

REVISED
RULES AND REGULATIONS
(Draft for Approval)
(Effective from Jan 2012)

Doctoral Degree Programme
in Engineering/Technology

(Ph.D. Programme)



GOVERNMENT COLLEGE OF ENGINEERING
Osmanpura, Station Road, AURANGABAD - 431 005
Maharashtra State, India

**RULES AND REGULATIONS FOR THE DOCTORAL
DEGREE PROGRAMME IN ENGINEERING/ TECHNOLOGY
(Ph.D. PROGRAMME)**

Short title & Commencement	1	<ul style="list-style-type: none"> (i) These rules and regulations shall be called the rules and regulations for the Doctoral Degree Programme in Engineering/ Technology (Ph.D. Programme) of Government College of Engineering, Aurangabad-431 005, Maharashtra State. (ii) These rules and regulations shall come into force with effect from January 2012 onwards. (iii) These rules shall be applicable to all the registered research scholars. However rules 3.3 and 20.1 to 20.3 are not applicable to the research scholars registered before January, 2012.
Definitions	2	<p>Unless the context requires otherwise,</p> <ul style="list-style-type: none"> (i) “Ph.D. Programme” means an education programme imparting Doctoral Degree Programme in Engineering/Technology supported by funding agencies under Quality Improvement Programme (QIP), sponsored by funding agency under the purview of Central/State Government, industries, R&D institutions and/or on Self financed basis. (ii) “QIP” means Quality Improvement Programme leading to doctoral degree programme in supported by funding agency under the purview of Central/State Government. (iii) “Sponsored Ph.D. Programme” shall mean doctoral degree programme(s) in supported/ funded by industry and /or R&D institutes under sponsored research schemes. (iii(a)) “Institute Scholar” shall mean the candidate registering for doctoral degree programme(s) in supported/ funded by the institute under TEQIP or otherwise. (iv) “Self Financed Ph.D. Programme” shall mean doctoral degree programme(s) in conducted by the institute on self finance basis. (v) “Research Scholar or Candidate” means a person who is internal registered or external registered for study leading to Doctorate of Philosophy (Ph.D.) degree in after fulfilling the eligibility criteria. (vi) “Internal Registered Candidate” shall mean a full time research scholar/candidate or full time employee of the institute registered for doctoral degree programme for study leading to Doctorate of Philosophy (Ph.D.) degree in after fulfilling the eligibility criteria. (vii) “External Registered Candidate” shall mean a candidate other than internal registered candidate registered for doctoral degree programme for study leading to Doctorate of Philosophy (Ph.D.) degree in after fulfilling the eligibility criteria and shall remain present in the institute for at least one semester or till successful completion of credit/audit courses whichever occurs later. (viii) “Research Guide” means a qualified and competent person

recognized by the institute for guiding research scholars of the institute, who shall have full responsibility for the supervision including quarterly/half yearly reviewing the progress of the research work leading to Doctorate of Philosophy (Ph.D.) degree in Engineering /Technology of the internal registered candidate(s) and/or external registered candidate(s) and not in close relation and/or association either directly or indirectly at sub-ordinate capacity of the research scholar(s) or candidate(s).

- (ix) **“Course”** shall mean a curricular component of a Ph.D. programme identified by a title.
- (x) **“Module”** means one testable unit of research work.
- (xi) **“Duration”** shall mean the duration of the programme as specified by the authority.
- (xii) **“Institute”** shall mean Government College of Engineering, Aurangabad.
- (xiii) **“Autonomous Institute”** shall mean Government College of Engineering, Aurangabad.
- (xiv) **“Affiliating University”** means Dr. Babasaheb Ambedkar Marathwada University.
- (xv) **“Central Government”** means Union Government of India
- (xvi) **“State Government”** means Government of Maharashtra, unless otherwise specified.
- (xvii) **“UGC”** means University Grants Commission
- (xviii) **“AICTE”** means All India Council for Technical Education
- (xix) **“Foreign Institute or University”** means a renowned institute or university located out of India and imparting technical education programmes leading to Doctorate Degree Programme in of international standard.
- (xx) **“Institutes of National Importance”** means Indian Institutes of Technology or Indian Institute of Science, Bangalore, or National Institutes of Technology governed by Ministry of Human Resources Department (MHRD) of Central Government imparting technical education programmes leading to Doctoral Degree Programme in Engineering/Technology.
- (xxi) **“Institutes of State Importance”** means renowned and accredited institutes having standing not less than twenty years, imparting technical education programmes leading to Doctorate Degree Programme in Engineering/Technology under the purview of State Government.
- (xxii) **“R&D Institute”** means research & development institutes engaged in fundamental research under the purview of Council of Scientific and Industrial Research (CSIR) or Department of Science & Technology (DST) of Government of India or an R&D institute recognized by Government of India
- (xxiii) **“Scheme of Teaching and Examination”** shall mean the scheme of teaching and examination for a programme of study

as approved by the Senate
of the institute.

