REGULATIONS RELATING TO Ph.D. PROGRAMME

1. **GENERAL**
1.1 The Institute provides facilities for research leading to the Degree of Doctor of Philosophy (Ph.D.).
1.2 The award of the Ph.D. degree is made on the basis of satisfactory performance of a registered candidate in
  (i) prescribed course work & seminar and

  (ii) the thesis submitted by the candidate and a final viva voce. The thesis shall be the report of research work characterized by either discovery of new facts or a new interpretation of known facts and theory, or an independent design and development, or development of new instrument/technology.

  (a) Minimum qualification required for admission to the Ph.D. program is a degree in any one of the areas given below

1.3
(a)

B.Tech. (Bachelor of Technology	M.Sc. (Master of Science)
MBA (after BA/B.Sc/B.Com)	MA (Master of Arts)
B.Arch. (Bachelor of Architecture)	B.Sc (Engg.)

PG Diploma in Management of 2-year duration (after BA/B.Sc/B.Com)
MBBS degree with compulsory one year internship completed
OR
A degree equivalent to any of the above

(b)

M. Tech (Master of Technology)	M. S.
M. C. P. (Master of City planning)	M. E.
M. R. P. (Master of Regional Planning)	M. Sc. (Engg.,)
M. Arch. (Master of Architecture)	M. Phil.
M.B.A. (after B. Tech./M.Sc./M.A./M.Com.)	2 year M.B.M.

2 years of LLM programme after <u>EITHER</u> at least 5 years of integrated LLB degree after 10+2 examination <u>OR</u> 3 years LLB degree after 10+2+3 examination
OR
A degree equivalent to any of the above

All candidates seeking admission to the Ph. D. program shall have to possess requisite marks/grades in qualifying examination as shown below:

(i) 60% marks (or a CGPA of 6.5 in 10 point scale) in the qualifying examination in Engineering/Science/Commerce/ Management or

(ii) 55% in Humanities or Social Sciences (or a CGPA of 6.0 in 10 point scale).

(c) Candidates for award of Institute Research Assistantship will have to possess a valid GATE score that is above the cut off level. Candidates who have merely qualified in NET examination but have not got a fellowship will not qualify for Institute Research Assistantship.

Candidates with M.Tech or equivalent qualifying degree [as laid down in 1.3(b)] will also be given Institute Research Assistantship.

(d) IIT B.Tech.'s with CGPA >= 8.00 be given direct admission in Ph.D programme with assistantship.

1.4 Normally, a candidate has to devote at least three years for study and research. The period will be counted from the date of his enrolment. However, for a candidate who meets the criteria as laid down in 1.3(b) above the period shall be a minimum of two years.

CATEGORY : REGULAR WITH INSTITUTE ASSISTANTSHIP

Minimum qualification required for admission to the Ph.D. program is a degree in any one of the areas given below:

a) M.Tech (Master of Technology)
b) MS
c) MCP (Master of City planning)
d) ME (Master of Engineering)
e) MRP (Master of Regional Planning)
f) M. Sc. (Engg.,)
g) M. Arch. (Master of Architecture)
h) M. Phil.
i) MBA (after B.Tech/M.Sc/MA/M.Com)
j) 2 year MBM
k) 2 years of LLM programme after <u>EITHER</u> at least 5 years of integrated LLB degree after 10+2 examination <u>OR</u> 3 years LLB degree after 10+2+3 examination
l) An equivalent of the aforesaid degree

OR

a) B.Tech. (Bachelor of Technology
b) M.Sc. (Master of Science)
c) MBA (after BA/B.Sc/B.Com)
d) MA (Master of Arts)
e) PG Diploma in Management of 2-year duration (after BA/B.Sc/B.Com)
f) B.Sc (Engg.)
g) MBBS degree with compulsory one year internship completed
h) B.Arch. (Bachelor of Architecture)
i) A degree equivalent to any of the above

WITH either valid GATE Score that is above the cut off level as decided by the Senate from time to time OR NET fellowship.

