UNIVERSITY OF ENGINEERING & MANAGEMENT, KOLKATA



Regulations for the Degree of

Doctor of Philosophy (Ph.D.)

In exercise of the powers conferred by Sections 6 (i) and (iv), 8(i), 13(3)(b) and 17(i) of the University of Engineering & Management, Kolkata Act 2014, the University hereby makes the following regulations, namely:-

These regulations shall be called the **University of Engineering & Management, Kolkata** (Regulations for the Degree of Doctor of Philosophy, Ph.D.), Regulations 2018.

They shall apply to every candidate applying for admission, and subsequent registration, conduct of research work and conferment of the Degree of Doctor of Philosophy (Ph.D.) of this University. They shall come into force from 15TH January,2016 as approved by the Governing Board.

Notwithstanding anything contained in any other Rule or Regulation for the time being in force, all admissions, and subsequent registrations, course works and conferment of Degree, shall be guided by these regulations framed as per guidelines of the University Grants Commission (Minimum Standards and Procedure for Award of M.Phil / Ph.D Degrees) Regulations, 2016.

The Degree of Doctor of Philosophy (Ph.D.) will be awarded to a research scholar on the basis of original research work of merit incorporated in a thesis, as recommended by a board of examiners and successfully defended by the candidate during a Viva-voce examination and as approved by the Vice-Chancellor.

The thesis shall demonstrate that the research scholar has technical mastery of the chosen field of study and investigation and is capable of doing scholarly work. The result of research embodied in the thesis shall be a discovery of new facts or by discovery of some new relations between issues / facts leading to a new interpretation. The thesis is to be ordinarily written in English. If a candidate desires to submit a thesis in Bengali or any other language or in a bilingual form, the relevant Doctoral Committee will consider the case on academic grounds and may recommend to the Vice-Chancellor for approval.

1. Doctoral programme:

The University offers Doctoral programme leading to Ph.D. degree in all the subjects of study, under different faculties, schools, viz., Engineering & Technology, Basic & Applied Sciences, Social & Management Science and any other branch/faculty as may be approved by the appropriate authority of the University from time to time.

The award of the Ph.D. degree, on successful completion, will be conferred on a research scholar in recognition of his / her academic achievements in course work, research work carried out and application of knowledge to provide solution of scientific, technical, societal and managerial problems. Creative, systematic, scientific and analytical inquiry shall be the basic concept underlying such a research work.

The Ph.D. programme may be of a full time or part-time course of study comprising:

- (i) Course Work;
- (ii) A Comprehensive Examination (written and/or Oral);
- (iii) A Research Proposal i.e. Pre-Ph.D. submission Synopsis;
- (iv) Carrying out the research work.
- (v) Submission of the dissertation/thesis.

The rules and regulations for both the modes (full time and part-time) will be same, except for certain issues like scholarships, fee structures, duties and responsibilities and the duration of the programme.

2. Award of Doctor of Philosophy (Ph.D.) Degree:

Ph.D. Degree shall be awarded to a research scholar on the basis of research work carried out by him / her on a problem after submission and successful defence of a thesis illustrating such work.

The thesis for Ph.D. Degree shall depict that the research scholar possesses comprehensive knowledge in his / her field of study and is capable of understanding advanced research independently in his / her field of study.

The degree of Doctor of Philosophy will be obtained by pursuing research work through the following steps:

- a) Enrolment of a candidate;
- b) After enrolment a course work shall be taken by the research scholar, as prescribed by the University.
- c) After successful completion of the course work within a stipulated period, the research scholar shall formally present the research proposal before the relevant Doctoral Committee.
- d) On approval by the Committee, registration of the proposed research work will be made and the research scholar will carry out the work and make research publications.
- e) During research work after registration, the progress of work of a research scholar will be evaluated by the Doctoral Committee, semester-wise.
- f) Within a stipulated time after registration, a research scholar will make a presubmission of the work through presentation with the idea that the research work is complete or near completion and he/she is prepared to submit the thesis.
- g) Depending on the performance in regard to research and publication, a research scholar will be allowed to submit the thesis before a set of examiners; and on

- receiving satisfactory report from the examiners, the research scholar will be allowed to defend his/her thesis / work in a viva-voce examination.
- h) If successful, the research scholar will be recommended by the Doctoral Committee for award of the Ph.D. degree by the Vice Chancellor and the matter will be placed at a meeting of the Governing Board for record.

3. Eligibility for Admission to Ph.D Programme:

- a) The application for admission to the Doctor of Philosophy (Ph.D.) programme is to be made to the Dean (Research) in the prescribed form.
- b) A candidate having a Master's degree in any discipline from any university or institution recognized by the UGC or such other degree with at least 60% marks throughout her/his academic career will be eligible to apply for admission to Ph.D. programme in a subject, in which he/she obtained Master's degree or in a related field or in an interdisciplinary area, subject to his/her qualifying for enrolment in that branch of study and in compliance with the requirement of the UGC rules, if any.
- c) A relaxation of 5% of marks or an equivalent relaxation of grade may be allowed for those belonging to SC/ST/OBC and other categories of candidates as per the decision of the commission from time to time who had obtained their Masters' degree prior to 19th September, 1991.
- d) A person, who has obtained a postgraduate Diploma/Degree of two-year duration or more from any university or institution recognized by the UGC with at least 60% marks throughout her/his academic career, is eligible to apply for admission to the Doctoral programme leading to Ph.D. degree, provided that such a candidate has completed at least a total of five years of graduate and postgraduate study in a recognized university or institution.
- e) A person, who has obtained a Bachelor's degree in Engineering/ Technology/Pharmacy/BBA/BCA of the University or from any other university or institutions recognized as equivalent thereto by the University, with at least 70% marks throughout her/his academic career may apply for admission to the Doctor of Philosophy (Ph.D.) programme through integrated Master & PhD programme.
- f) CSIR / UGC (JRF) Examinations, NET, SET, SLET, GATE qualified candidates and those who have obtained DST INSPIRE Fellowship / Teacher Fellowship are eligible for admission to the Ph.D. programme.
- g) A candidate shall declare that she/he is not currently/simultaneously enrolled as a student in any course of studies or registered for a doctorate degree in any other