- (xxiv) **“DRC”** means Departmental Research Committee.
 - (xxv) **“SGPA”** shall mean the semester grade point average.
 - (xxvi) **“Credit/audit course(s)”** means course(s) to be undertaken by the research scholar or research candidate of institute before the commencement of actual regular research work leading to Ph.D. degree in Engineering/Technology.
 - (xxvii) **“Referee”** means an external person who is not employee within the jurisdiction of autonomous institute and affiliating university as well as not in close relation & association in any form with the registered research scholar or candidate shall be appointed for evaluation of research work leading to Ph.D. degree in Engineering / Technology.
 - (xxviii) **“Progress Monitoring/Review Committee”** means a group of experts along with research guide responsible for periodic control and internal evaluation pertaining to research activities of concerned research scholar or candidate.
 - (xxix) **“Sub-ordinate Capacity”** means a person who is working directly or indirectly at lower grade than that of the research scholar or candidate.
 - (xxx) **“Close Relative”** means mother, father, brother, sister, wife, son, daughter, brother in law, sister in law, father in law, mother in law, son in law, daughter in law, uncle, nephew, niece, first and second cousin of a research scholar.
 - (xxxii) **“Close Associate”** means a person who is directly or indirectly connected in any form with a research scholar or candidate while carrying out his/her research work
 - (xxxiii) **“Network Partner”** shall mean the Industry/R&D organisation /institute which has been adopted as Network Partners/collaborators by way of entering into an Memorandum of Understanding with the institute which is existing and in force for the duration of the Ph.D program leading to Ph.D. degree in .
 - (xxxiv) **“R&RC”** shall mean Research and Recognition Committee
 - (xxxv) **“Evaluation Committee”** means a group of experts along with all research guides of the concerned discipline responsible for selection of research scholar(s) or candidate(s) through presentation/interview.
- Rules and regulations 3

(1) **Scope of the rules and regulations leading to Ph.D.Programme in Engineering/Technology**

1. Doctoral degree programmes leading to Ph.D. in

- supported by AICTE under QIP
2. Sponsored research leading to Ph.D. degree supported by industry and/or R&D institutes
 3. Self financed doctoral degree programmes conducted in the institute
 4. Doctoral degree programmes leading to Ph.D. in supported by TEQIP or otherwise.
 4. To implement credit or audit course(s) for the research scholar or candidate registered for Ph.D. in the institute
 5. Recognition of a Research Guide for guiding Ph.D.
 5. Appointment of Research Guide for the research scholar or candidate registered for Ph.D. in the institute
 6. Appointment of referees for the evaluation of research work of the registered candidate of Ph.D. programme through DRC and head of the institute
 7. To support for development of curricula/ modules for research programmes
- (2) **Quality Improvement Programme** leading to Doctoral degree programme in Engineering/Technology supported by funding agency. Commonly referred to as the regular programme, funded by AICTE or any other funding agency under the purview of Central/State Government and provides opportunities for undergraduate/postgraduate teachers from AICTE approved Engineering Colleges to improve their qualification by acquiring Doctoral Degrees of from some of the reputed institutions in the country. Intake and Admission procedure shall be as per the norms of affiliating university, Government of Maharashtra and AICTE. Admitted students shall be abiding by the rules and regulation prescribed by the institute.
- (3) **“Sponsored Ph.D. Degree Programme”** A doctoral degree programmes undertaken by research scholar or candidate with receipt of support/funds from industry and /or R&D institutes under sponsored research schemes. Admission procedure shall be as per the norms of affiliating university, Government of Maharashtra and AICTE. Admitted students shall be abiding by the rules and regulation prescribed by the institute.
- (4) **Self Financed Doctoral Degree Programme”** A Ph.D. programme in Engineering/Technology, conducted by the institute on self finance basis. This programme gives an opportunity to enhance the qualification for practicing engineers/teachers of technical institutes through research work after attaining sufficient qualifications and experience. Intake and Admission procedure shall be as per the norms of affiliating university, Government of Maharashtra and AICTE. Admitted students shall be abiding by the rules and regulation prescribed by the institute.

**Regulations for the Doctoral Degree Programme in Engineering/
Technology (Ph.D. Programme) of Government College of
Engineering, Aurangabad-431 005, Maharashtra State**

Regulation No.	Description
1. General	
1.1	These regulations shall be called the regulations for the Doctoral Degree Programme in Engineering/ Technology (Ph.D. Programme) of Government College of Engineering, Aurangabad-431 005, Maharashtra State
1.2	These regulations shall come into force from admissions of 2012 onwards.
2. Doctoral Degree Programme in Engineering/ Technology (Ph.D. Programme)	
2.1	The Institute shall offer Ph.D. Programme as mentioned in rule 3.2 to 3.4
2.2	The duration of Ph.D. Programme in Engineering/Technology mentioned in rule 3.2 to 3.4 shall be governed by the norms prescribed by AICTE.
3. Semester System	
3.1	Doctoral degree programme in Engineering/Technology autonomous institute shall be based on semester system with two semesters from July-December and from January-June in a year with minimum 90 working days in each semester.
3.2	Each course shall have a certain number of credits assigned to it depending upon the academic load of the course, which would be assessed on the basis of weekly contact hours of theory lecture. There shall be no credits assigned to progress report presentation.
3.3	The admitted research scholar(s) or candidate(s) registered for Ph.D. programme shall be required to earn minimum of 8 credits. At least one course shall be related to subject area preferably from available PG structure as decided by guide which the research scholar has not undergone in PG. Else guide may design a suitable course. Other course shall be Research Methodology. The syllabus of Research Methodology shall be same for all disciplines. If the research scholar has PG from different specialization than research area then he/she shall be required to earn 12 credits through a suitable additional course as prescribed by the guide.
3.4	The courses offered in a semester shall be continuously assessed and evaluated to judge the performance of a research scholar or candidate.

4. Course Codes

- 4.1 Each course offered by the autonomous institute mentioned in rules 3.2 to 3.4, is identified on the guidelines of rules and regulations of undergraduate and post graduate programmes. Nomenclature shall be governed by respective DRC.
- 4.2 Course offered by the institute mentioned in rules 3.2 to 3.4 is identified by three letters followed by three numerical digits. The first three letters in a course code shall be capital letters identifying the responsible department offering the course. The three numerical digits give the following information. The first digit specifies the category of registration (i.e. internal/external) for Ph.D. programme. Second and Third digit specifies the year of registration.

