

**SANT LONGOWAL INSTITUTE OF
ENGINEERING & TECHNOLOGY
LONGOWAL(PUNJAB)**
Deemed to-be-University

ORDINANCES

and

RULES AND REGULATIONS

for

Doctor of Philosophy (Ph.D.) degree



R&D Office

**Sant Longowal Institute of Engineering & Technology,
Longowal**

Ph.D. RULES AND REGULATIONS

Programme

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 registration for the degree of Doctor of Philosophy on his/her making an application 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 two years in the case of regular students and three years in the case of part time students after their date of registration** on a topic duly approved by the Senate.
- b) The thesis submitted by the student is required to be recommended for the award of the Ph.D. degree by two external examiners and by the Board of Examiners constituted for the viva-voce examination.

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 :

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 Ordinance1.

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)and 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 under any one of the following categories:

1. Fulltime Research Scholar :

- a) Institute Research Scholars (IRS)
- b) Govt./Semi Govt. Fellowship Awardees (CSIR, UGC, DAE, DST, DBT, NBHM, etc)

- c) Sponsored candidates (industries/other government agencies) (SP)
- d) Self-financed (Indian/Foreign/Study Leave) (SF)
- e) Indian Council for Cultural Research Awardees (Foreign Students)

2. Part-time Research Scholar :

- f) Institute Faculty/Staff (IS)
- g) Project Staff (PS)
- h) Research Assistants (RA)
- i) External candidates (Sponsored/Self-financed) (EX)
- j) College Teacher (Self-financed) (CT)

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

a) Institute Research Scholars (IRS) :

Institute Research Scholars are considered for fellowship **in the rate prescribed** for JRF/SRF by UGC/AICTE/CSIR if they have cleared NET/GATE or equivalent National Eligibility test. Those who do not qualify NET/GATE, are eligible for institute fellowship as applicable for MA/M.Sc. qualifications, as revised time to time. Candidates with MA/M.Sc. with two years research experiences (as evidenced from published research work)/ M.Tech/ M.Phil may be considered for SRF as per UGC/CSIR/AICTE norms.

b) Govt./Semi Govt. Fellowship Awardees (CSIR, UGC, DAE, DST, DBT, NBHM, 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.

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 not get any financial support from the Institute.
- 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 two 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.

f) Institute Faculty/Staff (IS):

This category refers to candidates who are permanent employees of the Institute with more than 2 years of services. They shall be admitted to the Ph.D. programme if they possess requisite qualifications. They are expected to work for their Ph.D. programme after fulfilling their normal duties as part time candidate.

g) 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.

h) Research Assistant(RA):

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

- i) Students who have enrolled for Ph. D. degree will be considered for Assistantship.
- ii) These Research Assistants have to 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. **They have to complete the Ph.D. programme in five/six years**

i) 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 available) 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.

j) College Teacher (CT):

- iii) The Institute will decide the competence of the candidates along with the regular candidates at the time of the admission.
- iv) 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.
- v) Place of work is SLIET Longowal even though he/she may be carrying out part of work at his/her college/institution.
- vi) External supervisor is optional based on the recommendations from the supervisor/s and DRC(Departmental Research Committee).
- vii) Candidates should be available to the supervisor during weekends, holidays and vacations.
- viii) The fee structure for these candidates will be as applicable to self-financing candidates.

- ix) Hostel accommodation may be provided during their tenure of work on payment of hostel fee depending upon availability. They may also be permitted to stay in the hostel during the vacation on payment of guest charges as per hostel rules, and transit accommodation for short period/vacation at a reduced rate.
- x) Rules for evaluation of Academic Performance of these candidates will be the same as applicable to other categories.

3. Change of Student Status:

- a) Research scholar, on recommendation of DRC and CRC may be allowed to change his/her status from "full time" to "part time/external student" earlier than 2 years if,
 - (i) He/she gets sponsorship certificate from the organization (recognized by CRC (Central Research committee) he/she joins and
 - (ii) He/she is able to get a suitable local supervisor to act as guide in broad area of research approved by the DPC. The student is required to complete all the formalities regarding status change within one year of leaving the Institute.
- b) Research scholar, on recommendation of DRC and CRC may also be allowed to change his/her status from "part time/external student" to "full time " if he/she gets relieved from his/her place of work for a period of two years to do research work at SLIET.

