SANT LONGOWAL INSTITUTE OF ENGINEERING & TECHNOLOGY, LONGOWAL-148106 (PUNJAB) INDIA

[Deemed to be University]

ORDINANCES and RULES AND REGULATIONS

for

Doctor of Philosophy (Ph.D.)

Degree

With amendments till 39th Senate meeting



SANT LONGOWAL INSTITUTE OF ENGINEERING &TECHNOLOGY, LONGOWAL – 148106, Distt: Sangrur (Punjab) INDIA

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CHANGE OF RULES

Although the rules & regulations mentioned in this ordinance are not variable but, the Senate, as the Supreme academic body of the Institute, from time to time, may revise, amend or alter the regulations, courses of study, their credits and syllabus as and when found necessary. In case a rule needs urgent revision for smooth conduction of academic semester, the same can be done by Chairman, Senate and will be ratified in the subsequent Senate meeting. If there is difference of opinions in understanding / interpretation of any rule/regulation given here, the decision of the Chairman, Senate shall be final.

Ph.D. RULES AND REGULATIONS

ORDINANCES

The ordinances of the Institute shall take precedence over the Rules in matter of any dispute.

Ordinance 1:

A student will be considered by the Senate to be eligible for Admission to the degree of Doctor of Philosophy on his/her applying in the prescribed form provided he/she has obtained Master's degree of this Institute or an equivalent qualification by virtue of an examination.

Ordinance 2:

- 2.1 The Degree of Doctor of Philosophy may be conferred on a student subject to the following conditions:
 - a) Research work has been carried out at the Institute under the guidance of Supervisor(s) for at least three years after his/her date of enrolment on a topic duly approved by the Senate. Ph.D. programme shall be for a minimum duration of three years, including course work and a maximum of six years.
 - b) The Ph.D. thesis submitted by a research scholar shall be evaluated by his/her Research Supervisor and at least two external examiners, who are not in employment of the Institution, of whom one examiner shall be from outside the country and a viva-voce examination by a board of examiners.
- 2.2 Notwithstanding the provision of Ordinance 2.1, a student registered for the degree of Doctor of Philosophy may be permitted to carry out part or whole of his/her research work outside the Institute in an industry, laboratory of other institute/university/research Centre duly approved for the purpose by the Institute.

Ordinance 3:

Regular Institute Faculty, Research Assistants, Technical Assistants or any other duly approved category of Institute Staff may be registered for the degree of Doctor of Philosophy under the provisions of Ordinance 1.

RULES AND REGULATIONS

1. ADMISSION

The Institute offers facilities for work leading to the degree of Doctor of Philosophy (Ph.D.)in various departmental and interdisciplinary research areas:

Chemistry

Chemical Engineering

Computer Science and Engineering

Electrical and Instrumentation Engineering Electronics

and Communication Engineering

Food Engineering and Technology

Humanities (English)

Management

Mathematics (including Statistics)Mechanical

Engineering

Physics

Interdisciplinary Area

Extracts of the Rules and Regulations governing the Ph.D. programme are given below:

1.1 Student status

The Status of the students admitted to the Ph.D. programme shall be classified underany one of the following categories:

1.1.1 Fulltime Research Scholar:

- (a) Institute Research Scholars (IRS): Institute Research Scholars are considered for fellowship in the rate prescribed for JRF/SRF by UGC/AICTE/CSIR/ MHRD from time to time.
- (b) Govt./Semi Govt. Fellowship Awardees (CSIR, UGC, DAE, DST, DBT, NBHM,ICAR etc.): These candidates are considered for financial support from Govt./Semi Govt. schemes. The admission procedure and other requirements are same as applicable to Institute Research Scholars. These research scholars shall be considered as Externally funded students.
- (c) **Sponsored Candidates (SP):** These candidates are sponsored by recognized R&D organization for doing research work in the Institute on full time basis. Candidates are expected to be released for full time research work at the Institute for a minimum period of three years. They will not receive any financial support from the Institute.
- (d) Self-Financed (Indian/Foreign)/Study Leave (SF):
 - (i) Indian: This category refers to persons with experience and with good track record to join the Ph. D. programme. They are admitted along with the regular research students through the usual admission procedure, but they would notget any financial support from the Institute. Full time research scholar without fellowship could be considered for fellowship as and when fulfill the criteria of 1.1.1 (a)/(b).

The students who are admitted in Ph.D. programmes as full-time scholar without fellowship shall be considered for the award of fellowship, subject to the fulfillment of the requirement of NET(AP/GATE) qualifications and following:

• These scholars are required to apply afresh alongwith the other candidates aspiring for admissions in the Ph.D. programme fo the Institute as full-time scholars with fellowship.

- They are required to appear before the selection committee duly constituted for selecting the candidates for Ph.D. programme as per the schedule of admission for odd and even semesters every year.
- In case the selection committee recommends the candidature of a candidate
 as a full-time scholar with institute fellowship, the date of enrolment of
 candidate for Ph.D. programme shall not change and they need not to register
 for course work, if completed earlier.
- His / her total period as a full-time scholar with and without fellowship shall not exceed five years i.e. the fellowship duration will be 05 (five) years minus period lapsed since date of Registration / admission.
- Initially, he / she shall be awarded a fellowship for two years equivalent to JRF from the date of his / her change of status from full time scholar without fellowship to full-time scholar with fellowship.
- The conversion of status from full-time scholar without fellowship to with fellowship shall be out of the available seats with fellowship in a concerned department at the time of admission.
- The recommendations of the selection committee in this regard and the approval of the Director, SLIET shall be final.

(Item no. 30.4, 30th Senate Meeting dated 29.12.2020 and item No. 39.11, 39th Senate Meeting dated 28.11.2023))

- (ii) *Foreign:* These students are admitted through Embassy of the respective Govts. after getting approval from the Ministry of External Affairs and no objection certificate from the Ministry of Human Resources Development, department of Education, Govt. of India.
- (iii) **Study Leave:** This category refers to candidates who are released from governmental or educational institutions on study leave for a period of not less than **three years** for doing research work at the Institute.
- **(e) ICCR Awardees (Foreign Nationals) (FN):** These students are sponsored by their Governments and awarded scholarship by Govt. of India, ICCR. They should apply for admission through Indian Embassy in their country.

1.1.2 Part-time Research Scholar:

- (a) Institute Faculty/Staff (IS):
 - (i) For permanent Faculty /staff members:
 - 1. For the permanent faculty/ staff members of the institute with atleast 02 years of experience (before the starting of the semester in which admission is sought) are eligible to apply for Part Time Ph.D. Program of the institute. A member of the non-academic staff of the institute, who satisfied eligibility qualifications shall be considered for admission to the degree as a part time student provided, he has been given administrative clearance by the Director of the Institute. These scholars will be considered for admissions in Ph.D. program of the Institute as a part time scholar.
 - Admission will be on the basis of NET/ GATE qualification or the written test (SET) and the interview as applicable as per the Ph.D. rules and regulations of the Institute. The candidate needs to submit NOC at the time of application/ admission date after approval of competent authority on the recommendations of the HOD/ Officer-in-charge through administration section.
 - (a) The applicant possesses the minimum entry qualifications for the

Ph.D. degree.

- (b) The applicant proves to the satisfaction of the institute that his/her official duties permit him to devote sufficient time to research.
- (c) Most of the facilities for research are available in the institute in the chosen field of research.
- 3. The feasibility of doing research with sufficient intensity will be an important consideration in admitting the scholar in Ph.D. programme of the institute. Final selection for admission will be as per the recommendation of the departmental selection committee of respective discipline

(ii) For Temporary/Guest faculty and other contractual staff:

Temporary/Guest faculty and other contract employees of SLIET, who are serving in the institute and having atleast two years of experience in SLIET may be given an opportunity to seek admission in the Ph.D. programme of the institute as a part-time scholar, subject to the following conditions:

- Admission will be on the basis NET/GATE qualification or the written test (SET) and the interview, as applicable as per the Ph.D. rules and regulation of the institute. The candidates need to submit NOC at the time of application/ admission date after approval of competent authority on the recommendation of the HOD/ Officer-in-Charge through Administration Section.
- 2. The applicant possesses the minimum entry qualifications for the Ph.D. degree.
- 3. The applicant proves to the satisfaction of the institute that his/her official duties permit him to devote sufficient time to research.
- 4. Most of the facilities for research are available in the institute in the chosen field of research.
- 5. The feasibility of doing research with sufficient intensity will be an important consideration while admitting the scholar under this category in Ph.D. programme of the institute. Final selection for admission will be as per the recommendation of the departmental selection committee of respective discipline.
- 6. The feasibility of doing research with sufficient intensity will be an important consideration while admitting the scholar under this category in Ph.D. programme of the institute. Final selection for admission will be as per the recommendation of the departmental selection committee of respective discipline.
- 7. The specific recommendations of the department are required after watching the academic potentials and involvement of the candidate into research activities of the Department/ Institute. The employee having publication (s) in the research Journals/ Conference proceeding of international repute along with the faculty of the Department(s)/ Institute in the preceding years may be considered for Ph.D. admissions.
- 8. The NOC will be given by the competent authority on the recommendations of DRC. The completion of the course work as applicable to the Full Time/Part Time scholars/SLIET employees for Ph.D. Programme shall be applicable for this category of scholars.

