

REGULATIONS FOR THE AWARD OF Ph.D DEGREE OF THE COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY

Background: Cochin University of Science and Technology has been conducting Ph.D. programs since its inception in its Schools/Departments/Centres and other Research Study Units and in Recognized Institutions. As is required for every academic program, this University has been framing regulations for Ph.D, and following it for the admission, conduct, evaluation and award of Ph.D Degree. In July 2009 UGC had notified the UGC (Minimum Standards and Procedure for Awards of M.Phil./Ph.D. Degree) Regulation, 2009, and it was made mandatory for all Universities to adopt the same. This was done by the Cochin University of Science and Technology and the Ph.D. regulations of Cochin University of Science and Technology based on The UGC regulations of 2009 was notified Vide U.O. no: Conf.II/2941/1/2001 dt 04/08/2011 and implemented with effect from 2010 admissions.

Now the UGC has issued its new Ph.D regulations dated 5th May 2016 which are in supersession of the 2009 regulations and has mandated all Universities to implement it. These regulations are framed to implement the UGC Ph.D regulations of 2016 in Cochin University of Science and Technology.

1. Short title, Application and Commencement:

- 1.1 These Regulations may be called **Cochin University of Science and Technology Ph.D Regulations- 2018.**
- 1.2 They shall apply to every Academic Unit of Research (School/Department/Centre, etc) of the University and Recognized Institutions, where Research programme leading to Ph.D of Cochin University of Science and Technology is being conducted.
- 1.3 They shall come into force from the date decided and Notified by the University.
- 1.4 These regulations shall govern all new Ph.D registrations from the date it comes into force, no new registration may be given under the previous Ph.D regulations thereafter, however the Ph.D scholars registered under the old regulations shall continue under the same, provided they exercise option under clause 25.2.

2. Admission of Students to the Ph.D Programme.

- 2.1 A candidate who wishes to pursue a programme of study and research leading to the degree of Doctor of Philosophy (Ph.D.) of Cochin University of Science and Technology (CUSAT) will be required to seek registration to the programme under these regulations as Full-Time or Part-Time research student in a University Department / School/ Centre/ any other Academic Unit of study or in an institution recognized for this purpose by the University, under an appropriate Faculty. In the case of recognized institutions, part-time registration shall be granted only for the permanent employees of the respective institutions.
 - 2.2 Candidates who are working in research projects, relevant to the research topics which have been taken up by a Department/School/ Centre of the University, funded internally or by external funding agencies, shall be eligible for Full-Time/Part-Time registration. Candidates working in research projects taken up by recognized institutions shall be eligible only for full time registration. Candidates working and residing outside India (NRI status) shall not be eligible for registration for Ph.D.
 - 2.3 Candidates applying for registration as Part-Time Research Scholars shall be considered for registration only in cases where the Research Committee (RC) is convinced that effective supervision can be ensured. The RC shall also check on the regularity and progress of the Ph.D work being carried out by the scholar.
3. The University may decide to accord recognition, in specified Faculties, on the recommendation of the Academic Council, to a Research/Educational Institution under the control of Central/State Government as per the provisions of the Cochin University of Science and Technology Act (1986) and the relevant statutes and ordinances in this regard, provided the University is satisfied that the institution will be able to provide the required facilities to candidates to pursue their studies in the Institution for the degree of Doctor of Philosophy (Ph.D) of the University in the Faculties concerned and to fulfill such other conditions that the Syndicate may stipulate from time to time.

4. Eligibility for Admission to the Ph.D Programme.

- 4.1 Candidates for admission to the Ph.D. programme shall have a Master's degree or a professional degree declared equivalent to the Master's degree by the corresponding statutory regulatory body, with at least 55% marks in aggregate or its equivalent grade 'B' in the UGC 7-point scale (or an equivalent grade in a point scale wherever grading system is followed) or an equivalent degree from a foreign educational Institution accredited by an Assessment and Accreditation Agency which is approved, recognized or authorized by an authority, established or incorporated under a law in its home country or any other statutory authority in that country for the purpose of assessing, accrediting or assuring quality and standards of educational institutions.
- 4.2 A relaxation of 5% of marks, from 55% to 50%, or an equivalent relaxation of grade, may be allowed for those belonging to SC/ST/OBC(non-creamy layer)/Differently-abled and other special categories of candidates as per the decision of the University from time to time. The eligibility marks of 55% (or an equivalent grade in a point scale wherever grading system is followed) and the relaxation of 5% to the categories mentioned above are permissible based only on the qualifying marks without including the grace mark procedures.
- 4.3 Candidates who have cleared the M.Phil. course work with at least 55% marks in aggregate or its equivalent grade 'B' in the UGC 7-point scale (or an equivalent grade in a point scale wherever grading system is followed) and successfully completing the M.Phil. Degree shall be eligible to proceed to do research work leading to the Ph. D. Degree in the same Institution in an integrated programme. A relaxation of 5% of marks, from 55% to 50%, or an equivalent relaxation of grade, may be allowed for those belonging to SC/ST/OBC(non-creamy layer)/differently-abled and other special categories of candidates as per the decision of the University from time to time.
- 4.4 A person whose M.Phil. dissertation has been evaluated and the viva voce is pending may be provisionally admitted to the Ph.D. programme of the same Institution;
- 4.5 Candidates possessing a Degree considered equivalent to M.Phil. Degree of an Indian Institution, from a Foreign Educational Institution accredited by an Assessment and Accreditation Agency which is approved, recognized or authorized by an authority, established or incorporated under a law in its home country or any other statutory authority in that country for the purpose of assessing, accrediting

or assuring quality and standards of educational institutions, shall be eligible for admission to Ph.D. programme.