1.2 Admission Calendar

- a) The admissions to the Ph.D. programmes may be made in either or both of the two regular semesters.
- 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 Academic will notify the admission calendar each semester.
- c) In addition, the department may process applications for admissions to Ph.D. programmes on a continuous basis and admit students throughout the year. The candidates admitted during the course of a semester,

would be required to register for thesis with proportionate reduction in units.

1.3 Eligibility for Admission

Minimum Qualification for Admission

The eligibility conditions given below are the absolute minimum. Departments may prescribe any requirements over and above these, subject to the approval of the Central Research Committee, CRC.

Master's Degree in Engineering/Technology/Science/Humanities/Management with 55% of marks (50% for SC/ST)

1.4 Admission Procedure

The applicants must apply for admission on prescribed forms, which must be sent to the head of the department concerned or the Dean (R&D).

- 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 DRC and approved by the Chairperson, CRC.
- b) Separate selection committees may be appointed to select candidates belonging to different categories, viz., sponsored, regular, etc.
- c) Admission to the Ph.D. programmes will be based on written tests and/or interviews of the candidates short-listed by the DRC of the department concerned.
- d) The admission of Scheduled Castes/Scheduled Tribes candidates will be decided without comparing them with the general category candidates.
- e) The selected candidates, who have completed all the examinations including project/thesis examination and the viva voce before the date of registration but are unable to produce the certificate in proof of having passed and secured the minimum specified qualifying marks, may be considered for provisional admission. However, if admitted provisionally, they will be required to produce the evidence of their having passed the

- qualifying degree examination with minimum specified marks by the last date for document submission as specified in the academic calendar (usually about 8 weeks from the date of registration), failing which the admission may be cancelled.
- f) The provisions in para 1.4h shall not be applicable in the case of M.Sc./M.Tech. students of the institute, who have been provisionally selected for admission to a Ph.D. programme. These students will be admitted to the Ph.D. programme subject to the condition that they must successfully complete all the prescribed requirements including acceptance of their thesis in a particular semester by the late registration date as specified in the academic calendar.
 - g) On approval by the Chairman, Senate, the departments 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.
 - h) 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 offered to the candidates in the waiting list, if any, in order of merit.
 - i) 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.
 - j) In case a student wishes to temporarily withdraw from his/her Ph.D. programme he/she may do so only after a period of two years following his/her date of registration with prior permission of the Senate.

1.5 Area of Research:

A student may register himself/herself for a Ph. D degree in the department mentioned at 1 or in an interdisciplinary area. A science student may register himself/herself in an engineering department and an engineering student may register himself/herself in a science department .

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.

2.2 Fellowship from Sponsored Research Projects: Fellowships are available through sponsored research projects from agencies like CSIR/UGC/DST/DBT etc..

2.3 Direct fellowship: Direct fellowships are also available direct from CSIR/UGC/DST/DBT/QIP/FIP etc. to the student.

2.4 Research Assistantship: The Institute may provide to Ph.D students, financial assistance in the form of teaching or research assistantships (referred to as Institute Assistantship). Assistantships are awarded on a semester to semester basis for a period of up to five years for Ph.D. students. The stipend for the assistantship is paid at the approved rates. 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.

- a) A student on teaching/research assistantship/fellowship is also reimbursed for some contingency expenses as per the approved terms and procedures to be notified from time to time. The reimbursement for a Ph.D. student is done annually for the first four years of his/her programme, if he/she is on an Institute Assistantship/fellowship.
- b) Some financial assistantships in the form of research assistantships may also be available from sponsored research projects. Additional assistantships in the form of scholarships, fellowships, etc. may be available through other organizations, such as, the Council of Scientific and Industrial Research (CSIR), Department of Atomic Energy (DAE), etc.
- c) A student getting institute fellowship or fellowship from external agencies may also apply for assistantship.

- d) Subject to satisfactory assessment, the candidates will be eligible for enhanced Assistantship from the completion of two years from the date of joining.

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.

3. Registration

3.1 A student is required to register each semester. The registration process involves:

- a) submitting a duly approved format
- b) payment of fees for that semester and clearance of any outstanding dues
- c) A Ph. D student may pay fee for two semesters(one year) at one instance.

3.2 A new entrant who is awaiting the results of the qualifying examination, will be allowed to register "provisionally" on submission of a certificate from his/her institution certifying that he/she has appeared in the final qualifying examination (including all papers in theory, practical, project, viva-voce, etc.). The candidate will submit attested copies of the certificates of having passed the qualifying examination by the last date for document submission as specified in the academic calendar (usually about 8 weeks from the date of registration), failing which the admission may be cancelled.