5. Course Credits

- 5.1 Each course shall have an integer number of credits, which reflects its weightage. The number of credits of a course in a semester shall ordinarily be calculated as under-
Credit course(s): One theory lecture hour per week shall be assigned one credit.

6. Departmental Research Committee (DRC)

- 6.1 The Departmental Research Committee (DRC) shall be separately constituted for each Ph.D. programme and shall be as under:

- (a) Head of the Department-Member
- (b) Dean (R&D)-Member
- (c) Dean (Academic) - Member
- (d) All recognized research guides from the department.
- (e) Three Experts having Doctoral Degree in concerned discipline nominated by the Principal out of which one shall be from industry/R&D organization.

The first meeting of the DRC shall be called by Dean (R&D) and the members shall elect the Chairman, DRC from amongst themselves. The chairman of DRC shall be a recognized research guide of the institute. The tenure of a DRC shall be three years after which it shall be re-constituted.

6.2 Powers & Duties of DRC in context with Ph.D. programme in Engineering/Technology shall be as follows:

1. The DRC shall meet at least once in a semester.
2. The Committee shall recommend to R&RC the proposed research work/area/idea of the scholar to be carried out leading to the degree of Ph.D. in Engineering/Technology for approval based on remarks of evaluation committee appointed for selection of a research scholar.

3. The committee shall recommend the name(s) of research guide(s) along with his/her subject area(s) for appointment(s) based on received application and norms prescribed for recognized research guide to the Head of the institute in concurrence with the senate.
4. Each DRC shall maintain and ensure the list of various subjects/courses for which adequate provision for research work of the Ph.D. standard is available in the institute, together with a list of research guides in the institute whom it considers competent to supervise research in the relevant Engineering / Technology discipline.
5. The DRC shall confirm the registration of research scholar or candidate in concurrence with Head of the institute based on remarks of Evaluation Committee and further approval of R&RC and issue a letter of registration accordingly to the concerned research scholar or candidate, research guide and Co-guide (if applicable) mentioning clearly the date of registration, subject (or title) of the proposed thesis and name of the research guide/Co-guide.
6. Collection of half yearly progress report of the research scholar for continuous evaluation of research work and submission of a copy to the examination cell.
7. To recommend names of referees in consultation with guide(s) for evaluation of thesis to the examination cell with the approval of R&RC

6(A) Research & Recognition Committee (R&RC)

6(A).1 There shall be a Research and Recognition Committee for each Ph.D. Programme. The Committee shall consist of:

- (i) Head of the institute-Chairman
- (ii) Dean (R&D), Member Secretary
- (iii) Two experts in the subject, not below the rank of Associate Professor, preferably from Institutes of National importance and have published research work in recognized or reputed national or international journals, anthologies, etc. - Member(s)
- (iv) Expert from outside the University, to be nominated by the Vice-Chancellor of the affiliating University- Member
- (v) Chairman, Concerned DRC- Member

6(A).2 Powers & Duties R&RC in context with Ph.D. programme in Engineering /Technology shall be as follows:

1. R&RC shall meet at least once in every year.
2. Research and Recognition Committee for a concerned DRC shall –
 - (i) Approve the topic/areas of thesis in the subject.
 - (ii) Recommend panel of referees for thesis to the DRC

- (iii) To check the qualifications and competence of the proposed research guide(s) as per the prescribed norms based on received application(s) and recommend the name(s) of research guide(s) to the head of the institution for confirmation of recognition in concurrence with the senate.
 - (iv) Advise the DRC and/or head of the institute, on measures to improve courses of studies/research work at the doctoral level.
3. In the event of no research guide in the relevant discipline of where, senior teacher(s) with Ph.D. qualification in relevant discipline/department of is not available, R&RC may approve an outstanding professional from industry/R&D institute or recognized research guide of other engineering colleges/technical institutes as proposed by the head of the institution.
 4. R&RC shall be responsible for considering all the policy issues concerning research programmes of the Department.
 5. The committee shall confirm the registration of research scholar or candidate based on the recommendations of concerned DRC and evaluation committee for selection.

7.0 Norms for Recognition of Research Guide for Ph.D. Degree In Engineering / Technology

7.1 The norms for recognition of a teacher as research guide for Ph. D. degree in Engineering /Technology shall be as under

1. Regular full time faculty member of the institute having doctorate degree in the appropriate discipline in relevant subject area of Engineering/Technology; and
2. At least five years of experience in teaching of relevant theory/practical courses at degree level of relevant discipline of which one year shall be after obtaining Ph.D. degree; and
3. At least six research publications related to the relevant subject area(s), preferably first authored, of recognized merit. There shall be at least one publication in National/International peer reviewed journal. The other publications in reputed/recognized international/national journals and conferences shall be considered for recognition purpose;
4. Candidates having significant outreach contribution in relevant subject areas shall be preferred.

7.2 In the event of no research guide in the relevant discipline of Engineering/ Technology within the jurisdiction of autonomous institute, concern DRC may propose an outstanding professional from industry/R&D institute or recognized research guide of other engineering colleges/technical institutes in consent with the R&RC may be registered as research guide for Ph. D. degree in Engineering / Technology subject to approval from senate of the autonomous institute after fulfillment of following conditions:

1. A person having doctorate degree in the appropriate discipline and relevant subject area of ; and
2. At least five years of experience in teaching at degree level /industry /research in appropriate discipline of which one year shall be after obtaining Ph.D. degree; and
3. At least six research publications related to the relevant subject area(s), preferably first authored, of recognized merit. There shall be at least one publication in National/International peer reviewed journal. The other publications in reputed/recognized international/national journals and conferences shall be considered for recognition purpose;
4. Candidates having significant outreach contribution in relevant subject areas shall be preferred.