All candidates seeking admission to the Ph.D. program shall have to possess requisite marks/grades in qualifying examination as shown below:

1) 60% marks (or a CGPA of 6.5 in 10 point scale) in the qualifying examination in Engineering/Science/Commerce/Management/Law OR

2) 55% in Humanities or Social Sciences (or a CGPA of 6.0 in 10 point scale)

NOTE :

1) A person who is in employment and is applying for Institute Assistantship and selected for admission, he/she must resign and produce the acceptance of resignation by the employer at the time of joining.
2) The value of the Institute Research Assistantship shall be as per MHRD norms.
3) No Research Student shall be permitted to receive any emoluments, salary, stipend or any other scholarship/assistantship during the tenure of award.

CATEGORY : INDIVIDUAL FELLOWSHIP (CSIR/UGC/DBT/ICAR/INSPIRE etc.)

Minimum qualification required for admission to the Ph.D. program is a degree in any one of the areas given below:

a) M.Tech (Master of Technology)
b) MS
c) MCP (Master of City planning)
d) ME (Master of Engineering)
e) MRP (Master of Regional Planning)
f) M. Sc. (Engg.,)
g) M. Arch. (Master of Architecture)
h) M. Phil.
i) MBA (after B.Tech/M.Sc/MA/M.Com)
j) 2 year MBM
k) 2 years of LLM programme after <u>EITHER</u> at least 5 years of integrated LLB degree after 10+2 examination <u>OR</u> 3 years LLB degree after 10+2+3 examination
l) An equivalent of the aforesaid degree

OR

a) B.Tech. (Bachelor of Technology
b) M.Sc. (Master of Science)
c) MBA (after BA/B.Sc/B.Com)
d) MA (Master of Arts)
e) PG Diploma in Management of 2-year duration (after BA/B.Sc/B.Com)
f) B.Sc (Engg.)
g) MBBS degree with compulsory one year internship completed
h) B.Arch. (Bachelor of Architecture)
i) A degree equivalent to any of the above

All candidates applying for Individual Fellowship category must have valid award letter with fellowship issued by the respective fellowship agency (i.e. CSIR/UGC/ DST/DBT/ICMR etc.).

Candidates applying for Ph.D. program under Individual Fellowship category shall have to possess requisite marks/grades in qualifying examination as shown below:

1) 60% marks (or a CGPA of 6.5 in 10 point scale) in the qualifying examination in Engineering/Science/Commerce/Management/Law OR

2) 55% in Humanities or Social Sciences (or a CGPA of 6.0 in 10 point scale)

NOTE :

1) Candidates admitted under Individual Fellowship category shall not be entitled to award of Institute Assistantship.

CATEGORY : SPONSORED

Minimum qualification required for admission to the Ph.D. program is a degree in any one of the areas given below:

a) M.Tech (Master of Technology)
b) MS
c) MCP (Master of City planning)
d) ME (Master of Engineering)
e) MRP (Master of Regional Planning)
f) M. Sc. (Engg.,)
g) M. Arch. (Master of Architecture)
h) M. Phil.
i) MBA (after B.Tech/M.Sc/MA/M.Com)
j) 2 year MBM
k) 2 years of LLM programme after <u>EITHER</u> at least 5 years of integrated LLB degree after 10+2 examination <u>OR</u> 3 years LLB degree after 10+2+3 examination
l) An equivalent of the aforesaid degree

OR

a) B.Tech. (Bachelor of Technology
b) M.Sc. (Master of Science)
c) MBA (after BA/B.Sc/B.Com)
d) MA (Master of Arts)
e) PG Diploma in Management of 2-year duration (after BA/B.Sc/B.Com)
f) B.Sc (Engg.)
g) MBBS degree with compulsory one year internship completed
h) B.Arch. (Bachelor of Architecture)
i) A degree equivalent to any of the above

Candidates applying for Ph.D. program under Sponsored category shall have to possess requisite marks/grades in qualifying examination and job experience as shown below:

1) 60% marks (or a CGPA of 6.5 in 10 point scale) in the qualifying examination in Engineering/Science/Commerce/Management/Law **OR**

2) 55% in Humanities or Social Sciences (or a CGPA of 6.0 in 10 point scale)

3) Minimum of two-year job experience in an organization of repute.

Persons who possess the minimum prescribed qualifications and are in service in any of the following establishments shall be eligible for admission to the Ph.D. program as sponsored candidates:

I. defence or other ministries of the Government of India or any other government organizations;
II. established industrial research and dev elopement organizations;
III. autonomous bodies and public undertakings;
IV. universities/colleges;
V. reputed industries as may be recognized by the Institute.

