

**THE NORTHCAP UNIVERSITY
RULES & REGULATIONS
GOVERNING
THE
DOCTOR OF PHILOSOPHY (Ph.D.)
PROGRAMME**



(Formerly ITM University, Gurugram)

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CONTENTS

S. NO.	PARTICULARS	PAGE NO
1.	APPLICABILITY	05
2.	CATEGORIES	05
	(i) Full – Time Ph. D. Scholars	
	(ii) Part – Time Ph. D. Scholars	
3.	DURATION OF THE Ph.D. PROGRAMME	05
4.	LEAVE	06
5.	ELIGIBILITY FOR ADMISSION	06
6.	PROCEDURE FOR ADMISSION	07
7.	FEE PAYABLE AND REGISTRATION	08
8.	FELLOWSHIPS & CONTINGENCY	08
9.	COURSE WORK	10
10.	CONSTITUTION OF DRC AND BDR	10
11.	INTAKE	11
12.	RESEARCH SUPERVISORS AT WORK	11
13.	ALLOCATION OF SUPERVISOR	11
14.	SCHOLAR'S RESEARCH COMMITTEE	11
15.	RESEARCH PROPOSAL PLAN	12
16.	PROGRESS OF THE RESEARCH WORK	12
17.	SUBMISSION OF SYNOPSIS	12
18.	SUBMISSION OF THESIS	13
19.	APPOINTMENT OF EXAMINERS	14
20.	EVALUATION OF THESIS BY EXAMINERS	15
21.	FINAL VIVA VOCE	16
22.	HONORARIUM, TA AND DA TO EXAMINERS AND VIVA VOCE COMMITTEE MEMBERS	16
23.	DECLARATION OF RESULT	16
24.	DEPOSITORY WITH UGC	16
25.	DISCIPLINE	17
26.	DISPUTE REDRESSAL	17
27.	RIGHT TO AMEND	17
28.	RIGHT TO DEVIATE	17
ANNEXURE 1: SCHOLAR'S RESEARCH COMMITTEE (SRC)		18
ANNEXURE 2: DEPARTMENT RESEARCH COMMITTEE (DRC)		22
ANNEXURE 3: BOARD OF DOCTORAL RESEARCH (BDR)		24
ANNEXURE 4: GUIDELINES FOR PREPARATION OF Ph. D. SYNOPSIS		26
ANNEXURE A: SYNOPSIS OF THE THESIS		31
ANNEXURE B: TABLE OF CONTENT		32
ANNEXURE C: FORM - SYNOPSIS 01		33
ANNEXURE D: FORM - SYNOPSIS 02		36
ANNEXURE E: FORM - THESIS 01		39
ANNEXURE F: FORM - THESIS 02		41

DOCTOR OF PHILOSOPHY (Ph.D.) PROGRAMME
THE NORTHCAP UNIVERSITY
RULES & REGULATIONS
GOVERNING THE DOCTOR OF PHILOSOPHY (Ph.D.) PROGRAMME

1. APPLICABILITY

This revised Ordinance is applicable with effect from academic session 2018-19 and shall cover all admissions into Ph.D. Programmes of The NorthCap University. It replaces the earlier amended ordinance applicable with effect from July 2018

2. CATEGORIES

(i) Full - time Ph.D. Scholars

These scholars will be full time students of NCU for completing the requirements for Ph.D.

(ii) Part - time Ph.D. Scholars

These scholars will devote part of their time for completing Ph.D. requirements and in-addition devote part of their time for discharging their own organizational obligations.

At any stage of his/her research work, a scholar can change his/her category as:

- a) A full time research scholar can request for a change from full-time (FT) to part-time (PT) category mentioning an acceptable reason for the change. The duration of the Ph.D. Programme will then be followed as per clause no.3 of Ph.D. rules and regulations under part-time category.
- b) A part time research scholar can also request for a change from part-time to full-time category with justifiable reasons. However, in this case, the minimum duration of Ph.D. Programme as mentioned in clause 3 of Ph.D. rules and regulations (duration of the Ph.D. Programme) under Full-time category shall be calculated from the date of approval of change from PT to FT, subject to maximum duration remaining the same which shall be calculated from the original date of registration in Ph.D. Programme.

The request has to be made to the Dean (Research) / VC appointed nominee / VC. The request must be considered by the Scholar Research Committee (SRC) (Annexure 1) and the change recommended to the Dean (Research) / VC appointed nominee / VC through the respective Chairman Department Research Committee (DRC).

3. DURATION OF THE Ph.D. PROGRAMME

SCHOOL OF ENGINEERING & TECHNOLOGY		Minimum duration of the programme	Maximum duration of the programme
M. Tech/M. Phil./M.Sc./ M.A(English) <i>[Entry Qualification]</i>	FT	3 Years	6 Years
	PT	4 Years	6 Years
B. Tech. <i>[Entry Qualification]</i>	FT	4 Years	6 Years
	PT	5 Years	6 Years

SCHOOL OF MANAGEMENT & SCHOOL OF LAW		Minimum duration of the programme	Maximum duration of the programme
	FT	3 Years	6 Years
	PT	4 Years	6 Years

Although the maximum period for Ph.D. Programme is 6 years, the expected period of completion of Ph. D. Program is 5years or less. However, an extension of 6 months at a time with a maximum extension period as per table above could be given on the recommendation of SRC. A student has to give proper justification for seeking an extension and letter may be issued from Dean Academic's Office, if approved.

Notes:

- a) Minimum and Maximum duration includes Course work.
- b) Relaxation of 2 years in maximum duration is provided for women and differently-abled scholars.

4. LEAVE

- a) Maximum leave for full time Scholars will be 30 days in an academic year. The record of attendance will be maintained in the Departments to which the scholar is attached. In case of serious illness, the necessary information will be immediately communicated by the scholar in writing through the supervisor(s) and the Head of Department for approval of Dean (Research) / VC appointed nominee / VC as per rules. Unauthorized absence from NCU will lead to cancellation of registration by the BDR.
- b) There is a provision for one semester break in studies (with prior request and approval, for valid reason) in a complete tenure of Ph.D. Programme, keeping the maximum duration of the Ph.D. Programme counted.
- c) Maternity leave of 240 days can be provided to all female scholars (with prior request and approval), keeping maximum duration of the Ph.D. Programme unchanged.

5. ELIGIBILITY FOR ADMISSION

<p>[A] SCHOOL OF ENGINEERING AND TECHNOLOGY <i>(ENGINEERING, PHYSICS, CHEMISTRY, MATHS, ENGLISH)</i></p>
<p>A candidate seeking admission to the Ph.D. Programme under School of Engineering and Technology (SOET) of NCU must have obtained M.Tech. /M.Phil. /M.A. (English) degree with min. 60% marks in aggregate or equivalent OR M.Sc./ M.A (Maths) degree with min. 60% marks in aggregate or equivalent, with NET/GATE/JRF/SLET qualified or M.Sc./ M.A (Maths) with min. 67.5% marks in aggregate or equivalent OR B.Tech. degree from IITs with min. 67.5% marks in aggregate or equivalent.</p>

<p>[B] SCHOOL OF MANAGEMENT (SOM)</p>
<p>A candidate seeking admission to the Ph.D. Programme under School of Management (SOM) of NCU must have obtained Post-graduation in any branch of Engineering, Management, Economics, Commerce, Operations Research or other relevant disciplines subject to approval of Dean, School of Management with min. 60% marks in aggregate or equivalent.</p>

<p>[C] SCHOOL OF LAW (SOL)</p>
<p>A candidate seeking admission to the Ph.D. Programme under School of Law (SOL) of NCU must have obtained Master's Degree in Law from a recognized University with not less than 55% marks or its</p>

equivalent

OR

Master's Degree in any discipline from a recognized University with not less than 55% marks or its equivalent; provided that candidates with qualifications in social sciences, humanities and sciences may be admitted to the Programme if the research they wish to pursue interfaces with the discipline of law with a special focus on Public Policy or Law

OR

Judge of any State High Court in India with three years' experience or Judge of Supreme Court of India

The minimum eligibility criteria indicated above for each Programme is only an enabling clause. The BDR (Board of Doctoral Research) may fix higher criteria at the time of short-listing keeping in view the number of candidates, minimum background expected to cope with the Programme etc.