7.3 Age of the research guide for Ph.D. degree in Engineering / Technology shall not be less than 30 years and not more than 62 years.

7.4 **Powers and duties of Research Guide shall be as under:**

1. To monitor the functioning of overall progress of the research work carried out by the research scholar or candidate.
2. To assign/design within one year required credit course(s) for research scholar or candidate.
3. To recommend progress monitoring/review committee for half yearly evaluation of progress of research work of the research scholar or candidate.
4. Submission of panel of not less than Six referees for evaluation of final draft of Ph.D. thesis to the concerned DRC.
5. In case of minor changes in the title of the research topic, the recognized research guide shall be Authorized to revise and/or change the title of the research topic at the time of its submission on reasonable ground(s) with the approval from DRC as desired by the research scholar/guide. In case of major changes, the approval for the topic shall be taken from R&RC through chairman, DRC as desired by the research scholar/guide.

6. To carry out sponsored research programmes for candidates in collaboration with industries/R&D institutes.

7. Any other duty prescribed by the head of the institute in concurrence with concerned DRC from time to time.

8.0 Norms for Co- Guide Leading to Ph.D. Degree in Engineering / Technology

8.1 Head of the institute shall appoint a Co-guide, if available from the institute in case the research scholar or candidate intends to carry out research work under research guide appointed as per rule no. 7.2. as recommended by DRC with mutual consent of the guide and Co-guide. The Co-guide shall be a recognized research guide of the institute. Also the Head of the institute shall appoint a Co-guide, from the institute in case the research guide requires help of Co-guide because of interdisciplinary nature of work as recommended by DRC with mutual consent of the guide and Co-guide.

8.2 If the research guide appointed as per rule no. 7.1 is transferred/deputed to another establishment under the purview of Higher & Technical Education of Government of Maharashtra, under such circumstances, his/her existing registered research scholar or candidate shall be continued and no new research scholar or candidate allotted to him/her during the period of transfer/deputation. The Head of the department/DRC chairman shall co-ordinate the progress monitoring of candidates registered under such transferred/deputed guides.

9.0 Norms for the Progress Monitoring/Review Committee for Candidate's Research Work leading to Ph.D. Degree in Engineering/ Technology

9.1 The progress monitoring/review committee for candidate's research work leading to Ph.D. Degree in under rules 3.2 to 3.4 shall be consist of:

- a) Chairman of DRC or a recognized research guide as his nominee - Chairman
- b) Recognized research guide in the autonomous institute and not belonging to concerned discipline- Member
- c) At least one recognized research guide from relevant subject discipline of Engineering /Technology or an expert nominated by the DRC chairman if a recognized research guide is not available in the department- Member(s)
- d) Co-guide (if applicable) – Member
- e) Research guide of the candidate- Member secretary.

The progress monitoring and review committee shall be constituted for a research scholar after his admission and shall remain same till the submission of his/her thesis, except in cases of transfer/deputation of a member.

9(A).1 Evaluation Committee

9(A).2 There shall be a Evaluation Committee for each Ph.D. Programme for selection of candidates. The Committee shall consist of:

- (i) Head of the Institute –Chairman
- (ii) DRC chairman -Member
- (iii) All the recognized research guides of the concerned discipline, Members

10.0 Powers and Duties of Progress Monitoring/Review Committee for Candidate's Research Work leading to Ph. D Degree in Engineering/Technology

10.1 Powers and duties of progress monitoring/review committee for candidate's research work leading to Ph.D, degree in under Rules 3.2 to 3.4 shall be as under:

1. The committee shall meet at least once in every six months. The progress report presentation shall be scheduled in each semester not before one month before end of term and not later than one month after the end of term.
2. The research guide of the candidate shall remain present at all presentations during the course of research work.
3. To review and examine critically the progress of the research work of the candidate through oral presentation.
4. To make suggestions leading to better performance of the candidate's research work.
5. To report the progress of the candidate's research work to the examination cell through DRC chairman for further action.
6. To take the review and critical examination of the synopsis and final draft of the thesis through open house presentation before submission of final draft of the thesis.

10(A).1 Powers and Duties of Evaluation Committee

1. The committee shall meet for selection of candidates as and when required.
2. All the recognized research guides shall remain present for the presentations/ interviews of the candidates.
3. Every application for registration placed before Evaluation Committee, shall be assessed for suitability of the candidate who intends to register for Ph.D. programme in Engineering/Technology based on outline of proposed research work and presentations.
4. Every application together with remarks of Evaluation whether in its opinion the application should be accepted or rejected or to be accepted with specified amendments shall be communicated to the concerned candidate.
5. On being acceptance of his/her application, research guide/if applicable, *Co-guide* will be allotted to the candidate depending upon his/her area of research. Committee shall forward his/her application to concerned DRC for further approval.

11.0 Norms for Maximum Number of Registered Research Scholars or Candidates to Recognized Research Guide

- 11.1 The norms for maximum number of registered research scholars or candidates to recognized research guide appointed as per rule number 7.1 shall be as under:

1. Professor: 08
2. Associate Professor: 08
3. Assistant Professor: 08

However not more than 4 candidates shall be allotted to a guide during an admission process subject to maximum of 8.

This shall include the existing registered candidates of all universities as well as autonomous institute. No new candidate shall be allotted to the research guide unless the vacancy is created due to submission of the thesis submitted by the candidate or on the ground(s) of termination of research scholar or candidate.

- 11.2 The norms for maximum number of registered research scholars or candidates to recognized research guide appointed as per rule 7.2 shall be governed by rule 11.1.