3.3 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.

3.4 Ph.D. students who have submitted their thesis and are waiting for the defence of the thesis need not register. They may, however, apply for leave from the Institute with permission to defend thesis while on leave.

3.5 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 without registration.

3.6 On the recommendation of the DRC and the approval of the CRC, the employees of SLIET and QIP students registered for the Ph.D. programmes may not register in the following semester, provided they have completed experimental work related to their thesis. However, they will be required to submit their thesis within the prescribed maximum period.

3.7 Course Assessment

A student who has been registered for Ph.D. has to

- i) present a progress report after six months of the admission in presence of RPC and an external expert, who will decide about the progress of the work. RPC will send its recommendation to CRC regarding the suitability of the candidate.
- ii) pass in two courses allocated by the DRC/CRC on recommendation of the supervisor(s), if required, through a written examination within two year of enrollment. These may be from master's level programme offered in the institute and a candidate has not studied, or self-study courses.

3.8 All categories of students not fulfilling the requirements as enumerated in R.3.7 are liable to discontinue their Ph.D. programme. The CRC will take a decision in this regard after reviewing the cases of such students.

3.9 Confirmation of Registration

Students enrolled under R.1.1 who successfully complete the above(3.7) requirements in one semester shall be granted registration from the date of joining the programme (date on which the enrollment fee is deposited).

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

- i) Each student, on completion of the requirements of 3.7 shall apply for confirmation of Registration.
- ii) The completed application form shall be forwarded by the supervisor to the Chairman, CRC, which will consider this application and confirm the date of registration according to R.3.9.

4. Supervisor/Co-supervisor

4.1 Eligibility:

- a) Regular faculty of the institute with Ph.D degree and at least three publications in peer reviewed journals or three years teaching/research experience.
- b) Out side persons cannot act as a supervisor. However, he/she may act as a co-supervisor, provided he/she holds a Ph.D degree along with three years work experience at a reputed institute/R&D organization/industry etc. after award of Ph.D degree where the candidate is working. Such person has to apply to the institute for recognition as supervisor of SLIET. Appointment of an external supervisor is also permissible in case a supervisor in a particular research area is not available in the institute. Outstation supervisors shall be paid TA/DA etc. as per entitlement for attending a meeting of DRC/CRC as a member in connection with Ph. D. work
- c) Faculty of the institute may also serve as a supervisor/co-supervisor of any other institute/University. In such cases the rules of the external institute/university will be applicable. However, the faculty has to inform the authority through HOD.

4.2 Appointment of Supervisor: In each Department, applicants will be given at the time of selecting the details of various research topics areas proposed by various faculty members for Ph.D. programmes so that they will have an opportunity to discuss those topic areas with the respective faculty members and thereafter, indicate their choice in order of

preference. The applicants shall then be interviewed by a committee constituted by the 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 shall have only one supervisor in 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 student shall 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 confirmation of Registration.

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 requires modification due to this change, the student's entire course programme requirement shall be reexamined 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 supervisor and 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.

4.5 Limitation of number of students

At any given time the number of Institute research scholars working with a supervisor shall not exceed three while the total number of all categories of research students working shall not normally exceed two, four and six respectively for lecturer, assistant professor and professor.

4.6 Full credit will be given to the supervisor as well as the co-supervisor(s) where more than one supervisors are involved. Credit of guidance of one student will be given to each supervisor.

5. Place of 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 case be less than six months.
- b) Students sponsored by local organization may, on the basis of 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. The organization has to certify that the

- student has been fully relieved of normal duties/ granted leave during the period of the residential requirement.
- c) External students will be provided with hostel/transit accommodation or a suitable quarters (if available) on payment of appropriate rent during the semester(s) in which the residential requirement is to be fulfilled.
 - d) On the recommendation of the Supervisor(s), the Institute may allow the research work for the Ph.D. degree to be partially or whole carried out at another organization for the following categories of Ph.D. students with following provisions:
 - i) The external organization where a student wishes to carry out the research work partially or wholly shall have to be recognized by the Institute before such work is undertaken. The financial and other implications, if any, of such an arrangement should be finalized at the Institute level. The student, however, shall not be permitted to change his/her student status while working at such an organization.
 - ii) An external organization may be granted recognition by the CRC as an approved place of work.
 - a. The recognition shall normally be given only for the purpose of individual research project by a particular student.
 - b. The details of research facilities available at the organization shall be furnished by the student along with the application for admission to Ph.D. programme.
 - c. In case of collaborative research, a Ph. D. student may be permitted to carry out a part of his/her research work in the collaborative department/institute. Also, a student of collaborative department/institute will be permitted to carry out research work at SLIET.