university, institution and shall undertake not to be enrolled or registered elsewhere so long she/he is registered for Ph.D. degree in this University.

4. Procedure for Selection and Enrolment/Registration:

- i. A candidate shall ordinarily be enrolled in a subject through an entrance test followed by an interview and the entrance test along with interview will be conducted twice in an academic year at an interval of six months.
- ii. Formal announcement for the entrance test and interview may be made in the months of January and July to enroll the students in Ph.D. programs.
- iii. Candidates, who have qualified in UGC/CSIR (JRF/NET) examination, SLET/ SET/GATE and those who have obtained DST INSPIRE Fellowship / Teacher Fellowship, will be exempted from appearing in the written test but shall have to appear for the interview.
- iv. Following the admission procedure through an admission test and interview in the relevant subject, a list of qualified candidates (mentioning their areas of research interest) will be published and displayed by the Dean (Research).
- v. After qualifying for enrollment in the admission test, the candidates on payment of admission fees, semester fee, processing fees, etc. will be eligible for enrollment in the Ph.D. programme in the relevant discipline.
- vi. Normally candidates having a B.Tech./M.Sc./M.A. or equivalent degree are required to complete a minimum of 9 credits with a minimum GPA of 7.0. M.Tech or equivalent degree holders are required to complete a minimum of 6 credits with a minimum GPA of 7.0.
- vii. The Doctoral Committee will process applications of the qualified candidates for Pre-Ph.D. Coursework for registration under the rules of the University.
- viii. A candidate qualified as the Pre-Ph.D. Coursework Examination shall present his / her research proposal before the relevant Doctoral Committee.
- ix. The research proposal will consist of Introduction, Research Objective, Proposed Plan of Work with necessary diagrams and supported by a statement regarding further scope of research in the relevant field and references with proper citation in the text of the proposal.
- x. When the Doctoral Committee accepts a candidate for registration, she/he will register his/her name within 15 days from the date of communication of the decision of the

Doctoral Committee in this regard to the candidate, by paying a registration fee and such other fees as may be fixed by the University.

- xi. Registration for a Ph.D. degree program of the University will be granted to a candidate, if the Doctoral Committee is satisfied that:
 - i. the candidate fulfils the requirements for eligibility as laid down;
 - ii. the candidate maintains regular contact with her/his Supervisor/s throughout the entire period of her/his work, and
 - iii. the experimental work, if any, can be carried out in the University or with the permission of the University, in any other recognized university or Institution or research organization or Industry, where adequate facilities for carrying out such work exist;
 - iv. a person qualified for the purpose of supervision and recognized by the University for such purpose, has given her/his consent to act as the Supervisor for the candidate.
- xii. In case of failure to register by the candidate within the prescribed time, the application shall be deemed to be cancelled unless granted permission by the Dean (Research) on the basis of a written application giving reasons, with the approval of the Vice-Chancellor.
- xiii. On payment of the registration fees, the candidate's name and other particulars will be included in the register for Doctoral candidates, maintained by the office of the Dean (Research).
- xiv. Registration shall remain valid for five years from the date of registration for a full time research scholar and for seven years for a part-time research scholar. The Doctoral Committee may, however, extend the period of registration beyond five/seven years, as the case may be, on the merit of individual cases with sufficient grounds, provided that such an extension shall not exceed more than three years in each case.

5. Withdrawal/Cancellation from the programme:

- a) Withdrawal from the programme is allowed any time during the Ph.D. programme.
- b) A candidate may apply in writing to the Dean (Research) for cancellation of his/her registration stating reasons, and such an application is to be forwarded by the Supervisor(s) to the Dean (Research) for submission to the concerned Doctoral

Committee, provided there are no dues from the candidate on any account. The application with the comments of the Supervisor(s) shall be placed at a meeting of the Doctoral Committee. If approved, the candidate's registration will be cancelled, subject to the approval of the Vice-Chancellor.

c) Registration of a candidate may be cancelled by the University, if a candidate does not fulfill the prescribed conditions including satisfactory progress of work and payment of dues in time, if any. In such cases, the Dean (Research), on the basis of a report from the Supervisor(s), may recommend for cancellation of his/her registration.

Such recommendations shall be placed at a meeting of the concerned Doctoral Committee and the candidate will be notified in writing the decision taken by the Doctoral Committee. Final decision will be taken by the Doctoral Committee after obtaining the reply from the concerned candidate within a stipulated period of time, and the same will be implemented on obtaining approval of the 'Vice-Chancellor & Chairman' of Doctoral Committee; provided that the Doctoral Committee may reconsider the matter on receiving an appeal with sufficient grounds from the candidate within a stipulated period of time.

d) A teacher/officer of this University may register for a Ph.D. programme in any department if she/he is eligible as per provisions of these regulations and is permitted by the University to apply for such registration.