12.0 Eligibility Rules for Ph.D. Programme in Engineering/Technology

12.1 A candidate can register for Ph.D. degree who satisfies the following conditions:

- A) Passed Bachelor's and Master's degree examination in appropriate discipline of Engineering /Technology of this institute or from affiliating university or any other universities recognized by affiliating university as equivalent thereto.
- B)
- (i) He/She must have minimum of 60% marks or equivalent at the Post Graduate examination. Candidate belonging to SC/ST category may be given relaxation of 5%.
 - (ii) In case of foreign students, the condition of 60% marks at Post Graduate shall remain mandatory if he/she has obtained PG degree from this institute or affiliating university or any other universities recognized by affiliating university as equivalent thereto in India.
 - (iii) In case of foreign students who have obtained PG degree from any university outside India, grade points equivalent to 60% shall be considered for registration.
 - (iv) The relaxation of 5% marks will be given to physically challenged/disabled candidates
 - (v) A candidate who desires to register as part time researcher should submit NOC from the employer
 - (vi) A research scholar or candidate who applies for registration on the basis of his/her research work leading to master's degree in should have at least 60 percent of aggregate marks or equivalent grade points of recognized institute/ university relevant with the subject, and shall have passed the Bachelor's degree in examination in appropriate discipline with not less than 60 percent marks or equivalent grade points.

13.0 Registration Rules for Ph.D. Programme in Engineering /Technology

13.1 A Candidate who desires to register for Ph.D. programme will have to pass Entrance Test based on prescribed syllabus conducted by the institute.

13.2 The candidates who have valid GATE score shall be exempted from the Ph.D. entrance test.

13.3 The Part-time/externally registered research scholar shall be required to be present in the institute at least for one semester or successful completion of all credit courses, whichever occurs later. However full time research scholar shall be required to be present in the institute till submission of final synopsis.

13.4 Every candidate intending to register for Ph.D. programme in Engineering/Technology shall submit the application for registration on the prescribed form to the institute stating:

1. The topic/subject of the proposed research work (or thesis);
2. An outline containing introduction to the subject, international/national importance, broad objectives, scope of the thesis and methodology/stages of research work with relevant literature review;
3. The proof of his/her relevant qualifications for the proposed research work;
4. The normal place where he/she proposes to carry out his/her research work after successful completion of credit courses. Provided that no candidate shall apply for registration as a research scholar for doctoral degree in Engineering/Technology in appropriate discipline, if he/she is already registered within the institute or any other university.

13.5 Candidates for the Ph.D. degree programme in Engineering/Technology shall be registered and their research work processed in accordance with the following provisions namely-

- i. Every application for registration shall be placed before Evaluation Committee for the suitability of the candidate who intends to register for Ph.D. programme in Engineering/Technology based on outline of proposed research work. It shall be mandatory for every candidate to present before the committee for pre-registration seminar based on topic/subject for about 20 minutes.
- ii. Every application together with remarks of Evaluation Committee based on entrance test and presentation whether in its opinion the application should be accepted or rejected or to be accepted with specified amendments shall be communicated to the concerned candidate.
- iii. On selection of candidates for research programme name of research guide/if applicable, Co- guide will be recommended to the DRC depending upon his/her area of research. Selected candidates will be allocated to a guide as per the availability of seats and as per National / State reservation policy & Institute policy.
- iv. Concerned DRC shall confirm the registration status of research scholar or candidate in concurrence with R&RC and Head of the institute based on remarks of Progress Monitoring/Review Committee and issue a letter accordingly to the concerned research scholar which shall contain clearly the date of registration, subject (title) of the proposed thesis, name of discipline, research guide and Co-guide (if applicable). All the concerned persons shall be informed accordingly.

14.0 Rules for Registered research scholar or candidate in Engineering/Technology

- 14.1 Every research scholar or candidate shall complete the prescribed credit courses successfully within one year/two attempts whichever is earlier
- 14.2 The Part-time/externally registered research scholar shall be required to be present in the institute at least for one semester or successful completion of all credit courses, whichever occurs later. However full time/regular research scholar shall be required to be present in the institute till submission of final synopsis.
- 14.3 Every research scholar or candidate shall frequently meet and discuss with the research guide about the plans and progress of his/her research work as may be; directed by research guide and/or progress monitoring/review committee.
- 14.4 Every research scholar or candidate shall submit three hard copies of mentioning the progress of research work and deliver oral presentation before the progress monitoring/review committee at least once in every six months. Candidate's research guide shall decide the date of such presentations. At each time all the hard copies of progress report shall be signed by the committee members and out of which two copies shall be submitted to concerned DRC for record as evidence.
- 14.5 Research scholar or candidate shall be allowed to submit his/her thesis leading to Ph.D. degree in Engineering/Technology only after *three years* from the date of his/her registration as mentioned in the letter issued by concerned DRC.
- 14.6 Every registered research scholar or candidate shall submit his/her thesis within a period of five years from the date of his/her registration as mentioned in the letter issued by concerned DRC. However, maximum extension up to one year may be granted to the candidate with strong justification along with the consent of Head of the institution.
- 14.7 The research scholar or candidate shall have to re-register the subject of Ph.D. thesis if he/she fails to submit the thesis after the period of five years or permitted extension, whichever occurs later, from the date of his/her registration.
- 14.8 On being approved by the progress monitoring/review committee and concerned DRC, the name of the candidate shall be registered for Ph.D.programme as research scholar or candidate of the institute. He/she shall pay to the institute such fees for tuition, supervision, laboratory work, lectures or development as prescribed from time to time.

