

**ORDINANCES and
REGULATIONS
for
Ph.D. programme**

(Effective from 2012 onwards)
(Updated up to: 50th Senate, 11th March 2015)



NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

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ORDINANCES

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ORDINANCES

- 0.1 A candidate who has been qualified for the award of the Degree of Master of Technology or Master of Science or Master of Science(Technology) or Master of Business Administration of National Institute of Technology Calicut (NITC) or a recognized Institute or University in the discipline as prescribed in the regulations is eligible to apply for Ph.D. programme of National Institute of Technology Calicut (Institute).
- 0.2 The award of the Ph.D. Degree shall be in accordance with the respective regulations of the Senate of the Institute (Senate).
- 0.3 The award of the Ph.D. degree shall be made by the Institute on the recommendation of the Senate and with the approval of the Board of Governors (BOG) of the Institute.
- 0.4 The Senate /BOG of the Institute has the right to modify any regulations stated from time to time

REGULATIONS

R.1 Educational Qualifications

Post Graduate Degree in the appropriate branch of study/specilisation with minimum 60% marks {(CGPA 6.5/10) or equivalent} . For SC/ST candidates, minimum 55% marks (CGPA 6.0/10) or equivalent in the relevant areas/disciplines.

In addition to this, Candidates of Masters degree in Science/Life sciences/ Humanities/Mathematics/Statistics/Computer Science &Applications/ Management etc should have a valid GATE score or UGC/NET/CSIR/NBHM/JEST/KSCSTE fellowships in relevant areas/disciplines.

Candidates applying for part-time and external schemes of registration under sponsored category may not require GATE score or any Fellowships.

R.2 Eligibility

- a) A candidate who wishes to work for Ph.D. degree under fulltime/external /part time scheme should apply in the prescribed form on or before the due date fixed for the same.
- b) Candidates employed in reputed Research and Development organizations/National Laboratories/Industries having research and development /library facilities recognized by Department of Science and Technology, Govt. of India or by the Senate of the National Institute of Technology Calicut, can apply for registration under external scheme provided they have minimum of two years experience at the time of admission and are sponsored by the respective institute /organization. (see Rule R 4)
- c) Candidates from outside the institute, working as full time/regular faculty of any UGC (or any equivalent MHRD approved body) approved institutes or as permanent employees- Scientists/Architects /Engineers /Managers- in any reputed organizations can apply for registration under part time scheme provided they have minimum of two years experience at the time of admission and are sponsored by the institute /organization.
- (d) Registration under part-time scheme is available to full time employees of NITC or research staff (*should have completed a period of not less than one year in the project and project should be in force for at least two more years*) working on sponsored research projects in NITC. Members of the faculty appointed on contract basis at NITC, for a period of 3 years or more can also apply under this scheme. (see Rule R 3)
- (e) Candidates will be admitted under QIP scheme of MHRD and eligibility of such candidates will be as per the rules of QIP scheme.

- (f) Foreign nationals, satisfying R 1 or its approved equivalent decided by the Institute, whose applications are received through Indian Council of Cultural Relations, Government of India are also eligible to apply
- (g) The maximum age limit for admission to Ph.D programme is 50 years

Besides the above minimum eligibility, Institute /Departments/schools/centres offering PhD programme may stipulate any higher eligibility limit and will be published in the admission brochure of the Institute from time to time.

R.3 Part-Time Ph.D. Programme for employees and research staff of the Institute

- R.3.1 The Institute offers Ph.D. programmes under part time scheme for full time regular employees of the Institute (rule R 2). They need to apply for the same at the normal time of admission with the recommendation of the Head of the Department in which he/she is employed in the Institute.
Research staff ,who are working on sponsored research projects in the Institute *should have completed a period of not less than one year on the project and project should be in force for at least two more years*, are eligible for registration if they apply for the same at the normal time for admission with the recommendation of the Principal Investigator /Head of the department and Dean (R &C). A certificate to this effect from the Principal Investigator/Head of the Department concerned should be attached to the application form. There will not be any financial assistance or concessions from the projects/Institute for such candidates.
- R.3.2 If an employee who has registered as a part time research scholar resigns his/her job or is terminated when the contract /project period is completed and leaves the Institute before completing the minimum residential period required for the PhD work (see rule R 16) and before successfully completing the comprehensive examination , his/her registration shall stand automatically cancelled. However, if he/she has completed the course work and comprehensive examination, he/she can be allowed to continue the research work if the Doctoral Committee of the research scholar recommends the same based on his/her application.