Candidates in the final year of their Master's Programmes who expect to complete all their qualifying degree requirements before a specified date indicated by the NCU can apply for admissions. For short-listing purposes, their performance till the preceding semester (preceding year if their Programmes are year based) would be considered but their admission would be provisional, subject to their meeting the minimum eligibility criteria after their final qualifying examination results are announced.

Each *Part-time candidate* is required to submit a "No Objection Certificate" on a proper letter head from the appropriate authority of the organization in which he/she is presently working clearly stating the following:

- a) the candidate is permitted to pursue studies on a part-time basis.
- b) that his/her official duties permit him/her to devote sufficient time for completion of course work and carry out doctoral research.
- c) Details of facilities for research in the candidate's field of research available at the candidate's place of work.

6. PROCEDURE FOR ADMISSION

Admission for Ph.D. Programme will be done twice every year, normally during July and December.

- (i) The candidate desiring to seek admission to Ph.D. Programme at NCU shall apply for the same on a prescribed Application Form by a due date announced by NCU.
- (ii) The applications will be scrutinized by the Dean Office (Ph.D. Cell). The Dean Office (Ph.D. Cell) will call an adequate number of eligible candidates for a written entrance test "NPET" ("NorthCap Ph.D. Entrance Test"). The selection will be done on the basis of NPET marks, qualifying degree marks and interviews. The weightage of each component as approved by BDR shall be given while advertising for Ph. D. Programme.
 - a. The candidates, who do not have valid score in national tests like UGC / CSIR (JRF) examination / NET/SLET / GATE/ teacher fellowship holder or have not passed the M. Phil degree, will have to appear in Entrance NPET. The weight-

age of various components for admission will be NPET marks – 50%, qualifying degree marks – 30% and interview – 20%.

- b. The candidates, who have valid score in the above national tests or have passed M. Phil degree, will have the following weightage for admission:
M. Phil / National level test score – 50%, qualifying degree marks - 30% and interview – 20%.

In case no score is given in any national test cleared, the minimum marks to be eligible in that test are considered, as per published marks on the concerned website.

- c. A minimum of 50% marks are required in aggregate of all components (point a and b above). However, Department selection committee can set higher cut off for admission, based upon the number of seats available etc.

- (iii) The candidates whose selection is approved by the Dean (Research) / VC appointed nominee / VC and Chairman BDR / Vice Chancellor will be admitted to the Ph. D. Programme after payment of prescribed fees. The annual fee is the same for full-time and part-time candidates.

- (iv) In case of candidates from partnering institutions/industries, applications may be considered by the VC/BDR throughout the year, subject to the scrutiny for eligibility upon request by partnering institute.

7. a) FEES PAYABLE

Each scholar shall pay fees semester wise as prescribed under the NCU rules.

b) REGISTRATION

All research scholars are required to do On-line Registration before the commencement of each semester according to the schedule/procedure notified by NCU in advance.

8. FELLOWSHIPS & CONTINGENCY

8.1 University Fellowships to selected full time Ph.D. Scholars

This position is only meant for full time Ph.D. scholars, who wish to carry out doctoral research at NCU. Concurrent applications for admissions to the Ph.D. Programme as well as award of University Fellowship can be made. Award of Fellowship and offer for admission will be simultaneously announced by NCU. The NCU's decision of award of Fellowships will be based on merit and shall be final and binding. The research scholar shall be awarded fellowship only if she/he is not receiving fellowship from any other source.

The Research Fellows are expected to do research with Faculty members, help the faculty members in their teaching as teaching assistant and support in any other academic tasks assigned from time to time. In short they are expected to be

a part of the academic/research community of The NorthCap University, Gurugram.

Essential qualifications:

In addition to offer of Ph.D. admission, the candidate for award of Merit based University Fellowship should have M.Tech./M.Phil. /MBA/M. Com/LLM degree or its equivalent in the relevant discipline with minimum 60% marks or equivalent grade point average in **both** post-graduate and under-graduate degree levels. For Scholars with M.Sc. degree, minimum requirement is NET qualified with 8.5 CGPA and above, and class topper.

Selection of the Research Fellows shall be done from amongst scholars who have qualified for admission, by the Fellowships Selection Committee.

Essential responsibilities:

- (i) The selected Research Fellows shall be given teaching assignments of 4-6 hours/week or equivalent academic work in the first year of their Ph.D. Programme and 6-8 hours/week or equivalent academic work thereafter.
- (ii) The scholar is expected to demonstrate the visible outcome in terms of research publications in peer reviewed Journals. Atleast one publication per year in peer reviewed referred unpaid reputed journal is expected from the scholar after completion of his/her course work, within the stipulated period of one year.

Attendance: All full time candidates who are awarded University Fellowship have to regularly attend the university as per the Ph.D. rules and regulations / SOP for recruitment of university fellow. It is expected that the full time scholar shall not take any job during the period of pursuing Ph.D.

Fellowship: Rs.25, 000/- per month consolidated as per university rules.

Tenure: The tenure of appointment of Fellow will be normally for three years (excluding the approved break in studies / leave period).At the discretion of the NCU, an extension of the tenure of the Fellow for one year at a time can be given, if the progress of the Fellow is found good after the three year tenure. A second extension of one year making the total tenure to be maximum 5 years can be given if the progress of the fellow is found good. In no case, total tenure can be more than five years. For further details refer to SOP for Recruitment of University Fellows.

8.2 Contingency Expenditure for Full Time Ph.D. Scholars

The items for which contingency expenditure can be incurred are chemicals, glassware, consumables, testing charges, spare parts, pen drive, CD's, stationary, postage, survey expenditure (with prior approval of the Director of the School/Dean of the School/VC), repairs, National conference participation expenditure /International conference outside India venue registration expenditure (keeping

maximum expenditure amount limit to Rs. 25000/-) and any other item that is consumable in nature specifically recommended by the concerned Supervisor and the concerned HOD.

Contingency amount: Maximum of Rs. 25,000/- per year, subject to the availability of the funds.

9. COURSE WORK

- (i) The award of the Ph.D. degree is recognition of high achievements, independent research and application of scientific knowledge to the solution of technical and scientific problems. Creative and productive inquiry is the basic concept underlying the research work. In order to overcome any deficiency in the breadth of fundamental training or for proper foundation for advanced work, pre-doctoral courses shall be given by each Department, including a pre-Ph.D. course on Research Methodology as mandated by UGC.
- (ii) The research scholar must also complete a pre-Ph.D. compulsory audit course on Communication Skills.
- (iii) The courses to be taken shall be prescribed by the Supervisor/HOD and approved by SRC/DRC.
- (iv) Candidates admitted under School of Engineering and Technology (SOET), School of Management (SOM) and School of Law (SOL) are required to complete Pre Ph.D. coursework with a minimum of 9 credits with a minimum CGPA of 7.5. However, candidates admitted after B. Tech./M.Sc./ M.A. Degree are required to complete a minimum of 12 credits with a minimum CGPA of 7.5.
- (v) A Department may specify a higher credit requirement for their Ph.D. programmes and/or require an individual scholar to complete a larger number of credits based on his/her background and preparation level.
- (vi) The course work must be completed within one year of admission. However, if the CGPA at the end of second semester is above 7.00 but less than 7.50, the candidate will be asked to take more courses in order to make up the required CGPA, for which an extension of one semester for completion of course work may be granted at the request of the research scholar by the Dean (Research) / VC appointed nominee / VC. Such a request for extension must be recommended by the supervisor(s) and SRC and routed through the Chairman DRC with intimation to Dean Office (Ph.D. cell). If CGPA is less than 7.50 even after this extension, he/she will be asked to discontinue the doctoral programme.
- (vii) If the SGPA at the end of the first semester and CGPA at the end of any subsequent semester is below 7.00, he/she will have to discontinue the Doctoral Programme.