NOTE :
1) An intending sponsored candidate must submit his/her application in prescribed form for admission through his/her employer, who will forward the same to the Institute with suitable endorsement.
2) A sponsored candidate selected for admission shall be required, at the time of joining the Institute, to produce certificate in the prescribed form from the employers to the effect : (i) that he/she has been officially released from his duties for purpose of joining the program and has been granted leave for the required period; (ii) that his services shall be retained with the employer.
3) In the case of a sponsored candidate admitted as such to the Ph.D. program, the minimum residential requirement is one year.
4) A candidate sponsored by an industry, an R&D organization, educational institution or a Government organization having adequate research facilities may be allowed to work externally subject to his/her fulfilling all such conditions prescribed in the Regulations.

CATEGORY : PH.D. THROUGH PROJECT

Minimum qualification required for admission to the Ph.D. program is a degree in any one of the areas given below:

a) M.Tech (Master of Technology)
b) MS
c) MCP (Master of City planning)
d) ME (Master of Engineering)
e) MRP (Master of Regional Planning)
f) M. Sc. (Engg.,)
g) M. Arch. (Master of Architecture)
h) M. Phil.
i) MBA (after B.Tech/M.Sc/MA/M.Com)
j) 2-year MBM
k) 2 years of LLM programme after <u>EITHER</u> at least 5 years of integrated LLB degree after 10+2 examination <u>OR</u> 3 years LLB degree after 10+2+3 examination
l) An equivalent of the aforesaid degree

OR

a) B.Tech. (Bachelor of Technology
b) M.Sc. (Master of Science)
c) MBA (after BA/B.Sc/B.Com)
d) MA (Master of Arts)
e) PG Diploma in Management of 2-year duration (after BA/B.Sc/B.Com)
f) B.Sc (Engg.)
g) MBBS degree with compulsory one year internship completed
h) B.Arch. (Bachelor of Architecture)
i) A degree equivalent to any of the above

Candidates applying for Ph.D. program under Project category shall have to possess requisite marks/grades in qualifying examination as shown below:

1) 60% marks (or a CGPA of 6.5 in 10 point scale) in the qualifying examination in Engineering/Science/Commerce/Management/Law **OR**

2) 55% in Humanities or Social Sciences (or a CGPA of 6.0 in 10 point scale)

Persons who possess the minimum prescribed qualifications and are working in a sponsored project of the Institute (i.e. under auspices of SRIC of the Institute) shall be eligible for admission to the Ph.D. program under project category.

NOTE :

1) An intending candidate must submit his/her application in prescribed form for admission through Principal Investigator, Head of the Department/Centre/School and Dean (SRIC) with suitable endorsement.
2) The minimum remaining period of the project as well as tenure of the project employee should be at least 2 years from the date of joining the Ph.D. program.

2. ADMISSION

2.1 The admission of a candidate to the Ph.D. program is recommended by the Departmental Academic Committee (Post-Graduate and Research), abbreviated as DAC (PG&R), of the Department/Centre concerned.

2.2 Candidates who possess qualification as laid down in 1.3a or 1.3b above are eligible for admission to the Ph.D. program on the basis of –
(a) Overall academic career AND
    (b) Test and Interview conducted by the Department/Centre with the weightage. A candidate who has obtained research scholarship on the basis of NET fellowship examination will be evaluated on the basis of (a) and (b) above only.

2.3
2.3.1 Foreign nationals possessing the requisite qualifications and sponsored by the Govt. of India (ICCR, HRD etc.) with Scholarship are admitted on the basis of grades or marks obtained in the qualifying examination. A minimum of 60% marks or a CGPA of 6.5 (out of 10) at the qualifying examination is required in such cases.

3. ENROLMENT

3.1(a) A candidate is required to enrol for the Ph.D. program within 1 month of joining on payment of prescribed fees and to carry out research work under a supervisor from amongst the faculty of the Institute.
(b) A Research Scholar, including a Faculty member enrolled for Ph.D programme, must have a Supervisor, though he/she may be from exceptionally good academic background having research exposure.
(c) When a research scholar is permitted by the RPEC on the recommendation of the D.S.C. to carry out a substantial part of the research work in an industry or in an organization with adequate R & D facilities, appointment of a joint supervisor from the industry/organization may be allowed provided that such permission shall not violate the condition for continuity of research scholarship of an Institute Research Scholar. The qualification of the joint supervisor from the industry/organization shall have to be approved by RPEC.