5. Procedure to Apply for Admission

Registration for Ph.D shall be given for both candidates intending to do research work Fulltime and those intending to do the research on part-time basis. All Academic Unit of Research / Department/School/ Centre of the University as also Recognized Research Institutions that are allowed to conduct Ph.D. programmes, shall:

- 5.2.1 Decide on an annual basis through their Departmental Research Committees (DRC) after collecting information from the Supervisors concerned, the predetermined and manageable number of Ph.D. scholars to be admitted depending on the number of available Research Supervisors and other academic and physical facilities available, keeping in mind the norms regarding the scholar- supervisor ratio, laboratory, library and such other facilities;
- 5.2.2 Notify well in advance in the University website the number of seats for admission, subject/discipline-wise distribution of available seats, criteria for admission, procedure for admission, examination centre(s) where entrance test(s) shall be conducted and all other relevant information for the benefit of the candidates; The Notification for Ph.D admissions shall also be issued at least once a year through notification in at least two (2) national newspapers, of which at least one (1) shall be in the regional language by the University stating that the details are available in the website.
- 5.2.3 The State-level reservation policy shall be applicable and shall be notified by the University from time to time.
- 5.3 The admission shall be based on the criteria notified by the University, keeping in view the guidelines/norms in this regard issued by the UGC and other statutory bodies concerned, and taking into account the reservation policy of the Central/State Government from time to time as applicable.
- 6.1 Application for admission shall be submitted to the Head of the University Department/School/ Centre/ Academic Unit of Research / The recognized Institution concerned in the prescribed form on payment of the required fees. Candidates intending to do research in Recognized Institutions shall submit their

applications through the Head of Institution to the Head of the respective Department/School.

- 6.2 All Candidates seeking registration except those mentioned in clause 6.3 below shall have to pass the Full Departmental Admission Test (DAT) (both written test and Interview) and ranked as per the norms laid down in relevant clauses below of these regulations. DAT for Ph.D Programme (including admission to Recognized Institutions) shall be concluded by concerned Department of the University once in a year before the end of August.
- 6.3 The following candidates are exempted from the written examination part of the DAT and they shall be ranked separately as per the norms laid down in clause for the same of these regulations:
- a) Candidates who possess National/Kerala State research fellowships with valid score, with committed financial assistance at the time of seeking admission, in any of the National / State level eligibility tests conducted by the agencies or by industries so recognized by the University for the purpose.
 - b) Candidates who have qualified UGC-NET Lectureship examination or GATE/ICAR/KSCSTE/CSIR/NBHM/ICSSR.
 - c) Candidates who have been awarded Fellowships by the Government of India or the Government of Kerala for pursuing doctoral research leading to Ph.D degree.
 - d) Foreign students who have been sponsored under a scholarship scheme by the Government of India for undergoing Ph.D Programme in India.
 - e) Teachers of Universities / Aided Colleges in Kerala, teachers who are working in Government Institutions/ Quasi Government recognized by Cochin University of Science and Technology and Scientists in National Level Research Laboratories, with a minimum continuous service of five years as permanent employees.

- f) Students from India or Abroad coming for Ph.D based on specific agreements or MOU's of the University.
- 6.4 Candidates seeking admission under interdisciplinary / multidisciplinary research shall have to qualify in the DAT conducted by the respective Department/School/ Centre (in the subject offered by the Department) where he / she wishes to register for research.
- 6.5 Candidates who are exempted from DAT for possessing research fellowships or scholarships or have qualified in specified National / State level eligibility tests as per clause in 6.3, (except 6.3e) may be admitted at any time during the academic year on submission of applications in the prescribed form at the time of seeking admission, after being interviewed by the DRC and on its recommendations.
- 6.6 The Academic Unit of Research shall admit candidates who have to take the Departmental Admission Test(DAT) which will be conducted only once in a year before end of August, by a two stage process through:
- 6.6.1 The Departmental Admission Test (DAT) shall have two parts – Written test and Interview. In case of candidates undertaking interdisciplinary / multidisciplinary research the written test can be on a subject offered by the Department/School/ Centre where the candidate is seeking registration.
 - 6.6.2 Departmental Admission Test(DAT)shall be conducted with qualifying marks as 50%. The syllabus of the Entrance Test shall consist of Minimum of 25% of research methodology and the remaining shall be subject/subjects specific to the Academic Unit of Researchconcerned. DAT shall be conducted by the School or Department/Centre of the University at the Centre(s) notified in advance (changes of Centres, if any, also to be notified well in advance); and
 - 6.6.3 All candidates seeking admission to the Ph.D. Programme who have passed the written part of the Department Admission Test (DAT) with a minimum of 50% marks shall be required to present themselves for an interview with the Research Committee (RC) or with a Subcommittee constituted by the same. In case of admission for interdisciplinary research the Committee or

sub-committee shall consist of the Research Supervisor(s) from other subject(s) who has (have) consented to supervise the candidate(s).

6.6.4 The committee shall assess the student and award marks for his/her performance in the interview. The interview to be organized by the Academic Unit of Research/Department/Centre of the University, where the candidates shall be required to discuss their research interest/area through a presentation before the Departmental Research Committee (RC) or by a Subcommittee constituted by the same. The committee shall also scrutinize the academic records of the candidate, the research proposal submitted by him/her in the application, and the long term plan of the academic work to be undertaken by the candidate. The Minimum marks required in this Interview part of the DAT shall also be 50%.