R.4 External Registration Scheme

- R.4.1 External registration is available only for candidates sponsored by and employed in recognized research institutions such as Research and Development Organizations / National Laboratories/ and Industries having R & D and library facilities recognized by Department of Science and Technology, Govt of India or approved by the Senate of the institute, provided that they satisfy the minimum eligibility conditions. The applicant must be a permanent employee of the institution/organization with at least two years of experience and be engaged in professional work in the area to which admission is sought, a certificate specifying these details, issued by a competent authority of the sponsoring organization shall be attached with the application.

In case of faculty members of NITs, appointed on central government pay band; who may either on contract or on permanent basis, can register for PhD without the employment and experience requirements as given above.

A candidate applying for admission to the external registration programme must provide detailed information about the research facilities available at his/her organization and must produce a certificate from a competent authority of the organization specifying that these facilities would be available to him/her for carrying out research.

He/She should also provide the bio-data of the prospective supervisor who would supervise the candidate's work at his/her organization at the time of application and the willingness to supervise the candidate. External registration will be granted only when a qualified research guide is available in the sponsoring institution and is willing to guide the candidate along with a guide in NITC.

External Registration will be confirmed only when the Senate recognizes that the prospective supervisor has necessary academic qualification and experience for PhD guidance.

R.4.2 Candidates from educational institutions are not eligible under external scheme.

R.5 Selection of candidates

- (a) Eligible candidates will be called by the Admission section for interview and /or test (mode of selection to be decided/conducted by the Department selection committee). Candidates shall report to the Department on the time/dates notified by admission section with all relevant documents.
- (b) Provisional selection of the candidates will be conducted by a department selection committee, which is constituted by the Dean(Academic). Department selection committee will consist of :

Head of Department (HOD) /a Professor within the Institute as Chairman (to be decided and nominated by Dean (Academic))
Department PhD coordinator
All probable guides from the Department
Dean (Academic) or his/her nominee
Dean (R &C) or his nominee in case of funded projects

- (c) The chairman of the selection committee of the concerned Departments/schools/centres offering PhD programme, will submit the list of selected (provisionally) candidates to the Chairperson (Admissions) to finalise and approve the selection in consultation with Dean (Academic) & Chairman, Senate and complete the admission formalities.

R.6 Admission

- a) Candidates whose selection is approved, will be admitted to Ph.D. programme after payment of prescribed fees and completion of registration formalities.
- b) Normally, a candidate is not eligible for re-registration for Ph.D. after cancellation of his/her earlier registration for any reason. However, based on the merits of the individual case, and taking into consideration any special circumstances, a candidate may be considered for re-registration based on his/her request and recommendation from the concerned HOD.
- c) The fee structure is as decided by the BOG following the directives of MHRD from time to time. The mode of payment is decided by the Senate from time to time.

R. 7 Choice of Guide

- a) Allotment of research scholars to guide(s) will be made by the Head of the Department taking into consideration the preferences of the research scholars and guides. Consent of the Guide(s) and student is essential for the allotment.
- b) There shall not be more than two guides normally for a research scholar. Main supervisor is the guide and the others will be normally co-guide(s).

R. 8 Guide ship

- R.8.1 i) All permanent faculty members of the institute who possesses Ph.D. Degree are eligible to guide Ph.D. level research work in the Institute.

- (ii) An academician or researcher with PhD Degree and with adequate achievement in a particular field of research would be considered for recognition as guide if proposed by the Department/School/ centre and the BOAC. They will be allowed to guide the research scholars of NITC as co-guide only, for which the main supervisor shall be within the Institute. Senate will consider the individual cases based on the recommendation from the Department/Schools/ centre concerned and the BOAC. The approval shall be depending on the academic and research credentials of the proposed individual academician or researcher from outside the Institute.
- iii) The CSIR and other Emeritus Fellows-Faculty-Scientists who hold office at this Institute for a period of 3 years and more continuously, can guide students during their period of appointment at this institute as Emeritus Faculty/Scientists, subject to approval as per clause (ii) above (without any financial support from the Institute) along with another Guide/co guide as per clause (i) above.
- iv) In any other case, Senate reserves the right to approve a researcher/teacher as a guide or as a co guide depending on the merit of the case.

