. The subsequent type-setting begins three spaces below the heading.

19.2.2. Preliminaries

19.3.2.1. A Ph.D. thesis should contain an abstract/synopsis not exceeding 1000 words (about four pages) in one-and-half spacing.

19.2.2.2. Ph.D. students shall also separately submit three copies of the synopsis/abstract for transmission to various examiners.

19.2.2.3. Every student should submit two copies of abstract/synopsis not exceeding 250 words (one page) for record keeping in the Central Library.

19.2.2.4. A synopsis/ abstract shall be printed in one-and-half space with the heading “SYNOPSIS/ ABSTRACT” in uppercase followed by certain preliminary information and the text. For textual matter, refer to the suggested format which is placed at the end of the Thesis Guide.

19.2.2.5. Synopsis/Abstract should be self-complete and contain no citations for which the thesis has to be referred.

19.2.3. Table of contents

19.2.3.1. The table of contents lists all material that follows it. No preceding material is listed. Chapter titles, sections, first and second order sub-divisions, etc must be listed in it.

19.2.3.2. Tables, figures, nomenclature, if used in the thesis, are listed under separate headings.

19.2.4. The Text of the Thesis

19.2.4.1. Introduction

Introduction may be the first chapter or its first major division. In either case, it should contain a brief statement of the problem investigated. It should outline the scope, aim, general character of the research and the reasons for the student's interest in the problem.

19.2.4.2. The body of Thesis

This is the substance of the dissertation inclusive of all divisions, subdivisions, tables, figures, etc.

19.2.4.3. Summary and conclusions

If required, these are given as the last major division (chapter) of the text. A further and final subdivision titled "*Scope for Further Work*" may follow.

19.2.4.4. Reference material

The list of references should appear as a consolidated list with references listed either alphabetically or sequentially as they appear in the text of the thesis. If pertinent works have been consulted but not specifically cited, they should be listed as Bibliography or General References. Spacing and font size should be consistent inside a single reference, and there should be a single spacing between two different references (see Section 2.5).

Reference Format

- For referencing an article in a scientific journal the suggested format should contain the following information: authors, title, name of journal, volume number, page numbers and year.
- For referencing an article published in a book, the suggested format should contain, authors, the title of the book, editors, publisher, year, page number of the article in the book being referred to.
- For referencing a thesis the suggested format should contain, author, the title of thesis, where thesis was submitted or awarded, year.

- A few examples of formats of references are given below and the student should be consistent in following the style.

Journals

H.E. Exner, "Physical and Chemical Nature of Cemented Carbides," *International Metals Review*, 1979, v. 24, pp. 149-173.

G.E. Spriggs, "The Importance of Atmosphere Control in Hard Metal Production," *Powder Metallurgy*, 1970, v. 13, n. 26, pp. 369-393.

Conference Proceedings

H.F. Fischmeister, "Development and Present Status of the Science and Technology of Hard Materials," *Science of Hard Materials*, R.K. Viswanadham, D.J. Rowcliffe, and J. Gurland (eds.), Plenum Press, New York, NY, USA, 1982, pp. 1-45.

W.H. Baek, M.H. Hong, S. Lee, and D.T. Chung, "A Study on the Shear Localization Behavior of Tungsten Heavy Alloy," *Tungsten and Refractory Metals 2*, A. Bose and R.J. Dowding (eds.), Metal Powder Industries Federation, Princeton, NJ, USA, 1995, pp. 463-471.

Books

R.M. German, *Powder Injection Molding*, Metal Powder Industries Federation, Princeton, NJ, USA, 1990.

Thesis

J.L. Johnson, "Densification, Microstructural Evolution, and Thermal Properties of Liquid Phase Sintered Composites," Ph.D. Thesis, The Pennsylvania State University, University Park, PA, USA, 1994.

Technical Reports

E.G. Zukas, P.S.Z. Rogers, and R.S. Rogers, "Experimental Evidence for Spheroid Growth Mechanisms in the Liquid Phase Sintered Tungsten Based Composites," *Informal Report: Los Alamos Scientific laboratory, USA*, 1976, pp. 1-35.