10. CONSTITUTION OF DRC AND BDR

- a) The Registrar will get the DRC and Board of Doctoral Research (BDR) constituted with the approval from the Vice-Chancellor. (Refer Annexure 2, 3)
- b) The concerned Dept./School shall constitute their committee, with the approval from Vice-Chancellor

11. INTAKE

Each DRC shall declare the number of seats available in their Dept. /School in various broad areas of research.

12. RESEARCH SUPERVISORS AT NCU

All full time faculty members of NCU active in research and holding Ph.D. degree are eligible to supervise a research scholar. However during the probationary period, the faculty shall jointly supervise as a supervisor. A person from other reputed academic institute / university, research laboratories, or industry can also be an External Supervisor for supervising a Ph.D. research scholar (however he/she should be minimum Associate Professor or equivalent). The faculty member being appointed as Supervisor must have minimum five peer reviewed Journal publications in last 5 years including publications from his/her Ph.D.

13. ALLOCATION OF SUPERVISOR

- (i) The allocation of Supervisor for a selected scholar shall be decided by DRC depending upon the area of research, and the availability of supervisor in that area.
- (ii) A supervisor from The NorthCap University shall be appointed within one month of the research scholar joining the Programme.
- (iii) There may be two supervisors from NCU wherever possible for a research scholar. It may be helpful if one of the supervisors has to be away from NCU. The maximum no. of supervisors would be three including one from outside as per Clause 12 above.
- (iv) The broad area of research to be pursued by the research scholar shall be approved by the DRC at the time of the allocation of supervisor(s).
- (v) The maximum number of Ph.D. scholars a supervisor can guide at a time shall be decided by the concerned DRC based on UGC guidelines. However in exceptional cases DRC may allow higher numbers depending upon expertise of the supervisor.
- (vi) In extraordinary circumstances so warrant, any change in supervisor or allocation of an alternate supervisor may be carried out by the DRC with the approval of Dean (Research) / VC appointed nominee / VC.

14. SCHOLAR'S RESEARCH COMMITTEE

The DRC will constitute a Student's Research Committee (SRC) on the recommendation of the Supervisor/HOD (as per Annexure 2), for each research scholar. The SRC/HOD/Supervisor shall prescribe/approve the courses to be taken by the research scholar. The progress of research scholar will be reviewed by the SRC once in 6 months. Absence of research scholar for SRC without proper approval will be considered as "unsatisfactory" performance for respective semester. Absent status of research scholar will also be taken into account for calculation of three cumulative "unsatisfactory". Three cumulative unsatisfactory by SRC, will lead to automatic deregistration of research scholar from Ph.D. Programme at NCU.

15. RESEARCH PROPOSAL PLAN

On completion of course work, a scholar shall prepare a detailed "Research Proposal" with Gantt Chart on the approved research area of his/her interest within 6 months from the date of completion of course work. The objective of the proposal is for the student to define the Ph.D. research problem based on a survey and critical analysis of the literature.

The research scholar shall present the proposed work in an open seminar and defend it before SRC. The SRC shall make recommendations to the DRC for approval of the "Research Proposal". The DRC shall communicate its recommendations to the Dean office (Ph.D. cell) for further processing. In case DRC does not find the proposal suitable, it can reject the proposal and communicate the candidate about the decision. DRC/SRC may also ask the candidate to resubmit a revised proposal within the next 6 months if it is found to be deficient. In case the candidate fails to defend the research proposal even after 12 months of completion of course work, the scholar shall be disqualified from continuing Ph.D.

16. PROGRESS OF THE RESEARCH WORK

- (i) At the end of every semester, the progress of a scholar will be assessed by the SRC of that research scholar, who shall make a presentation before the SRC for feedback and comments. The SRC shall send the Assessment Report in the prescribed form (semester end report) to the DRC with its recommendations on continuation or cancellation of registration. The recommendation of the DRC shall be sent to the Dean (Research) / VC appointed nominee / VC through the Chairman DRC and Dean Office (Ph.D. cell).
- (ii) If a supervisor is not satisfied with the work of the candidate, he/she will inform the DRC for appropriate advice to the scholar. The DRC may take up the matter with the Dean (Research) / VC appointed nominee / VC. The matter shall be considered by the BDR (Annexure 3) in order to decide whether the candidate should be allowed to continue his/her research for the Ph.D. degree.
- (iii) A research scholar may request the Dean (Research) / VC appointed nominee / VC for discontinuation of his/her research work. This request should come through his/her supervisor and forwarded by the Chairman DRC to Dean Office (Ph.D. Cell). The request will be considered by the BDR for approval as received by DRC.
- (iv) All correspondence will be carried out by the scholar through the supervisor(s) and respective Head of the Department.

17. SUBMISSION OF SYNOPSIS

- (i) The research work done towards meeting defined research objectives as approved in Ph.D. Proposal should be supported by published work.
- (ii) At least 2 papers must be published/ accepted for publication in peer reviewed non-paid reputed refereed journals before submission of synopsis. These journals should be preferably listed under any of the following databases which include Web of Science, Scopus, Indian citation index and Google Scholar. The published work of the Ph.D. student should be related to the on-going Ph.D. research along with his supervisor as co-author(s). A given research paper shall not have names of two or more Ph.D. students.

- (iii) On completion of the research work to the satisfaction of the supervisor(s), a pre-Ph.D. seminar (open to all) shall be organized by the SRC to assess the work done by the scholar. An approval for this seminar shall be taken from Dean (Research) / VC appointed nominee / VC through Dean Office (Ph.D. cell). The research scholar shall present the complete work carried out by him/her in this seminar and defend it before the SRC. The schedule for this seminar must be notified well in advance.
- (iv) The SRC may give the permission to the scholar to submit the synopsis. The candidate prepares the same incorporating any suggestions given by the SRC. On the other hand, SRC may also ask the scholar to do further work, if so required.
- (v) The synopsis must precisely reflect in about 15-20 pages (not exceeding 6000 words) all aspects of the research work done which are to be included in the thesis.
- (vi) After the synopsis is submitted, the SRC may meet again to examine the synopsis and if found acceptable, the SRC shall make recommendation to the DRC for the approval of the "Synopsis" and certify the completeness of research work. If not found satisfactory, then SRC may ask the candidate to resubmit a revised synopsis within a specified time.
- (vii) A candidate needs to submit 2 copies of the synopsis, a properly labelled CD containing a PDF file of the synopsis and the Synopsis Form 01 to the DRC through the supervisor(s). The DRC shall, in turn, communicate its recommendations on completeness of the work and acceptance of the synopsis to the Dean Office (Ph.D cell).
- (viii) The soft copy of the approved synopsis should also be emailed at phdcell@ncuindia.edu once the synopsis is approved by the DRC.
- (ix) The supervisor(s) shall submit to the Chairman DRC Synopsis Form 02 which contains a confidential list of at least ten renowned experts actively working in the field of the research area and who have significant contribution in terms of publications in reputed journals of high impact rating and/or patents. This list must include at least five experts from reputed institutions from the developed foreign countries. In particular the examiner for the thesis should be at the level of Professor or an Associate professor (irrespective of nationality) in an Institute/University of international repute in research driven countries such as USA, Canada, Europe (Austria, Belgium, Czech Republic, Denmark, France, Germany, Hungary, Italy, Norway, the Nederland, Switzerland, Sweden, UK, etc.), Asia (Japan, South Korea, Singapore, Taiwan, Hong Kong, etc.), Australia, etc. The Dean Office (Ph.D cell) shall then recommend a panel of 10 examiners based on this list to BDR for approval.