5.2 Progress Monitoring

After the completion of six months, the progress of the research will be evaluated by a Research Progress Committee (RPC) and an external expert for all candidates. The RPC 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 RPC may be from outside the Institute. The names of the RPC members and any subsequent changes in its composition shall be communicated by the DRC the CRC for record. The RPC is expected to monitor the progress of the candidate until the completion of the programme.

- a) All students registered for Ph.D. irrespective of their category, shall have to register every semester along with a brief report on the earlier semester(s) work and plan for the ensuing semester.
- b) All candidates, after joining, will have to submit through supervisor(s), a 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, in case 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: Regular research scholars are liable to loose scholarship if the seminar is delayed beyond said dates. Such seminars are required to be given (every year) until the synopsis and thesis 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. At the end of three years from the date of registration of the student, the DRC shall appoint a committee to review his/her progress in Courses/Seminars for the approved research programme and shall forward the report to CRC.

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 or presentation @ Rs. 750/- per week, from 1st September/1st February as the case may be, till the date of presentation of APS.
 - iv) If the application for late presentation of Annual Progress Seminar 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.
 - viii) All Research Scholars, irrespective of their basic qualifications should give Annual Progress Seminars after completion of one year from their date of joining.
- c) The continuance of registration of all students is subject to satisfactory progress made by them. In case of Assistantship holders, the continuance of Assistantship beyond 3 years will also be subject to

satisfactory progress made by them, as assessed by a panel appointed by the respective DRC.

- d) 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.

5.3 Durations

- a) All students (except External students) have to carry out research work for at least a period of two calendar years from the date of registration before submission of thesis. External/part-time students have to carry out research for at least a period of three calendar years from the date of registration before submission of thesis.
- b) For all categories of students, the period of validity of their Ph.D. registration is seven years from the date of registration. The students may submit their thesis before the end of this period subject to the provisions of R.5.3a. Registration of students who concurrently register for a postgraduate degree at another organization shall be withdrawn.
- c) A student who has done some research work in the topic of his thesis before registering the programme, he/she may be allowed for *anti-date* and be permitted a relaxation of time period of six months to submit thesis. The work carried out must be evidenced from published papers or proof of acceptance of research paper(s) in the relevant topic in peer reviewed journals having impact factor. In no case, the student is allowed to submit the thesis before completion of two years of registration. The approval of DRC and CRC is required for such cases.
- d) Research scholars who have submitted pre-synopsis seminar may be permitted by CRC on recommendation of the DRC to leave the Institute and submit the synopsis and thesis together from outside within a period of four months from the date of pre-synopsis provided they fulfill the provisions of all other rules. In case the student does not submit his/her synopsis and thesis together within four months from the date of

presentation of pre-synopsis seminar, his/her registration will be deemed to be cancelled.

6 Thesis Submission

6.1 Pre-synopsis Seminar

Prior to the submission of the synopsis and thesis, a comprehensive internal assessment of the research work shall be made by a panel appointed by the DRC in consultation with the supervisor(s).

- a) RPC shall assess the work through a pre-synopsis seminar. The student can submit the synopsis only if the panel is satisfied about the quality of the work for submission as a Ph.D. thesis.
- b) Details of the pre synopsis seminar shall be adequately notified so as to enable interested faculty and students to attend the same.
- c) The Convener of the DRC shall forward the panel report to the Chairman CRC.

6.2 Two Published papers

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

At least two papers published/accepted for publication in refereed/peer reviewed journals of repute with impact factor.

OR

At least one paper published/accepted for publication in refereed/peer reviewed journals of repute with valid impact factor and at least one paper published/accepted for publication in the proceedings of an International Conference.

6.3 Submission of Synopsis and Thesis

- a) The student shall submit 5 copies of the synopsis and 5 copies of the thesis to the DRC within a period of four months from the date of presentation of pre-synopsis seminar. In case the synopsis and thesis are not submitted in the specified period, the student may be asked to present another pre-synopsis seminar.