Patents

V. Oenning and I. S. R. Clark, U. S. Patent No. 4988386, 1991.

Journals in Non-English Language

L. Weihong and T. Xiuren, "Tungsten Matrix in Cu-W Contact Materials by Impregnation Process," *Powder Metallurgy Technology*, 1988, v. 6, n. 8, pp. 1-4. (in Chinese)

19.2.4.5. Appendix or Appendices

Supplementary illustrative material, original data, and quotations too lengthy for inclusion in the text or which is not immediately essential to an understanding of the subject can be presented in Appendix or Appendices (as Appendix A , Appendix B, etc.).

Each appendix with its title should be listed separately in the table of contents. Likewise, tables and figures contained in the Appendices are to be included in the lists of tables and figures, respectively.

9.3. CONCLUDING REMARKS

This Thesis Guide lists only the basic requirements for preparing the thesis. Over and above the aforementioned points, a thesis should be reader-friendly in both its appearance and presentation. Several aspects of thesis preparation, particularly style of writing and presentation, have not been discussed in great detail. The student should follow appropriate ideas from standard literature of his/her area of research, and adopt a uniform style and format throughout the thesis, such as in the structural divisions/subdivisions of the thesis, in the mode of citing references and footnotes in the text, in using dimensions, units and notations, and in preparing tables and figures, etc.

TITLE OF THE THESIS

*A Thesis Submitted in Partial Fulfillment of the Requirements
for the Degree of
Doctor of Philosophy*

NAME OF THE STUDENT
(Registration No.)

*Under the Supervision
of*
SUPERVISOR NAME(S)



DEPARTMENT OF -----
National Institute of Technology Durgapur
West Bengal – 713209
India

Month, Year

NATIONAL INSTITUTE OF TECHNOLOGY DURGAPUR



CERTIFICATE

It is certified that the work contained in the thesis entitled "**Title of the Thesis**" has been carried out by me [**"Name of the Student (Roll No.)"**] under the guidance of "**name of the supervisor(s)**". The data reported herein is original and that this work has not been submitted elsewhere for any other Degree or Diploma.

(Signature of Candidate)
Name of the candidate
Place.....:
Date.....:

This is to certify that the above declaration is true.

(Signature of Supervisors)
Names of the supervisors
Place:
Date.....:

Acknowledgement

Body of the text.

Date: xx/xx/xxxx

Name of the Student
Registration No _____
Department of _____
National Institute of Technology Durgapur
West Bengal – 713209, India

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20.0. ANNEXURES- FORMS
(download, fill up and submit when required)

National Institute of Technology Durgapur
Mahatma Gandhi Avenue, Durgapur-713209, West Bengal, INDIA

INFORMATION SHEET
(to be submitted at the time of admission)

1. Name of the Scholar: _____
(Block Capital Letters)
2. Father's Name: _____
3. Roll No. _____
4. Department/Centre: _____
5. Category of Research Scholar: _____
6. Gender: Male/ Female/ Transgender
7. Marital Status: Married/Single
8. Category: SC/ ST/ OBC/ OPEN_
9. Physically Challenged: Yes/ No
10. Nationality: _____
11. GATE/NET (if any): Qualified (Yes/No): _____ Score: _____ Rank: _____
- Discipline: _____ Year: _____
12. Address for Communication: _____
13. Telephone/Mobile No.: _____ E- Mail ID: _____
14. Academic Qualification: (Starting from Madhyamik or equivalent Examination)

Name of Exam. Passed	Name of the School/College/ Institute/University	Year of Passing	Discipline/ Specialization	Percentage of Marks/CGPA

15. If employed, [Name of the employer, nature of work, total experience, copy of the Sponsorship/No-objection certificate from the organization must be closed]:

Date: _____ Full signature of the Scholar: _____

National Institute of Technology Durgapur
Mahatma Gandhi Avenue, Durgapur-713209, West Bengal, INDIA

INSTITUTE SEMESTER REGISTRATION FORM

(to be submitted at the beginning of each semester on payment of the registration fee)

_____ Semester _____ Programme, 20____-20____

1. Name of the Scholar: _____

2. Roll No.: _____ / Registration No: _____

3. Department/Branch: _____

4. Whether paid Institute Fees: Amount: Rs. _____ Date: _____

Mode of payment details: _____

(Attach self-attested copy of payment receipt)

5. Courses to register for this Semester (including sessional courses):

Sl. No.	Course Code	Name of the subject(s)
1.		
2.		
3.		
4.		