15.0 Rules for Research Work, Preparation and Submission of Thesis Leading to Ph.D. degree in Engineering/Technology

- 15.1 Every registered research Scholar based on guidelines shall prepare pre- synopsis report for open house presentation before progress monitoring/review committee.
- 15.2 On being consideration of remarks and approval of pre-synopsis of Ph.D., the draft of the thesis based on guidelines shall be prepared. At least One publications in peer reviewed National/International Journal and One publication in peer reviewed National/International Journal /Conferences is mandatory for submission of the thesis.
- 15.3 Every registered research scholar or candidate shall submit four copies his/her thesis, which shall be printed with the aid of laser technology or higher version of printing technology.
- 15.4 Every registered research scholar or candidate shall submit four copies of synopsis of thesis, which shall be printed, with the aid of laser technology or higher version printing technology.
- 15.5 Entire text, tables, figures, sketches and mathematical expression except photographs shall be in black and white presentation only and shall be strictly adhered to the guidelines for preparation of final thesis report as specified.
- 15.6 The candidate shall include an abstract of thesis and specifically in references, the sources from which information is taken, the extent to which he/she availed him/her self of the work of others and the portions of the thesis which he/she claims as original.
- 15.7 The candidate shall submit as subsidiary matter, in support of his/her candidature with at least two contributions to the advancement of the study of the subject of his/her thesis, which he/she may have published independently, or jointly with others before final submission of the thesis.
- 15.8 Every registered research scholar or candidate shall be required to submit a signed declaration that the thesis submitted of original contribution and is not substantially the same as the one which has already been submitted by him/her or any other person to this institute or any other institute or university for award of any diploma or degree.
- 15.9 The thesis must be piece of research work characterized either by the invention of new facts or by a fresh approach towards the interpretation of facts or theories. In either case it should evidence the candidate's capacity for critical examination and sound judgment. The candidate shall communicate how far the thesis embodies the result of his/her own observations and in what respects his/her investigations advances, knowledge in the subject.
- 15.10 Every thesis shall contain approval sheet which is to be duly signed by the referees after evaluation.
- 15.11 Every thesis shall contain the acknowledgement expressing the gratitude in favour of persons and authorities by whom he/she sought help for completion of research work. The acknowledgement shall be duly signed by the candidate mentioning place and date.
- 15.12 It shall be satisfactory in point of language and presentation of subject matter.
- 15.13 The language of thesis draft leading to Ph.D. degree in Engineering/Technology shall be English.

16.0 Rules of Evaluation of Thesis Leading to Ph.D. degree in Engineering/Technology

- 16.1 As per Rule 10.1, progress monitoring/review committee shall take the review with critical examination of the total research work through open house oral presentation before submission of synopsis of the thesis. The synopsis shall be submitted to COE through Dean (R&D) within one month from the date of presentation of pre-synopsis. On incorporating modifications, corrections of typographical errors etc. as suggested by research guide or committee at earlier occasions, the candidate will be allowed to submit final draft for evaluation. The research scholar shall submit his final draft of the thesis within three months from the date of pre-synopsis presentation. If the research scholar fails to do so, once again he has to present his pre-synopsis before submission of final draft of the thesis along with admission and examination fees.
- 16.2 Progress monitoring/review committee shall prepare a panel of not less than Six referees for the research scholar based on following norms. The list of referees for a thesis shall be approved in the R&RC:
1. All the referees shall have doctorate degree qualification in relevant subject discipline of Engineering/Technology along with outstanding proven experience, publication record of high standard and outreach contributions in the relevant subject area(s).
 2. There shall be a panel of at least six referees. Out of which at least three shall be from institutes of national importance/recognized R&D organizations outside of Dr. B.A.M.University area; and
 3. Three referees shall be from institutes of national importance outside Maharashtra State.
- 16.3 On receipt of the copies of the thesis in the institute, the concerned research guide shall submit the same to the Head of the institute through Dean (R&D) for further action to examination cell of the institute. The guide shall also ensure the successful completion of prescribed credit/audit courses of the research scholar before submission of thesis.
- 16.4 The candidate's thesis and any other contribution annexured to the thesis shall be sent to two referees for evaluation as appointed by head of the institute through Dean (R&D) and controller of examination of institute's examination cell.
- 16.5 The referees shall report to the controller of examination, who shall refer it to Dean (R&D). The Dean (R&D) shall:
- i. Recommend to the DRC that the research scholar or candidate shall be required to present him/her self at specified time and place to be tested in open house oral presentation. Written and/or practical examination of research scholar or candidate may be conducted with sole discretion of referee(s), if both referees recommend acceptance of his/her thesis;
 - ii. Recommend to the DRC that it appoints a third referee if one referee recommends acceptance and the other recommends rejection. In such case the decision of third referee shall be final and binding;
 - iii. Recommend to the DRC that the thesis to be referred to third referee for evaluation; if one referee recommends acceptance and the other recommend revision. If third referee recommends rejection of thesis it shall be rejected.

If third referee recommends revision, the research scholar or candidate shall be permitted to submit his/her thesis in a revised form within one year from the date of receiving communication on this behalf. Copies of the revised thesis shall be sent to all the three referees and the decision of the majority of the referees shall be accepted. If the majority of the referees recommends revision for second time the research scholar or candidate shall re-submit the revised version of thesis within six months from the date of communication.

No research scholar or candidate shall be given more than two opportunities for revising his/her thesis; the thesis shall be considered as rejected, if the revision of thesis is recommended for more than two times by the referees.