(Agenda item, 38.10 38th Senate meeting dated 11.08.2023)

(b) Project Staff (PS): This category refers to candidates who are working on various Projects undertaken by the Institute and admitted to the Ph.D. programme, if the

duration of the Project at the time of admission is around 3 years. They are expected to work for their Ph.D. programme after fulfilling their normal duties.

Project staff working in the Institute is admitting in Ph.D. program and the duration of said Project remains for 02-03 (three years), they shall be enrolled under Full Time category (without Fellowship) instead of Part-Time. After completion of project, the project staff shall not be given any scholarship / fellowship by the Institute. The status of the project staff after completion of project shall be converted into part-time scholar. The registration of the candidate as a Full time Ph.D. Scholar during the period of project shall be based on the recommendations of the DRC of the Department and the Project Coordinator / Principal Investigator in view of the nature of the project to be undertaken. The admission of the project staff to the Ph.D. program shall be as per the procedures laid down by the Institute.

(Agenda Item 30.4, 30th Senate Meeting dated 29.12.2020)

(c) Research Assistant (RA)

Depending upon the requirements, each departmentmay induct one or two Research Assistant every year.

These Research Assistants must look after the laboratories and also assist in teaching or research, or other work assigned by the Head of the Department/ Centre. They are required to work for about 8 hours a week.

The status of the research assistant shall be a part time scholar. He/She can enroll himself/herself for the PhD degree after 01 semester of his / her enrollment. At the time of enrollment, the recommendation of DRC is required indicating the name of the Supervisor and broad field of his/her research. The DRC shall also evaluate the progress of the candidate as a Research Assistant towards his / her contribution for the development of laboratories and the other works / duties assigned to him / her.

(Agenda Item no. 35.4, 35th Senate Meeting dated 12.07.2022)

(d) External candidates (Sponsored/Self-financed) (EX)

These candidates will be allowed to register for Ph.D. with a supervisor from the Institute (Internal) and other from their parent organization (External, if necessary) where they will be doing the research work. They shall produce sponsorship certificate/no objection certificate from the parent organization along with the application for admission.

(e) College Teacher (CT): Candidates from Colleges/ Educational Institutes carrying out Research work during weekends, holidays, and vacations at SLIET, Longowal

- (i) The Institute will decide the competence of the candidates along with the regular candidates at the time of the admission.
- (ii) No objection certificate from the college/university (where the candidate is working) stating that the college/university has no objection for the student to work for the Ph.D. degree at SLIET.
- (iii) Place of work is SLIET, Longowal even though he/she may be carrying out part of work at his/her college/institution.
- (iv) External supervisor is optional based on the recommendations from the supervisor/s and DRC (Departmental Research Committee).
- (v) Candidates should be available to the supervisor during weekends, holidays and vacations.

(f) Ph.D. Executive Part-Time:

Executive Part-Time Research Scholar: This category refers to the candidates who are working professional in the organizations mentioned below: The minimum residential requirement is 180 days for this category.

Reputation of the company or organization where the candidate is working:

- The companies (private / government), research organizations, Ministries of Central and State Governments wherein the candidate is presently employed should have well established reputation & image.
- In case the department is not sure about the company / organization, the
 decision will be taken by a committee comprising of the Dean (Academic),
 Dean(R&C), HOD concerned and put up before the Director for approval.
- Defence or other ministries of the Government of India or any other government organizations.
- Established industrial research and development organizations.
- Autonomous bodies and public undertakings excluding academic institutions. Experience and No objection certificate (NOC):

Two years of post-qualification experience (experience may include stints at multiple organizations) for candidates holding Bachelor /Master Degree in relevant disciplines

Candidate needs to provide "No Objection" Certificate issued by his / her organization for pursuing PhD under the executive part time and part-time

(Agenda Item 38.10, 38th Senate meeting 11.08.2023)

1.1.3 Change of Student Status:

Research Scholars before 03 years of heir registration as regular / full time candidates may be allowed to convert the status to Part Time with NOC from his / her Employer and after completing 03 years of residential requirement as Full Time Scholar, the status will be changed to Part Time without NOC

(Agenda Item 30.4, 30th Senate Meeting dated 29.12.2020)

1.2 Admission Calendar

a) The admissions to the Ph.D. programmes may be made in both of the two regular semesters.

The admission / enrolment of the candidate to the Ph.D. program shall remain open throughout the year, who has been awarded the fellowship by an external agency like CSIR / UGC / DST etc. This admission / enrolment shall be subjected to the recommendations of the selected committee having identical composition as that of the committee constituted for odd and even semesters Ph.D. admissions. Further, the candidate shall be admitted to the course work as and when offered in the next semester

(Agenda Item 30.4, 30th Senate Meeting dated 29.12.2020)

- b) Admissions to Ph.D. programmes are normally made in July-August for the first semester and in December-January for the second semester. The Dean(R&C) / Chairman, SET, will notify the admission calendar each semester.
- c) Each department can have up to 15 Research Scholars (with Institute fellowship) however not more than 5-8 Research Scholars (with Institute fellowship) can be admitted in an academic year excluding the candidates getting fellowship from external funding agencies like UGC/ CSIR /DST /DRDO /ICMR /DBT /AICTE /QIP / TEQIP/ NDS/ MHRD or self-financed schemes etc. Maximum number of Institute

fellowships capped to 118 at a time by MOE for all the departments.

1.3 Eligibility for Admission

Subject to the conditions stipulated in these Regulations, the following persons are eligible to seek admission to the Ph.D. programme:

- (I) a) Engineering & Technology (Except Food Engineering & Technology):

 B.E./ B.Tech. and M.E./ M.Tech or Integrated Master's Degree in

 Engineering/ Technology degree in relevant branch OR equivalent
 degree with first class in any one of the Degrees.
 - b) Food Engineering & Technology: Bachelor's degree in Science/ Engineering/ Technology and Master's Degree in Food Science/ Technology OR Microbial & Food Technology, OR Biotechnology OR Integrated Master's Degree in Engineering/ Technology OR equivalent degree with First Class in any one of the Degrees.
- (II) Sciences: Bachelor's Degree in Science/ Technology and Master's Degree in Science/ Technology in relevant discipline OR Integrated Master's Degree in Science/ Technology or equivalent degree with first class in any one of the degrees.
- (III) Management: Bachelor's Degree and Master's Degree in Management/ Engineering in relevant discipline OR equivalent degree with First Class in any of the Degrees.
- (IV) Humanities: Bachelor's Degree and Master's Degree in Humanities in relevant discipline OR equivalent degree with First Class in any of the Degrees.

Further

- (i) 5% relaxation in qualifying marks for reserved categories (SC/ST/OBC-Non-Creamy layer/ Differently abled/Economically Weaker Section (EWS), etc.) shall be given as per Government of India guidelines.
- (ii) Relevant branch/Discipline shall be as per AICTE/UGC guidelines issued from time to time, as applicable. Details shall be provided on the institute website as per the guidelines of these regulatory authorities.
- (iii) The validity of the GATE/NET shall be considered as per AICTE Doctoral Fellowship (ADF) guidelines OR the guidelines issued by CSIR/UGC.
- (iv)The GATE/NET qualified candidates shall only be eligible for admissions in Full Time Ph.D. programme with Institute Fellowship.
- (v) Eligibility is subject to minimum of 55% marks or equivalent grade in Bachelor's and Master's degree.

The candidate must also fulfill one of the following additional requirements for Ph.D. Executive Part Time

- (i) GATE score.
- (ii) Selected through National Eligibility Test UGC NET including lectureship (Assistant Professorship).
- (iii) Selected through a National level examination conducted by MHRD or its agencies/ Institutions such as UGC/ IIT/ IISc./ IISER/ IIIT etc.
- (iv) Selected provisionally for the DST-INSPIRE Fellowship (provisional award letter to be produced)
- (v) Minimum of TWO years of professional experience (acquired after obtaining the qualifying degree and completed before the starting of the semester in which admission is sought)

However, for the candidates seeking admission after a 4- year/8-semester bachelor's degree programme, the UGC guidelines dated 07.11.2022 may be followed as and when the institute admit such candidates after devising the complete guidelines for course work, seminar etc, separately as per the requirements of a particular discipline/programme

(UGC Minimum Standards and Prcedures-November-2022 approved in Agenda item 36.5, 36th Senate)

Agenda Item 38.14.1, 38th Senate Meeting dated 11.08.2023)