R.8.2 Continuance of guide ship of retired faculty members

1. (i)When a faculty member, who has guided a Research Scholar, retires from the service of the Institute or leaves the Institute, he/she will be permitted to continue as guide/co guide on his/her written request. He/she will be invited for the Doctoral Committee meetings without any financial commitment to the Institute.
However TA / DA as per rules, will be paid to him/her for the journey within India to attend the synopsis meeting and the final oral examination on the thesis of the candidate.
- ii) When a member of the faculty who has been supervising the research work as main Guide retires, the Co- guide if any, or another faculty member from the Institute (who is not likely to retire within 3 years who has been recognized as Research Guide will be appointed as the Guide. The approval for such appointments shall be accorded by the Dean (Academic), based on the recommendation of the Doctoral Committee.
- 2 (i) In the cases where a member of the faculty is to retire within 2 years, and if he is allowed to guide any scholar on his written request, another member of the faculty, who is not likely to retire within 2 years, will be nominated as the guide or co-guide of the scholar as per Rule R 8. 1
- (ii)Such guides will be invited for the Doctoral Committee meetings after the retirement, without any financial commitment to the Institute. However TA / DA as per rules, will be paid to him/her for journey within India to attend the synopsis meeting and the final oral examination on the thesis of the candidate.
3. (i)The induction of new co guides on a later time after the first registration of a research scholar may be considered by the Doctoral Committee , if found essential, and approved by Dean (Academic).
- (ii)The Guide-in-charge who acted for more than one year will be a special invitee/co-opted member of the Doctoral Committee when the original Guide takes over. The rest will be left to the discretion of the original Guide.

R.9 Change of Guide

In the case of change of Guide required, the Research Scholar may submit a written request to the Doctoral Committee citing valid reasons. The Doctoral Committee may recommend the change of Guide if satisfied. The change shall be subject to the approval from the Dean (Academic)

R.10 Doctoral Committee (DC)

- i)The proposed guide, through the Head of the Department will intimate to the Academic Section the area of research, name(s) of the Guide(s) and a panel of faculty member with area of specialization (3 from the department preferably in the same/related area and 3 from allied departments) for constitution of the DC for each research scholar within 4 weeks of the date of joining of the research scholar.

The members in the panel shall be eligible as per rule R 8. Dean(Academic) shall constitute the Doctoral Committee.

ii) The following is the composition of the Doctoral Committee:

- i) Chairman :Head of the Department or a Professor within the Institute, to be decided and nominated by Chairman, Senate or Dean (Academic)as her/his nominee. (If HOD happens to be the Guide of a scholar, he/she can not act as the Chairman)
- ii) Member :Dean Academic or his nominee
- iii) Member(s) :Research Guide and co-guide(s) (guide or main supervisor will be the convenor)
- iv) Member :Minimum one faculty member of the Department nominated by the Chairman Senate or his nominee from the panel.
- v) Members : One or two faculty members from allied departments/schools/centers within the Institute and/or an expert in the concerned/related area of research from any government research and development organizations or educational institutions similar to NIT/IIT/IISc (outside expert is permitted only if expert in the concerned /related area of research within the Institute is not available), nominated by the Chairman, Senate or Dean (Academic) as her/his nominee from the panel.

In case any member goes on long leave or resigns or retires form the Institute, Dean (Academic) can nominate another member on the suggestion of the Chairman, DC.

iii)The Doctoral Committee shall meet whenever required to make suitable suggestions in the research and to review/monitor the progress of the candidate.

R.11 First DC meeting

The Doctoral Committee will meet normally within two weeks of its being constituted. Research scholar shall present the proposed research topic, problem and methodology along with the registration details. He/she may also propose the courses to be credited (see rule R .12) based on his/her background and research area for the PhD programme. DC will examine the research proposal and make suitable suggestions and accord the consent to proceed. The courses to be studied and credited by the candidate shall also be finalized and approved in the first DC meeting.