6. <u>Privileges and obligations of enrolled / registered candidates:</u>

- a) An enrolled candidate shall work under the guidance of the supervisor(s) recommended by the Doctoral Committee and approved by the Vice Chancellor; provided that an eligible faculty member of the University may enroll himself / herself and may work under a supervisor(s) or independently.
- b) An enrolled/registered candidate shall have such privileges as to use the library, laboratories, computers and other facilities as admissible to the postgraduate students of the University. He / She will also be allowed to take membership of the library.
- c) An enrolled/registered candidate shall abide by the general code of conduct of the University for students and any specific provisions for Ph.D. scholars as may be prescribed from time to time.
- d) An enrolled/registered candidate as a whole time research scholar, if otherwise eligible, will get scholarship as prescribed by the University from time to time for a period of three years from the date of enrolment. Extension of the fellowship is subject to satisfactory progress of his / her research work as certified by the

- Supervisor(s) and on the recommendation of the Doctoral Committee and approval of the Vice-Chancellor.
- e) An enrolled/registered candidate as a full time research scholar with scholarship, shall perform such academic duties as may be assigned to him/her, including taking classes as may be allotted by the Head of the respective department during the working hours of the University. Such a research scholar shall have the facilities in regard to leave and holidays as prescribed for full time employees of the University. A part-time research scholar without any scholarship may not participate in the academic assignments.
- f) A fee(s), as fixed by the University, shall be paid by a candidate for appearing at the examination(s) for the course(s) prescribed.
- g) For pre-registration, presentation, pre-submission, extension of enrolment and similar other matters, an application has to be made by a Ph.D. student to the Dean (Research).
- h) The decisions taken in the Doctoral Committee meetings will not be made available to the scholars unless specifically required. Communication in this regard specific to any candidate, will be available from the Dean (Research).
- i) A registered candidate shall submit a progress report to the Dean (Research) through the Supervisor(s) once in every completed semester of research, within a period of fifteen days from the date of completion of such a semester.
- j) A registered Ph.D. candidate will be eligible to have registered e-mail id provided by the University, by which she/he will be able to open account for Research Supervisor(s) and other similar research portals to access different on-line journals/research papers for her/his discipline.
- k) A part-time research scholar will have the status of a full-time scholar once he gets a scholarship.

7. Constitution of Doctoral Committee:

- a) The Doctoral Committee is to be formed for each enrolled candidate (research scholar) with the following members:
 - i. Vice Chancellor Chairperson,
 - ii. Pro-Vice Chancellor (Academic) Vice-Chairperson,
 - iii. Head of the concerned Faculty Council/Department Member,

- iv. Supervisor(s) [maximum two(2)] of the candidate; one of the Supervisors shall be a regular faculty member of the University Member (s),
- v. One external expert (subject expert) from some other recognized educational institution/research institute/industry nominated by the Vice-Chancellor Member
- vi. One external expert (domain expert) common to a number of doctoral committees, advising scholars in the same or similar fields of research as of the concerned research scholar, nominated by the Vice-Chancellor Member,
- vii. The Controller of Examinations Member
- viii. Deputy Dean (Research) Member
- ix. Dean (Research) Member-Convener

Provided that external experts may also be retired researchers with proven accomplishment.

A minimum of five members will form a quorum for any meeting of the Committee, with the presence of at least one external member.

- b) Each Doctoral Committee shall fix the number of research scholars to be admitted in the Ph.D. programmes in different disciplines in a session (January-June and July-December every year).
- c) Admission test schedule will be notified at least twice in a year.
- d) <u>Selection of Supervisor</u> A supervisor for a scholar may be appointed from among the names of experts as recommended by the Doctoral Committee on the suggestion of the Dean (Research) in consultation with the concerned Head of the Department and as approved by the Vice-Chancellor.

A joint supervisor, if required for a scholar, may be appointed on the recommendation of the Doctoral Committee based on the suggestion by the first supervisor showing sufficient reason for his/her inclusion for carrying out the proposed research work, at the beginning of formation of the Doctoral Committee or within first year after registration, or, on emergency basis, by the Vice-Chancellor.

e) A Doctoral Committee once formed will have a tenure till the successful completion of the work or termination of a research scholar due to any reasons. The Vice-Chancellor shall have the right to reconstitute a Doctoral Committee in regard to the membership(s) of the external experts, whenever required.

8. Supervisor and External Expert:

1. Supervisor:

- (a) A regular faculty member of the University holding a Ph.D. degree and having his /her date of superannuation being more than 4 years at the time of enrolment of the candidate, will be eligible to act as a Supervisor.
- (b) A faculty member of the University having less than four years of service left before superannuation may continue to be a Supervisor after his / her superannuation but cannot be the sole supervisor. In such cases, the department, in consultation with the candidate and the supervisor, will recommend another eligible regular faculty member (having more than five years of service left before superannuation) as an additional supervisor. In both the cases, the Supervisor shall be appointed by the Vice-Chancellor on the recommendation of the Doctoral Committee.
- (c) A faculty member will cease to be a supervisor, if he/she resigns or leaves the job without a lien or after the lien period is over. The Doctoral Committee, in such a case, will recommend a new supervisor who will be appointed on the approval of the Vice-Chancellor.
- (d) A Supervisor will have a maximum of eight registered scholars working under him / her at a time.
- (e) A Research Supervisor / Co-supervisor who is a professor at any given point of time cannot guide more than eight (8) PhD Scholars. An Associate professor as Research Supervisor can guide upto a maximum of six (6) PhD Scholars and an Assistant professor as Research Supervisor can guide upto four (4) PhD Scholars.