1.4 Admission Procedure

- a) All admissions will be made on approval by the Chairman, Senate on the recommendations of the duly constituted selection committees and the Chairperson, CRC. A selection committee will consist of faculty members, one of whom will be from another department. The constitution of the selection committee will be proposed by the Dean (R&C) and approved by the Chairperson, Senate.
- b) Admission to the Ph. D programmes will be based on two stage process through.
 - (i) Admission to the Ph.D. Program will be based on the TWO STAGE PROCESS through:
 - Applying against available seats in a subject which shall be filled by Online SLIET EntranceTest (SET-V).
 - Institute will admit applicants by a two-stage process i.e. Online Entrance test followed by an interview:
 - Institute will admit applicants by a two-stage process mentioned below or as notified by the Institute from time to time: The qualifying marks for the Entrance Test shall be 50%. The syllabus of the Entrance Online Entrance Test shall consist of 50% of research methodology and 50% shall be subject specific. The SET-V would be of 120 minutes/ 2 hours duration. There would be a single question paper of 100 marks having 100 multiple choice questions for assessing the subject proficiency and research aptitude of the candidate. The admission shall be based on the marks obtained above qualifying marks in SET-V and in order of merit.
 - The candidates who have secured 50% marks in the entrance test ae eligible to be called for interview/ viv voce. A relaxation of 5 % marks will be allowed in the entrance examination for the candidates belonging to SC/ST/OBC/differently-abled category, Economically Weaker Section (EWS), and other categories of candidates as per the decision of the Commission from time to time.
 - Institute may decide the number of eligible students to be called for an interview based on the number of Ph.D. seats available.
 - Provided that for the selection of candidates based on the entrance test conducted by the Institute, a weightage of 70 % for the entrance test and 30 % for the performance in the interview/viva- voce shall be given.
 - The eligibility or qualifying marks will not be a guarantee for admission.
 - Entrance Tests Syllabus of different subjects is (Information Brochure-SET available on website: www.sliet.sc.in).
 - The eligible candidates who have qualified UGC /CSIR (JRF) NET /NET (ASRB) with fellowship /State Level eligibility test (SLET/ SET) with fellowship /GATE are exempted from the entrance examination. However,

they should submit the proof of qualifying the examination. But they have to apply online. These candidates are required appear for the interview.

Distribution of marks will be as follows:

Through SET Entrance Examination

Total Marks = 100

- Marks obtained in Online SET-V weightage 70% of the marks obtained (Maximum 70)
- ii. Personal Interview/Viva-voce/Presentation- 30

Admission through NET /GATE (Including NET-Assistant Professor

- i. 70% weightage: Presentation (35%) and competency of the research (35%)
- ii. 30% weightage for interview / viva voce
- (ii) An interview/viva-voce wherein the candidates are required to discuss their research interest/area through a presentation before a duly constituted Selection Committee. The interview/viva voce shall also consider the following aspects, viz. whether; the candidate possesses the competence for the proposed research; the research work can be suitably undertaken at the Institution; the proposed area of research can contribute to new/additional knowledge.

The institute shall maintain the list of all the Ph.D. registered students on its website on year-wise basis. The list shall include the name of the registered candidate, topic of his/her research, name of his/hersupervisor/co-supervisor, date of enrolment/registration.

- c) The admission of Scheduled Castes/Scheduled Tribes candidates will be decided without comparing them with the general category candidates.
- d) The selected candidates, will be required to produce the evidence of their having passed the qualifying degree examination with minimum specified marks by the date as specified in the information brochure issued for the admission, failing which the admission shall be cancelled.
- e) Ph. D candidate admitted in the Institute under QIP and NDF (national doctoral fellowship) programme shall follow the rules and regulation of the AICTE.
- f) On approval by the Chairman, Senate, office of Dean (R&C) will issue the admission letters to the candidates who will be required to accept the offer of admission by depositing the prescribed fee before the specified date.
- g) In case a candidate does not accept the offer by paying the prescribed fee by the specified date, the offer of admission may stand withdrawn, and the admission will be offered to the candidates in the waiting list, if any, in order ofmerit.
- h) The offer of admission may also stand withdrawn if the candidate who has accepted the offer fails to register by the date for late registration.
- i) In case a student wishes to temporarily withdraw from his/her Ph.D. programme he/she may do so only after a period of three years following his/her date of registration with prior permission of the Senate. However, the duration of Ph. Dwill remain the same.

(UGC Minimum Standards and Prcedures-November-2022 approved in Agenda item 36.5, 36th Senate Agenda Item 38.14.1, 38th Senate Meeting dated 11.08.2023)

1.5 Area of Research

A student may register himself/herself for a Ph. D degree in the department mentioned at Sr. No. 1 (Rules & regulations) or in an interdisciplinary area. A science student may register himself/ herself

in an engineering department and an engineering student mayregister himself/ herself in a science department. Interdisciplinary admission and evaluation will be executed by following Interdisciplinary DRC.

- i) Head of Department where candidate is registered Chairman
- ii) Head of another interdisciplinary department
- iii) Concerned Supervisors
- iv) Allied person nominated by Dean (R&C)

(Agenda 39.15, 39th Senate Meeting dated 28.11.2023)

2. FINANCIAL ASSISTANCE

- **2.1 Institute Fellowship:** The Institute research scholars will be paid fellowship and contingency at a rate in accordance with the directives from the MHRD mentioned in 1.1.1(a). Guidelines for SRF and extension of fellowship is given Anexxure-3.
- **2.2 Fellowship from Sponsored Research Projects:** Fellowships are available through sponsored research projects from agencies like CSIR/UGC/DST/DBT/ICAR etc.
- 2.3 Direct fellowship: Direct fellowships are also available from Government agencies like CSIR/UGC/DST/DBT/ICAR/QIP/FIP etc. to the students. The admission of such candidates to Ph. D programme, who are awarded fellowship directly by these agencies, shall be made as per provisions of the respective scheme keeping in view the Ph.D. Regulations of the Institute.
- 2.4 Teaching Assistantship: The Institute may also provide Ph.D. students, financial assistance in the form of teaching assistantships. Assistantships are awarded on a semester to semester basis. The assistantship is paid at the approved rates as decided by the institute. A student is expected to devote up to eight hours per week towards job(s) assigned to him/her. The renewal of assistantship is contingent on the student's satisfactory performance in the academic programme and in the discharge of assistantship duties.
- **2.5 Self-Finance:** Students may also be admitted to the Ph.D. programmes on a self-financing basis or from external agencies as a sponsored candidate.
- **2.6** The research scholars with fellowship who leaves in between the Ph. D programme will have to refund the fellowship in full or in part as per the affidavit submitted at the time of admission. The guidelines of AICTE for PG admission will be followed in this regard.

3. REGISTRATION

- **3.1** A student is required to enroll for each semester as per the schedule notified bythe institute. The enrollment process involves:
 - a) submitting a duly filled registration form as per approved format.
 - b) payment of fees for that semester and clearance of any outstanding dues
 - c) Submit a progress report as per approved format.
 - d) In case any Ph.D. Scholar does not register himself / herself by the due dates, his/her registration shall be reviewed by the DRC and CRC. If recommended to continue his/her research, the maximum duration for Ph.D. will remain same as per clause 5.4 (e).
 - e) Further, if any student fails to register on time second time or does not register for two consecutive semesters during the course of study, his/her registration shall withstand cancelled.
- 3.2 All students who are not on authorized leave must continue to register in the following semester till they submit their thesis. If, however, a student is likely to submit his/her

thesis within two weeks from the commencement of semester, he/she need not register in that semester. This period will not be extended in any case.

- **3.3** Ph.D. students who have submitted their thesis and are waiting to defend his/her thesis need not register.
- 3.4 In very special cases, students who have completed all the experimental work and analysis related to the thesis and are on sanctioned leave, the CRC on the specific recommendations of the DRC may allow submission of thesis.

3.5 Course Assessment

A student who has been enrolled/registered for Ph.D. must.

- i) present a progress report after every six months of the admission in presence of RAC and RAC will decide about the progress of the work. RAC will send its recommendation through Chairman DRC to Chairman, CRC regarding the suitability of the candidate.
- ii) pass in courses of at least 10 credits (Rule 5.2 (vi)) allocated by the RAC on recommendation of the supervisor(s), through a written examination within oneyear of enrollment. The period can be extended further for six months with the recommendation of DRC and approved by Chairman CRC. The RPE-10000 will be mandatory from Ph.D. Admissions of Even Semester-2023 onwards and will be offered to Ph.D. Scholars in 2nd Semester of their enrollment.
- iii) In addition, the candidate has to earn 04 credits through two seminars (in his/her research area) within the stipulated time as mentioned in Clause 3.5(ii) above.

(Agenda 36.5, 36th Senate Meeting dated 12.12.2022)

3.6 All categories of students not fulfilling the requirements as enumerated in 3.5 above are liable to discontinue their Ph.D. programme. The CRC will take a decision in this regard after reviewing the cases of such students.

3.7 Confirmation of Registration

Students enrolled under 1.1 (Rules & Regulations) who successfully complete requirements as per 3.5 above shall be granted registration from the date of joiningthe programme (date on which the enrollment fee is deposited).

The procedure for confirmation of Registration shall be as follows:-

- i) Each student, on completion of the requirements of 3.5 shall apply for confirmation of Ph.D. Registration within a period of one and a half year for fulltime and two years for Part time candidate, from the date of enrollment, otherwise the registration will be automatically stand cancelled.
- ii) The student will defend his/her research plan before RAC and ONE external expert (approved by Chairman, CRC from the list submitted by Supervisor through Chairman, DRC).
- iii) The completed application form shall be forwarded by the Supervisor through Chairman, DRC to the Chairman, CRC, who will consider this application and confirm the date of registration according to 3.7 above.