R.12 Course Work

- a) The research scholars have to undergo course work required for the research as a part of the residential requirements. The research scholars with Post Graduate Degree in Engineering should successfully complete four courses of 3 credits each (or a total of 12 credits minimum), those with Masters Degree in Science/Humanities/Management/life science shall complete five courses (or a total of 15 credits minimum) prescribed by Doctoral Committee within the stipulated time.
- b) A candidate with advance standing may be granted exemption up to 6 credits or two courses of 3 credits each from the minimum course credit requirements as indicated above, by the DC , provided he/she has taken a relevant Post Graduate degree from NITs/IITs/IISc and *the year of post graduation being not earlier than 5 years from the year of admission.*
- c) A candidate with M. Phil. degree from a recognized University may be granted exemption up to 3 credits each from the minimum course credit requirements as indicated above, by the DC , provided he/she has taken the M. Phil. degree from a reputed and approved organisation within *5 years from the year of admission.*

- d) All the courses to be credited by the research scholar shall be of PhD level or Post graduate (M Tech/MSc/MSc Tech/MBA) level semester based courses only. Approved equivalent courses of tri-semester or other type of courses can also be considered. Evaluation shall be done as per usual evaluation procedure. Only courses approved by senate shall be credited.
- e) No change in courses prescribed shall be made without the approval of the Doctoral Committee. It shall, however, be open to the Doctoral Committee to prescribe additional courses wherever found necessary.
- f) Courses completed after the date of registration will only count towards the requirements of award of Ph.D. Degree.
- g) Research scholars admitted to the programme shall obtain minimum 'C' grade in any individual course registered for the successful completion of the course prescribed.
- h) If a research scholar obtains less than 'C' grade for any of the courses registered (only for courses to satisfy the minimum credit requirement) by him/her one more chance may be given to repeat the same course or he/she may be permitted to register another relevant course as a replacement, under the recommendation of doctoral committee.
- i) If the research scholar still fails to obtain 'C' grade or above in any one of the courses registered, she/he is not in position to earn the minimum credit requirement and accordingly she/he will be disqualified to continue the PhD programme and the registration for the PhD programme for such scholars will be cancelled.

R 13 Department PhD Coordinator

One of the senior faculty guides in the department will be nominated by the HOD as the PhD coordinator of the department. The major responsibilities of the PhD coordinator are:

- i) Assist HOD in the selection of research scholars for the department
- ii) Coordinate the registration formalities of research scholars and keep all registration records of research scholars in the department
- iii) Coordinate the course work of all research scholars, collect the results after the end semester examinations. Results shall be verified / published and copies in the prescribed format to be submitted to academic section through HOD.
- iv) Coordinate the progress evaluation DC meetings, with guides

R.14 Progress Evaluation and Report

- a) A research scholar shall appear before the Doctoral Committee minimum once every semester for progress evaluation. Progress evaluation meetings of the Doctoral Committee will be convened by the guide as the convener. Research scholar is required to submit a detailed report of his/her work completed, to the guide and make a presentation on the progress of his/her work in the DC meeting. During the meeting, other faculty members and research scholars may also be invited.
- b) DC shall recommend renewal of registration of the candidate to the subsequent semesters, if the progress of the research scholar is satisfactory. If the progress of the research scholar is not satisfactory, the Doctoral Committee shall record the reasons for the same and warn the research scholar and suggest corrective measures. If the performance of scholar is still not satisfactory in the next semester, DC may recommend suitable actions including cancellation of registration.
- c) The progress of the research scholar will be categorized as Good/Satisfactory/Unsatisfactory by the Doctoral Committee and recorded in the progress evaluation report.
- d) The research scholar is free to publish the results of his/her research work with the consent of his/her guide. Patents, if any, based on his/her contributions shall be applied by the guide as per the Institute rules

R.15 Renewal of Registration

- a) All research scholars (Full-time, Part-time, QIP and External Registration Scheme) are required to enroll in each semester on the stipulated period or date notified by the academic section till their submission of thesis. Candidates have to submit the registration form (as prescribed by the academic section) with registration chit, fee receipts, no dues certificates

and progress evaluation report of the research for the previous semester recommended by the DC.

Registration for enrollment in absentia, especially due to medical reasons, shall be with prior approval of the Dean(Academic) only.

- b) Late enrolment is permitted only on valid reasons with the payment of late enrolment fee with the recommendation of guide and approval of Dean (Academic).
- c) However, if enrolment is not done for a period of six months (one semester) , the registration will be cancelled administratively. Re-registration requests for such cases shall be considered by the DC and on recommendation, when the reasons for the delay are satisfactory, by the DC, Dean (Academic) may accord the permission for the re-registration and charge a readmission fee.
DC will reject the requests for re-registration, if the reasons for delay are not satisfactory.