- b) The synopsis written in the approved format shall be submitted to the DRC, five copies of the synopsis will be submitted to the office of R&D with the following certificates.
 - (i) Certificate from the Convener, DRC that the pre-synopsis seminar has been completed satisfactorily.
 - (ii) Certificate from the Research Supervisor(s) states (1) that there is a prima facie 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 and (3) 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. This may be collected from the R&D cell.
- 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 and a certificate from Accounts Section and Hostel that there are no dues against the student.

6.4 Format for Synopsis and Thesis

The length of a thesis shall be one thousand to four thousand words including tables and figures, on A4 size papers typed in one and half space. Guidelines for preparation of thesis may be collected from the R&D cell.

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. Both the members of the thesis board (other than the supervisor(s)) must be from outside the Institute and at least one of these two must be from outside the country.

- 7.2 The procedure for constituting the thesis board is given below.
- i) The thesis board may be proposed at the most 4 weeks before the submission of the thesis.
 - 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 working in relevant area) to DRC.
 - iii) Experts who have been thesis examiners during the preceding one or two years, should not be included in the panel.
- 7.3 The DRC should send the panel of examiners to the Chairman CRC in closed CONFIDENTIAL cover at least eight days before the date of submission of synopsis and thesis by the student.
- 7.4 The Chairman, Senate will select two members (one from India and one from abroad) of the thesis board. If considered necessary, the Chairman, Senate may require additional names of experts to be submitted.
- 7.5 The synopsis of the thesis will be sent to the examiners after 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 board shall be kept confidential till the receipt of evaluation reports. However, on completion of Ph.D. thesis evaluation, the 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 viva-voce 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 in a position to make a definite recommendation for the award of the degree, he should be requested to assist the Senate in deciding whether the student is required to make:
- i) 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 being given an opportunity for further research work and/or reinterpretation of results.
- 7.10 The copies of the examiners report will be made available to the supervisor/co-supervisor/internal examiner. They may submit their report for consideration and approval by the CRC ensuring that all the corrections including minor modifications, revisions suggested by the examiners have been incorporated.
- 7.11 On the basis of the examiners report, the comments of the Supervisor(s)/ Internal examiner(s) thereon, the 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 examiners give positive recommendation. If one of them accepts and the other rejects the thesis, as it shall be referred to a third 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 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, in the topic of research chosen by him.

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) The supervisor or a professor of the department (if the supervisor is not a professor) nominated by the CRC as Chairman
 - (ii) One external examiner (the thesis examiner within the country)
 - (iii) The research supervisor(s) as internal examiner(s)
- 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 Convener, DRC) to the Chairperson, 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 must be circulated in advance to enable the interested persons to attend. However, only the examiners will ask questions. 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 CRC.
- 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 unable to 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 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 have been satisfactory, and

- vi) give a report of the examination, which will be communicated by the supervisor(s)/programme coordinator to the Chairperson, CRC through the Convener, DRC.
- 8.10 If all, except at most one member, declare the student as passed, the student shall be deemed to have passed.
- 8.11 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.
- 8.12 On receipt of the report that the student has passed the viva-voce examination, the Chairperson, CRC will recommend to the Senate for award of the Ph.D. degree, and the degree may be conferred upon the student after approval by the Senate.
- 8.13 If the candidate has failed, the matter will be brought to the attention of the Senate for further action.
- 8.14 If a thesis has been accepted but the student fails at the viva voce examination, he/she may be permitted by the Senate Chairman to reappear for viva voce examination again at a later date. The recommendations of the Board of Examiners conducting the viva voce examination shall be considered in taking a decision in this respect.
- 8.15 After successful completion of the viva voce examination, the student shall submit to the R&D cell the first and second copies of his/her approved thesis, duly bound, together with the application for submission of the same in the prescribed format

- 8.16 Outstation examiners/supervisors shall be paid TA/DA, thesis evaluation fee and honorarium by the institute as per norms and entitlement.

9. Accommodation / HRA

All Ph. D students will be allowed hostel 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 actually 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. 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 All Research Scholars under TA/RA/SF are entitled for leave for a maximum of **thirty days per year** in addition to Public Holidays. Also **10 days leave** on medical reasons. The leave due can be carried over to the next year and accumulated **upto 90 days**.
- 10.2 Women Scholars are entitled for **maternity leave** at full rate for a period of not exceeding 135 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 Special Leave to attend Seminars/Conferences in India/abroad to present paper with the permission of Dean (R&D).
- 10.6 Research Scholars under CSIR/UGC and other categories are governed by their own rules.