2. External Supervisor:

- a) The Doctoral Committee may recommend appointment of an expert holding a Ph.D. degree from any other department of the University or a recognized institution outside the University, to act as a 'Joint Supervisor' in case of joint supervision. The said expert will forward his academic bio-data including his research publications and position he / she is holding, in the prescribed form as supplied by the University, through his/her Head of the Department or Head of the recognized institution, as the case may be, and the same will be placed at a meeting of the Doctoral Committee for consideration. The Vice Chancellor will appoint the applicant as Joint Supervisor on the recommendation of the Doctoral Committee provided that the Vice—Chancellor shall have the right to reject such a recommendation of the Doctoral Committee.
 - b) The Doctoral Committee may recommend an Officer of the University, holding a doctorate degree and possessing adequate research experience and publications, for appointment as a Supervisor for a Ph.D. programme.

3. External Expert:

- a) An External Expert(s) shall ordinarily be a regular faculty member of an academic institution under MHRD or a University recognized by the UGC or an Officer engaged in research in a recognized research organization and holding a Ph.D. degree.
- b) The Doctoral Committee may prepare a panel of external experts on the suggestion of Dean (Research).

9. <u>Duties and functions of the Doctoral Committee:</u>

The Doctoral Committee works as the mentor and guide of the research scholars in all phases of their doctoral programme and evaluates them in their performance and suggests to take steps for their progress of work in the programme. The Doctoral Committee shall have the following powers and duties:

- i. To prescribe the course work of a research scholar immediately upon enrolment, including the venue for carrying out the same.
- ii. To arrange for pre-registration presentation of a research scholar after completion of the course work.
- iii. To indicate the steps to a research scholar for registration and the title of the thesis.
- iv. To recommend cancellation of the registration and removal of the name of a registered research scholar from the register after due consideration of any report(s) from the supervisor(s).
- v. To arrange for presentation of the progress of work of a research scholar after registration on semester-wise basis prior to pre-submission presentation.
- vi. To arrange for pre-submission presentation by a research scholar and recommend correction/modification in the draft thesis before finalization, if required, and to finalise the title of the thesis.
- vii. To recommend submission of a thesis by a registered research scholar.
- viii. Each Doctoral Committee shall provide the names of examiners from time to time to the Dean (Research) to prepare a panel of examiners in different areas of a subject.
- ix. To recommend to the Vice-Chancellor the names of the expert(s) for viva-voce examination of a candidate, when the examiners of a thesis recommend the same for award of Ph.D degree.
- x. To recommend to the Vice Chancellor an extension of the period of registration of a candidate beyond seven years / five years, as the case may be, by one year at a

- time, on the recommendation by the concerned Supervisor(s) with sufficient grounds.
- xi. To recommend whether a thesis submitted is for the award of a doctoral degree or to be re-submitted or rejected, after scrutinizing the reports of the examiners, subject to the provisions of these Regulations.
- xii. To recommend continuation of scholarship for research scholars with satisfactory performance.
- xiii. To recommend discontinuation of scholarship due to drop out, failure to carry out the assigned academic duties within stipulated time, unsatisfactory progress, lack of attendance or any disciplinary cases reported against the research scholar.
- xiv. To recommend regarding tenure of the external members of the Doctoral Committee, when the service of such a particular member is not satisfactory and recommend the same to the Vice-Chancellor and to forward names of new experts in place of existing members, whenever required.
- xv. To decide on all other matters related to registration and examination of the thesis subject to the approval of the Vice-Chancellor.

10. Meeting of the Doctoral Committee:

- a. The Committee shall meet as often as may be necessary to recommend / discuss on issues, for which it is constituted.
- b. The quorum of a meeting shall be maintained.
- c. The presence of one of the external experts is mandatory.
- d. In case of absence of both the external experts for a considerable period, the Dean (Research) may conduct such meeting with the approval of the Vice-Chancellor.

11. Enrolment period: Coursework and pre-registration presentation:

The Ph.D. programme starts with enrolment of a candidate for the course work, preliminary research work and preparation for pre-registration presentation, which are pre-requisites for his / her registration to the Ph.D. programme, as detailed below:

a. **Minimum Requirement** – A minimum of 2 (two) papers is required to be studied by a research scholar as coursework i.e. Research Methodology and Computer Applications. Research Methodology is offered as a short term workshop and is mandatory for all the departments. The coursework indicating the papers is to be

- intimated to the research scholars by the Dean (Research) after enrolment and they would attend the classes as per schedule.
- b. The theory papers of the coursework are to be successfully completed by the research scholars and the relevant grade card is to be given to them.
- c. Duration The coursework and the pre-registration presentation are to be completed within one year from the date of enrolment.
- d. Extension of the enrolment period of a candidate may be allowed by a maximum period of six months due to exigency or incomplete coursework or unsatisfactory performance, as may be decided upon by the Doctoral Committee, on application by the research scholar concerned.
- e. Pre-Registration On completion of coursework, a candidate has to apply to the Dean (Research) for pre-registration presentation, recommended and forwarded by the Supervisor(s), with a report on the progress of the research work and a proposed title of the thesis, when the candidate shall present before the Doctoral Committee, the objective of the proposed research work, the progress made in regard to the research work and the future plan of action; provided that during such a presentation, faculty members and other research scholars and post-graduate students, if any, of the concerned department may be present.
- f. The Doctoral Committee, if satisfied with the presentation, shall recommend for registration of the candidate, provided that if the committee is not satisfied it may advise the candidate for presentation again within three months, and a failure in the second time may lead to cancellation of his / her enrolment.