6. Progress made by the scholar (attach progress report):

Date: _____

Signature of the Scholar

Forwarded by: _____
Signature of Supervisor

Signature of the Chairperson, DSC

Dean (Acad)/ Associate Dean (A&E)

National Institute of Technology Durgapur
Mahatma Gandhi Avenue, Durgapur-713209, West Bengal, INDIA

FORMATION OF DOCTORAL SCRUTINY COMMITTEE (DSC)
(to be submitted within one month of admission to the programme)

Department of _____

The DSC is hereby constituted for the doctoral study of the following scholar:

Name of the Scholar: _____ Roll No.: _____

SI No	Norm	Name	Dept./ Organization	Signature
1	Chairperson (DRPC)	HOD (ex-officio) _____		
2	MEMBER Concerned supervisor(s) for the research scholar	i) _____ _____		
		ii) _____ _____		
3	MEMBER Two faculty members of the department having Ph.D. degree [if not available, faculty member(s) from other department(s) with Ph.D. degree]	i) _____ _____		
		ii) _____ _____		
4	MEMBER One faculty member of any other department of the Institute having Ph.D. degree (Nominated by the Senate)	i) _____ _____		

Certified that one of the supervisors is supervising more than 6 Ph.D. Scholars at present.

Date: _____

Signature of Chairperson, DSC

[Please attach the CV, consent letter and NOC of the employer from the supervisor, if s/he is not a faculty member of NIT Durgapur. NOC is not required if the supervisor belongs to an institution/organization having MoU with NIT Durgapur]

Dean (Acad)/ Associate Dean (A&E)

National Institute of Technology Durgapur
Mahatma Gandhi Avenue, Durgapur-713209, West Bengal, INDIA

COURSES TO BE UNDERTAKEN BY THE SCHOLAR DURING DOCTORAL PROGRAMME
(to be submitted within TWO months of admission to the programme)

1. Department/Centre: _____

2. Name of the Scholar: _____

3. Roll No.: _____

4. Date of Admission: _____

5. Course Works Assigned by the DSC:

Sl. No.	Course Code	Course Name

6. Name and Signature of the DSC Members:

(i) _____

(ii) _____

(iii) _____

(iv) _____

(v) _____ (Supervisor)

(vi) _____ (Supervisor)

7. Signature of Chairperson of DSC: _____

Dean (Acad)/ Associate Dean(A&E)

National Institute of Technology Durgapur
Mahatma Gandhi Avenue, Durgapur-713209, West Bengal, INDIA

Registration Form for Ph.D. Programme
(to be submitted on completion of course work and pre-registration seminar)

1. Name of the Scholar: _____
(In Block Capital Letters)
2. Father's Name: _____
3. Roll No. _____
4. Department/Centre: _____
5. Date of admission in Ph.D. programme: _____
6. Category of Research Scholar: _____

7. Course Works Completed: (enclose copy of the grade cards)

Sl. No.	Course Code	Course Name	Grade Obtained	Date of Completion

8. Proposed Research Area [Two copies of the brief outline of proposed research work, counter signed by the supervisor (s) are to be submitted along with this application]: _____

9. Tentative title of the thesis: _____

10. No of publication, if any: _____ 11. Date of Pre-registration seminar: _____

Recommendation of DSC for registration for Ph.D. programme

The applicant has fulfilled all the requirements for registration to PhD Programme of the Institute and may be permitted for registration to the PhD Programme.

Signature of DSC Members

_____(Supervisor)

**Signature of the
Chairperson DSC**

_____(Supervisor)

Dean (Academic) _____; Registration No: _____: Senate date: _____

National Institute of Technology Durgapur
Mahatma Gandhi Avenue, Durgapur-713209, West Bengal, INDIA

REPORT ON SEMINAR FOR ENHANCEMENT OF FELLOWSHIP FOR Ph.D. DEGREE
(after two years of admission)

1. Department/Centre: _____

2. Name of the scholar: _____

3. Roll No. _____; 4. Date of Admission: _____

5. Registration No. _____; 6. Date of Registration: _____

7. Title of the Thesis: _____

8. Date of Seminar: _____

9. Details of Publications in Journals/ Conferences, if any (Published/Accepted/Communicated):

10. Recommendation:

Progress of the scholar is satisfactory/ unsatisfactory (*please tick*)

The DSC recommends/does not recommend (*please tick*) an enhancement in fellowship.