11. Fee Structure

- 11.1 Admission Fee Rs. 1000/- (One time fee)
Tuition Fee Rs. 5000/- per annum (Rs. 2500/- per semester)
Examination Fee Rs. 4000/- (at the time of thesis submission)
Hostel Fee and other fee (for regular candidates only, Annexure II)
- 11.2 Tuition fee and all other Fees will be collected at the beginning of the semester. A student enrolled in the mid-semester has to pay the full semester fee.
- 11.3 Hostel fees need not to be paid by day-scholars and external candidates who do not need accommodation in the hostel for complete semester.
- 11.4 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.
- 11.5 Medical fee will entitle the student to free treatment plus medicines at the Institute dispensary and insurance cover against hospitalization.
- 11.6 Tuition fees and Development Fees can be borne by research projects in case of students of all categories, if the student's research activity has a bearing on the project.
- 11.7 Students are required to pay fees during all the semesters (or part thereof), they are studying in the Institute, from admission till thesis submission.
- 11.8 Institute employees enrolled in Ph.D. programme are exempted from all fees except admission fee, examination fee and alumni fee.
- 11.9 SC/ST students taking admission in programme are exempted from paying tuition fee.
- 11.10 Foreign students coming under different schemes will pay tuition fee at rate fixed under that scheme, instead of the rate given above.

ANNEXURE I (Constitution of Committees)

1. DEPARTMENTAL RESEARCH COMMITTEE (DRC)

1. Professors of the department
2. Supervisor and Co-supervisor
3. Two faculty working in allied area
4. Head of the Department (as convener)

(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 PROGRESS COMMITTEE (RPC)

1. Supervisor or a professor of the department if the supervisor is not a professor
2. Supervisor and Co-supervisor
3. Two faculty working in allied area

CENTRAL RESEARCH COMMITTEE (CRC)

1. Dean (Research & Development) as Chairman
2. Chairman of concerned DRC
3. Chairmen of DRC of two external departments
4. Dean(Academic Affairs)

3. THESIS EVALUATION BOARD

1. External Expert from reputed institutions of India
2. External Expert from reputed institutions outside the Country
3. Internal Examiner(s) (Supervisor and Co-supervisor)

4. VIVA-VOCE BOARD OF EXAMINERS

1. Supervisor or a professor of the department nominated by CRC (if the supervisor is not a professor) as chairman
2. External Examiner : The thesis examiner from India
3. Internal Examiner(s): Supervisor and Co-supervisor

ANNEXURE-II

FEE FOR ADMISSION TO Ph.D. PROGRAMME

Regular Students

A. REFUNDABLE FEES(Without any interest):	Rs.
Caution Money Institute/Hostel/Mess	5000
B. NON – REFUNDABLE FEE(At the time of Admission):	
Admission Fee /Registration Fee	1000
Identity Card	50
Convocation Fee	100
Swimming Pool Fee	160
Transport Fees	300
Student Welfare Fund	1200
Medical Fee	300
Magazine Charges & Library Activities	600
Cable T.V. Charges	150
Library Fee	300
Alumni Association Fee	150
Total	4310.00
C. OTHER FEE (PER SEMESTER Non-refundable)	
Tuition Fee(per year)*	5000
Sports Fee & Extra Curricular Activities Fee	300
Examination Fee†	4000
Total	9300.00
D. HOSTEL FEE (PER SEMESTER Non-refundable) §€	
Hostel Seat Rent & Common Room Charges	600
Electricity & Water Charges	560
Hostel Establishment Charges	350
Internet Charges	600
Total	2110.00
GRAND TOTAL (A+B+C+D):	20,720.00

Part Time/Full Time Self-financing Students

A. REFUNDABLE FEES: (Without any interest)	Rs.
Caution Money Institute/Hostel/Mess§	5000
B. NON – REFUNDABLE FEE(At the time of Admission):	
Enrolment fee	1000
C. OTHER FEE (PER SEMESTER Non-refundable)	
Tuition Fee (per year)*	5000
Examination Fee †	4000
TOTAL (A+B+C):	15,000.00

* Rs. 2500/- to be deposited at each semester.

†To be deposited at the time of thesis submission and includes postal charges

§ Not applicable to institute employees and day-scholars.

€ Self financed students requiring hostel facility have to pay hostel fee as mentioned at D above.