12. Duration of the Programme:

- a) PhD programme shall be for a minimum duration of three years including course work and a maximum of six years.
- b) Extension beyond the above limit will be governed in the relevant clause as stipulated in the state of individual institution.
- c) The women candidate and person with disabilities (more than 40% disability may be allowed for a relaxation of two years for PhD in maximum duration). In addition the women candidate may be provided maternity leave / child care leave once in entire duration of PhD upto 240 days.

13. Registration:

a. A research scholar, declared eligible for registration, will complete registration process as per the procedure of the University within 15 days in the office of the

- Dean (Research), and a certificate of registration will be issued to him / her with effect from the date of declaring him / her fit for registration.
- b. The registration will be valid for five years for a full-time research scholar and may be extended for a further period of three years, one year at a time, by the Chairman (Vice Chancellor) on the recommendation of the Doctoral Committee. For each extension, the candidate shall apply to the Dean (Research) through the Supervisor(s) showing reason(s) for extension. For part-time candidates, the maximum period of validity of registration is seven years and provisions of extension shall be similar to that of a full time research scholar.
- c. Extension beyond three years will not be granted, leading to re-registration of a candidate, if prayed for before two months of completion of the extension period, with the recommendation of the supervisor(s), to complete the work; provided that the period of such re-registration shall not be exceeding two years. Provided further that for such re-registration, a research scholar shall pay registration fee as may be fixed by the University.
- d. A candidate may be allowed to submit his / her thesis after two years' of registration, if the Doctoral Committee is satisfied with his/her progress of work and recommend the same to the Chairman (Vice Chancellor) for approval.
- e. Each registered candidate shall submit a semester-wise progress report to the Dean (Research) and appear before the Doctoral Committee for presentation of the same.
- f. The Doctoral Committee will recommend continuation of the Ph.D. registration if they are satisfied with the progress of the research work. If the progress is not satisfactory, they may suggest for improvement and repeat of the presentation within a stipulated time not beyond three months, and recommend cancellation of registration in case of three successive failures of the semester-wise presentations.
- g. Semester-wise progress report and presentation are required during the extension period also.

14. Pre-submission presentation:

- a. After satisfactory progress of the research work along with at least two publications, a research scholar, with the recommendation of the supervisor(s), may apply to the Dean (Research) for pre-submission presentation of his/her work before the Doctoral Committee.
- b. The presentation shall be open to all faculty members, research scholars and post-graduate students of the University. The observations made during the presentation may suitably be incorporated as far as feasible, into the draft thesis, under the advice of the Supervisor(s).

- c. The Doctoral Committee, if satisfied with the presentation, will recommend (i) submission of the thesis within a stipulated period (usually within three months), and (ii) the final title of the thesis.
- d. The Doctoral Committee, if not satisfied with the progress of the work and presentation, may recommend for repeat presentation within a stipulated period of time, not exceeding three months, or presentation with advice for further work, on a later date.
- e. The supervisor(s), in case of satisfactory presentation, would propose a title of the thesis for adjudication.
- f. When a research scholar fails to submit the thesis within the stipulated period, he /she may be permitted extension of time on submission of a written appeal to the Dean (Research) through the supervisor(s), when it shall be placed before the Doctoral Committee, provided that the extension period in no case shall be for more than six months.
- g. Plagiarism in a research proposal, during presentation(s) or in the body of a thesis will lead to expulsion of a research scholar from the University, on the recommendation of the Doctoral Committee and on approval by the Vice-Chancellor, provided that the concerned research scholar will be given an opportunity of self defence in writing before the Doctoral Committee.

15. Submission and Examination of a thesis:

- a. A doctoral thesis shall be an original contribution to knowledge by a candidate and must bear evidence that the research scholar has carried out individual investigations in her/his chosen field of research.
- b. A registered research scholar shall work for a minimum period of two years after registration and after recommendation by the Doctoral Committee on the presubmission presentation of the thesis with a final title, he/she will submit the thesis incorporating the observations made during pre-submission presentation, under the advice of the Supervisor(s).
- c. A synopsis of the thesis shall also be submitted by the research scholar, separately, without the name(s) of the supervisor(s).
- d. A candidate shall not submit a thesis on any work, which has already been submitted by him/her for award of any degree to him/her by any University/Institution.
- e. A research scholar shall have at least 2 publications with Science Citation Index (SCI), relating to his/her doctoral research work prior to pre-submission presentation. The evidence of such research papers in referred journals, already published before submission of the thesis by a candidate, shall be produced in support of his/her work; contents of such publications shall be a part of the body of the thesis. (Some Amendments are being made, see Annexure I, II, III)