18. SUBMISSION OF THESIS

- (i) The scholar has to submit Ph.D. thesis within nine months from the date of submission of synopsis.
- (ii) The thesis shall be written in English in the specific format and shall contain a critical account of the candidate's research. It should be characterized by discovery of facts, or fresh approach towards interpretation of facts and theories or significant contribution to knowledge of design or development, or a combination of them. It should bear evidence of the candidate's capacity for analysis and judgment and also his/her ability to carry out independent investigation, design or development.

- (iii) No part of the thesis or supplementary published work shall have been submitted for the award of any other Degree/Diploma.
- (iv) The DRC shall keep an up to date list of refereed journals of high impact rating in each area of research.
- (v) The thesis must be a piece of original research work characterized either by the discovery of new facts or by fresh interpretation of the known facts or theories. In either case it shall give evidence of the candidate's capacity for original research, critical examination and judgment.
- (vi) Plagiarism shall be dealt according to the existing rules.
- (vii) The Scholar shall deposit an amount of Rs. 20,000/- as Thesis Processing and Evaluation fees in NCU Accounts Office while submitting thesis.
- (viii) The scholar shall submit printed copies (3+no. of supervisors) of his/her soft-bound thesis along with the plagiarism report, Form Thesis-01, Thesis-02 and a CD/DVD of the thesis in PDF format to the Chairman, BDR through Dean Office (Ph.D cell). The soft copy in PDF format of submitted thesis also needs to be emailed at phdcell@ncuindia.edu.
- (ix) 50% of the semester fees is payable, if the thesis is submitted within 3 months of the notified date of commencement of the semester.
- (x) Since no fee has to be paid after Thesis submission, therefore the Ph.D. candidate should clear all his/her dues and submit No-dues certificate along with the submission of the Ph.D. Thesis. The DRC shall recommend the thesis for acceptance to the Dean (Research) / VC appointed nominee / VC through Dean Office (Ph.D cell) for further processing.
- (xi) The thesis shall include the following certificate signed by the supervisor(s):

This is to certify that the thesis entitled “..... (TITLE OF THE THESIS)” submitted to The NorthCap University, Gurugram, in partial fulfillment of the requirements for the award of degree for Doctor of Philosophy in..... (Name of the subject). It embodies the original research work carried out by Mr./Ms..... (Name of the candidate) under my/our supervision and has not been submitted in part or full for any other degree or diploma of this University or of any other university/institution anywhere.

19. APPOINTMENT OF EXAMINERS

- (i) From the panel of examiners submitted by the Chairman DRC, the Chairman (BDR) will appoint two external examiners at his/her own discretion; one of them must be from outside India. These two external examiners and the supervisor(s) of the scholar shall form the Committee of Examiners for evaluation of thesis submitted by the research scholar. This Committee shall be notified by the Dean (Research) / VC appointed nominee / VC through Dean Office (Ph.D cell). The appointment of these examiners shall be strictly confidential.
- (ii) A soft copy of the synopsis shall be sent to each examiner.
- (iii) The Dean Office (Ph.D cell) through BDR shall request the appointed examiner to give his/her consent for the acceptance of Examinership.
- (iv) In case an appointed external examiner declines to act as examiner, the chairman BDR may appoint another external examiner in line with (i) above.

20. EVALUATION OF THESIS BY EXAMINERS

- (i) On receipt of acceptance of Examinership from the appointed examiner, a copy of the thesis (Hard and soft copy both) shall be sent to him/her for evaluation within a stipulated time indicated by the Dean Office (Ph.D cell)..
- (ii) Each examiner is required to give his/her assessment report and a clear recommendation about the candidate's research work to the Chairman BDR. The assessment report shall cover in details the following:
 - (a) Significant contribution to knowledge.
 - (b) Any specific observations made by the candidate requiring revision, modifications or clarification.
 - (c) Standard of presentation of thesis.

The recommendation made by the examiner about the candidate's research work shall be on the prescribed form provided by the NCU indicating clearly ONE of the following:-

- a. The thesis is recommended for the award of the Ph.D. degree in the present form.

Or

The thesis is accepted for the award of the Ph.D. degree after minor revision.
- b. The examiner shall like to examine the response before recommending the award YES/NO

Or
- c. The thesis may be accepted for the award of the Ph. D. degree after major revision requiring rewriting a portion/chapter of the thesis incorporating some additional work.

Or
- d. Rewriting of the thesis after further research.

Or
- e. The thesis is rejected outright.

The examiners of the thesis may send, along with their reports, suggestions on corrections and modifications and questions to be asked from the candidate by the Committee constituted for conducting the Viva-Voce examination.

- (iii) If the examiner has recommended resubmission of the thesis (ii.c or ii.d above), the Dean (Research) / VC appointed nominee / VC through Dean Office (Ph.D. cell) shall accordingly advise the scholar through his/her supervisor(s). The candidate shall ordinarily resubmit the revised thesis within one year from the date on which the comments of the examiner(s) are provided to him/her. The response of the candidate shall be sent again to the same examiner for a fresh assessment and recommendation.
- (iv) If the examiner has recommended rejection of the thesis, the Chairman BDR may appoint a new examiner out of the panel, provided the report of one of the external examiners is satisfactory.

- (v) If both the external examiners have recommended rejection of the thesis, the thesis shall be rejected outright.

21. FINAL VIVA VOCE

- (i) On having received the Thesis Assessment Report and recommendations from all examiners, the Dean (Research) / VC appointed nominee / VC through Dean Office (Ph.D. cell) shall request the Supervisor to arrange for the final viva voce.
- (ii) The Viva-Voce Committee, comprising of the external examiner from India, a member of SRC appointed by the Dean (Research) / VC appointed nominee / VC and the supervisor(s) shall conduct the Viva-Voce of the scholar on his/her thesis.
- (iii) The Viva-Voce Committee shall provide to the candidate a list of all corrections and modifications, if any, suggested by the examiners.
- (iv) The research scholar shall present the complete work in an open seminar, which may be attended by any faculty member, expert or research scholar and defend it before the Viva-Voce Committee. All queries raised by the examiners in their reports shall also have to be satisfactorily answered by the scholar.
- (v) The recommendations of the examiners shall be placed before the Viva-Voce Committee.
- (vi) The Viva Voce Committee shall communicate its recommendations on the award of Ph.D. degree to the BDR through Dean Office (Ph.D. cell).
- (vii) In exceptional cases, if external examiners are not available for viva-voce exam, the BDR will appoint another external member for viva-voce committee.

22. HONORARIUM, TA and DA TO EXAMINERS AND VIVA VOCE COMMITTEE MEMBERS

Honorarium, TA and DA to examiners and Viva Voce Committee Members shall be payable according to rules of NCU.