6.6.4.1 The interview shall also consider the following aspects, viz. whether:

6.6.4.2 The candidate possesses the competence for the proposed research;

6.6.4.3 The research work can be suitably undertaken at the Academic Unit of Research/ Department/Centre;

6.6.4.4 The proposed area of research can contribute to new/additional knowledge.

6.7 Preparation of Rank list for admission:

6.7.1 The weightage for Master's Degree marks, written test and interview for ranking will be as follows for all candidates who had appeared for full DAT (both written test and Interview):

- (a) Marks obtained in the Master's Degree level : 30%
- (b) Marks obtained in the Written Test : 50%

(c) Marks obtained in the Interview : 20%

6.7.2 In the case of candidates who have been exempted from writing the written test part of DAT. The Rank list shall be prepared giving the following weightages:

a. Marks obtained in the Master's Degree level : 50%
b. Marks obtained in the interview : 50%

6.8 Separate rank lists shall be prepared for (i) Candidates with DAT written test exemption and (ii) candidates with DAT. Admission shall be made from list (i) first and on exhausting the same from List (ii). University Scholarship will continue to be awarded as per the existing rules.

6.9 The admission lists and the waiting list of all eligible candidates shall be displayed on the notice boards of the respective Department/School/ Centre / Recognized Institutions and also put in the University Website. The rank list shall be valid till December 31st of the year.

6.10 All Academic Units of Research shall provide the list of all Ph.D. registered students in their Research Unit on year-wise basis to The Registrar for publication on the website of the University, once every six months at least. The list shall include the name of the registered candidate, topic of his/her research, name of his/her supervisor/joint-supervisor, date of enrolment/registration.

6.11 Candidates with UGC-NET/ JRF or such other eligibility test qualified, shall be allowed to register for Ph.D any time provided they get 50% in an interview for selection conducted by the Research Committee/ sub-committee on receipt of a application with a consent from a recognized supervisor having vacancy to accommodate the applicant for Doctoral Research.

7. Duration of the Programme:

7.1 Ph.D. programme shall be for a minimum duration of three/ four years, including course work and a maximum of six / seven years in the case of Full Time / Part Time, respectively.

7.2 On receipt of an application for extension duly recommended by the Doctoral Committee (DC) of the research scholar concerned along with the fees for the

application duly paid, the Research Committee (RC) shall have the powers to grant an extension for a maximum period of One year, which will be intimated to the University for recording the same. If the candidate (a) completes the research work, (b) has at least one research Publication in a UGC approved Journal and one conference paper presentation (c) presents the Pre- Synopsis submission seminar within the extended period of one year granted by the Research Committee(RC), the scholar is eligible to seek another extension for a maximum period of One more year for publishing the second Research paper,second conference paper presentation, and for preparation and submission of the Thesis. The Vice-Chancellor shall have the powers to sanction this extension of one year based on the application of the candidate and recommendations of the DC and RC concerned.

- 7.3 The women candidates and Persons with Disability (more than 40% disability) may be allowed a relaxation of two years for Ph.D. in the maximum duration. In addition, the women candidates may be provided Maternity Leave/Child Care Leave once in the entire duration of Ph.D. as per the rules governing their scholarship or for up to a maximum of 240 days.

8. Recognition as Research Supervisor and scholar allocation:

Eligibility criteria to be a Research Supervisor, Co- Supervisor, Number Ph.D. scholars permissible per Supervisor, etc.

- 8.1 Any Full-Time Professor/ Scientist of Equivalent Grade of the University/ Recognized Research Institution with at least five research publications in refereed journals and any Full-Time Associate/Assistant Professor / Scientist of Equivalent Grade of the university/ Recognized Research Institution with a Ph.D. degree and at least two research publications in refereed journals may be recognized as a Research Supervisor. Provided that in areas/disciplines where there is no or only a limited number of refereed journals, the University may relax the above condition for recognition of a person as Research Supervisor with reasons recorded in writing. All Teachers/ Scientists who are Research Supervisors under the immediate previous regulations shall continue to serve as Research Supervisors under these regulations also.
- 8.2 Only a Full time teacher/Scientist of the University/ Recognized Research Institution can act as a supervisor. The external supervisors are not allowed. However, joint-supervisor can be allowed in inter-disciplinary areas from other

departments of the same institute or from other related institutions with the approval of the Departmental Research Committee (DRC) on the recommendations of the Doctoral Committee. If there is a joint-supervisor for a research scholar, the scholar shall be taken as 0.5 scholar under the both Supervisor and Joint-supervisor for determining the vacancy for further Research scholar guidance.

- 8.3 The allocation of Research Supervisor for a selected research scholar shall be decided by the Department/School/ Centre Research Committee concerned depending on the number of scholars per Research Supervisor, the available specialization among the Supervisors and research interests of the scholars as indicated by them at the time of selection interview.
- 8.4 In case of topics which are of inter-disciplinary nature where the Department/School/ Centre concerned feels that the expertise in the Department has to be supplemented from outside, the Department/School/ Centre may appoint a Research Supervisor from the Department/School/ Centre itself, who shall be known as the Research Supervisor, and a Joint-Supervisor from outside the Department/School/ Centre / Faculty/College/Institution on such terms and conditions as may be specified and agreed upon by the consenting Universities/Institutions/Colleges.
- 8.5 A Research Supervisor/Joint-supervisor who is a Professor, at any given point of time, cannot supervisor more than **Eight** Ph.D. scholars (Total of all PhD Scholars supervised by the Supervisor in all Universities/Institutes where he/ she is supervising Ph.D scholars). An Associate Professor as Research Supervisor can supervisor up to a maximum of **six** Ph.D. scholars and an Assistant Professor as Research Supervisor can supervisor up to a maximum of **four** Ph.D. scholars. Scholars under co-guidance shall be treated as only Half each under both the supervisor and the joint-supervisor. A declaration to the above effect shall be submitted by the guide on accepting new doctoral student(s).
- 8.6 In case of relocation of a Ph.D. woman scholar due to marriage or otherwise, the research data shall be allowed to be transferred to the University to which the scholar intends to relocate provided all the other conditions in these regulations are followed in letter and spirit and the research work does not pertain to the project secured by the parent institution/ supervisor from any funding agency. The scholar will however give due credit to the parent supervisor and the parent institution for the part of research already done.