- f. The supervisor(s) shall submit their recommendation in writing on the body of a thesis as worth of submission on fulfillment of conditions for award of the Ph.D. degree of the University, with a declaration that there has been no plagiarism in regard to the work as embodied in the thesis.
- g. Within a stipulated period after pre-submission presentation, a candidate shall submit 4 (four) or 5 (five) copies of thesis, as the case may be, and synopsis, in hard and soft copies to the office of the Dean (Research) [2 copies for external examiners, 1 or 2 copies for the supervisor(s) as the case may be, and 1 copy for the Library].
- h. For examination of a thesis, the Doctoral Committee will recommend the names of the examiners from a list of examiners forwarded by the Supervisor(s).
- i. The Dean (Research) will then forward a panel of a minimum seven / six experts including supervisor(s), as the case may be, to the Chairman (Vice Chancellor) for appointment of 3 (three) or 4(four) examiners: two external examiners and supervisor(s). In case of a candidate pursuing his/her research independently, the Dean (Research), with the approval of the Doctoral Committee, shall recommend names of 6 (six) experts to the Vice-Chancellor who will appoint three of them as examiners of the thesis, provided that not more than one of them shall be from among the faculty members of the University.
- j. The Chairman (Vice Chancellor) while appointing the examiners for a thesis shall have the right not to accept one or more experts as recommended above and may include new name/s in the panel of examiners to be appointed.
- k. The Dean (Research) will write to the examiners appointed by the Chairman (Vice Chancellor) with a copy of the synopsis and seek their consent for acting as examiners.
- If the consent of an examiner is not available within a stipulated time of six weeks, the Dean (Research) will place the matter to the Vice-Chancellor who will appoint another expert as an examiner from amongst the names in the existing panel. The Dean (Research) may prepare and submit a fresh panel of experts, in consultation with the supervisor(s), to the Vice-Chancellor if no consent is available from the panel of examiners already approved.
- m. A thesis shall ordinarily be adjudicated by two external examiners (Indian or Foreign) and the internal examiner(s), i.e. supervisor(s).
- n. For examination of a thesis, the Dean (Research) will send the thesis to the examiners, who have given their consent, in hard bound copy and the examiners will be given three months' time to send the adjudication report, in a format to be send to the examiners by the University along with the thesis, duly signed, to the Dean (Research).
- o. If examiners fail to send their reports within the stipulated time, they will be given reminder(s) by the Dean (Research) provided that in no case, an examiner shall be given more than four and a half months. Provided further that in case no report is received from an examiner within the stipulated time, he/she will be requested to return the thesis copy lying with him/her and steps will be taken by the Dean (Research) for appointment of a fresh examiner following clauses h-k above.
- p. On receipt of the reports from the examiners, the Dean (Research) will convene a meeting of the Doctoral Committee to consider the reports.

- q. When a thesis is unanimously and unconditionally recommended for the award of the Ph.D. degree, the candidate will be eligible for appearing at a Viva-voce examination. If any of the examiners suggests modifications/ corrections to incorporate in the thesis, the Vice-Chancellor may ask the candidate to incorporate such modifications/ corrections in his /her thesis before Viva-voce, under the guidance of the supervisor(s)
- r. If there is any ambiguity or lack of clarity in the reports of the examiners, the Vice-Chancellor may consider the appointment of a third external examiner.
- s. In case of non-recommendation by any one of the examiners, the Vice-Chancellor may consider the appointment of a third external examiner from the existing panel of examiners or if necessary, from a new panel recommended by the Doctoral Committee.
- t. The Doctoral Committee may reject a thesis if two or more of the examiners unambiguously do not recommend for the award of Ph.D. degree. In such a case, the candidate may be allowed to apply for fresh registration.
- u. If any of the examiners of a thesis be of the opinion that the research work as embodied required further investigation and / or revision, the Doctoral Committee may allow the research scholar to resubmit the thesis after further work, if any, and revision, as suggested by the examiners/s, within a maximum period of eighteen months, with the approval of the Vice-Chancellor, and on paying the requisite re-submission fee.
- v. The re-submitted thesis shall ordinarily be examined by the original examiners. If, however, any of the original examiners is not in a position to examine the re-submitted thesis, the Vice-Chancellor may appoint a new examiner from the panel of examiners for the thesis originally approved.
- w. After consideration of the reports of the three or four examiners, as the case may be, the Doctoral Committee will recommend for the Viva-voce examination of a research scholar. The Dean (research) shall make arrangements for the Viva-voce examination.
- x. Viva-Voce Examination: At the Viva-voce, a candidate shall be examined by the supervisor(s) and an expert to be appointed by the Vice-Chancellor from amongst the two external examiners of the thesis, provided that the Vice-Chancellor may appoint an external expert from amongst the names of such experts included in the existing relevant panel; provided further that in case of a candidate who had pursued his/her research work independently, the Vice-Chancellor may appoint a regular faculty member from the field related to the candidate's research in lieu of the supervisor(s). Copies of the reports of the adjudicators on the submitted and examined thesis shall be sent to the examiners conducting the Viva-voce examination prior to the Viva-voce. Viva-voce may also be conducted through Video conferencing with the permission of the Vice-Chancellor.
- y. The Viva-voce examination shall be based, among other things, on the critiques given in the adjudication reports of the thesis and will be attended by the members of the Doctoral Committee, faculty members of the department, other research scholars and other interested experts/researchers of the University; however, they shall not put forward any query either to the candidate or to the examiners conducting the Vivavoce.