11. Name and Signature of the DSC Members:

(i) _____

(ii) _____

(iii) _____

(iv) _____

(v) _____ (Supervisor)

(vi) _____ (Supervisor)

Signature of Chairperson of DSC: _____

Dean (Academic)

National Institute of Technology Durgapur
Mahatma Gandhi Avenue, Durgapur-713209, West Bengal, INDIA

REPORT ON PRE-SUBMISSION SEMINAR FOR Ph.D. THESIS

1. Department/Centre: _____

2. Name of the scholar: _____

3. Roll No. _____; 4. Date of Admission: _____

5. Registration No. _____; 6. Date of Registration: _____

7. Date of Pre-submission Seminar: _____

8. Title of the Thesis (Final): _____

9. Number of Papers published/accepted for publication in journals
(Attach list of publications and the first pages of the papers): _____

10. Number of Papers presented in Conferences/Seminars
(Attach certificate of presentations and the first pages of the papers): _____

11. Recommendation: _____

12. Name and Signature of the DSC Members:

(i) _____

(ii) _____

(iii) _____

(iv) _____

(v) _____ (Supervisor)

(vi) _____ (Supervisor)

Signature of Chairperson of DSC: _____

Dean (Academic)

National Institute of Technology Durgapur
Mahatma Gandhi Avenue, Durgapur-713209, West Bengal, INDIA

SUBMISSION OF Ph.D. THESIS

To be submitted with hard copies of the thesis.

Soft copy of the thesis in .pdf format to be mailed to Dean/ Asso. Dean (Academic).

1. Department/Centre: _____

2. Name of the scholar: _____

3. Roll No. _____

4. Registration No.: _____

5. Date of Registration: _____

6. Date of Thesis Submission: _____

7. Title of the Thesis: _____

8. Details of thesis fees submission (Enclose relevant documents):

9. Details of due semester registration fees (As applicable):

10. Recommendation of DSC:

11. Name and Signature of the DSC Members:

(i) _____

(ii) _____

(iii) _____

(iv) _____

(v) _____ (Supervisor)

(vi) _____ (Supervisor)

Signature of Chairperson of DSC: _____

Dean (Academic)

National Institute of Technology Durgapur
Mahatma Gandhi Avenue, Durgapur-713209, West Bengal, INDIA

RESUBMISISON OF Ph.D. THESIS

To be submitted with hard copies of the revised thesis.

Soft copy of the revised thesis in .pdf format to be mailed to Dean/ Asso. Dean (Academic).

1. Department/Centre: _____
 2. Name of the scholar: _____
 3. Roll No. _____
 4. Registration No.: _____
 5. Date of Registration: _____
 6. Original Date of Thesis Submission: _____
 7. Title of the Thesis: _____

 8. Decision of the Indian Examiner on original thesis (To be Revised and Sent Back/ Not recommended):
 9. Decision of the Foreign Examiner on original thesis (To be Revised and Sent Back/ Not recommended)
 10. Date of communication of the decision to the supervisors: _____
 11. Details of thesis fees submission (Enclose relevant documents): _____
 12. Details of due semester registration fees (As applicable): _____
 13. Recommendation of DSC: _____

 14. Name and Signature of the DSC Members:
 - (i) _____
 - (ii) _____
 - (iii) _____
 - (iv) _____
 - (v) _____ (Supervisor)
 - (vi) _____ (Supervisor)
- Signature of Chairperson of DSC: _____

Dean (Academic)

National Institute of Technology Durgapur
Mahatma Gandhi Avenue, Durgapur-713209, West Bengal, INDIA

List of Examiners for PhD Evaluation
(to be submitted with the synopsis, both hard copy and soft copy for each)

1. Department/Centre: _____
 2. Name of the scholar: _____
 3. Roll No. _____
 4. Registration No.: _____
 5. Date of Registration: _____
 6. Title of the Thesis: _____

 7. No. of papers published/accepted for publication in SCI/SSCI/AHCI/Scopus/Web of Sc journals: _____
 8. No. of papers presented in conferences/seminars: _____
 9. Result of Plagiarized check for PhD thesis (maximum permissible match of 20% excluding publications of the research scholar and corresponding supervisor (s)): _____%
 10. Courses completed as per requirement of the Ph.D. regulations: Yes/No
 11. All necessary documents submitted to Academic Section (PG & R cell): Yes/No
 12. Details of Thesis Examination Fee payment: Amount: Rs . _____ Date: _____
- Mode of payment details: _____ (Attach self-attested copy of payment receipt)