- 8.7 A Research Supervisor may be recognized under more than one faculty if the person is eligible for the same. The total number of scholars in all faculties under a supervisor shall also be limited to the number given in 8.5 above.
- 8.8 Teachers of CUSAT and Scientists / Teachers of Recognized Institutions who are already functioning as Research Supervisors in the faculty concerned are ipso facto recognized Research Supervisors in the faculty concerned.
- 8.9 A Research Supervisor on retirement may be allowed continue to guide the scholars already registered under their supervision at the time of retirement. They will not be allowed to register fresh candidates for supervision.
- 8.10 If a Research Supervisor leaves the present job and takes up another assignment in a Institution which is not a recognized research centre of the University, the supervisor may be allowed continue to guide the scholars already registered under their supervision. They will not be allowed to register fresh candidates for supervision.

9. **Joint Supervision.**

- 9.1 If the Research Committee feels, for valid academic reasons, that the service of an additional supervisor is desirable it may recommend a joint-supervisor provided both the supervisors are willing. In this case too for reckoning the maximum number of students who may register under a Research Supervisor, the student under joint guidance shall be treated as 0.5 for each supervisor.
- 9.2 In case of interdisciplinary / multidisciplinary there shall be two Research Supervisor, one in scholar's own PG based subject according to which the candidate is registered in a research centre and another in the area of subject in which he combines the core subject. For reckoning the maximum number of students who may register under a Research Supervisor, the students under joint guidance shall be treated as 0.5 for each supervisor.

10. Research Committee (RC).

- 10.1 Every Department/School/ Centre of research in the University shall have a Research Committee (RC) with the Head of the Department/School/ Centre as Chairman, and all the recognized Research Supervisors of the University serving in the Department/School/ Centre as members. The Vice Chancellor may, on the recommendation of the Dean of the Faculty concerned, nominate additional members from other relevant Department/School/ Centre / Recognized Institutions to the Research Committee. In Departments where interdisciplinary / multidisciplinary research is pursued, the Committee shall consist of the Research Supervisor(s) from other subject(s) who has (have) consented to supervise the candidate(s).
- 10.2 Every Recognized Institution shall similarly have a Research Committee with the Head of the Recognized Institution as Chairman, a Research Supervisor working in the Institution nominated by the Chairman as Convener, all the recognized Research Supervisors working in the Recognized Institution, the Deans of the Faculties concerned and the Heads of the Department/School/ Centre of the University concerned or their nominees as members.
- 10.3 The Research Committee in the University Department/School/ Centres /Recognized Institutions shall meet at the beginning of the academic year to decide upon the number of research students who can be admitted during the year with their areas of specialization, it shall also allot supervisors to all research scholars admitted in the Research Centre.
- 10.4 The Research Committee shall meet at least twice a year to review the progress of research work of the registered research students in the Department/School/ Centre /Recognized Institution and record the attendance and minutes of the meeting in a Register kept for the purpose. The Chairman shall submit the minutes of the meetings to the University.

11. Doctoral Committee (DC) and its functions:

- 11.1 There shall be a Doctoral Committee (DC) to monitor the progress of each student registered for research in the University Department/School/ Centre /Recognized Institution.
- 11.2 In the case of a University Department/School/ Centre, the Head concerned in consultation with the Research Supervisor shall constitute the Doctoral Committee with the Research Supervisor as Convener, the Joint Supervisor, if any, and an approved Research Supervisor from the same or allied area in the University as members. The Head of the Research Centre shall also be an ex-officio member of all the DCs in the Research Centre.
- 11.3 In the case of a Recognized Institution, the Head of the Recognized Institution in consultation with the Research Supervisor shall constitute the Doctoral Committee with the Research Supervisor as Convener, the Joint Supervisor, if any, and an approved Research Supervisor from the same or allied area in the University and the Head of the Institution as members.
- 11.4 The Doctoral Committee shall be in existence during the full period of registration of a candidate and shall be reconstituted by the Head of Department/School/ Centre on the recommendations of the Supervisor with such changes in membership as may become necessary from time to time in accordance with clauses 11.1 to 11.3 above.
- 11.5 The Doctoral Committee shall provide necessary guidance to the research student and shall take efforts to ensure that good progress is made by him/her.
- 11.6 All research students shall submit progress reports to the respective Research Supervisors every six months which shall be discussed in the Doctoral Committees to assess the progress of the work.
- 11.7 The Doctoral Committee shall prepare syllabi and panel of question paper setters / examiners for the Ph.D courses I and II.

11.8 The Doctoral Committee shall make recommendations on matters such as (a) the conversion of registration from full-time to part-time or vice versa,(b) granting leave of the candidate for short term assignments, training etc, (c) presentation of synopsis and (c) cancellation of registration in case of unsatisfactory progress, unethical practices in research committed by the student, or misconduct of the student.

11.9 The Doctoral Committee shall be responsible for the preparation of the confidential panel of adjudicators for evaluation of the thesis, this shall be submitted after verification by the Dean of the Faculty concerned to the Controller of Examination for further necessary action.

12 Admission and Registration

12.1 A candidate who has been ranked and recommended for provisional admission shall take admission in the Department/School/ Centre / Recognized Institution within fifteen days from the date of issue of Memo after paying the required fees in the Department/School/ Centre / University Office and fulfilling such other requirements as per the admission rules.

12.2 The Head of the Department/School/ Centre /Recognized Institution shall be empowered to give an extension of time for a further period up to three months to the candidate, if so requested by the candidate and recommended by the research supervisor.