- i. During Viva-voce, the candidate shall respond to the queries, if any, made by the examiners. The examiners shall jointly submit a report with their full signatures and date of the Viva-voce, to the Dean (Research), on the performance of the candidate at the said examination, clearly indicating whether the candidate deserves to be admitted to the Ph.D. degree. If the candidate fails to satisfy the examiners at the viva-voce, he / she shall be allowed by the Vice-Chancellor to appear again at a Viva-voce examination, with the same examiners, within a period of three months from the date of the first Viva-voce. In case the candidate is not successful to satisfy the examiners at the second Viva-voce, his/her case will be referred to the Doctoral Committee, for consideration.
- ii. The Vice-Chancellor, on consideration of the reports on the thesis and of the Vivavoce, shall recommend to the Governing Board the award of the Ph.D. degree to the candidate.
- iii. The Dean (Research) will issue a certificate to declare that the research scholar is provisionally admitted to the Degree of Doctor of Philosophy (Ph.D.) from the date of the Viva-voce, provided that he / she submits all necessary documents including clearance of dues and liabilities, if any.
- iv. All works related to Pre-submission presentation, Submission and Examination of a thesis shall be done in a strictly confidential manner.

16. Appeal for change of supervisor:

If after registration, a change of a supervisor or of both the supervisors, as the case may be, is considered necessary, a research scholar may apply to the Dean (Research) through the proposed supervisor(s) for the purpose, and with the concurrence of the existing supervisor(s), ordinarily within one year from the date of registration. The Dean (Research) will place such an application to the Vice-Chancellor for approval and report to the Doctoral Committee at its next meeting for record, provided that in case of continuous non-availability of a supervisor(s) to the research scholar in connection with the research work, the Vice-Chancellor , on ascertaining the matter on his/her own, may pass order to substitute an existing supervisor(s) by an existing member(s) of the faculty in the concerned department or from a sister department, as the Vice-Chancellor may deem fit, and shall report such an action to the relevant Doctoral Committee for record.

A supervisor may write to the Vice-Chancellor stating reasons about his/her inability to guide a research scholar in regard to his / her Ph.D. research work. The Vice-Chancellor will consider the matter in consultation with the Doctoral Committee.

17. Registration:

Enrollment/Registration/Submission/Re-submission and other fees will be determined as per the decision of the University Authority from time to time.

18. The Thesis:

The candidate shall submit four (five, in case there are two supervisors) type-written or printed and bound copies of the thesis along with electronic version (CD in prescribed pdf format) attached to each copy of the thesis and also an extra copy of the electronic version.

The Ph.D. thesis shall:

- (a) Embody the results of research work carried out by a research scholar.
- (b) Show evidence that the research is characterized by either identification of new facts or by an attempt at a fresh interpretation of known facts and theories.
- (c) Show evidence of the candidate's capacity for originality, critical examination and judgment.
- (d) Be satisfactory in presentation in regard to language, style and form.
- (e) Clearly indicate the source(s) from which referred information is taken.
- (f) The thesis shall carry a declaration from the candidate's supervisor(s) to the effect that:-
 - (1) the subject matter of the thesis is a record of work done by the research scholar himself/herself under his/her/their guidance and there has been no plagiarism.
 - (2) the contents of the thesis did not form a basis for the award of any previous degree to the research scholar and to the best of his/her/their knowledge, to any other person.

19. Norms for Part-time PhD Candidates:

Part time PhD will be allowed provided all the conditions mentioned in the extant PhD Regulations are met.

20. Miscellaneous:

- a. <u>Honorarium to Examiners</u>: The examiners shall be paid an honorarium and travelling allowances, if any, as may be determined from time to time by the University for examination of a thesis and the viva-voce examination, separately. Honorarium will be paid to an examiner at the same rate for re-examination of a thesis.
- b. A research scholar admitted to the Degree of the Doctor of Philosophy (Ph.D.) shall report to the Dean (Research) for obtaining the formal degree under the seal of the University and signed by the Vice-Chancellor at the next convocation of the University. The specimen of the certificate for the Ph.D. degree is given below:

"This is to certify that Mr./Ms	has carried out his/her
Doctoral Programme of the University of Engineering & I	Management, Kolkata and
after successful completion of the work, he/she has been	admitted to the Degree of
Doctor of Philosophy at the Annual Convocation for the year	ar

Details of the Ph.D. work are as under:

i) Date of enrolment and number

- ii) Date of Registration and number
- iii) Name of the subject and the faculty in which registered
- iv) Supervisor(s)
- v) Title of the thesis

Place: Kolkata

Date: October, 2018

Vice Chancellor



'University Area', Plot No. III-B/5, Main Arterial Road, New Town, Action Area - III, Kolkata - 700160, W.B., India City Office: 'ASHRAM', GN-34/2, Salt Lake Electronics Complex, Kolkata - 700 091, W.B., INDIA (Established by Act XXV of 2014 of Govt. of West Bengal & recognised by UGC, Ministry of HRD, Govt. of India) Ph. (Office) : 91 33 2357 7649 : 91 33 2357 2969

: 91 33 6888 8608

Admissions : 91 33 2357 2059

Fax : 91 33 2357 8302 E-mail : vc@uem.edu.in . Website : www.uem.edu.in

1st AMENDMENT OF PHD REGULATIONS

RESOLUTION

In exercise of the power conferred under clause 15 sub-section (e), as stated in the Ph. D Regulations, the University hereby makes the following amendments.