3.3 In the case of sponsored candidates from organizations having R&D facilities the residential requirement may be, subject to other conditions, reduced to one semester to be completed at a stretch preferably immediately after joining.

3.4 ENROLMENT AND RECOMMENDED COURSEWORK

A newly admitted research student has to enroll for the Ph.D. programme within one month of joining.
For enrolment, the student makes an application stating the broad area of research and providing his/her academic background. The Doctoral Scrutiny Committee considers the application and recommends a set of coursework for the student. The recommended coursework normally complements the student's academic strengths with the core and the advanced methodological skills needed for the research work.

The recommended coursework is as under:
a)   English for Technical Writing (Compulsory)
b)   One from the list of Interdisciplinary Subjects
c)   A list of subjects at the post-graduate (Masters and Ph.D.) level with a total credit loading as under :

i. For a student admitted on the basis of M.Tech. or equivalent degree, the lower and the upper limits (including the interdisciplinary subject) are
Lower Limit: 10 Upper Limit: 20

ii. For students admitted on the basis of M.Tech. or equivalent degree in who had done their qualifying degree 8 years before the admission, the lower and the upper limits (including the interdisciplinary subject) are

Lower Limit: 20 Upper Limit: 40

iii. For a student admitted on the basis of B.Tech. or equivalent degree in, the lower and the upper limits (including the interdisciplinary subject) are

Lower Limit: 20 Upper Limit: 40

iv. For a student admitted on the basis of B.Tech. or equivalent degree who had done their qualifying degree 8 years before the admission, the lower and the upper limits (including the interdisciplinary subject are

Lower Limit: 40

Enrolment of a student for the Ph.D. programme is complete after the Senate approves the enrolment based on recommendations of the RAC and the RPEC.

The fellowship for an Institute research student is released after a student is enrolled for Ph.D.

ADMISSION REQUIREMENTS FOR Ph.D. PROGRAM
(Vide para 2.2 and 2.3 of the Regulations)
1. Candidates possessing qualification as given in para-1.3a or 1.3b are to be selected for admission to the program on the basis the following weightage:
(a) Overall academic performance : 40 per cent

(b) Written/Computer Test : 40 per cent, and

(b) Interview conducted by the Department/Centre/School : 20 per cent

ADMISSION OF SPONSORED CANDIDATES TO Ph.D. PROGRAM

(Vide para 2.3 of the Regulations) The Institute may admit persons who are in gainful employment as 'Sponsored Scholars' to the research program subject to the following conditions:

1.1 Persons who possess the minimum prescribed qualifications and are in service in any of the following establishments shall be eligible for admission to the Ph.D. program as sponsored scholars:

(a) defence or other ministries of the Government of India or any other government organizations;

(b) established industrial research and development organizations;

(c) autonomous bodies and public undertakings;

(d) universities/colleges;

(e) such industries as may be recognized by the Institute for the purpose from time to time.

1.2 Besides the sponsored candidates from the above organizations, qualified teachers from recognized Engineering Colleges selected under the Quality Improvement Program (QIP) of the Govt. of India and of Science Colleges who are awarded Teacher Fellowship of the University Grants Commission shall be eligible for admission to the program.

1 An intending sponsored candidate must submit his application in prescribed form for admission through his employer, who will forward the same to the Institute with suitable endorsement so as to reach the Institute by the date stipulated in the notification for the semester.

2 At the time of joining the Institute a sponsored scholar selected for admission shall be required:

(a) to submit evidence of having passed the qualifying examination and such other documents as the Institute may require,

(b) to produce certificate from the employers to the effect

(i) that he has been officially released from his duties for purpose of joining the program and has been granted the leave for the required period,

(ii) that his services shall be retained with the employers.

(c) A candidate in service shall produce a release certificate from his/her employer at the time of admission.

5. Subsequent to his joining the Institute as a sponsored research scholar and during his tenure here, if the sponsoring authority puts him on leave without pay or half pay, he/she will be treated as self-supporting candidate and he/she will not be eligible for any scholarship.