12.3 The Head of Department/School/ Centre /Recognized Institution shall forward to the University a consolidated list of all those who are admitted to the Ph.D.Programme within one month of admission.

12.4 The University shall allot registration numbers to students admitted for the Doctoral Programme with effect from the date on which he /she paid the

prescribed fees and was admitted to the Department/School/ Centre / Recognized Institution concerned.

12.5 The time schedule for the admission and registration process will be as decided by the University from time to time and shall be published in its website.

13. Payment of Fees

13.1 Every research student shall be required to pay, in time, the fees prescribed by the University every semester, failing which his / her name shall stand removed from the rolls if the default is more than 30 days after the due date. The University shall fix the fees to be paid by the student for applying for various permissions and relaxations provided for in these regulations, such as condonation of attendance shortage, conversion of registration from FullTime to Part time, etc.

13.2 Within a period of 30 days from the date of removal from the rolls, the candidate may be readmitted by the Head of the Department/School/ Centre / Research Institution on an application made by the candidate, duly recommended by the Research Supervisor and on payment of all arrears of fees, readmission fee and the fine as the University may prescribe from time to time.

13.3 In cases where the default in payment of fees exceeds 30 days and candidate fails to apply for readmission within the next 30 days, he / she will be required to apply for readmission within 180 days, which shall be placed for consideration before the Research Committee. If the Research Committee is satisfied with the genuineness of the cases of delay, it shall be competent to take appropriate decision. A candidate who is in default of fees for more than 180 days from the due date, the registration shall remain cancelled.

13.4 Every research student shall submit a report of the progress of the research achieved and attendance certificate countersigned by the supervisor and

HOD/Head of the Institution pertaining to the previous semester before the payment of the next semester fees.

14 Attendance

- 14.1 Notwithstanding anything contained in these regulations a candidate who comes under the National / State or such other fellowship or scheme/project etc., shall be governed by the respective rules governing the award of such fellowship/scheme/project, regarding attendance, leave etc.
- 14.2 A student registered as full-time research student will be required to have at least 80% attendance in every semester failing which his/her name shall be removed from the rolls of the University subject to the provisions under sub clauses 14.3 to 14.6 below.
- 14.3 The Research Committee shall be empowered to condone the shortage of attendance upto 10% on an application made by the student, duly recommended by the Research Supervisor and endorsed by the Doctoral Committed.
- 14.4 A Research (both full-time and part-time) student will be eligible to attend conferences / seminars / symposia specialized training programmes connected with his / her area of research or participate in research cruises or visit other places for collecting data, and all such days (including University holidays) when they were away from the Department/School/ Centre or Recognized Institution, including days of travel, shall count for attendance or for periods of being in residence at the University, if they have been duly authorized to do so by the Research Supervisor with intimation to the Head of the Department/School/ Centre.
- 14.5 Notwithstanding anything contained in the regulations regarding attendance, a candidate registered for full-time research shall be eligible to avail of leave for thirty days in one calendar year and maternity leave as per University rules, along with leave without fellowship for three months on

medical grounds or for any other genuine reasons with the consent of the Research Supervisor.

14.6 A Part time research scholar shall have a minimum attendance of 60 days each calendar year or on a pro-rate basis for part of the year. Part-time research scholars should complete successfully the course work within a maximum period of two years of registration. In the remaining period of research also, minimum 60 days attendance is the minimum required attendance necessary each year. The days of minimum attendance shall also include days of eligibility of attendance as per clause 14.4 above

15. Course Work.

15.1 After having been admitted, each Ph.D(Both Full-time and Part-time) student shall be required to undertake course work on a **full time basis for a minimum period of one semester** with a minimum total of 16 credits and a maximum of 24 credits. The course work should be completed within TWO years of joining by all Full Time and Part Time research scholars. Failing which they will be deemed to have discontinued the Ph.D program (*Scholars in Full time/regular jobs will have to take leave and attend the course work for a semester on Full-time basis*).

The course work shall be treated as Pre-Ph.D. preparation. The structure of the course work shall be as follows:

Course Number	Credits	Marks		Total Marks
		Continuous Evaluation	End Semester Examination	
I	4	50	50	100
II	4	50	50	100
III	4	50	50	100
IV	4	-	100	100

The details of course shall be as follows :

- Course I. This course of minimum Four Credits minimum shall be covering the Broad area of Research of the Scholar and its syllabus and conduct are to be proposed by the DC and approved by the RC.
- Course II. This course of minimum Four Credits minimum shall be covering the Specific topic of Research of the Scholar and its syllabus and conduct are to be decided by the DC and reported to the RC.
- Course III. This course of minimum four credits shall focus on Research Methodology which could cover areas such as quantitative methods, computer applications, research ethics and review of published research in the relevant field, training, field work, etc. This course shall be designed separately for each faculty/department and shall be approved by the Faculty/RC concerned and may be conducted simultaneously in one or more Department/School/ Centres / Research Centres.
- Course IV. This course of minimum four credits shall devoted to preparation of a comprehensive report of review of literature relevant to the scholar's research and preparation, submission and defense of the Research Proposal. This shall be evaluated by the RC or its subcommittee authorized to do so.

15.2 Ph.D. students with M.Phil degree, awarded complying with the UGC Regulations for awarding M.Phil/Ph.D 2009/2017 in the same field of study from CUSAT or any other University, may be exempted from registering for Course I and Course III of the course work, if the Research Committee is satisfied that the same or similar courses have been undergone by the students in the M.Phil programme.

15.3 The Syllabi and Titles for course I and II shall be prepared by the respective Doctoral Committee of the student and be approved by the Research Committee. The syllabus and title along with panel of examiners for Course III shall be formulated by the Research Committee. For Course IV, the Doctoral Committee shall supervise and monitor the progress of the student periodically.