4. SUPERVISOR/CO-SUPERVISOR

- 4.1 Allocation of Research Supervisor: Eligibility criteria to be a Research Supervisor, Co- Supervisor, Number of Ph.D. scholars permissible per Supervisor, etc.
 - (i) Any regular Professor/Associate Professor of the Institution with at least five research publications in refereed journals (out of which, two must be SCI/SCIE/SSCI/AHCI/SCOPUS journals/any journal included in NIRF ranking) and

any regular Assistant Professor of the institution with a Ph.D. degree and at least three research publications (out of which, one must be SCI/SCIE/SSCI/AHCI/SCOPUS journals/any journal included in NIRF ranking) in refereed journals may be recognized as Research Supervisor. DRC shall ensure fulfillment of this condition.

Provided that in areas/ disciplines where there is no, or only a limited number of SCI/SCIE/SSCI/AHCI/ SCOPUS or referred journals, the Institute may relax the above condition for recognition of person as research supervisor with reasons recorded in writing with recommendations of DRC approved in CRC/Senate on case to case basis.

(UGC Minimum Standards and Prcedures-November-2022 approved in Agenda item 36.5, 36th Senate Effective from admission 2023 (even))

- (ii) Only a full-time regular teacher can act as a supervisor. The external supervisors are not allowed. However, Co- Supervisor can be allowed in intra or inter- disciplinary areas from the same/other departments of the institute or from other related institutions/organizations with the approval of the Research Advisory Committee. External Co-supervisors shall be paid TA/DA etc. as per entitlement for attending a meeting of RAC/DRC as a member regarding Ph. D work.
- (iii) The allocation of Research Supervisor(s) for a selected research scholar shall be decided by the Department concerned depending on the number of scholars per Research Supervisor, the available specialization among the Supervisors and research interests of the scholars as indicated by them at the time of interview/viva voce.
- (iv) Co-Supervisor from Institute other than SLIET shall be recommended by DRC, if the part of the research facility for the research work of candidate are not available at SLIET. Complete biodata of External Co-Supervisor shall be taken and the case for adding Co-Supervisor be recommended only after examining / relevance of research areas of External Supervisor. Not more than one Co-Supervisor can be added in addition to the Supervisor. The DRC must ensure that the Co-Supervisor should be from the reputed Universities / Institutions / R&D Labs. In the relevant fields.

Consent on the prescribed form is required for adding Co-Supervisor (either from same department or from other department / institute). Permission from parent Institute of the Co-Supervisor is required.

(Agenda item 34.09, 34th Senate Meeting dated 07.02.2022)

- (v) A Research Supervisor/Co-supervisor who is a Professor, at any given point of time, cannot guide more than Eight (08) Ph.D. scholars. An Associate Professor as Research Supervisor can guide up to a maximum of six (06) Ph.D. scholars and an Assistant Professor as Research Supervisor can guide up to a maximum of four (04) Ph.D. scholars, including within or outside SLIET.
- (vi) In case of relocation of a Ph.D. woman scholar due to marriage or otherwise, the research data shall be allowed to be transferred to the Institute to which the scholar intends to relocate provided all the other conditions in these regulations are followed in letter and spirit and the research work does not pertain to the project secured by the parent institution/ supervisor from any funding agency. The scholar will however give due credit to the parent guide and the institution for the part of research already done.
- (vii) Faculty of the institute may also serve as a supervisor/co-supervisor of any other

institute/University. However, the faculty must get prior approval from the Institute.

4.2 Appointment of Supervisor

Applicants will be given, at the time of selection, the details of various research topics/areas proposed by various faculty members for Ph.D. programmes in the respective department, so that the applicant will have an opportunity to discuss those topics/areas with the respective faculty members and thereafter, indicate their choice in order of preference. The applicants shall then beinterviewed by a Committee constituted by the Chairman, CRC.

- a) All selected students shall be assigned tentatively to research supervisor(s) at the time of selection. However, a regular Research Scholar may opt to find a Supervisor, if he/she so desires. The Head of the Department would act as Supervisor until the student is assigned to a supervisor. Alternatively, the Head of the Department may himself act as a supervisor until the final allotment is done.
- b) Each external student may have only one Supervisor from the sponsoring organization where he/she is employed and one or two at the Institute.
- c) The research programme and the specific area of research of a selected studentshall be finalized by his/ her Supervisor (s) after mutual discussion.
- d) All Research Scholars should be finally assigned to Research Supervisor(s) at the time of enrollment. Co-Supervisor, if required can be added before confirmation of Registration.
- e) Chairman, DRC, has to ensure that all the selected / admitted students are allocated supervisors within a month of their enrollment.

4.3 Change of Supervisor

- a) Change of Supervisor(s) under exceptional circumstances shall be permitted on recommendation of the DRC after obtaining the consent of
 - (i) the student (ii) the present Supervisor(s) and (iii) the proposed Supervisor(s).
- b) If the research programme and/ or area of the work require modification due to this change, the student's entire course programme requirement shall be re- examined by the DRC. If there is a change in the research programme and/or area of the work, the registration date may be revised, if found necessary.

4.4 Alternative Arrangement due to Absence of Supervisor

- a) Whenever a supervisor leaves the Institute permanently or temporarily for a period exceeding one year, the DRC shall provide new supervisor(s) for the students before his/her departure. The new supervisor will act as a co-supervisor.
- b) Whenever a Supervisor leaves the Institute temporarily for a period of one year or less, the DRC shall make alternate arrangement for the guidance of his/her students in consultation with the supervisor.
- c) The original supervisor on his/her return to the Institute will continue as supervisorand the other person may act as a co-supervisor of his/her students depending on the period for which he/she has supervised the Ph.D. Programmes.
- d) Any such arrangements made shall be forwarded to CRC for prior approval.
- e) The above rules (a-d) are not applicable if
 - (i) The supervisor remains absent for six months or less.
 - (ii) A co-supervisor from the institute is available.
- f) The role of the supervisor (s) in case of his / her resignation / deputation / lien / eventualities or any other type of absence from the Institute, the Supervisor of a research scholar shall remain as a supervisor only, if he/she is associated with the

Scholar for a minimum period of two years in the Institute. In case, he / she leaves the Institute, after two years, a scholar in the Institute shall be provided with an administrative supervisor. In all other cases, the existing rules & regulations of Ph.D. Programme shall apply.

g) New Supervisor will be appointed in case of death of existing one, if necessary, on the recommendations of DRC and approval of the CRC. Due recognition will also be given to the earlier Supervisor in the thesis (to be submitted) by the candidate.

4.5 Limitation of number of students

At any given time, the number of Institute research scholars (Full time with fellowship from Institute support) working with a supervisor shall not exceed three (03), preferably one per year, while the total number of all categories of research students working shall not exceed as per clause 4.1 (v).

4.6 For full-time Research Scholar (with or without fellowship), full credit will be given to the supervisor as well as the co-supervisor(s) where more than one supervisor is involved. Credit of guidance of one student will be given to each supervisor.

For part-time/ part-time (executive) Research Scholars, full credit will be given to single supervisor and half credit will be given to each supervisor if two or more supervisors involved.

Supervisor and Co-supervisors will be termed as Supervisor-I and Supervisor-II.

(Agenda 39.15, 39th Senate Meeting dated 28.11.2023)

5. PLACE OF WORK, COURSE-WORK, PROGRESS AND DURATIONS

5.1 PLACE OF WORK

- a) The place of work is SLIET. Every external student shall carry out a part of study of his/her research work residing at the Institute for a period, which shall in no casebe less than one year.
- b) Students sponsored by local organization may, based on an application recommended by DRC, be exempted from stay in the Institute campus while fulfilling the requirements under rule 5.1a above. However, the work under this rule shall be carried out during normal working hours of the Institute.
- c) External students will be provided with hostel/transit accommodation or a suitable quarter (if available) on payment of rent during the studies.
- d) To authorize concerned HOD to grant permission to the scholars on the recommendations of the concerned supervisor(s) to allow the research work for the Ph.D. degree to be partially or whole carried out at another organization as and when required for research purpose.
 - Further, during the time of joining, scholar is required to produce his / her attendance of place of work duly certified by his / her Co-Supervisor / Head of Department / Section Incharge.

(Agenda item 35.15, 35th Senate Meeting dated 12.07.2022)

5.2 Course Work: Credit requirements, number, duration, syllabus, minimum standards for completion, etc.

(i) The credit assigned to Ph.D. course work shall be a minimum of 08 credits and a maximum of 16 credits. DRC of each department will recommend to the Senate for approval through CRC, the credit requirements for Ph.D. course work for the respective department.