- iv. Recommend to the DRC that the thesis of the candidate be rejected if both referees do not recommends its acceptance;
- v. Recommend to the DRC that the candidate be permitted to revise and resubmit the thesis with in one year from the date of decision of the examination cell, if both the referees recommend revision of the thesis. The revised thesis shall be sent to the same referees. If, on revision of the thesis one of the referees recommends acceptance and the other recommends rejection of the thesis, then the thesis shall be sent to third referee whose decision on the thesis shall be final. If third examiner also recommends revision, the research scholar or candidate shall not be given any further opportunity for revision and his/her thesis shall be rejected.

16.6 All the referees shall sign the evaluation sheet enclosed in the thesis, mentioning that the thesis is approved for award of Ph.D. degree in case research scholar or candidate declared successful after evaluation.

16.6(a) Once the reports of the referees have been accepted as satisfactory, the candidate will have to defend his thesis before a viva voce board consisting of at least three DRC members including the guide(s), and one of the referees as an external examiner. The copies of reports of the referees are to be shown to the candidate through the DRC without disclosing the names of the referees.

If the viva voce board is not satisfied, the candidate has to appear again before the board within the next three months. If the viva voce is satisfactory and all other requirements have been fulfilled, the viva voce board shall recommend to the senate the award of the Ph.D. degree through DRC.

16.7 In the event of thesis approved by the referees and declared successful after evaluation, research scholar or candidate shall submit hard bound copies of thesis along with comments of the referees and written discussion, question and answers with referees shall incorporated as annexure to the thesis.

16.8 Research scholar or candidate shall submit two hard bound copies of thesis to the institute out of which one copy shall be kept as central library for reference. One additional hard bound copy submitted to the concerned research guide.

17.0 Award of Doctorate of Philosophy degree in Engineering/Technology

- 17.1 The examination cell shall ensure the successful completion of prescribed credit/audit courses of the research scholar or candidate and shall take suitable action on the recommendations of the DRC in pursuance of rule no. 16.5 above.
- 17.2 In the event of research scholar or candidate eligible for award of Doctorate of Philosophy degree in Engineering/Technology, it shall publish the notification stating name of the candidate, name of the research guide, name of the discipline, the subject (title) of his/her thesis, and the titles of his/her published contributions submitted to the institute.
- 17.3 Examination cell shall submit the list of eligible candidates for award of Doctorate of Philosophy degree in Engineering/Technology to the affiliating university of the institute for its final approval.
- 17.4 Doctorate of Philosophy degree in Engineering/Technology shall be awarded to all eligible research scholars or candidates in the ceremony of annual convocation.

18.0 Rules for Payment of Fees

- 18.1 Every research scholar or candidate registered for Ph.D. programme shall pay the fees as prescribed from time to time. Presently these fees are Rs. 24,000/- per year. The fees are likely to be revised and the candidates shall pay the revised fees as and when implemented.

Full fees will be charged up to submission of synopsis.

19.0 Rules for Honorarium for evaluation of Ph. D. in Engineering/Technology

These rules shall be as per rules of controller of examination, GECA.

20.0 Termination of Registration of Research Scholar or Candidate

- 20.1 With out any prejudice, if a research scholar or candidate fails to complete the prescribed credit course(s) within one year/two attempts whichever is earlier from the date of registration, the registration of a research scholar or candidate shall be liable for termination.
- 20.2 With out any prejudice, if the progress of the research work is not satisfactory for successive three presentations, on the recommendations of research guide and/or progress monitoring/review committee; the registration of a research scholar or candidate shall be liable for termination.
- 20.3 If research scholar does not appear before the progress monitoring/review committee successively for three times for oral presentation

- 20.4 With out any prejudice, the registration of a candidate may be terminated on disciplinary grounds, in accordance with the standing orders for the candidates.
- 20.5 The enrolment of a student may be terminated and/or dismissed from the programme on the ground of non payment of prescribed fees and/or registration charges

21. Attendance, Absence, Leave Rules and Dismissals

- 21.1 All the research scholars or candidates are expected to be present for every lecture, seminars, and/or practical or drawing classes as prescribed for them. Attendance during credit/audit courses should be 100 percent, which will be closely monitored during a semester as per the guidelines.
- 21.2 Relaxation of maximum 20 percent in attendance is permissible to the students on account of medical problems, family problems or any other reason.
- 21.3 If a student is failed or absent in End Semester Examination (ESE) of a course, he/she may appear for re-examination of ESE. Such re-examination of ESE shall be held normally within one month of the last day of ESE. All the credit courses shall be passed by the research scholar or candidate within one year/two attempts whichever is earlier. Respective research guide(s) shall govern the dates and implementation of re-examination for Ph.D. scholars or candidates.
- 21.4 Every research scholar or candidate shall frequently meet and discuss with the research guide about the plans and progress of his/her research work as may be; directed by research guide and/or progress monitoring/review committee.
- 21.5 All the research scholars or candidates shall take care of remittance of prescribed fees and registration retention charges before the due date. They shall maintain all the receipts of payments during the programme.
- 21.6 No research scholar(s) or candidate(s) shall be allowed to attend the courses/programme or to appear for examination in the event of non-payment of prescribed fees and registration charges.

22. Provision for Appointment of Recognized Research Guide under Extra Ordinary Circumstances

- 22.1 The Head of the institute shall make a provision for appointment of recognized research guide substitute to the regular research guide under any of following circumstances:
- i. Recognized research guide left the present service of State Government and unable to monitor the progress of the research scholar or candidate;
 - ii. When both the guide and the candidate desire for a substitute guide.
 - iii. Uncontrolled physical invalid condition;
 - iv. Death;
 - v. Insane condition declared by the health authorities;
 - vi. Terminated from the services.
- Provided that, the appointment norms of recognized research guide in substitution shall be governed by rule no. 7.1 or 7.2 as mentioned in this document.