R.16 Comprehensive Examination

- a) All research scholars who have registered for the Ph.D programme with the Institute must pass the comprehensive examination. A student can appear in the comprehensive examination only after he/she has completed the course requirements prescribed by the DC in line with R. 12.
- b) Students admitted with M.Sc./MSc Tech/M.A/M.Phil/MBA or equivalent degree may appear in the comprehensive examination earliest, at the end of the second semester, but must pass the same before the end of the fifth semester (before the end of the 30 months) after their first registration. Students admitted with M.Tech. degree may appear in the comprehensive examination earliest, after the first semester, but must pass the same before the end of the fourth semester (before the end of the 24 months) after their first registration. The above time limits are excluding the period sanctioned for leave, if any.
- c) The objective of Comprehensive Examination is to test the general capability of the research scholar and the breadth of his/her knowledge in his/her discipline and areas related to his/her field of research.
- d) The DC will constitute a Committee to conduct the comprehensive examination consisting of Chairman DC as the Chairman of the comprehensive examination committee, guide as the convenor, coguide(s), Dean (Academic) or his nominee and 3 experts from the area /related area of research within the Institute. Approval of the comprehensive examination committee will be granted by the Dean (Academic).
If experts in the concerned/related area are not available within the Institute, DC may recommend a list of experts- senior faculty members in the rank of a Professor or Associate Professor from higher institutes of learning such as IITs /NITs- or from equivalent reputed institutes /universities for the comprehensive examination. With the approval of Dean (Academic), convenor (guide) can arrange the experts from the outside institute. Such experts shall be paid the honorarium and TA/DA as per their eligibility.
- e) The Comprehensive Examination will be in oral form only and shall be conducted on a convenient date for the scholar, decided by the DC. Student has to submit a detailed report on literature review, significance of the research, problem identification, methodology ,expected outcome of the research and work already completed/carried out to all members of examination, minimum one week prior to the date of the examination. He/she shall make a presentation at the start of the comprehensive examination based on the above report. The above report, presentation, discussion and answers by the candidate to the questions by the examiners will carry 60% weightage.
Remaining 40% is for the answers on questions based on fundamentals related to the research area/courses he/she has credited under course work (R 12), which may be based on a syllabus proposed by the guide and approved by the DC.
The weightages indicated above are flexible and can be decided by DC and communicated to the candidate at the beginning.
Based on the performance of the candidates on the above, the comprehensive examination committee will decide whether the candidate will pass or fail. A report to this effect shall be forwarded to the Academic Section soon after the examination.
- f) If the performance of any research scholar at the comprehensive examination is unsatisfactory he/she will be given one more opportunity to appear for the examination within six months of the first examination, failing which will lead to cancellation of his/her PhD registration.

The research scholar should successfully complete (pass) the comprehensive examination latest by the end of fourth semester (for students with M.Tech degree or equivalent)/ fifth semester (for students with MSc/MSc-tech/ MA/ MPhil /MBA or equivalent) after registration, to avoid cancellation of his/her PhD registration.

R.17 Cancellation of Registration

- a) The registration of a research scholar, who has not enrolled for any one semester (a period of six months), is liable to be cancelled (see rule R 15.c).

If the research scholar fails to obtain 'C' grade or above in any one of the courses registered as prescribed by the DC within 2 attempts (see rule R 12 (h)), she/he is not in position to earn the minimum credit requirement and accordingly she/he will be disqualified to continue the PhD programme and the registration will be cancelled.

If the performance of any research scholar at the comprehensive examination is unsatisfactory even during his/her second attempt, the registration will be cancelled (see rule R 15 (f))

If the performance or progress of the scholar is not satisfactory during two consecutive semesters, DC may recommend for cancellation of registration (R.14).

- b) The registration of a research scholar who has not submitted his/her thesis by the end of the extended period (see rule 20) as provided in the Regulations will be cancelled administratively.
- c) In all the cases, guide/HOD shall inform the student concerned before initiating the steps for cancellation of registration.

The decision of the Chairman, Senate will be final and binding in all the above cases.

R.18 Minimum Residential Requirement and Minimum Time for Submission

- a) The minimum residential requirement for those registered under part time/external registration scheme is the time required to successfully complete the course work as per the requirement (see rule R 12), which cannot be less than a semester.
The minimum residential requirement for full time candidates will be 30 months.
- b) The minimum period from the date of first registration for Ph.D. Programme to the date of submission of Ph.D. thesis shall be 30 months (or 5 semesters) for the full time and 36 months (or 6 semesters) for the part-time research scholars.