- 15.4 Continuous evaluation shall be done by the teachers offering the courses. Setting of the question papers and their evaluation for end-semester examination (except course IV) shall be carried out by a Board of Examiners approved by Research Committee. For course IV, at the end of the semester, the student shall submit a report on the scope, relevance and purpose of the research work, its identified objectives, review of literature, research methodologies to be followed and expected outcome of the thesis work. The evaluation of Course IV shall be done by the Research Committee or a subcommittee nominated by the Research Committee at the end of the semester, through an open seminar.
- 15.5 Based on the marks obtained in the examinations the students may be awarded grades as detailed below.

Range of Marks	Grades	Weightage
90% and above	S-Outstanding	10
(80-89)	A-Excellent	9
(70-79)	B-Very Good	8
(60-69)	C-Good	7
(50-59)	D-Satisfactory	6
Below 50%	F-Failed	0

Overall Performance at the end of the Semester will be indicated by Grade Point Average (GPA) calculated as follows:

$$\text{GPA} = \frac{G_1C_1 + G_2C_2 + G_3C_3 + \dots + G_nC_n}{C_1 + C_2 + C_3 + \dots + C_n}$$

Where 'G' refers to the grade weightage and 'C' refers to the credit value of corresponding course undergone by the student.

- 15.6 Students who are not able to acquire a minimum grade of 6.0 in each Course shall be given one more chance to complete the course work successfully in the next semester when the course is offered. If he/she cannot acquire the required 16 credits within a period 24 months from the date of his/her PhD registration, his/her registration will be cancelled.

- 15.7 If found necessary, Course work approved by the Doctoral Committee may be carried out by the doctoral candidates in sister Department/School/Centres in the University/Institutions recognized by the University as Centers of Research.
- 15.8 The Research Committee will scrutinize the grades awarded to the candidate in each course, and finalize the results. On successful completion of the course work by acquiring minimum of 16 credits, the candidate shall be given a certificate of eligibility for continuing doctoral research (both the Grade Cards and Certificate of Eligibility will be issued by the Chairman of Research Committee).

16. Publication of Research paper

Ph.D. scholars shall publish at least **TWO** research papers in Indexed or UGC recognized journals and make **TWO ORAL** paper presentations in conferences/seminars before the submission of the dissertation/thesis for adjudication, and produce evidence for the same in the form of presentation certificates and/or reprints or Acceptance letters from the Journal. **The supervisor and Scholar shall ensure that in the research/ conference paper the Scholar address and affiliation shall be that of CUSAT, only then it shall be accepted for this purpose.**

17. Change of Research Supervisor

- 17.1 The Research Committee (DRC) shall have the power to consider the request of candidate to change his/her Supervisor or to have a Joint Supervisor provided that the request is supported by his/her supervisor and the prospective Joint Supervisor, and the request is recommended by the Doctoral Committee. If the Research Committee gives assent to the request, the matter shall be reported to the University.
- 17.2 However, such request for change of Supervisor or Joint Supervisor shall be made at least one year prior to the candidate's giving notice for submission of the thesis for adjudication by examiners, provided that, this limitation shall not be applicable in the case where the present supervisor is unable to continue supervision due to reasons of health, shifting of place of work/residence to a distant place etc.

18. Change of Academic Unit of Research

The Research Committee shall have the power to consider and to give assent to the request of the candidate for change of Academic Unit of Research, provided the request is recommended by the Research Supervisor and the Doctoral Committee and is accompanied by a 'no objection certificate' from the Head of the present and newly proposed recognized Academic Unit of Research. Such instances of request for change in the Academic Unit of Research shall be submitted to the University, which shall obtain the comments of the Dean of the Faculty concerned on the matter and inform the candidate of its decision.

19. Change of Area of Research

19.1A Candidate who is registered for research shall be eligible to apply for the change of the topic or the area of research on payment of the prescribed fee and the Research Committee shall be competent to give assent to the request, which has been duly supported by the Research Supervisor, the Doctoral Committee and the University shall be informed accordingly. The Doctoral Committee and the Research committee shall examine if the change in topic or area is allowable with the course work already completed or if additional course work needs to be prescribed, considering that the topic or area of research has changed. Their explicit comments on the matter of adequacy of course work done shall accompany the topic or area change request/ decision. If additional course work is required considering the change in topic or area the coursework done earlier may be cancelled in full or part and the necessary additional coursework completed within one year of the change being provisionally allowed. However, such an application for change of topic/ the area of research shall be permitted only once during the period of registration, and further that the application for the same shall be made at least one year prior to the notice for submission of thesis.

19.2A candidate who is registered as a research student shall be eligible to request for approval or a change in the title of his/her thesis and the Doctoral Committee shall be competent to give assent to the request, provided that in the case of change in the title of research, the request shall be made at least one month prior to the submission of thesis.

20. Conversion of Registration from Full-Time to Part-Time

20.1A Candidate who is registered for the Ph.D. Programme shall be eligible to apply for conversion of research work from full-time to part-time and vice versa. The Research Committee shall be empowered to grant the request, which is duly recommended by the research supervisor, and endorsed by the Doctoral Committee. In such cases the matter shall be reported to the University for confirmation. In such conversion, the maximum period of registration will be as in the case of Part-time students.

20.1.1 Conversion from part-time to full-time or vice versa will be allowed only twice during the period of registration.

21. Period of Registration of Research Students

21.1 A candidate who is registered for the Ph.D. Degree as full-time student (throughout the registration period) and has completed the course requirements shall be eligible to submit his/her thesis for adjudication, on completion of minimum three years of registration. The minimum duration shall be Four years for all others.