Total minimum Credits required to pass in Ph.D. programme :

Course Work:

1. RM-10000, Research Methodology - 04 Credits

2. Course work of RPE-10000 -02 Credits (w.e.f. January, 2023)

Departmental Subject - 04 Credits

Seminar:

1. 02 Seminars – 04 Credits (02 each)

(Agenda item 36.5, 36th Senate Meeting dated12.12.2022)

Course work by all Part-Time scholars registered in SLIET can be completed through NPTEL/SWAYAM/ MOOC or online / through SELF STUDY etc.08 weeks course work through NPTEL/SWAYAM/ MOOC will be considered equivalent to 03 credits and 12 weeks course will be considered as 04 credits. The lists of courses to be offered to the scholars is to be provided by the department through its Board of studies (BOS) well in time before the start of such courses at National level. However, evaluation of the scholars completing the course work through self-study shall be as per the Ph.D. Rules and Regulations of the Institute by appearing in examinations; minor /major / quizzes etc

(Agenda item 39.15, 39th Senate Meeting dated 28.11.2023)

- (ii) The course work shall be treated as prerequisite for Ph.D. preparation. Aminimum of four credits shall be assigned to one or more courses on Research Methodology which could cover areas such as quantitative methods, computer applications, research ethics and review of published research in the relevant field, training, field work, etc. Other courses shall be advanced level courses preparing the students for Ph.D. degree.
- (iii) All courses prescribed for Ph.D. course work shall be in conformity with the credithour instructional requirement and shall specify content, instructional and assessment methods. They shall be duly approved by the SENATE on the recommendations of the CRC through DRC.
- (iv) The Department where the scholar pursues his/her research shall prescribe the course(s) to him/her based on the recommendations of the Research Advisory Committee, of the research scholar.
- (v) All candidates admitted to the Ph.D. programmes shall be required to complete the course work prescribed by the Department during the initial ONE and A HALFYEAR.
- (vi) The Attendance requirement for the course work for Ph.D. Scholar shall be same as that of PG Scholars. A Ph.D. scholar must obtain a minimum of 55% of marks to obtain a satisfactory grade in the course work to be eligible to continue in the programme and submitthe dissertation/thesis.

(Agenda item 23.7, 23rd Senate Meeting dated 15.01.2019)

5.3 Progress Monitoring

After the completion of six months, the progress of the research will be evaluated by a Research Advisory Committee (RAC) for all candidates. The RAC will normally consist of the Supervisor and Co-Supervisor (if any) and two faculty members conversant with the field of research. The Co-Supervisor and/or member of the RAC may be from outside the Institute. The Research Supervisor of the scholar shall be the Convener of this Committee. The names of the RAC members and any subsequent changes in its composition shall be communicated by the DRC to the CRC for record. The RAC is expected to monitor the progress of the candidate until the completion of the programme. This Committee shall have the following responsibilities:

(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.

Following committee will monitor progress of research scholars after every six months (half years) till the submission of thesis instead of Annual progress seminars. HODs will ensure that presentation for assessing half yearly progress of research scholars be held before semester registration and same be submitted alongwith semester registration form:

- 1. HOD / Nominee Chairman
- 2. Supervisor (s) Convener
- 3. *One Expert from Department having Ph.D. Member
- 4. *One expert outside Department Member

Amended Performa for Half yearly (six monthly) progress report is to be submitted in prescribed Performa.

However, RPC / RAC shall continue the other responsibilities as per Ph.D. Rules and Regulations.

(Agenda item 34.09, 34th Senate meeting dated 07.02.2022, applicable w.e.f. 2022 (even))

All students registered for Ph.D. irrespective of their category, shall have to register inevery semester along with a brief report on the earlier semester(s) work and plan for the ensuing semester.

All candidates, after joining, will have to submit through supervisor(s), an Annual Progress Seminar of their work in previous academic year to the concerned DRC once a year in July/January depending upon the time of admission. For all categories of students, this seminar must be given on or before 31st August or 31st January of each year (However, incase of CSIR/UGC fellows, the dates of their Annual Progress Seminar be fixed by considering requirements of funding agency and such fixed schedule will be followed strictly.

A copy of Annual Progress Report must be submitted to Ph.D. Section.

Regular research scholars are liable to lose scholarship if the seminar is delayed beyondsaid dates. Such seminars are required to be given (every year) until the synopsis andthesis is submitted. This is also required for renewal/enhancement of assistantship and

confirmation/continuation of their programme. All external non-residential students must also give, at least one Seminar per year at the Institute until they submit the synopsis and thesis.

The following guidelines are being followed for avoiding delays in presentation of Annual Progress Seminar:

- i) Every Ph. D. student must present the Annual Progress Seminar as per prescribed schedule every year.
- ii) In case, due to some valid reasons, if he/she is not able to present Annual Progress Seminar in time, an application for extension must be made at least 15 days before the due date of presentation.
- iii) Extension will be granted by CRC on case-to-case basis with or without fine for presentation @ Rs. 750/- per week, from 1st September/1st February, till the date of presentation of Annual Progress Seminar (APS).
- iv) If the application for late presentation of APS is made after the due date, additional fine of Rs.750/-will be charged for not applying for extension in time.
- v) The report of Annual Progress Seminar in a prescribed format should reach Academic Office within four days after the presentation.
- vi) Delay beyond 30th September/28th February (as applicable) may lead to discontinuation/cancellation of Assistantship and/or Registration.

vii) The assistantship for the period beyond the due date of renewal/enhancement of Assistantship will be released only after receipt of satisfactory report subject to recovery of fine, if any.

The continuance of registration of all students is subject to satisfactory progress made bythem. In case of Assistantship holders, the continuance of Assistantship beyond 3 yearswill also be subject to satisfactory progress made by them, as assessed by a panel appointed by the respective DRC.

Any three unsatisfactory reports (half yearly) shall be treated as cancellation of Ph.D. registration. First unsatisfactory report of supervisor(s) / RPC / DRC will put the candidate on scholastic probation-I, second unsatisfactory report will put the Research Scholar on scholastic probation-II and so on

Above rules are also applicable to CSIR/UGC fellows, if they do not follow the dates fixed for them for submission of Annual Progress report.

5.4 Duration

a) The full-time students must carry out research work for at least a period of three years from the date of registration/ enrolment for Ph. D. degree before submission of thesis.

The part time candidate should carry out research work for at least a period of 04 years from the date from the date of registration / enrollment for Ph.D. degree before submission of thesis.

However, in exceptional cases, a Part Time candidate can be considered to submit his / her Ph.D. thesis before 04 years subject to the condition that he / she has published atleast 03 papers in SCI / SCIE indexed journals. Further, the submission of the thesis shall be subject to the approval of the Chairman Senate after recommendations of the DRC of the Department.

(Agenda Item no. 30.4, 30th Senate Meeting dated 29.12.2020)

- b) Duration of the Programme.- (1) Ph.D. Programme shall be for a minimum duration of three (3) years, including course work, and a maximum duration of six (6) years from the date of admission to the Ph.D. programme.
 - A maximum of an additional two (2) years can be given through a process of re-registration as per the Statute/Ordinance of the Higher Educational Institution concerned; provided, however, that the total period for completion of a Ph.D. programme should not exceed eight (8) years from the date of admission in the Ph.D. programme.
- c) Provided further that, female Ph.D. scholars and Persons with Disabilities (having more than 40% disability) may be allowed an additional relaxation of two (2) years; however, the total period for completion of a Ph.D. programme in such cases should not exceed ten (10) years from the date of admission in the Ph.D. programme.
 - Female Ph.D. Scholars may be provided Maternity Leave/Child Care Leave for up to 240 days in the entire duration of the Ph.D. programme.

(UGC Minimum Standards and Prcedures-November-2022 approved in Agenda item 36.5, 36th Senate Effective from admissions 2023 (even))

d) Research scholars who have presented Pre-Ph.D. synopsis seminar and submitted the synopsis, may be permitted by Chairman, CRC on recommendation of the DRC to leave the Institute and submit the thesis from outside within a period of six months from the date of pre-Ph.D. synopsis seminar, provided they fulfill the provisions of all other rules. In casethe student does not submit his/her Ph.D. thesis within six months from the date of presentation of pre-synopsis seminar, Chairman CRC may grant an extension for submission of thesis for a period of three months on the recommendations of DRC. Further, if the student does not submit his/her Ph.D. thesis within nine months from the date of presentation of pre-Ph.D.

synopsis seminar, the student may be asked to present another pre-synopsis seminar. However, the maximum duration will remain the same asper clause No. 5.4 (b).

6 THESIS SUBMISSION

- **6.1 Pre-Ph. D. Synopsis Seminar:** Prior to the submission of the Ph.D. synopsis andthesis, a comprehensive internal assessment of the research work shall **be made bythe DRC.**
 - **a)** RAC shall assess the work through a pre-Ph.D. synopsis seminar. The student cansubmit the Ph.D. synopsis only if the RAC is satisfied about the quality of the workfor submission as Ph.D. thesis.

If required, the RPC / DRC may recommend the partial modification in the objectives and in the title of Ph.D. thesis for facilitating the research student to carry out his / her research work for completing the research work for submission of Ph.D. thesis, on the basis of the submission by the candidate indicating the changes required in the Objectives / Title of thesis.

Extensive evaluation of Ph.D. work executed by the scholar is required to be made by the DRC having one external expert (Outside SLIET) nominated by the Director from the list of expert proposed by the Supervisor / DRC before giving such recommendations with clarifications / reasons. The partial modifications shall be subject to approval by the Director and further ratification in CRC / Senate.