23. DECLARATION OF RESULT

- (i) The Dean (Research) / VC appointed nominee / VC shall place the recommendations of the Viva-Voce Committee before the BDR & Vice-Chancellor for giving the final approval on award of the Ph.D. degree.
- (ii) The Dean Office (Ph.D cell) shall inform the Controller of Examinations (COE) about the recommendation of BDR and Vice-Chancellor.
- (iii) The COE shall declare the result on the award of Ph.D. degree to the scholar.
- (iv) Final Ph.D. Degree shall be awarded after due approval of Academic Council.
- (v) The NCU COE shall issue a Provisional Certificate to the effect that the Ph.D. Degree has been awarded in accordance with the provision to the Ph.D. Regulations of The NorthCap University, Gurugram.

24. DEPOSITORY WITH UGC

Following the successful completion of the evaluation process and announcements of the award of Ph.D., NCU shall submit a soft copy of the Ph.D. thesis to the UGC

within a period of thirty days, for hosting the same in Shodh Ganga, accessible to all Institutions/Universities.

25. DISCIPLINE

Every research scholar is required to observe decorum and disciplined behaviour both inside and outside the campus and should not indulge in any activity, which will tend to bring down the prestige of the NCU. Any act of indiscipline of a research scholar shall be dealt in accordance with prevailing rules on student indiscipline in NCU.

26. DISPUTE REDRESSAL

In case of any dispute, the decision of the BDR/Vice Chancellor shall be final.

27. RIGHT TO AMEND

Notwithstanding all that has been stated above, the Academic Council has the right to modify any of the above regulations from time to time.

28. RIGHT TO DEVIATE

The Board of Management retains the right to deviate from, or suspend, any part of these guidelines for good reason in the interest of academic standards and / or fairness to students.

SCHOLAR RESEARCH COMMITTEE (SRC)

Title of the Body (Definition)

The body "SRC" shall mean the **Scholar Research Committee** of a PhD research scholar.

Preamble

For a Ph.D. scholar, Department Research Committee (DRC) (Annexure 2) will constitute a SRC considering his/her area of research.

Broad Objective of SRC:

Review of progress of the scholar in his/her research work from time to time (at least once at the end of each semester).

Terms of Members

The SRC for a Ph.D. scholar is purely an ad-hoc committee and expires automatically on the date of final Viva-Voce of the thesis by the scholar. Consequently, the terms of members of it stands invalid on the same day.

In case any member goes on leave for a period of equal to or exceeding one year, or resigns or retires from NCU, the HOD concerned will nominate another member on the suggestion of the chairman DRC.

The following guidelines to be followed for constitution & conduct of SRC for improving its effectiveness:

a) Constitution of SRC

- SRC shall be of five members, with Chairman being a senior faculty member preferably from outside Dept./School.
- At least one SRC member shall be from outside NCU which can be either External supervisor or Subject Expert. The outside member should be minimum Associate Professor (associated with reputed University) or equivalent with good research profile.
- Each Scholar should be preferably allocated two Supervisors, with at least one from NCU (as per UGC norms).
- The faculty member being appointed as Supervisor must have minimum five peer reviewed Journal publications in last 5 years including publications from his/her Ph.D.
- The SRC shall be constituted by the DRC of the Dept./School within one month from the date of registration of research scholar and put up for approval from Vice-Chancellor/BDR through Dean's Office (Ph.D. cell).
- It shall be the responsibility of the Supervisor to identify the Subject Expert (within the stipulated time).
- In case of some unavoidable reasons, if the chairman is not available for any SRC, the HoD of the concerned department/school shall officiate as the chairman of that SRC.

b) Conduct of SRC

- SRC meetings shall be held once in six months during the three weeks window indicated by the Dean's office (Ph.D. cell).
- It is essential for all SRC members to attend the SRC meetings. The SRC meeting shall be convened by the Dept./School Ph.D. Coordinator. The convener should check the availability of all the SRC members before scheduling the date of SRC. The SRC should not be held without the presence of Chairman SRC and at least four members.
- It is required that all Ph.D. holder faculty of Dept./School should also attend all SRC's to contribute to the research going in the Dept./School (only those having classes are exempted, with prior permission from HOD). HOD should also attend all SRC meeting in their respective Dept./School to bring an element of seriousness to these meetings.
- All Ph.D. Scholars should be advised to attend all SRC's of their Dept. /school.
- Attendance of all who attend any SRC should be maintained in each Dept./School for record
- HOD of any Department shall invite Dean/Director of that school as a special Invitee in each SRC. In case, if Dean/Director is not available, then in his absence, any representative as directed by the Dean/Director shall attend SRC as Special Invitee.
- 'Satisfactory' Grading should be given to the Scholar only if SRC is fully satisfied without any doubt about the progress of the scholar otherwise 'Marginal Satisfactory' or 'Unsatisfactory' should be awarded as assessed by the SRC.
- Scholar shall be informed about the date of SRC atleast two weeks before the conduct of SRC and the student would be asked to submit progress report at least three days prior to conduct of SRC.
- Duly filled SRC report should reach Dean's Office (Ph.D. cell) as per date mentioned in Ph.D. academic calendar.
- If the scholar has been rated 'Unsatisfactory', Semester End Progress report of the scholar should be submitted to Dean Office (Ph.D. cell) on the same day of SRC conduction, for issue of caution letter to the scholar.
- SRC grading and comments shall be recorded in the Semester End Progress report form as given below.

Semester End Progress Report/ Research proposal evaluation for Ph.D. Scholar

Report no. _____

- Name: _____ ● Roll No.: _____ ● Date of registration: / /
- Department/School: _____ ● Status: Full Time (F.T.) / Part Time (P.T.)
- Pre-Ph.D. Coursework- Total CGPA/SGPA (till now): Completed CGPA
- Period of Review: _____ to _____



Broad Area of research:	Status of research proposal: Defended / Not Defended / Approved / Not Approved Date of Proposal approval:
-------------------------	---

To be filled by the SRC members:

Semester	Good	Satisfactory	Marginally Satisfactory	Unsatisfactory
Literature Survey				
Research Proposal defense & defining objectives				
Last Semester Target and Achievement (As per Gantt Chart)				
Interaction with research community and Guide				
Status of Research Objectives achieved				
Publication so far*				
Overall Progress so far				
Overall Progress so far				

*Peer Reviewed unpaid refereed reputed Journal

Comments/Suggestions & Recommendation(s) of SRC members & Targets of next semester

Recommended for continuation during next semester: Good Satisfactory Marginal satisfactory Unsatisfactory

SRC Members	Name	Signature with Date
Chairman		
Supervisor(s)	1. 2. 3.	1. 2. 3.
Subject Expert	1. 2.	1. 2.
Member(s)	1. 2.	1. 2.
HOD		
Director/Dean/Nominee (As available)		

<u>DRC Recommendations to BDR</u> 1. Continue/Discontinue 2. Any other Comment	Signatures of Chairman DRC	Signatures of VC/VC appointed nominee/Dean (Research)
--	-----------------------------------	--

A brief report by the student about his/ her research progress may be attached and sent through supervisor (s), who may give comments about the progress. Submit Research Proposal (if any). Enter Publication details on the backside of the form

Date of SRC

Signature of Scholar

Department Research Committee (DRC)

Title of the Body (Definition)

The body "DRC" shall mean the **Department Research Committee** of any academic department/school (SOL and SOM) of The NorthCap University, each group called a sector.

Preamble

DRC is a body at the Department/School (SOL and SOM) level to decide on department level research in NCU.

Composition of DRC

- (i) DRC will be constituted by Vice Chancellor in consultation with respective HOD from amongst faculty members of that department/School holding Ph.D. degree and having active participation in research.
- (ii) Special invitees depending on the expertise of particular persons for the specialist advice at the discretion of the Chairman DRC.