23.0 Code of Conduct for Research Guide

23.1 Every recognized research guide shall be abide by the code of conduct as stated below:

- i. Research guide shall see that the work leading to Ph.D. is original and not duplicated.
- ii. No copyright/IPR shall be violated
- iii. To carry out research work of the candidate in a systematic and scientific manner.
- iv. Timely implementation and evaluation of credit/audit courses of the candidate.
- v. He/she shall follow the procedure based on time management for monitoring the progress and review of the research work of the candidate.

24.0 Termination of Personnel from the Status of Recognized Research Guide

24.1 Without any prejudice, status of Research guide shall liable for termination on Breach of code of conduct as mentioned in rule 23.0

25.0 Interpretation of Regulations

25.1 In case of any dispute, difference of opinion in interpretation of these regulations or any other matter not covered in these regulations, the decision of the senate shall be final and binding.

26.0 Discretionary Powers

26.1 Notwithstanding anything contained in the above regulations or in any extraordinary situations as the Chairman Senate think necessary, may take action on behalf of the Senate as he/she feels appropriate and report it to the next meeting of the Senate.

**APPENDIX - A STRUCTURE OF GRADING OF ACADEMIC PERFORMANCE
OF CREDIT COURSES OF Ph.D. IN ENGINEERING /TECHNOLOGY**

Grade	Grade points	Range of Marks
A ⁺⁺	10	91-100
A ⁺	9	81-90
A	8	71-80
B ⁺⁺	7	61-70
B ⁺	6	56-60
B	5.5	51-55
C ⁺⁺	5	50
D	0	Below 50

ANNEXURE I
(See Rule 7, 8,23 and 24)

**Format for Application Form for Recognition of the Research Guide Leading to
Doctoral Degree Programme in Engineering/Technology (Ph.D. Programme)**

Discipline: _____ **Subject:** _____

Recent
passport size
Photograph of
the candidate
duly attested
by gazetted
officer

14. Full name of the Teacher:
(in block letters)

15. Designation:

16. Date of appointment in the Institute:

**17. Date of the first appointment
in Government Engineering College:**

18. Father's name:

19. Date of birth:

20. Age at the time of application: Years Month

21. Permanent address:

22. Address for correspondence:
(Please mention E-mail address and contact numbers)

23. Educational qualifications:

(Enclose attested copies of relevant marks memo and certificates)

S.N.	Name of the examination (Starting from graduation)	Institute/University	Year of Passing	Percentage of marks /CGPA	Division

24. Experience:

(Enclose attested copies of relevant certificates)

S.N.	Name of the organization	Designation	From	To	Reason for leaving

25. Research Publications (other than the publication from doctoral thesis)

Please enclose photocopies of papers duly certified by the applicant

26. Significant outreach contribution (s)

Please enclose photocopies of contribution(s) duly certified by the applicant

27. High level languages of computer programming known:

28. Declaration by the Applicant:

I, hereby declare that, the information given in the application form is correct to the best of my knowledge and belief. I shall also abide the by rules and regulations of Ph.D. programme as well as **code of conduct** for recognized research guide. At any stage of prosecution of my research guidance work, if the information is found incorrect, I am aware that my Status of Recognized Research Guide shall be liable for termination.

Date:

Place:

Signature of Applicant

29. Remarks of the Forwarding Authority

Forwarded an application form of Dr. _____
for the registration of Doctoral Degree Programme in Engineering / Technology (Ph.D. Programme) conducted by Government College of Engineering, Aurangabad.

Date:

Place:

Signature of the Head of the Department/ Institute
with seal

(For Office Use Only)

17. Remarks of Departmental Research Committee:

Signatures of officials

18. Remarks of Research & Recognition Committee:

Signatures of officials

19. Recognition from the Head of the Institute

Application of Dr. _____

is **Approved/Not approved*** for Recognition of the Research Guide leading to
Doctoral Degree Programme in (Ph.D. Programme)

in _____ Department.

(* Strike out whichever is not applicable)

Date:

Signature of Head of the Institute with seal

Place:

[To be submitted in Three Copies]
**Evaluation Form for Doctoral Degree Programme in
Engineering/Technology
(Ph.D. Programme)**
[See Ph.D. Rules & Regulations]

Discipline: _____ **Subject (Area of Research):** _____

Type of Registration: Internal / External
(Strike out whichever is not applicable)

30. Full name of the candidate:
(in block letters)

[For Office Use Only]

(To be filled in after the comprehensive pre-registration seminar is delivered by the candidate)

Endorsement by the Evaluation Committee:

A) The performance of Mr. / Ms. _____ in the comprehensive pre-registration seminar was not satisfactory and hence registration for Ph.D. Programme in Engineering/Technology can not be granted

B) Mr./Ms. _____ has satisfactorily delivered the comprehensive pre-registration seminar on the topic: _____

_____ on _____ date and is recommended for Ph.D. Programme in Engineering/Technology in the discipline of _____ under the recognized research guide Dr. _____ and Co guide Dr. _____ (if applicable).

This evaluation is carried out by the following undersigned committee

Chairman Member Member Member Member

Remarks of Recognized Research Guide(s): *[To be filled in case of above para (B)]*

I / We give my / our consent to supervise the research work of Mr / Ms _____ for his / her Ph.D. degree. Proposed Credit Course(s) and Audit Course(s) are:

(i) _____ (ii) _____ (iii) _____

Signature of Supervisor(s)

1.

(Name & Designation)

2.

(Name & Designation)

Copy to:

- (1) The Principal
- (2) The Registrar (Academic)
- (3) The Concerned Head of the Department/Chairman (DRC)