Details of the pre-Ph. D. synopsis seminar shall be adequately notified by Chairman, DRC to enable interested faculty and students to attend the same.

(Agenda item 34.4, 34th Senate Meeting dated 29.12.2020)

b) The DRC shall forward the report of the Pre-Ph. D. synopsis seminar to the Chairman CRC.

6.2 Requirement of Publications for submission of Thesis

Prior to the submission of the synopsis and thesis, the following requirements must be completed by the student:

Must publish at least two (2) research papers in SCI/SCIE/SSCI/AHCI/SCOPUS/ WEB of Science (WOS), on the Ph. D. research topic before submission of the dissertation/thesis for adjudication and produce evidence for the same in the form of acceptance letter and/or reprints.

(Agenda item 39.10, 39th Senate Meeting dated 28.11.2023)

6.3 Submission of Synopsis and Thesis

- The student shall submit 3 copies of the synopsis and 3 copies of the thesis, with soft/spiral binding and printed on both the sides on high quality (100 gsm) paper, to the DRC in the specified format as per clause 5.4 (d). In case the thesis is not submitted in the specified period as per clause 5.4 (d), the student may be asked to present another pre-synopsis seminar.
- b) The three copies (03) of the synopsis (in the approved format) shall be submitted to the office of concerned Dean through DRC with the following certificates.
 - (i) Certificate from the Chairman, DRC that the pre-synopsis seminar has been completed satisfactorily.
 - (ii) Certificate from the Research Supervisor(s) states (1) that there is a primafacie case for consideration of the thesis, (2) that the thesis does not contain any work which has been previously submitted for the award or any degree/diploma of the same Institution where the work was carried out, or toany other Institution, (3) attesting to the originality of the work, vouching that there is no plagiarism (the Institute Rules for plagiarism applicable) and (4) the extent of collaboration, if

any.

- c) Students should also submit electronic copy of the synopsis in form of PDF format.
- d) The thesis shall be written in the approved format, as per clause 6.4.
- e) Along with the thesis, the student shall submit the requisite forms containing the authorization from the Research Supervisor(s) for submission of the thesis.
- f) A certificate of no dues in the prescribed format has to be produced by the scholar at the time of receipt of PDC.

6.4 Format for Synopsis and Thesis

The Synopsis and Thesis writing guidelines are placed at Annexure-2.

7. THESIS EVALUATION

- 7.1 The thesis evaluation board shall consist of minimum three members including the thesis supervisor(s) approved by the Chairman, Senate. Other two members of the thesis evaluation board must be from outside the Institute and at least one of these two must be from outside the country. Thesis evaluator/examiner from India must be from the top 100 NIRF ranking Institutes/IITs/NITs/IIMs/CFTIs/Central Universities and the labs of CSIR/ICMR/ICAR.
- **7.2** The procedure for constituting the thesis evaluation board is given below:
 - i) The thesis evaluation board shall be proposed along with the synopsis in the prescribed format.
 - ii) The thesis supervisor(s) shall propose a panel of ten examiners (experts for thesis evaluation, five from India and five from abroad not below the rank of professor or equivalent working in relevant areas) to DRC.
 - iii) Experts, who have been thesis examiners during the preceding one year, should not be included in the panel.
- **7.3** The DRC shall submit the panel of examiners to the Dean (Academics) in a closed CONFIDENTIAL envelop.
- 7.4 The Chairman, Senate will select two members (one from India and one from abroad) of the thesis evaluation board. If considered necessary, the Chairman, Senate, may ask additional names of experts to be submitted.
- **7.5** The synopsis will be sent to the examiners for getting their consent. In case, the examiner refuses to evaluate, the list will again be sent to the Chairman, Senate for selection of new examiner.
- 7.6 The names of the members of the thesis evaluation board shall be kept confidentialtill the receipt of evaluation reports. However, on completion of Ph.D. thesis evaluation, the chairmen CRC will send to the thesis supervisor(s) the name of the external Indian thesis examiner so that it can be included in the proposed list of the members of vivavoce board.
- 7.7 The examiners shall independently report to the Senate through the Chairman CRC of the Institute, preferably within six weeks from the date of their receipt of the thesis. The examiners should be conveyed that their reports should include:
 - i) A critical survey and evaluation of the quality and quantity of the work as embodied in the thesis.
 - ii) Questions, if any, to be asked or points to be clarified at the viva-voce examination, and
 - iii) A definite recommendation as to whether the thesis is acceptable for the award of the degree of Doctor of Philosophy.
- **7.8** The Internal Examiner(s) of the Ph. D. thesis is/are the supervisor(s).

- **7.9** If an examiner in his/her report is not able to make a definite recommendation for the award of the degree, he shall be requested to assist the Senate in deciding whether the student is required to make:
 - Substantial revisions involving rewriting of one or more chapters without, however, doing any further research work.
 - ii) Completely rewrite, if the thesis, though not acceptable in the present form, reveals sufficient quality and quantity of work to warrant the student beinggiven an opportunity for further research work and/or reinterpretation of results.
- 7.10 The copies of the examiner's report will be made available to the supervisor/co-supervisor/internal examiner. They may submit their report to the DRC for consideration after ensuring that all the corrections including minor modifications, revisions suggested by the examiners have been incorporated. The DRC shall recommend for consideration and approval of the Chairman, CRC.
- **7.11** Based on the examiner's report, the comments of the Supervisor(s)/Internal examiner(s) thereon, the Chairman, CRC shall recommend to the Chairman, Senate whether the thesis be accepted for the viva voce examination or be rejected or be referred again to a new examiner.
- **7.12** A thesis may be considered acceptable for holding the viva voce examination if both the external examiners give positive recommendation. If one of them accepts and the other rejects the thesis, it shall be referred to a third external examiner chosen from the panel of examiners by the Senate Chairman.
- **7.13** Whenever a thesis is referred to a third examiner, the comments of the student point by point for the queries by the first two examiners should also be reported to the Senate.
- **7.14** The Senate shall; however, be the final authority in deciding whether the thesis be accepted for the award of degree.
- 7.15 If the examiner(s) recommend acceptance of the thesis subject to minor/major modifications only, the thesis can be resubmitted only once after incorporating the modifications, within a period of three months. The thesis so resubmitted shall be examined by the same examiner(s). However, the permissible period of three months is extendable on case-to-case basis for maximum period of six months.
- 7.16 A thesis rejected by two examiners may be resubmitted after revision, not earlier than one year and not later than two years from the date of such intimation to the student by the Chairman, CRC. The thesis so resubmitted may be examined by the same examiners or by new examiners.
- **7.17** Rejection of the thesis so resubmitted will disqualify the student from further consideration for the award of the Ph. D. degree, on the topic of research chosen by him / her.

8 VIVA-VOCE EXAMINATION

- **8.1 Viva-voce Board of Examiners:** A student, whose thesis has been accepted for the award of the Ph.D. degree, shall be required to defend his/her work at viva-voce examination conducted by a Board of Examiners at the Institute.
- **8.2** The Board of Examiners shall be appointed by the Chairman, Senate and it shall consist of :
- (i) Chairman, DRC/HOD as chairman of the board
- (ii) Director's nominee
- (iii) The supervisor

- (iv) One external examiner (the thesis examiner from within the country)
- (v) The Co-supervisor(s) (if any) as internal examiner(s)/a professor of thedepartment (nominated by HOD)
- **8.3** The thesis supervisor(s) in consultation with the Head of the Department shall propose the constitution of the viva-voce board (forwarded through the Chairman, DRC) to the Chairman, CRC, who will forward it to the Chairman, Senate for approval.
- 8.4 The Ph. D. viva-voce examination will be an open examination and a notice must be circulated in advance to enable the interested persons to attend. The supervisor will be the convener of the viva-voce board and will fix the date of the viva-voce examination in consultation with the members and intimate the date to the Dean (Academics). The viva-voce examination shall be held on working days. However, with the special approval of the Chairman, Senate, on the recommendations of the DRC, viva-voce may be conducted on Holidays/Saturday/Sunday in exceptional circumstances.
- **8.5** If a member of the viva-voce board communicates his/her inability to be present in advance, the Chairman, Senate may appoint a substitute from the panel in consultation with the thesis supervisor(s), Head of the department and Chairperson, CRC.
- 8.6 If the external member of the viva-voce board gives his consent to conduct viva-voce examination but is unable to be present during examination, the Chairman, Senate may appoint a substitute in consultation with the thesis supervisor(s), head of the department and Chairperson, CRC. Presence of at least one examiner from outside the Institute is mandatory.
- **8.7** In no case the total number of the viva-voce board members will be less than three.
- **8.8** Each member of the viva-voce board will be given a copy of the thesis along with the entire technical correspondence with the thesis examiners at least one week before the date of the viva-voce examination.
- **8.9** The viva-voce board shall;
 - i) examine the thesis reports,
 - ii) examine if necessary, modifications suggested by the thesis examiners have been incorporated,
 - iii) elicit the candidate's replies to the questions raised by the thesis examiners,
 - iv) authenticate the work as the student's own,
 - v) judge if the presentation of the work by the student and the answers to the questions asked to have been satisfactory, and
 - vi) give a report of the examination, which will be communicated by the supervisor(s) to the Dean (Academics) through the Chairman, DRC.
- **8.10** If a candidate has not passed, the viva-voce board will specify whether.
 - i) the candidate may be given another chance to appear in the viva-voce examination and will specify the approximate date for re-examination. The original viva-voce board will conduct the re-examination unless a different viva-voce board is approved by the Chairman, Senate. In the re-examination, the board will declare whether the student has passed or failed as per the criteria laid down above but will not recommend holding a third viva-voce examination.
 - ii) the candidate is declared to have failed.
- **8.11** On receipt of the report that the student has passed the viva-voce examination, the Chairman, CRC will recommend to the Chairman, Senate for award of the Ph.D. degree, and the degree may be conferred upon the student after approval by the