13. Name and Signature of the DSC Members:

- | | |
|-------------|-------------------------|
| (i) _____ | (ii) _____ |
| (iii) _____ | (iv) _____ (Supervisor) |
| (v) _____ | (vi) _____ (Supervisor) |

(None of the supervisors are presently supervising more than 8 Ph.D. research scholars)

Signature of Chairperson of DSC: _____

Director may kindly nominate examiners from India and abroad in order of preference from the attached list of examiners.

Dean(Academic)

DIRECTOR

List of Examiners from India (Five)

1. Name of the scholar: _____
2. Registration No.: _____
3. Title of the Thesis: _____

SI No	Contact Details	No. of times the examiner examined thesis supervised by the present supervisors earlier
1	[Name] [Designation] [Affiliation] [Full Postal Address] [Mobile/phone no.] Email Id	
2	[Name] [Designation] [Affiliation] [Full Postal Address] [Mobile/phone no.] Email Id	
3	[Name] [Designation] [Affiliation] [Full Postal Address] [Mobile/phone no.] Email Id	
4	[Name] [Designation] [Affiliation] [Full Postal Address] [Mobile/phone no.] Email Id	
5.	[Name] [Designation] [Affiliation] [Full Postal Address] [Mobile/phone no.] Email Id	

I/ We, the supervisor(s) of the thesis, do not have any potential conflict of interest with the above suggested examiners.

(i) _____ (Supervisor) (ii) _____ (Supervisor)

Name and Signature of the DSC Members:

(i) _____ (ii) _____
(iii) _____ (iv) _____

Signature of Chairperson of DSC: _____

List of Examiners from abroad (Five)

1. Name of the scholar: _____
2. Registration No.: _____
3. Title of the Thesis: _____

SI No	Contact Details	No. of time the examiner examined thesis supervised by the present supervisors earlier
1	[Name] [Designation] [Affiliation] [Full Postal Address] [Mobile/phone no.] Email Id	
2	[Name] [Designation] [Affiliation] [Full Postal Address] [Mobile/phone no.] Email Id	
3	[Name] [Designation] [Affiliation] [Full Postal Address] [Mobile/phone no.] Email Id	
4	[Name] [Designation] [Affiliation] [Full Postal Address] [Mobile/phone no.] Email Id	
5.	[Name] [Designation] [Affiliation] [Full Postal Address] [Mobile/phone no.] Email Id	

I/ We, the supervisor(s) of the thesis, do not have any potential conflict of interest with the above suggested examiners.

(i) _____ (Supervisor) (ii) _____ (Supervisor)

Name and Signature of the DSC Members:

(i) _____ (ii) _____

(iii) _____ (iv) _____

Signature of Chairperson of DSC: _____

[On official letter head]

**Ph.D. Thesis Evaluation Report
Submitted in
NATIONAL INSTITUTE OF TECHNOLOGY DURGAPUR, INDIA**

Name of the Examiner: _____

Designation & address: _____

E-mail ID: _____

Telephone/Fax _____

Name of the scholar: _____

Title of the Thesis: _____

DETAILED REPORT OF THE THESIS (at least 500 words)

(Please assess the strength and weakness of the Ph.D. thesis in detail and indicate corrections/ clarification/ scope for improvement, if any, in a separate attachment)

Decision on the award of Ph.D. degree (please tick):

- ☐ **Recommended**
- ☐ **Not recommended**
- ☐ **To be revised and sent back to the examiner**
- ☐ **To be revised but need not be sent back to the examiner.**

**Signature of the Examiner with
official Seal (if available)**

Place: _____

Date: _____

National Institute of Technology Durgapur
Mahatma Gandhi Avenue, Durgapur-713209, West Bengal, INDIA

Report on Viva-Voce AND Defense for Ph.D. Degree

1. Department/ Centre: _____
2. Name of the Scholar: _____
3. Registration No.: _____
4. Title of the Thesis: _____

5. Date of Viva-voce: _____
6. Number of Papers published/accepted for publication in SCI/ SSCI/ AHCI/ Scopus/ Web of Science journals: _____
7. Number of Papers presented in conferences/seminars : _____
8. Whether the modification/Correction (if any) as suggested by External Examiners have been incorporated and modified version of the thesis submitted _____.
9. **Recommendation:**
 - (A) Performance (Please attach additional sheet, if required): _____