R.19 Relief from Ph.D. programme to take up job:

Ph.D. Scholars who get appointment and have expressed the desire to carry forward the research, can get relief from the programme by keeping registration alive by paying fees on the following conditions:

- a) Scholars, who take up jobs in organizations with R&D facilities, will be relieved on their request along with a detailed plan of his/her completion of the work and recommendations of DC, if they have completed : (i) course work prescribed; (ii) comprehensive examination successfully and (iii) sufficient quantity of research work that is adjudged as satisfactory by DC based on the presentation given and detailed report submitted by the scholar. DC shall instruct the scholar to give an open seminar in the department , on the work completed. The registration will be continued on a part time basis.

Along with the application, scholars shall submit a letter from the competent authority of the organisation in which she/he is going to join/ from the employer, granting permission to continue the research in their organization using the R & D facilities of the organisation.

- b) The scholar, who takes up jobs in organizations, which do not have R&D facilities will be relieved on the request from him/her on valid reasons along with a detailed plan of his/her completion of the work and recommendations of DC, only if
(i) she/he has completed: (a) course work prescribed; (b) comprehensive examination successfully and (c) sufficient quantity of research work that is adjudged as satisfactory by DC based on the presentation given and detailed report submitted by the scholar. DC shall instruct the scholar to give an open seminar in the department, on the work completed.
Along with the application, scholars shall submit a letter from the competent authority of the organisation in which she/he is going to join/ from the employer, granting permission to continue the research. The registration will be continued on a part time basis.
- c) Minimum contact as decided by the guide shall be ensured by the scholars in any semester even after they are relieved. The renewal of their registration for every semester will be considered only if the DC finds his/her progress to be satisfactory and recommends continuance of registration.
- d) No financial assistance will be available to students once they are relieved as above.

R.20 Maximum Duration of Programme

- a) Research Scholars under Full-time schemes should submit thesis within 5 years from the date of first registration.
However, the BOAC may extend the period of submission of thesis by not more than 3 years on valid reasons submitted by the Scholar and on the recommendation of the Doctoral Committee.
- b) Research Scholars under Part-time and External Registration Scheme should submit thesis within 7 years from the date of their registration.
However, the BOAC may extend the period of submission of the thesis by not more than 2 years on valid reasons submitted by the Scholar and on the recommendation of the Doctoral Committee.

R.21 Change of Registration from Part-time to Full-time Programme and vice-versa.

- R21.1 A student admitted to part-time/external registration programme may be allowed change his/her registration to full-time studies at the beginning of a semester on the recommendation of Doctoral Committee and with the approval of BOAC. However, for determining the duration of the programme, one half of the period spent, as a part-time student, will be counted.
- R.21.2 Similarly, a student admitted to a full-time Ph.D. programme may be permitted to change to a part-time Ph.D. programme on a request from him/her on valid reasons along with a detailed plan of his/her completion of the work, provided:
 - a) (i) He/she has completed the course work, passed the comprehensive examination, completed sufficient quantity of research work that is adjudged as satisfactory by DC based on the presentation given and detailed report submitted by the scholar and completed the residence requirements. (ii) DC recommended her/his application. DC may instruct the scholar to give an open seminar in the department, on the work completed.
 - b) Produce a no objection certificate from the Head of the Institution/Organization, which he/she proposes to join along with a letter from the competent authority of the organisation in which she/he is going to join/ from the employer, granting permission to continue the research(see rule R19).

R.22 Leave Rules

Research scholar is supposed to do research at all time on all days without any specified duty time. He/she will be dedicated to research work and present on all days during the residential period. However following leave can be granted to a research scholar on emergency/essential situations.

- R.22.1 A student may be granted casual leave up to 8 days per semester on the recommendation of the guide by HOD, subject to the condition that such leave will not be allowed for longer than 5 days at a time. The casual leave cannot be combined with any other kind of leave other than the public holidays and casual leave cannot be carried over.
- R 22.2 A student may be allowed leave (with scholarship) during any period of Institute's vacation up to a maximum of 10 days during an academic year on the recommendation of the guide by HOD.
- R 22.3 Leave on medical grounds, duly supported by medical certificate (from a registered medical practitioner endorsed by the Institute Medical officer) may be granted to a student up to 7 days per semester by HOD on recommendation of guide.
- R22.4 Duty leave upto 60 days in a year may be granted by HOD on recommendation of guide for data collection, testing /measurements (if facility not available within the Institute), presenting research papers in conferences, attending workshops/conferences required for his/her research work. Additional period of duty leave, if required, may be sanctioned by Dean (Academic) based on the recommendation of guide/HOD.
- R22.5 Leave more than 10 consecutive days for prolonged illness or other medical or valid reasons (other than maternity leave) may be granted without any Institute financial assistance or stipend /scholarship, upto a period of six months by the Dean (academic) based on recommendation of guide/HOD, provided research scholar maintains registration.
- R22.6 Maternity leave for female students may be granted for a period of 180 days based on the certification from a registered medical practitioner and on the recommendation of DC.