6.(a) In the case of a sponsored candidate admitted as such to the Ph.D. program, the minimum residential requirement is one year. However, it may be reduced to one semester to be completed at a stretch, preferably immediately after joining, if the Organization he is employed in has R&D facilities, and subject to conditions laid down in para 3.4 of the Regulations as well as the following sub-paras (b), (c) & (d).

(b) A candidate sponsored by an industry, an R&D Organization, educational institution or a Government Organization having adequate research facilities may be allowed to work externally subject to his fulfilling all such conditions prescribed by these Regulations as are applicable. Permission to carry out the research work partially or entirely at the Organization shall be granted only if the D.S.C. is satisfied about availability of research facilities there and fulfillment of all requirements.

(c) Such permission is to be obtained in advance.

(d) In such a case a joint supervisor from the sponsoring Organization with adequate research experience may be appointed with the approval of DSC. When a sponsored candidate has been granted permission under these provisions to work externally at the parent Organization he will be required to maintain frequent contact with the supervisor in the Institute.

7. No candidate shall normally be allowed to change the category under which he/she is enrolled.

TERMS AND CONDITIONS FOR AWARD OF INSTITUTE RESEARCH ASSISTANTSHIP
(Vide para 2.6 of the Regulation)

1.1 All Research Scholars admitted to the research program, except the sponsored scholars and members of staff of the Institute, shall be entitled to award of Institute research assistantship subject to the terms and conditions laid down below. All Institute Research Scholars will have to possess a GATE score that is above the cut off level as decided by the senate from time to time. On the question of cut-off point of GATE percentile in the matter of award of Institute Research Fellowship, particularly when M.Tech. courses may not have been offered by a Department/Centre in a particular year, and in the cases of Science Departments where M.Tech. Course is offered in one discipline only, the minimum GATE score shall be as per Senate guidelines.

Candidates with GATE score lower than the minimum cut-off point may be considered by the Dean (PGS) for award of Institute research fellowship on the basis of recommendation of Department/Centre on the merit of each case.

1.2 A person who is employed in the Institute temporarily under a project or scheme or who enjoys an outside Scholarship other than QIP/TF, and who has been registered for the Ph.D. degree may be granted, on the recommendation of the D.S.C. and D.A.C.(PG&R) Institute Research assistantship subject to conditions of the rules. However, the total period of the scheme service enjoyed and the Institute assistantship together should not exceed 4 years.

Transfer from CSIR/UGC etc., individual fellowships and from research projects to Institute Scholarship will be guided by the following:

(i) One must have completed at least 2 years in a research project/scheme.
(ii) Individual research scholars from external funding agencies like CSIR/UGC/ICAR etc., must have completed 3 years as Individual fellows.

(iii) The candidates will present their work done so far for his/her Ph.D. at an open Seminar with the DSC and DAC (PG&R) present and the DAC (PG&R) will satisfy itself that the case is deserving.

(iv) The candidate must be GATE/NET fellowship qualified.

(v) Such a case can be considered only if the fellow has been registered for the Ph.D.

(vi) All other rules applicable for selection of regular Institute scholars would apply.

2. Value of Assistantship: The value of the Institute Research Assistantship shall be as per MHRD norms.

2.1 The value of Research Scholarship of a registered candidate may be recommended for enhancement by the DSC after completion of one/two years of continuous research work based on existing guidelines and on the basis of a written report and a seminar lecture given to an open audience with members of DAC (PG&R) present.

2.2 In the event of the DSC being not satisfied with the progress of a Scholar during the preceding two years it may recommend suspension of enhancement in the value of the assistantship for such period, as it deems appropriate. The Committee will reassess the candidate's work after the period so fixed and if the enhancement is recommended, indicate the date from which the enhanced value will be effective.

3. **Tenure**

3.1 The assistantship shall be payable from the date the scholar joins the Institute. At the initial stage the order for payment of assistantship shall, however, be issued when the scholar is enrolled formally.

3.2 The assistantship for the last month shall be payable subject to foregoing conditions up to the actual date of the scholar's leaving the Institute. The disbursement of last monthly instalment of assistantship shall be made, on production of a 'No Dues' certificate from the Hall of Residence, the Library and the Department/Centre.

3.3 Notwithstanding anything contained in the foregoing sub-paragraphs, continuation of assistantship from month to month is subject to candidate's good conduct and continuous progress of research work to the satisfaction of the Supervisor(s), the Head of the Department/Centre and other authorities.