21.2A candidate who is registered as a fulltime research student shall remain on the rolls of the University for a maximum period of six years provided that he/she satisfies the periodic progress and the dues are cleared as per rules. The Research Committee shall be competent to extend the period of registration for one more year at the recommendation of the Doctoral Committee and the Research Supervisor provided that the candidate has made satisfactory progress and has published at least one paper in an approved journal and has made at least one paper presentation in a conference and the application for extension is made after paying the prescribed fee. However, the application should be submitted before the expiry of the registration period.

21.3A Candidate who is registered as a part-time research student shall normally remain on the rolls of the University for a maximum period of seven years after which his/her registration will lapse. The Research Committee shall be competent to extend the period of registration for one more year on the recommendation of the Doctoral Committee provided that the candidate has made satisfactory progress, and has published at least one paper in an approved journal and has made at least one paper presentation in a conference and the application for extension is made after paying the prescribed fee before the expiry of the registration.

21.4 The candidate shall cease to be on the rolls of the University as research student as his/her Open Defense is over, or from the date on which his/her registration is cancelled or lapses for any reason.

22. Submission of the Thesis for Ph.D. Degree

22.1 Every candidate for the award of the degree of Doctor of Philosophy shall be required to submit a thesis embodying the results of his/her research finding to the University for Adjudication by examiners.

22.2 The thesis shall be written in English, except the case of theses from the Faculty of Humanities where the language of the thesis shall be in the language of study and should conform to the format and standard prescribed by the University from time to time.

22.3A Candidate proposing to submit the thesis shall inform the University, at least one month in advance and such intimation shall be accompanied by a certificate from the Head of Academic Unit of Research that he/she has presented the salient features of the proposed thesis in a pre-submission Seminar in the Academic Unit of Research with notice to all RC members and the Research scholars. If the presentation is not found satisfactory and major changes are recommended by the RC members, the candidate shall have to repeat the presentation. Recommendations for other changes if made during the Pre-synopsis seminar has to be examined by the DC for incorporation at that stage and appropriate decision taken. After successful presentation the Scholar shall submit the synopsis as given below:

- a) A Synopsis of the thesis not exceeding ten pages, highlighting the literature review, Problem selected, Objectives, Methods used in the research, the observations, findings, a brief discussion and conclusion. It shall also have a list of references cited in the synopsis.
- b) Copy of the Grade cards in respect of the Ph.D. course work.
- c) Copy of at least two published research paper/letter of acceptance with copy of the manuscript along with a certificate from the Doctoral Committee to the effect that the paper is published in a refereed journal and certificate of at least two conference paper presentations during the period of Ph.D registration. The above

published papers and conference papers should be related to the work presented in the thesis.

- d) Attendance certificate from the Head of Academic Unit of Research.
- e) A certificate from the Head of Academic Unit of Research stating that the candidate has presented his/her pre-submission synopsis seminar.
- f) Recommendation of the research supervisor to the effect that work of the candidate is adequate and complete for the award of the Ph.D. degree.
- g) Evidence of having paid the required fees prescribed by the University.

22.4 The candidate shall submit the thesis within Two months from the date of submission of synopsis. The delay in submitting the thesis beyond TWO months, but within SIX months may be condoned by the Research Committee on the recommendation of the Doctoral Committee. The Vice Chancellor may condone delay for a further period of six months in exceptional cases, provided further that the candidate shall submit his/her theses only during the currency of his /her registration.

22.5 The candidate shall submit five copies of the synopsis prepared in the language proposed to be used in the thesis, and conforming to the specification prescribed by the University along with a CD containing soft copy of the Synopsis in PDF format.

22.6 The thesis shall be accompanied by the following:

- a. A declaration signed by the candidate to the effect that the thesis is the outcome of the original work done by the candidate and that the work did not form part of any dissertation submitted for the award of any degree, diploma, associate ship, or any other title or recognition from any University/Institution.
- b. A Certificate by the research supervisor(s) to the effect that to the best of his/her/their knowledge the thesis is a bonafide record of research carried out by the candidate under his/her/their supervision.
- c. A certificate from the Research Supervisor to the effect that all the relevant corrections and modifications suggested by the audience

during the pre-synopsis Seminar and recommended by the Doctoral Committee of the candidate has been incorporated in the thesis.

- d. The University Library shall make available a facility for plagiarism checking and shall on the request of a supervisor assist in running the plagiarism check and get the report for use by the Supervisor. The supervisors should issue the certificate of no plagiarism only if the report of software conducting plagiarism checks shows less than 20 percent values for the Literature review chapter and Less than 10 percent values for other chapters of the thesis. Similarity with self declared published work of the Scholar will be permitted. While submitting for evaluation, the dissertation/thesis shall have an undertaking from the research scholar and a certificate from the Research Supervisor attesting to the originality of the work, vouching that there is no plagiarism and that the work has not been submitted for the award of any other degree/diploma of the same Institution where the work was carried out, or to any other Institution.
- e. An appendix containing research articles published by him/her alone or jointly with others in the same area of study as additional evidence of the research work done by the candidate.

23. Procedure for Adjudication of the Thesis

23.1 The Panel of experts prepared by the Doctoral Committee shall be forwarded to the University duly verified by the concerned Dean of Faculty. In the case of recognized institutions, panel of experts prepared by the Doctoral Committee shall be submitted to the University by the concerned Head of Institution which will be forwarded to the Dean of the Faculty concerned for verification. The panel should contain names of at least ten experts not below the rank of an Associate professor of a University or an equivalent rank in a reputed research institution working in the area of research of the thesis. At least eight experts of this panel should be from outside the State/Country.

23.2 The thesis to be adjudicated shall be forwarded to three external examiners nominated by the Vice-Chancellor from the panel of experts (given in Clause 23.1 above), of which at least two shall be from outside the State/Country.