 - (B) Degree, if recommended to be awarded: (Yes/No): _____
PhD, Department of _____
10. **Name and Signature of members of the Board of Viva-voce Examiners:**
 - (A) DSC Members (i) _____
(ii) _____
(iii) _____
(iv) _____ (Supervisor)
(v) _____ (Supervisor)
 - (B) External Examiner: _____
 - (C) Signature of Chairperson of DSC with seal: _____

Dean(Academic)

Salient documents and time frame in PhD programme**A. Documents required at the time of PhD admission:**

1. Marks sheets/Grade cards of the secondary, higher secondary board and other university examinations.
2. Certificate/provisional certificate of all the examinations.
3. Proof of date of birth.
4. Migration Certificate (original).
5. Community certificates (SC/ST) from a competent authority, if applicable.
6. Community certificate in case of OBC/EWS candidates from a competent authority, if applicable.
7. PWD certificate from competent authority, if applicable.
8. NET/GATE/CSIR-UGC/any other qualifying examination certificates as applicable.
9. No Objection Certificate from the employer of the student, if applicable.
10. Sponsorship certificate from the employer of the student, if applicable.
11. Two recent passport size color photograph.

B. Documents required within ONE/TWO MONTH of admission:

1. Doctoral Scrutiny Committee (DSC) signed by all members.
2. Courses to be taken by a PhD student.
3. Willingness certificate of co-supervisor, if applicable.
4. No Objection Certificate from the employer of the co-supervisor, if applicable.
5. Curriculum vitae of the co-supervisor, if applicable.

C. Documents required at the time of every semester registration till submission of thesis:

1. Semester registration fee payment proof.
2. Duly filled in Semester registration form.

D. Documents required at the time of PhD registration (within FIFTH semester of admission):

1. Duly filled in Application form.
2. A write-up of work done and detailed plan of work (within 10 pages).
3. Registration fees payment proof.
4. Copies of the grade cards of the course works done.

E. Documents required at the time of Ph.D. synopsis submission:

1. ONE copy of the synopsis (Maximum 3000 words within 10 pages), along with a soft copy of the same.
2. Copies of research papers published.
3. Report of Ph.D. pre-synopsis seminar.
4. Thesis submission fees payment proof.
5. List of thesis examiners (Confidential, in sealed cover).

F. Documents required at the time of Ph.D. thesis submission for examination:

1. ONE copies of Ph.D. thesis (soft-bound; maximum 200 pages including both sides printed), along with a softcopy of the same.
2. Any other document as may be required by the Academic Section at the time of submission.

G. Documents required at the time of Ph.D. thesis defense:

1. One copy of Ph.D. thesis (hard-bound), along with a soft copy of the same.
2. Any other document as may be required by the Academic Section at that time.

Format of Willingness Certificate from the external faculty member who wishes to become co-supervisor of a Ph.D. student at NIT Durgapur

(To be printed on the letter head)

To whomsoever it may concern

This is to state that I, Prof./ Dr. _____ have been working as a _____ in the Department of _____ in _____ (institute/university/organization).

I would like to express that I want to become a co-supervisor of the Ph.D. scholar named _____ Roll No. _____ and Registration No. _____ of the Department of _____ of NIT Durgapur. I shall guide the student throughout his / her tenure as a Ph.D. student, as and when required following the Ph.D. rules & regulations of NIT Durgapur.

Thanking you
Yours sincerely,

Signature of the external faculty member

Official Seal & Date:

Format of No Objection Certificate from the employer to become co-supervisor of a Ph.D. student at NIT Durgapur

(To be printed on the letterhead)

To whomsoever it may concern

This is to certify that Prof./Dr. _____ has been working in our institute/ university/ organization as _____ in the Department of _____.

We have no objection, if he/she now becomes a co-supervisor of the Ph.D. student named _____ Roll No. _____ & Registration No. _____ of the Department _____ of NIT Durgapur.

He/she will do the needful for the said student as required, without affecting his/her regular assignments of this institute/university/organization.

Thanking you

Yours sincerely,

Signature of the Head of the
Institute/University/Organization

Official Seal & Date