All the leave records shall be monitored and kept by the concerned department.

R.23 Open seminar and Synopsis submission

- a) On satisfactory completion of (i) the prescribed courses (ii) the comprehensive examination and (iii) research work of adequate quality and quantity, DC can allow the research scholar to give a seminar open to all faculty and students in which the research work will be presented to obtain comments and criticism which may be incorporated in his/her thesis. A thesis can be submitted only after the satisfactory fulfillment of this requirement.

Open seminar shall be conducted with one week prior notice to all the faculty and students in all the Departments/centres/schools. All DC members shall be invited.

During the open seminar, research scholar shall present his/her work in complete form.

He/she shall take feedback/suggestions on the work and clarify all the queries and comments by the audience. Based on the feedback/suggestions and discussions and if the clarifications given by the scholar are not satisfactory, DC can decide to repeat the open seminar after incorporating the suggestions.

- b) Once the open seminar(s) are completed successfully, DC can allow the research scholar to present the synopsis. The Doctoral Committee will, if it approves the work reported in the synopsis, permit the research scholar to submit the synopsis. Once approved by DC, the scholar shall submit the synopsis (One hard copy and soft copy) in the prescribed format along with synopsis submission form, copies of published papers and documents as indicted by the academic section.

R.24 Panel of Examiners

Doctoral Committee at its meeting to accept the synopsis of PhD work, shall scrutinise the panel of examiners (minimum 4 from reputed Institutes similar to IIT/NITs within India and 4 from reputed Institutes of higher learning & research outside India, working in the same area of research and at the level of an Associate Professor or Professor) proposed by the guide for evaluation of the thesis. The panel of examiners will be approved by DC after incorporating the modifications , if any and shall be submitted in a sealed cover by the Chairman, DC along with the synopsis to the Dean (Academic) .

The thesis shall be referred to two examiners- one from India and the other from outside the country chosen by the Chairman, Senate or his nominee from the panel of examiners.

R.25 Submission of Thesis

- a) The research scholar shall, within three months of acceptance of the synopsis, submit four copies of thesis (+ soft copy) embodying the results of investigation, in the prescribed format along with the Thesis submission form, receipt of the Thesis examination fee paid by the scholar and documents as indicated by the academic section.
- b) On the recommendation of the Doctoral Committee, an additional three months may be granted. However, DC can review the request for grant of time beyond the six months period, if the scholar makes an appeal with valid reasons, well before the prescribed due date. This exemption will not be applicable beyond the maximum duration of the programme of a research scholar as stipulated in the regulations (see rule R 20).
- c) The thesis submitted for the Ph.D. degree shall contain an account of the research work carried out by the scholar leading to the discovery of new facts or techniques or new correlation of facts already known (analytical and/or experimental and/or hardware oriented in nature), the work being of such quality that it makes a definite contribution to the advancement of knowledge. All the contributions shall be clearly listed out.
- d) At the time of oral examination (defense), the research scholar should have at least one paper accepted in a peer-reviewed/ refereed journal or patents registered based on his/her work.