23.3 Each examiner shall be requested to send a separate individual report on adjudication of the thesis, wherein it shall be specifically stated, whether or not the examiner recommends the award of the degree based on the written thesis, with

reasons for the recommendation. If the thesis does not meet the standard expected of a Ph.D. thesis, the examiner may recommend that the thesis be rejected, or resubmitted after additional work.

23.4 In the event of the receipt of the evaluation reports of all the three examiners recommending the thesis for the award of Ph.D. Degree, the University shall make arrangements for the conduct of the open defence and viva voce examination. When two examiners have recommended and one has not recommended the thesis for award of Ph.D, the thesis shall be sent to a fourth examiner who's recommendations shall be binding on the University for award of Ph.D for the thesis. If two or more examiners of the three examiners do not recommend the thesis in the for award of Ph.D the thesis shall be rejected, and degree will not be awarded to the candidate.

23.5 But if any of the examiners who's reports are being accepted, suggests resubmission of the thesis, after revision, the candidate may resubmit the thesis incorporating the changes proposed by the examiner(s) after payment of such fees as may be prescribed by the University.

23.6 On resubmission, the thesis shall again be sent for adjudication as far as possible to the same examiner(s) who had adjudicated it earlier and recommended revision. If the same examiner(s) is (are) not available, another examiner(s) shall be selected by the Vice Chancellor from the same panel.

23.7 The candidate shall have no further chance for resubmission of the thesis and the decision to accept or reject the thesis at this stage shall be final.

23.8 If the examiners recommend for the award of the Ph.D. Degree, the University shall make arrangements for the conduct of open defence and a viva voce examination. If corrections or modifications are suggested by the examiners who's reports are being considered for award of the Degree, The candidate shall be required to submit the hard bound copy of the thesis along with a soft copy in PDF format after incorporating all correction/suggestions made by the examiners before scheduling of the Open Defense and the supervising teacher shall give a certificate stating that all corrections have been made in the final copy of the thesis.

23.9 The open defence/ viva voce board shall consist of the Dean of the Faculty under which the candidate is registered, as Chairman and any one of the examiners (preferably one among the thesis examiners) nominated by the Vice Chancellor, from the panel of examiners prepared for the adjudication of the thesis, the Research

Supervisor and Joint Supervisor, if any, as members. The Head of Department/ Centre shall be the convener of the Open Defence.

- 23.9.1 An open defense and viva voce examination shall be held at a place and time decided by the University after making prior announcement of the same, and after issuing the notice to all the Department/School/ Centres of the University/ Recognized Institutions coming under the faculty, sufficiently in advance.
- 23.9.2 During the open Defense of the thesis, the candidate has to explain the motivation and relevance of the work, innovation in methodology and salient features of the findings. He/She shall satisfactorily answer the questions put forward put forward by the audience. This shall be followed/ preceded by an in camera viva voce examination conducted by the viva voce board.
- 23.9.3 The Chairman (Dean of the Faculty) and the external expert shall necessarily be present at the Open Defense/viva voce examination.
- 23.9.4 If the viva voce examination is not held on the scheduled date, the candidate shall be required to be present for the open defence and viva voce examination on a subsequent date, as intimated to him/her.
- 23.9.5 If, in the opinion of the viva voce board, the candidate is successful in the viva voce examination and has defended his/her thesis satisfactorily in the open defence, the board shall prepare a consolidated report and present it to the University recommending the award of the Degree.
- 23.9.6 If, in the opinion of the viva voce board, the candidate is not successful in the viva voce examination of the candidate shall be given an additional opportunity after one month for the viva voce /open defence after payment of the prescribed fee, and the decision of viva voce board at this examination shall be final.
- 23.9.7 The award of Ph.D. Degree will be with effect from the date of successful completion of viva voce examination as noted by the consolidated report of the Board of Examiners. The Certificate from the University will be issued only after the receipt of the final modified (if necessary) thesis copy CD and Supervisor's certificate. On the successful completion of the viva-voce examination a notification shall be issued which shall contain the Name of the Candidate, Name(s) of the Supervisor(s), Title of Thesis, Subject and Faculty under which the Degree is awarded.

23.9.8 The University shall issue a provisional certificate to the candidate to the effect that he/she has successfully fulfilled the entire requirement including course work for the award of the Ph.D. degree in accordance with the UGC guidelines. The regular Ph.D Degree certificate shall be issued thereafter.

24. Publication of the Thesis

24.1 Following the successful completion of the evaluation process and before the announcement of the award of the Ph.D. degree, an electronic copy of the Ph. D. thesis shall be submitted to the INFLIBNET, for hosting the same so as to make it accessible to all Institutions/Colleges.

24.2 A candidate who has been awarded the Degree of Doctor of Philosophy shall be free to publish his/her thesis with a proper acknowledgement to the University. A copy of the thesis so published shall be given by the candidate to the University.

25. Transitory Provisions

25.1 The present regulations shall supersede all earlier regulations in the matter, and all registrations of candidates from the date notified by the University, for the degree of Ph.D. shall be made under these regulations.

25.2 A student registered under the earlier regulations shall be eligible to opt to come under these regulations, but such options shall be exercised within a period of six months from the date of notification of these regulations. All students who do not exercise their option to move to this regulation by submitting an option letter to the University through proper channel shall be deemed to have decided to continue under their present regulations.

NOTE:

1. "University" , means "Cochin University of Science and Technology
2. "Department" means "Department/ School/ Centre or Academic Unit of Research" of the University as the case may be.
3. "Academic Unit of Research" means any Department/ School/ Centre or unit or Recognised research institution which has been

permitted by the University to conduct a research program of the University leading to a Ph.D of the University.

4. Research Supervisor is synonymous with Research Guide