Chairman of DRC

One of the senior faculty members of that department/School shall be the Chairman, who shall be nominated by Vice Chancellor for a period of two years.

Broad Objectives of DRC

DRC is the think tank of the concerned allied department/school in respect of Research and Development activities of the department/school. Following are the activities of DRC related to Ph.D. Programme:

- (i) Creation of environment for quality research in the departments.
- (ii) Identification of areas of research.
- (iii) Maintain an up to date list of refereed journals of high impact rating in each area of research.
- (iv) Decision on the maximum number of Ph.D. scholars a supervisor can guide at a time (subject to a maximum of 8).
- (v) Identification of number of seats for admission and their discipline to Ph.D. Programme each semester.
- (vi) Selection of suitable and motivated students for Ph.D. programmes as per the approved guidelines of the University.
- (vii) Allotment of Ph.D. students to faculty members to act as supervisors including the approval of research areas of Ph.D. scholars on the basis of expertise available in the departments.
- (viii) Constitution of a Scholar Research Committee (SRC) for each research scholar of the Departments.

- (ix) Making changes in supervisor or allocation of a second supervisor for a research scholar in any extraordinary circumstances so warrant.
- (x) To consider and make appropriate recommendation to the Dean (Research) / VC appointed nominee / VC on the request of a research scholar for a change from full-time to part-time category or Vice-Versa.
- (xi) Recommendation of new courses for doctoral level students and its approval in Academic Council.
- (xii) Review of the progress of the on-going Ph.D. Scholars in the department. It should be done at least once in a semester.
- (xiii) Make recommendations on continuation or cancellation of registration of research scholars on the basis of the Proposal by SRC/Supervisors.
- (xiv) Consider request by a research scholar for discontinuation of his/her research work and make recommendations to the BDR through Dean (Research) / VC appointed nominee / VC.
- (xv) To conduct pre-Ph.D. seminar of the completed research work of a research scholar.
- (xvi) Consider and approve the synopsis of the completed research work of a research scholar and make appropriate recommendations to Dean (Research) / VC appointed nominee / VC.
- (xvii) Make recommendation for acceptance of the thesis submitted by the research scholar and forward the same to the Dean (Research) / VC appointed nominee / VC for further processing.

BOARD OF DOCTORAL RESEARCH (BDR)

Title of the Body (Definition)

The body “BDR” shall mean the **Board of Doctoral Research** of the university.

Preamble

BDR is a body at the University level to decide on matters related to doctoral level research in NCU.

Composition of BDR

Each member of the BDR shall be holding a Ph.D. degree.

The BDR shall consist of the following members:-

1. Pro Chancellor/Vice Chancellor the Chairman of BDR.
2. Members of BDR will be constituted by Vice-Chancellor from amongst Professors/Associate Professors from all schools.
3. Special invitee(s), if required, at the discretion of the Chairman.

Terms of Members

The term of the nominated members shall be two years.

Meetings

- (i) The Chairman shall draw the schedule for meeting of the BDR for different issues.
- (ii) The meeting may be scheduled as and when necessary, but at least once a semester.
- (iii) The quorum shall be defined as 50% of the members (rounded off to the next higher integer).

Broad Objectives of BDR

Broad areas of concern of BDR for conducting Ph.D. Programme are as follows:-

- (i) To conduct the Ph.D. admission process through Dean Office (Ph.D. cell).
- (ii) Approval/disapproval of Ph.D. admissions on receiving a report from a DRC through Dean’s Office (Ph.D. cell).
- (iii) Communication of selected candidates to the respective department/school for course work (as decided by the concerned SRC) through Dean’s Office (Ph.D. cell).
- (iv) Permission to modify/change the research topic.
- (v) Adjudication of any dispute between supervisor and the candidate.

- (vi) To consider the request of a research scholar for discontinuation of his/her research work and make appropriate recommendation to the Dean (Research) / VC appointed nominee / VC.
- (vii) Approval of course work, if any, suggested by the DRC through Dean's Office (Ph.D. cell).
- (viii) Recognition of Professors/Scientists from outside NCU as external supervisors, if required.
- (ix) Selection of examiners for synopsis and subsequently Thesis evaluation.
- (x) To consider the recommendations of the Viva-Voce Committee on award of the Ph.D. degree to a research scholar.
- (xi) Suggestions for amendments in Ph.D. rules and regulations, if any, from time to time.
- (xii) Final approval of Research Proposal, End Semester Progress, Pre Ph.D. results, termination of Ph.D. Programme of any scholar due to low CGPA/ any other reasons/ withdrawal.

THE NORTHCAP UNIVERSITY, GURUGRAM

**GUIDELINES FOR PREPARATION OF Ph.D. SYNOPSIS
(Prescribed Format and Specifications and Forms)****1. GENERAL:**

The synopsis is meant to be a detailed summary of the Ph.D. dissertation work with important results highlighting the original contributions by the candidate. It should give a general outline of the thesis. The literature survey and review of earlier research work should be brief with a limited purpose of highlighting the important contributions of others in reference to the research work to be reported in the thesis. It is expected that at the time of submission of the synopsis no work is yet to be completed except writing the thesis and all other academic requirements such as course work and the follow up on the suggestions and directions given by members of the Scholar Research Committee (SRC) have been fulfilled.

2. NUMBER OF COPIES TO BE SUBMITTED:

Two hard copies and one soft copy (pdf file) in a properly labelled CD are to be submitted to the Chairman of the Department Research Committee of the concerned Department/School through the supervisor. The soft copy of the DRC approved synopsis should also be emailed at phdcell@ncuindia.edu

3. LANGUAGE: Language of the Synopsis will be English unless the subject of the thesis requires the language to be other than English fully or in part, for which permission of the SRC is required.**4. SIZE OF SYNOPSIS:**

The size of synopsis should normally be 15-20 pages long (not exceeding 6000 words) typed on one side of good quality (not lower than 80 gsm) A4 size white paper.

5. LAY OUT OF SYNOPSIS:

- i. Cover Page & Title page
- ii. Table of Contents
- iii. Body of the Synopsis (For guidance only)
 - Abstract
 - Introduction
 - Brief survey of earlier related work
 - Objective of the thesis
 - Research Methodology
 - Major results and Discussion
 - Summary and Conclusions
- iv. List of References (pointed references only in the body)
- v. List of Publications (from the Ph.D. work of the student)

6. TYPING INSTRUCTIONS:

The synopsis should have the following page margins
Top edge: 25 to 30 mm
Bottom edge: 25 to 30 mm