R.26 Thesis Evaluation Report

- a) The examiner is expected to send the report on the thesis within two months from the date of receipt of the thesis.
- b) In case of undue delay in receiving the thesis report from any examiners, the Chairman, Senate or nominee shall appoint another examiner for evaluating the thesis.
- c) If one of the two thesis examiners declares the thesis as not 'commended', the thesis shall be referred to a third examiner from the panel for the evaluation by the Chairman, Senate or nominee. Chairman, Senate or nominee may also instruct to submit a fresh panel of examiners with the approval of DC, if the first panel is exhausted.
- d) If an examiner suggests resubmission of the thesis with modifications suggested by him/her, the research scholar will be allowed to resubmit the thesis after revision, within the time stipulated by the Doctoral Committee failing which the revised thesis will not be accepted and his/her registration will be cancelled.
- e) If two examiners, after referral to a third examiner, if necessary, report the thesis as 'not commended' the matter will be referred to the Doctoral Committee.
 - (i) Doctoral Committee can recommend resubmission of thesis after further research work of not less than one year, based on the application from the research scholar. On this recommendation and approval from Chairman, Senate, permission will be granted by the Dean (Academic) to the research scholar to continue the registration with payment of fees etc. On completion of the required research work, DC may recommend for open seminar, synopsis and thesis submission as per the concerned rules indicated above, similar to that of a fresh thesis work.
 - (ii) In the absence of such a recommendation the registration of the scholar shall stand cancelled.
- f) If reports of two examiners after referral to a third examiner, if necessary, declare the thesis as 'commended' , the Dean (Academic) will consider the reports and recommend for conduct of oral examination.
- g) Guide will suggest a panel of experts (with the recommendation from DC) within the Institute for nomination of one member (as internal examiner) for Oral Examination Board.
- h) In all other cases, not covered by the above Regulations the matter will be referred to the Doctoral Committee for consideration.

R.27 Oral Examination

- a) The following is the composition of the Oral Examination Board:
 - i) Chairman :Chairman DC or Head of the Department (If HOD happens to be the Guide, the senior Professor/previous HOD)
 - ii) Member :The Examiner of the thesis from within the country or a specialist in the subject, nominated by the Chairman, Senate or Dean (Academic) as his/her nominee from the panel of examiners

- (outside the Institute) recommended by the DC, as external examiner.
- iii) Member :Guide(s)/Co guides
- iv) Member :An expert from the panel of experts within the Institute, suggested by the guide and recommended by the DC, nominated by the Chairman, Senate or Dean (Academic) as his/her nominee, as internal examiner.

The oral examination board will be constituted by the Dean (Academic) and will be intimated to the guide and Chairman, DC/HOD for arranging the oral examination.

The Doctoral Committee members of the Research Scholar concerned will be invited to the Oral Examination.

- b) Oral examination shall be arranged by the Dept. and conducted as an 'open defense' with advance invitation to all the faculty/research scholars and other students of interest in all the Departments/centres/schools. All present in the examination hall, other than the members of the oral examination board and the candidate are only invitees.
- c) Oral examination shall also be conducted through video conferencing mode if there is a request from the Examiner. An email confirmation on the result of the examination is to be obtained from the Examiner after the oral examination.
- d) Responsibilities of Oral examination board are as follows:

i)The Oral Examination Board examines the research scholar on his/her thesis work and evaluates his/her performance as satisfactory or otherwise. Candidate will be asked to make a detailed presentation on his/her work and contributions. The Board ensures that the scholar answers satisfactorily the questions raised by the thesis examiner(s) and successfully defended. Only if the performance of the research scholar is satisfactory and successfully defended the questions raised by the thesis examiner(s), he/she will be passed in the Oral examination.

ii)If the report of the Oral Examination Board declares the performance of the research scholar is not satisfactory and the candidate failed in the oral examination, he/she may be asked to reappear for oral examination at a later date after thorough preparation (not earlier than a month and not later than six months from the date of the first oral examination). On the second occasion, the Oral Examination Board will also include the members of the Doctoral Committee.

iii)The Oral Examination Board may also recommend revisions/modifications to be made in the final version of the thesis based on the suggestions of the examiners who evaluated the thesis and the discussions at the oral examination.

Candidate shall submit the required number of hard bound copies (/ soft copy) of thesis in the prescribed format, after incorporating all the modifications /suggestions ,if any, by the examiners/ the Oral Examination Board to the academic section. Guide shall certify that all the revisions suggested/recommended by the examiners/Oral Examination Board, if any, have been incorporated in the thesis.

Candidate shall also submit soft copy of the thesis in the final form in prescribed format, to the Digital library.

iv) The Chairman of the Oral Examination Board shall forward the report of the Oral Examination Board to academic section immediately after the examination.

R.28 Award of Ph.D. Degree

If the performance of the research scholar in the Oral Examination is satisfactory and has passed the Oral Examination, he/she will be awarded Ph.D. degree on the recommendation of the Senate and with the approval of the Board of Governors of the Institute, subject to

- (1) He/she had registered and successfully completed /credited the required course work as per R12
- (2) He/she has no dues to any departments/sections of the Institute including hostels, library and
- (3) He/she has no disciplinary action pending against him/her.

R.29 Power to Modify

Notwithstanding all that has been stated above, the Senate/BOG has the right to modify any of the above Regulations from time to time.