- Senate. The date of the successful completion of the viva-voce shall be the date of the award of the Ph. D degree.
- **8.12** If the candidate has failed, the matter will be brought to the attention of the Senatefor further action.
- **8.13** After successful completion of the viva voce examination, the student shall submit to the Dean (Academics) the two copies of the approved thesis, duly bound, together with the application for submission of the same in the prescribed format.
- **8.14** Outstation examiners shall be paid TA/DA, thesis evaluation fee and honorarium as per the Institute rules. The outstation supervisor shall be paid TA/DA as per the Institute Rules.

9. ACCOMMODATION / HOUSE RENT ALLOWANCE (HRA)

All Ph. D students will be allowed accommodation and those residing in hostel provided by University/Institute will not be eligible for HRA. Part time students are also allowed hostel accommodation subject to availability on payment of hostel dues for the period they work in the institute. Request for such accommodation must be certified by the supervisor and HOD. In case of married persons, transit accommodation/married accommodation or a quarter in the campus may be provided at the rate charged to the institute employee/student subject to availability. Reimbursement of hostel fee is not permissible. The House Rent Allowance will be allowed as per rules, if paid by the sponsoring agencies. In no case, it should exceed the rates payable to Central Govt. Employees. The basis for calculating HRA will be the actual stipend of the Research Fellow.

10. LEAVE RULES

10.1 Casual Leave for 08 days in a year, the sanctioning authority shall be Head of Department.

Medical Leave for 10 days in a year, subject to production of necessary documents, the sanctioning authority shall be Head of Department.

(Agenda item 24.7, 24^{rth} Senate Meeting dated 31.05.2019)

- 10.2 Women Scholars are entitled for Maternity Leave/Child Care Leave at full rate for a period of not exceeding 240 days, once during the tenure of their award. This should be supported by medical certificate.
- 10.3 Male Scholars are entitled for 15 days paternity leave once during the tenure of their award. This should be supported by the medical certificate. Head of Department is authorized to sanction the above leave.
- 10.4 No vacation in Summer/Winter is admissible.
- 10.5 Leave against field work may be treated as on duty as per 10.6 subject to production of certificate of attendance.
- 10.6 Special Academic / Duty Leave for 30 days in a year (in addition to Public holidays) to attend Workshop, STTP, National / International Conferences / Symposium, Seminar, Industrial / Library visit, field work etc. The leave due can be carried over to the next year, and accumulated upto 90 days. This leave shall be sanctioned by Head of Department. However, the leave beyond the due limit can be sanctioned in exceptional cases (with justification) by the Director, SLIET).

(Agenda item 24.7, 24^{rth} Senate Meeting dated 31.05.2019)

The guidelines for the grant of financial assistance (conferences held within India) are as follows:-

- a. The supervisor is the co-author of the paper and application for financial assistance is routed through him/her.
- b. The said conference is held at CFTI/NIRF-100 ranked Institute/University including labs of CSIR / ICAR / ICAMR. The conferences organized by other institute/organization can also be considered provided the proceedings of the conference is indexed for SCI/SCIE/SSCI/AHCI/SCOPUS/Web of Science (WoS).
- c. The scholars are permitted to attend the conference first time, with aforementioned two conditions. But for subsequent time permission can be granted if he/she has also published at least one paper in SCI/SCIE/SSCI/AHCI/SCOPUS/ Web of Science (WoS) IndexedJournal.
- d. The financial assistance can be granted for any number of times during the course of Ph.D., but after the first time, for each subsequent paper presentation in conference, he/she must have published at least one paper in SCI/SCIE/SSCI/AHCI/SCOPUS/ Web of Science (WoS) Indexed Journal.

(Agenda item 39.10, 39th Senate Meeting dated 28.11.2023)

e. In a calendar year assistance can be granted for maximum up to one such conferences.

These leave rules shall be applicable to all Full Time Research Scholars irrespective of their year of admission. The record of the leave account shall be maintained by the office of the Heads of Departments

(Agenda item 24.7, 24^{rth} Senate Meeting dated 31.05.2019)

Financial Support / other conditions:

Quality of paper be scrutinized by DRC.
 Financial support will be provided for Registration Fee and Travel (Third AC/ AC Chair Car / AC Bus)

(Agenda item 23.7, 23rd Senate Meeting dated 15.01.2019)

- II. Financial support from sponsored/consultancy project of his/her supervisormay be encouraged.
- III. For attending the conferences abroad, candidates may seek financial supportfrom external funding agencies.
- 10.7 Research Scholars under CSIR/UGC and other categories are governed by theirown rules.

11. DEPOSITORY WITH INFLIBNET:

- 11.1 Following the successful completion of the evaluation process and before the announcement of the award of the Ph.D. degree(s), the Institution shall submit an electronic copy of the Ph. D. thesis to the INFLIBNET, for hosting the same to make it accessible to all Institutions/Colleges.
- 11.2 Prior to the actual award of the degree, the Institution shall issue a provisional Certificate to the effect that the Degree has been awarded in accordance with the provisions of these UGC Regulations, 2016.

12. FEE STRUCTURE

- 12.1 The fee structure for Ph.D. Programme shall be as notified by the institute from time to time.
- 12.2 Tuition fee and all other Fees will be collected at the beginning of the semester.

 A student enrolled in the mid-semester must pay the full semesterfee.
- 12.3 Hostel fees need not to be paid by day-scholars and external candidates who do not need accommodation in the hostel for complete semester.
- 12.4 Students given alternative accommodation by the Institute will pay the reduced

- hostel fee in addition to the license fee and other charges for the accommodation provided. This will entitle them to use common facilities of the hostel and participation in hostel activities.
- 12.5 Medical fee will entitle the student to free treatment plus medicines at the Institute dispensary and insurance cover against hospitalization.
- 12.6 Tuition Fees and Development Fees can be borne by sponsored research projects in case of students of all categories, if the student's research activity has a bearing on the project.
- 12.7 Students are required to pay-fees during all the semesters (or part thereof), they are studying in the Institute, from admission till thesis submission.
- 12.8 Rs.500/- semester fee is to be charged from Institute employees enrolled in Ph.D. programme along with admission fee, examination fee and alumni fee.
 - (Agenda item 30.4, 30th Senate meeting dated 29.12.2020 applicable w.e.f January 2021)
- 12.9 Foreign students coming under different schemes will pay tuition fee at rate fixed under that scheme.

13. ETHICS IN RESEARCH SUPERVISION

Ethics in research supervision shall be followed as applicable in accordance withthe guidelines of Govt. of India/UGC/Institute.

ANNEXURE-I

CONSTITUTION OF COMMITTEES

1. DEPARTMENTAL RESEARCH COMMITTEE (DRC)

- 1. Head of the Department, Chairman (if Head of the Department is Professor. In case the HOD is not a Professor, a Professor from another department may be appointed as Chairman, DRC with the approval of Chairman, Senate for a period of three years. He may be replaced by other Professor after the expiry of his tenure. If during this period, a Professor joins the Department, the Professor from another department, who has been appointed as Chairman, DRC shall automatically be relieved from the additional responsibility, and the Professor of the Department willbecome the Chairman, DRC).
- 2. All Professors
- 3. Two faculty members of the Department (must be doctorate) other than the Professors.
- 4. Supervisor(s) of research scholars.

HOD concerned will arrange all the meetings and departmental correspondence in this regard. (In case of interdisciplinary subject, faculty from each department shall be involved. Presence of external examiner(s) and Chairman CRC is mandatory during synopsis presentation)

2. RESEARCH ADVISORY COMMITTEE (RAC)*

- 1. Supervisor or a Professor of the Department if the supervisor is not a Professor.
- 2. Supervisor (s)
- 3. Two faculty working in allied area.