Left side: 35 to 40 mm

Right side: 25 to 30 mm

- The general text shall be typed in the Font Style “Times New Roman” with Font Size of 12.
- The line spacing of the text should 1.5. Line spacing of Figure captions and Table captions should be 1.
- All Headings should be numbered as 1, 2, 3, etc., using **bold letters of Font size 12**. Sub-headings should be avoided. If needed, they can be numbers as 1.1, 1.2, 2.1, 2.2, etc.
- The page numbering for all items (i) to (iii) of Layout of Synopsis (Clause 5) should be done using lower case Roman numerals (i, ii, iii, etc.) and the pages thereafter should be numbered using Arabic numerals (1, 2, 3, etc.). Page numbers should be put at the centre of the bottom of the each page.
- References can be numbered as 1, 2, 3, etc. in the order in which they are referred to in the body of the synopsis. Only those, which are cited in the synopsis, only need be given in the list of references. Format for the reference is given later on.
- **Cover Page & Title Page:** A specimen copy of the Cover page & Title page for synopsis is given in Annexure A.
- **Table of Contents:** The table of contents should list all material following it (headings and subheadings in the body of the synopsis) and the formatting is given in Annexure B.
- **Abstract:** An Abstract of the Synopsis not exceeding one page or in less than 350 words, whichever is less, must be given at the start of the Body of the Synopsis.
- **Referencing:** When referring to a reference item, the reference number, as in [2] be used. “Ref. [3]” or “Reference [3]” should not be used except at the beginning of a sentence, e.g. “Reference [3] shows ...”. Multiple references are each numbered and kept inside one square bracket (e.g. [2, 3 and 5–8]). References should appear in text sequentially with increasing Arabic numerals being used.
- **Equations:** Equations should be typed using an equation editor with Times New Roman Font of readable size. They should be numbered sequentially using the Arabic numerals inside () brackets.
- **Tables and Figure:** Tables and figures must be placed as close as possible to their first mention in the text. All information in Tables and Figures should have font size / line width sufficient to become visible. All photographs included in the synopsis should be glossy. Tables and figures with their captions should be numbered using Arabic numerals as 1, 2, 3, etc. (e.g., Table 1, Table 2, Figure 1, Figure 2) and typed within the specified margin. Large size figures should be reduced to the appropriate size by photography or otherwise before insertion. Figure caption should have the figure no. and be displayed below the figure. Table caption should have the Table no. and be displayed above the table.
- **Units:** All units of all parameters used should be in SI units unless specifically required otherwise. In such special cases, the quantity should also be given in SI units at least at the start of use of such non-SI unit.

7. FORMAT FOR REFERENCING:

Format for referencing will be as follows:

Journal Publication:

Author Name, "Name of paper", *Title of Periodical*, vol. x, no. x, pp. xxx-xxx, Month, year.

Example:

- [1] B.K. Samantha, M. Maity, S. Dalal and A.K. Banthia, "Piezoelectric properties of modified epoxy: Effect of chain length", *Journal of Applied Physics*, vol. 135, no.4, pp. 216-223, 2006.

Book Chapter:

Author Name, "Title of chapter in the book," in Title of His Published Book, xth ed. City of Publisher, Country if not USA: Abbrev. of Publisher, year, ch. x, sec. x, pp. xxx-xxx.

Examples:

- [2] S.N. Tewari, "Fabrication of ultra-thin oxide gate dielectric for VLSI" in A Monograph on Device Processing, Dehradun, India, International Book Distributors, 1992, pp. 498.
- [3] S. Bedi, *Random numbers for dummies*, New Delhi, J. Wiley, 1994, pp. 55-70.

Thesis:

Author Name, "Title of Thesis", M.Tech./Ph.D. Thesis, Department, University, City, Country, pp. xxx - xxx, Month, year.

Example:

- [4] B. K. Das, "Some Aspects of Displacive Phase Transformation in Nb-Ru Equi-atomic Alloys", Ph.D. Thesis, University of Illinois, Urbana, USA, pp. 110-115, January, 1971.

Reports:

Author Name, "Title of report," Abbrev. Name of Co., City of Co., Abbrev. State, Report no.xxxxx, year

Example:

- [5] B. K. Das and S. N. Singh, "Calibration program for the silicon solar cells", National Physical Laboratory, New Delhi, India, Report no. EM-2001-1202, 2001.

Handbook:

Name of Manual/Handbook, x ed., Abbrev. Name of Co., City of Co., Abbrev. State, year, pp. xxx-xxx.

Example:

- [6] Handbook on Electronics, 3rd ed., ed. R. K. Patel, IETE, New Delhi, India, 1985, pp. 44-60.

Conference Proceedings:

R. K. Author, "Name of paper", in *Proceedings of Conference Name*, City, Country, Ed. by Name of Editors, pp. xxx – xxx, Dates, Month, year.

Example:

- [7] S.D. Naik, S.K. Apte, R.S. Sonawane, B.B. Kale, N. Pavaskar and B.K. Das, "Nano size Mn_3O_4 (hausmanite) powder preparation by microwave and its characterization", in *Proceedings of the Ninth International Conference on Ferrites (ICF-9)*, San Francisco, USA, Ed. by Ronald Soohoo, American Ceramic Society, pp.853-858, 2005.

Conference Presentation:

R. K. Author, "Name of paper", *Conference Name*, City, Country, Dates, Month, year.

Example:

- [8] R. Kishore, S.N. Singh and B.K. Das, "Growth of silicon nitride by plasma enhanced chemical vapour deposition for antireflection coating on silicon solar cells", *Second Annual General Meeting of Materials Research Society of India*, New Delhi, 1991.

Patent:

Author Name, "Title of the Patent", Patent Office, Patent no. xxxxxxxx, date, year

Example:

- [8] G.C. Jain, C.V. Ganapathy, G. Govindswamy, B.K. Das, H.S. Kalsi, T.R. Puspangadan, S. Chandra, S.C. Gupta, S.S. Hanspal, T. Podikunju and R.S. Khanduja, "Improvement in or relating to manufacture of medium wave cup and drum cores", Indian Patent No. 140966, 1976.

Web Page:

Web Page Owner, Available: <http://xxxx.xxxx.xxxx>, date, year

Example:

- [9] Wikipedia webpage, Available: http://en.wikipedia.org/wiki/Integrated_circuit, 29 November, 2013.

Yet to be Published Work:

- [10] A. K. Nigam, "A note on antenna arrays," IEEE Trans. Antennas Propag..., to be published.*** This style should be used only when the paper has been accepted or scheduled for a future publication, i.e., "to appear in." should not be used***
- [11] S. S. Klien, "Effect of gamma function on population distribution analysis," submitted for publication. *** This style is to used only when the paper has not yet been accepted or scheduled for publication, i.e., "to appear in." should not be used***
- [12] S. S. Klien, "Effect of gamma function on population distribution analysis," unpublished. *** This style is to used only when the paper has not yet been sent for publication, i.e., "to appear in." should not be used***

Full names of the Journals and Conferences, not their abbreviations, should be given. For any other case, please refer to IEEE format for referencing at IEEE Explorer website:http://www.ieee.org/publications_standards/publications/authors/author_templates.html

8. BINDING SPECIFICATIONS:

Each of the two copies of the synopsis should be sewn and bound using flexible cover of thick light sky blue colour art paper. The cover should be printed in black letters and the text for printing should be identical to what has been prescribed for the title page.

9. SUBMISSION OF SYNOPSIS & FORMS:

The student has to submit to the Dean Office (Ph.D. cell), two soft bound copies of the synopsis along with a soft copy of the synopsis (in pdf file format) and a CD with proper labelling. The soft copy of the DRC approved synopsis should also be emailed at phdcell@ncuindia.edu.

The student should submit the Form Synopsis01 (Annexure-C) along with the copies of Synopsis to Dean Office (Ph.D. cell).

After the approval of the synopsis by the SRC/DRC, the Supervisor(s) should submit the Confidential Form Synopsis 02 (Annexure - D) directly to the Dean Office (Ph.D. cell) in a sealed envelope.

10. SUBMISSION OF THESIS:

The candidate has to submit the Ph.D. Thesis within nine months from the date of submission of the synopsis. If the Thesis is submitted after nine months of submission of the Synopsis, a fresh Synopsis must be submitted along with the required forms and certificates.

11. AMENDMENTS:

These rules can be relaxed, in special circumstances, by the Chairman, BDR for valid written reasons.