A research scholar shall have, prior to pre-submission presentation,

at least two SCI and one conference paper publication,

OR

at least one SCI or ESCI with three SCOPUS Journal publications, relating to his/ her doctoral research wok prior to pre-submission presentation.

This amendment of regulation has been approved by the Academic Council (22nd June, 2020) and the Board of Governors (24th June, 2020).

PROF.DR. SAJAL DASGUPTA

VICE CHANCELLOR UEM, KOLKATA



'University Area', Plot No. III-B/5, Main Arterial Road, New Town, Action Area - III, Kolkata - 700160, W.B., India City Office: 'ASHRAM', GN-34/2, Salt Lake Electronics Complex, Kolkata - 700 091, W.B., INDIA (Established by Act XXV of 2014 of Govt. of West Bengal & recognised by UGC, Ministry of HRD, Govt. of India) Ph. (Office) : 91 33 2357 7649

: 91 33 2357 2969

: 91 33 6888 8608

Admissions: 91 33 2357 2059 Fax: 91 33 2357 8302

E-mail : vc@uem.edu.in Website : www.uem.edu.in

2ND AMENDMENT OF PHD REGULATIONS

RESOLUTION

In exercise of the power conferred under clause 15 sub-section (e), as stated in the Ph. D Regulations, the University hereby makes the following amendments.

A research scholar shall have, prior to pre-submission presentation,

at least two SCI Journal and one SCOPUS Conference/ Journal publications.

OR

at least one SCI / ESCI/ SCIE Journal with three SCOPUS Journal or two SCOPUS Journal and one SCOPUS Conference publications.

This amendment of regulation has been approved by the Academic Council (21st December, 2020) and the Board of Governors (23rd December, 2020).

PROF.DR. SAJAL DASGUPTA

VICE CHANCELLOR UEM, KOLKATA



'University Area', Plot No. III-B/5, Main Arterial Road, New Town, Action Area - III, Kolkata - 700160, W.B., India City Office: 'ASHRAM', GN-34/2, Salt Lake Electronics Complex, Kolkata - 700 091, W.B., INDIA (Established by Act XXV of 2014 of Govt. of West Bengal & recognised by UGC, Ministry of HRD, Govt. of India)

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Website : www.uem.edu.in

3rd AMENDMENT OF PHD REGULATIONS

RESOLUTION

in exercise of the power conferred under clause 15 sub-section (e), as stated in the Ph.D. Regulations, the University hereby makes the following amendments.

- i. Registered Patents will be considered as equivalent to 1 Scopus Journal Publication.
- ii. Integrated PhD Program will start from the Academic session of July 2021-22.
- iii. The number of Credit points to be earned by the candidate in the first year coursework in integrated PhD program shall be 24.

These amendments of regulation have been approved by the Academic Council (21st April, 2021) and the Board of Governors (28th April, 2021).

PROF. DR. SAJAL DASGUPTA

VICE CHANCELLOR

UEM, KOLKATA



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AMENDMENT OF PHD REGULATIONS

RESOLUTION

In exercise of the power conferred under clause 15 sub-section (e), as stated in the Ph. D Regulations, the University hereby makes the following amendments.

A research scholar shall have, prior to pre-submission presentation,

AT LEAST TWO SCI JOURNAL AND ONE SCOPUS CONFERENCE / BOOK CHAPTER PUBLICATION / ONE SCOPUS JOURNAL PUBLICATIONS

OR

AT LEAST ONE SCI / ESCI / SCIE JOURNAL ALONG WITH THREE SCOPUS JOURNAL PUBLICATIONS

OR

AT LEASE ONE SCI / ESCI / SCIE JOURNAL ALONG WITH TWO SCOPUS JOURNAL AND ONE SCOPUS CONFERENCE / BOOK CHAPTER PUBLICATIONS.

This amendment of regulation has been approved by the Academic Council (24th November, 2021) and the Board of Governors (30th November, 2021).

PROF.DR. SAJAL DASGUPTA

VICE CHANCELLOR UEM, KOLKATA

Other institutes of the Group



(Established by Act XXV of 2014 of Govt. of West Bengal & recognized by UGC, Ministry of HRD, Govt. of India) University Area, Plot No. III-B/5, Main Arterial Road, New Town, Action Area-III, Kolkata - 700 160, W.B., India Admission Office: 'ASHRAM', GN-34/2, Salt Lake Electronics Complex, Kolkata - 700 091, W.B., India

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AMENDMENT OF PHD REGULATIONS

RESOLUTION

In exercise of the power conferred under Clause 3 (Section f) as stated in the PhD Regulations the University would like to include the following amendment for Industry Professionals.

Eligibility in PhD Program for Industry Professionals

Ph.D. aspirants should normally qualify NET/SET/GATE Examination as per UGC Notification. However, Ph.D. Aspirants who have 10 years or more Industrial Experience in Senior positions and who, in the opinion of the University, have substantial contributions towards advancement of learning, are exempted from NET/GATE/SET Examinations.

This amendment of regulation is approved by the Academic Council (23.03.2022) and the Board of Governors (31.03.2022).

PROF.DR. SAJAL DASGUPTA

VICE CHANCELLOR UEM, KOLKATA