3. CENTRAL RESEARCH COMMITTEE (CRC)

- 1. Dean (R&C) as Chairman
- 2. Chairpersons of all the DRCs
- 3. Dean (Academics)

4. THESIS EVALUATION BOARD

- 1. External Expert from reputed institutions of India.
- 2. External Expert from reputed institutions outside the Country
- 3. Supervisor (s)

5. VIVA-VOCE BOARD (same as Clause - 8.2)

- 1. Chairman DRC/HOD as Chairman
- 2. External Examiner: The thesis examiner from India
- 3. Internal Examiner(s): Supervisor and Co-supervisor(s) (if any)
- 4. One professor/Assoc. Professor from the Department
- 5. Nominee of Chairman, Senate

ANNEXURE - 2

GUIDELINES / FORMATS FOR THESIS WRITING

GUIDELINES FOR SYNPOSIS SUMMARY TO BE SUBMITTED WITH THESIS

1	Introduction	11 Arial or 12 Times New	
2	Brief literature review and problem formulation	Roman	
3	Methodology of research work in brief)	7	
4	Result and Discussion	Double sided print	
5	Author's Contribution	_	
6	List of publications	Upto 15 pages	
7	Bibliography in standard format	09 pt Arial or 10 pt Times	
		New Roman	

Signatures of Supervisor (s)

Signature of Candidate

THESIS FORMAT

Paper

- o The size of the paper shall be standard A 4 (height 297 mm, width 210 mm), 90 GSM.
- o The thesis must be printed on both sides of white paper.

Font Size and Margins:

- The standard font of the text shall be Times New Roman of 12 or Arial 11 pts with 1.5 line spacing.
- Font size of Chapter, heading/ subheading will be on the Authors discretion.
- 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, with mirror margin on even pages.

Pagination:

- o Pagination for pages before the Introduction chapter shall be in lower case Roman numerals, e.g., "iv".
- Page numbering in the text of the thesis shall be Hindu-Arabic numerals at the centre of the footer.

Paragraph format:

- Vertical space between paragraphs shall be about 2.5 line spacing.
- o The first line of each paragraph should normally be indented by five characters or 12mm.

Bibliography

Should be given preferably alphabetically or in the order of citations in the thesis.

Binding:

- The evaluation copies of the thesis may be spiral bound or soft bound (3 copies to be submitted to PG Section)
- The final hard bound copies to be submitted after the viva voce examination will be accepted during the submission of thesis with the Brown colour with golden color letter (3 copies to be submitted to PG Section)

TITLE PAGE (as per format given)

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N.1	Conclusion	
N.2	Author's Contribution	
N.3	Future Scope	
	PUBLICATIONS FROM THE WORK	
	BIBILIOGRAPHY	
	APPENDICES	

Ph.D. THESIS TITLE

16+ Bold & Single

space

A THESIS ..

12 + Bold

Submitted in partial fulfillment to the requirements

for the award of the degree

12 italics +

Bold and both side single line space

Of

12 italics

DOCTOR OF PHILOSOPHY 12 + Bold

> In 12 italics

DEPARTMENT 12 Bold

> Ву 12 italics

NAME OF CANDIDATE 12 + Bold

(Regn. No.)



1.75" by 1.75"

SANT LONGOWAL INSTITUTE OF ENGINEERING & TECHNLOGY, LONGOWAL- (SANGRUR) PUNJAB Month, Year

14+ Bold &

single space

CANDIDATE'S DECLARATION

It is certified that the work contained in the thesis entitled "**Title of Thesis**" is an original contribution by me and has not submitted in part or full for any other degree at this or other University.

The assistance and held received during the course of the thesis work have been acknowledged.

	Signature Name of Candidate Regn. No
I / we, the undersigned, supervisor (s) (Name, Rego Philosophy, agree that the thesis entitled "Title of fulfillment of the requirements for the degree.	· · · · · · · · · · · · · · · · · · ·
This is to certify that the above statement made by t knowledge.	he candidate is correct to the best of my/ our
	Signature
	Name of Supervisor
	Signature
	Name of Co-Supervisor
Month, Date, Year	
The Ph.D. viva-voce Examination of Mr./ Ms Scholars, has been held on	
Signature of Supervisors	Signatures of External Examiner

Department _____

STATEMENT OF THESIS PREPARATION

1.	Thesis title: ""
2.	Degree for which thesis is submitted:""
3.	The thesis guide/ supervisor was referred to for the thesis preparation.
4.	Specifications regarding thesis format have been closely followed.
5.	The contents of the thesis have been organized according to 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
	Name of Candidate
	Regn. No

ANNEXURE - 3 REVISED GUIDELINES / CONDITIONS FOR GRANT OF SENIOR RESEARCH FELLOWSHIP (SRF) AND EXTENSION OF PH.D. FELLOWSHIP

(Agenda item 37.7, 37th Senate Meeting dated 20.03.2023)

Sr.	Item	Conditions	Recommendations by	Remarks
No.	item	Conditions	Necommendations by	Kelliaiks
1	Grant of Extension of fellowship for 3rd year after two years of research work as JRF (without up- gradation to SRF)	Must have completed course work & seminars. Registration must be confirmed. Satisfactory progress/performance of scholar.	Extension of fellowship will be on the recommendations of DRC/RPC and no requirement of review committee	The Performa V (A) for extension of fellowship after two years without up-gradation to SRF applicable
2	Grant of SRF and Extension of fellowship for 3rd year after two years of research work as JRF	Must have completed course work & seminars. Registration must be confirmed. Satisfactory progress/performance of scholar.	By DRC and then by review committee: 1. HOD or Professor of Department if HOD is Supervisor 2. Supervisor (s) 3. External Expert	Till the date of recommendations of SRF, the candidate will be paid fellowship @ of JRF subject to fulfillment of conditions/ procedure as per S.No.1 The constitution of review committee and Performa no. V is applicable
3	Grant of Extension of fellowship for 4 th year as SRF after three years of research work	Must have completed course work and seminars. Registration must be confirmed. Satisfactory progress/performance of scholar.	By DRC and then by review committee 1. HOD or Professor of Department if HOD is Supervisor 2. Supervisor (s 3. Dean (A) / Nominee	The constitution of review committee and performa no. VI is applicable
4	Grant of Extension of fellowship for 5 th year as SRF after four years of research work	Must have completed course work and seminars. Registration must be confirmed. At least publication of one paper as per Ph.D. Rules-2018 is required for extension of fellowship from 4th to 5th year (SCI/ SCIE/SSCI/ AHCI/SCOUPUS)/ WOS along with satisfactory progress/ performance of scholar	By DRC and then by review committee: 1. HOD or Professor of Department if HOD is Supervisor 2. Supervisor (s) 3. Dean (A) / Nominee	The constitution of review committee and Performa no. VI is applicable

Further:

- 1. Scholars are required to submit their cases / applications for extension of fellowship, grant SRF well in time at least one month before the due date.
- 2. Normally, grant of SRF and extension of fellowship will not be granted retrospectively, However, review committee may consider it retrospectively in exceptional cases where delay is due to administrative reasons or due unavoidable circumstances.

LIST OF ABBREVIATIONS

Tr.	LIST OF ABBREVIATIONS
ADF	AICTE Doctorate Fellowship
AHCI	Arts And Humanities Citation Index
AICTE	All India Council for Technical Education
APS	Annual Progress Seminar
ASRB	Agricultural Scientists Recruitment Board
CFTI	Centrally Funded Technical Institute
CRC	Central Research Committee
CSIR	Council Of Scientific and Industrial Research
CT	College Teacher
DA	Daily Allowance
DAE	Department Of Atomic Energy
DBT	Direct Benefit Transfer
DRC	Departmental Research Committee
DRDO	
	Defence Research and Development Organization
DST	Department of Science and Technology
EWS	Economically Weaker Section
EX	External Candidates
FN	Foreign Nationals
GATE	Graduate Aptitude Test in Engineering
HOD	Head Of Department
ICAR	Indian Council of Agricultural Research
ICCR	Indian Council for Cultural Relation
IIM	Indian Institutes of Management
IISC	Indian Institute of Science
IISER	Indian Institute of Science Education and Research
IIT	Indian Institute of Technology
INFLIBNET	Information and Library Network Centre
IS	Institute Staff
JRF	Junior Research Fellow
MHRD	Ministry of Human Resource and Development
MOE	Ministry of Education
MOOC	Massive Open Online Course
NBHM	National Board for Higher Mathematics
NEPTEL	National Programme on Technology Enhanced Learning
NET	National Eligibility Test
NIRF	National Institute Ranking Framework
NOC	No Objection Certificate
OBC	Other Backward Class
PDC	Provisional Degree Certificate
PG	Postgraduate
PS	Project Staff
QIP	Quality Improvement Programme
RA	Research Assistant
RAC	Research Advisory Committee
R&C	Research and Consultancy
RM	Research Methodology
RPC	Research Progress Committee
RPE	Research Publication Ethics
SC	Scheduled Cast
SCI	Science And Citation Indexing
SCIE	Science and Citation Indexing
SET	SLIET Entrance Test
	Self-Financed
SF	
SLET	State Level Eligibility Test
SLIET	Sant Longowal Institute Of Engineering And Technology, Longowal
SRF	Senior Research Fellow
SP	Sponsored Candidates
SSCI	Social Sciences Citation Index
ST	Scheduled Tribe
SWAYAM	Study Webs of Active Learning for Young Aspiring Minds
TA	Travelling Allowance
TEQIP	
	Technical Education Quality Improvement Programme
UGC	University Grant Commission
WOS	Web of Science