ANNEXURE A

(A typical Specimen of Cover Page & Title Page)

<bold>

SYNOPSIS OF THE THESIS

<bold><1.5 line spacing>

STUDIES ON THE DESIGN OF LOW POWER MEMS ACTUATOR

<Italic>

Submitted by

<bold>

RAVINDER JAIN

Regn. No.: 13ECD002

</bold>

Under the Supervision of

Prof. B. K. Taneja

In Partial Fulfilment of the Requirements for the award of Degree of

<bold>

DOCTOR OF PHILOSOPHY

<logo size 38 x 35 mm>



(Formerly ITM University, Gurugram)

<bold>

**DEPARTMENT OF MECHANICAL ENGINEERING
SCHOOL OF ENGINEERING AND TECHNOLOGY**

THE NORTHCAP UNIVERSITY, GURUGRAM- 122017

NOVEMBER 2015

ANNEXURE B
(A typical Specimen of Table of Content)

Table of Content

Section No.	Title of Section	Page no.
1	Abstract	
2	Introduction	
3	Brief Survey of Earlier Related Work	
4	Objective of the Thesis	
5	Research Methodology	
6	Major Results and Discussion	
7	Summary and Conclusions	
8	List of References	
9	List of Publications (from the Ph.D. work of the student)	

<<sample only>>

7. Pre-Ph.D. seminar was given in the Department/School in presence of SRC members on _____ in Room _____.

8. The Title of the Thesis given in the synopsis falls within the broad scope of the Research Proposal submitted by the student and the Title is recommended for acceptance.

9. SRC should give one clear recommendation (with a tick mark) and comments in the box below.

Satisfactory and recommended – Highlight the progress made during the work in the box below or on a separate page

Not satisfactory* – Give remarks in the box below or on a separate page

Chairman, SRC Member 1 Member 2 Member 3 Member 4

Date: _____

Note (*) – In case the SRC finds the synopsis not satisfactory, the student can resubmit it to the SRC after incorporating the suggestions of the SRC.

Chairman (DRC) _____

Dean (Research) / VC appointed nominee / VC _____

(Confidential)
THE NORTHCAP UNIVERSITY

PARTICULARS TO BE FILLED IN BY THE SUPERVISORS
(To be submitted after approval of the Synopsis)

1. Name of Ph.D. Student (in block letters)
(Name must correspond with the name on the enrolment form)

2. NCU Roll No. of the Student:

3. I (we) am (are) satisfied that the student has completed his research work towards his Ph.D. degree under my (our) guidance and is ready to write and submit his thesis within nine months of submission of the synopsis.

4. Title of the Thesis (in block letters)
(The title of the thesis should be correctly and clearly recorded as approved by the SRC)
.....
.....

5. The names of renowned External Experts (5 from reputed institutes in India and 5 from reputed institutes in developed foreign countries) suggested for examination of the thesis for the student are given below.

	INDIA	DEVELOPED FOREIGN COUNTRIES
1	Name: Designation: Address: Email: Phone:	Name: Designation: Address: Email: Phone:
2	Name: Designation: Address: Email: Phone:	Name: Designation: Address: Email: Phone:

3	Name: Designation: Address: Email: Phone:	Name: Designation: Address: Email: Phone:
4	Name: Designation: Address: Email: Phone:	Name: Designation: Address: Email: Phone:
5	Name: Designation: Address: Email: Phone:	Name: Designation: Address: Email: Phone:

6. Certified that the above mentioned suggested External Experts are currently active in research in the field of specialization of the student.
7. Certified that none of the **External Experts is a near relation** (parents, brother/sister or son/daughter) of the supervisor(s) or the student or their spouses.

(Supervisor no.1)
Name: _____

(Supervisor no.2)
Name: _____

(Supervisor no.3)
Name: _____

Date: _____

To
Dean (Research) / VC appointed nominee / VC _____,

Chairman (DRC) _____

For Office Work

1. Pre-Ph.D. Seminar was held on _____ at _____ AM/PM in Room _____. The student successfully defended his/her work to his SRC and its recommendations as given in form Synopsis-01 are enclosed.
2. Recommendation of the DRC for this case as given in the Minutes of the DRC Meeting held on _____ is enclosed.
3. Two copies of the Synopsis and the soft copy of the synopsis incorporating suggestions of the SRC, if any, are enclosed.
4. Forms Synopsis-01 is enclosed.

Date: _____

Dean (Research) / VC appointed nominee / VC _____

To
Chairman, Board of Doctoral Research

For Office work

Name of Student:

Regd. No. of Student:

Title of the Thesis (in block letters)

The required number (3+no. of supervisors) of soft-bound copies of the Ph.D. thesis submitted by Mr. /Ms. along with a CD/DVD containing the soft copy of the Thesis are forwarded.

His synopsis was accepted for submission on

Date: _____

Dean (Research) / VC appointed nominee / VC _____

To
Chairman, BDR

**THE NORTHCAP UNIVERSITY
PARTICULARS TO BE FILLED IN BY THE CANDIDATE**

(while submitting the Ph.D. Thesis during Viva-voce Examination)

1. Name of student (in block letters).....
(Name must correspond with the name as in the enrolment form)
2. Father's Name.....
3. NCU Regd. No.
4. Date of Birth.....
5. Address:.....
.....
.....
6. Email: Mobile:
Name of the Supervisor(s) 1.
2.
3.
7. Title of the Thesis (in block letters).....
.....
.....
9. (a) Has the candidate submitted two (02) hard bound copies of the corrected Thesis? Yes/No. If yes, when?
(b) Has the candidate submitted the soft copy of the corrected Thesis (in pdf file format) on a CD/DVD with proper labelling? Yes/No. If yes, when?
(c) Has the candidate emailed the soft copy of the corrected Thesis in PDF format at phdcell@ncuindia.edu? Yes/No. If yes, when?
(d) Has the candidate submitted the soft copy of the corrected Thesis (in ShodhGanga repository format) on a CD/DVD with proper labelling? Yes/No. If yes, when?

Date: (Signature of the applicant)

Counter-signed by the Supervisors:

(Supervisor no. 1) (Supervisor no.2) (Supervisor no.3)

Name: Name: Name:

Date:

To
Dean (Research) / VC appointed nominee / VC _____
(Through HOD/DOS)

To
Chairman, BDR (Through Dean (Research) / VC appointed nominee / VC

Office of BDR

Copy of the PhD Thesis sent to Main Library on

Copy of the PhD Thesis sent to Department Library on

Copy of the PhD Thesis sent to Shodhganga on

Chairman, BDR

Vice-Chancellor:

Date:

Date:

Recommendation of the Examiners:

S.No.	Examiner	Recommendation				
1.		Category I : Thesis is recommended	(a)	“Thesis is recommended for award in its present form”		
			(b)	“The thesis be accepted for the award after minor revision / queries” (Revisions / queries may be addressed during the viva voce examination)		
		Category II : A revision is proposed in the thesis	(c)	“I reserve my decision based on response of candidate to the major revision / queries requiring rewriting a portion/ chapter of the thesis incorporating some additional work” (please note that the response of the candidate would be sent to you for final decision between Category I and II)		
			Category III : Thesis is rejected	(d)	“Re-writing of the thesis after further research is recommended”	
				(e)	“The thesis to be rejected outright”	
2.		Category I : Thesis is recommended	(a)	“Thesis is recommended for award in its present form”		
			(b)	“The thesis be accepted for the award after minor revision / queries” (Revisions / queries may be addressed during the viva voce examination)		
		Category II : A revision is proposed in the thesis	(c)	“I reserve my decision based on response of candidate to the major revision / queries requiring rewriting a portion/ chapter of the thesis incorporating some additional work” (please note that the response of the candidate would be sent to you for final decision between Category I and II)		
			Category III : Thesis is rejected	(d)	“Re-writing of the thesis after further research is recommended”	
				(e)	“The thesis to be rejected outright”	

