MANUAL

PROCEDURES AND REQUIREMENTS

for

PhD PROGRAMME

INDIAN INSTITUTE OF PETROLEUM AND ENERGY

VISAKHAPATNAM

CONTENT

GENERAL INTRODUCTION

Indian Institute of Petroleum and Energy (IIPE), Visakhapatnam, a domain-specific Institute at par with IITs and IIMs, is established by the Government of India under the aegis of the Ministry of Petroleum and Natural Gas (MoPNG) in the year 2016. The Indian Institute of Petroleum and Energy Act, 2017 (No.3 of 2018) enacted by the Parliament and declared the Institute as an 'Institution of National Importance'.

IIPE is a research focused Institute with an emphasis on the emerging areas in the energy sectors, namely Shale Gas, Coal Bed Methane, Gas Hydrates, Conventional Energy Sources, Renewable Energy Sources, Storage, upstream and downstream activities of oil & gas. The academic and research activities of IIPE derive strength from Institute's proximity to sector related activities such as projects at the KG Basin, Vishakha Refinery, and the planned Petrochemical Complex at Kakinada. The Institute also enjoys a strong relationship with the industry regarding teaching, research, and students' training & placement. A primary goal of research at IIPE has been to meet the country's fossil fuel and renewable energy demands. However, given its position as an energy institute, IIPE also has a great responsibility to contribute toward achieving the United Nations Sustainable Development Goals, i.e., ensuring access to affordable, reliable, and sustainable modern-day energy for all. The Institute has also embarked on an ambitious path to be the country's energy hub.

The Institute also aims to produce skilled manpower to meet the quantitative and qualitative gap in Petroleum & Energy sectors and to boost the research activities needed for growth of these sectors by nurturing and promoting the quality and excellence in education and research in various areas of petroleum and energy through the programs leading to the award of the Bachelors, Masters and Doctoral degrees.

The Institute has academic alliances with many IITs and specific domain international Institutions such as Texas A&M University and Petroleum Research School of Norway in the areas of research & consultancy, faculty exchange programs, student exchange programs, summer internships, and joint research programs. The Institute has established alliances with industries for research and consultancy, program development, guest lectures, internships, and placements.

The Institute provides facilities for research leading to the Degree of Doctor of Philosophy (Ph.D). This booklet is the Ph.D. programme manual comprising of an overview of Academic Affairs and the guidelines/regulations that the Institute follows for this programme. However, in addition to these general guidelines, different Departments may impose specific requirements, approved by the Senate, from time to time, in order to achieve their goals.

ADMINISTRATIVE BODIES

Senate

The Senate is the principal academic body of the Institute and shall have control over the general academic regulations. The Senate is responsible for the maintenance of standards of education, teaching and training, inter-departmental co-ordination, and for considering and recommending the results of examinations and award of degrees to the Board of Governors (BoG) of the Institute for its approval. The Senate shall exercise such powers and perform other duties as may be conferred or imposed upon it by the Statutes.

Office of Academic Affairs

The Office of Academic Affairs, headed by the Dean, Academic Affairs (DoAA) is responsible for implementing the decisions taken by the Senate, in consultation with the Institute Academic Committee (IAC).

The Institute Academic Committee (IAC)

This committee consists of the Heads of the departments and is headed by the DoAA. This standing committee will examine matters related to academic issues common to all departments and recommend appropriate actions, including those to be taken to the Senate for its consideration.

ADMISSIONS

2.1. Categories of Admission

Admission into Ph.D. programs in Science and Engineering are given under the following categories after fulfilling the eligibility criteria mentioned in Section 2.2. The Eligible candidates for Ph.D. program in Science, Management, Humanities and Engineering can be considered in the following categories.

2.1.1. Full time

It is a full-time program where the student is expected to devote their entire time to research work and complete the degree within the specified time frame.

- A full-time candidate may have financial support in the form of
- Regular candidates with Institute Research Fellowship
- Candidates holding an individual fellowship from a national agency (CSIR/ UGC/ DBT/ ICAR/ INSPIRE, etc.)
- Candidates working in a sponsored project in IIPE.
- Candidates selected/ sponsored under the Quality Improvement Program (QIP) as per State and Central Govt. Human Resources Ministries/ Technical Education Boards.

2.1.2. Sponsored: External

a) This category of PhD admission is for those who are working professionals and want to pursue a PhD alongside their job. The duration of the program is usually longer than the Full-Time PhD program. Candidates who meet the eligibility criteria mentioned in Section 2.2 are eligible to apply for a Sponsored (External) PhD program. In addition, candidates in service in any of the following establishments with minimum of one (01) years job experience at the time of admission shall be eligible for admission to the Ph.D. program as Sponsored candidates (External):

- Public Sector Undertakings (PSUs)
- Any Ministries of GoI/State Government/Government Organizations
- Reputed industries having R & D facilities recognized as 'Research Institution' by the Institute.
- Established industrial R&D organizations.
- Autonomous bodies and National Laboratories.

b) Such a candidate should have been in employment with the sponsoring organization for at least 01 years at the time of admission. In case of mentoring under TEQIP and other such programs under MoUs the experience requirement may be relaxed.

c) These candidates must have a Supervisor (Internal) from the Institute (IIPE) and an External Supervisor (Optional) from their parent organization where employed.

d) The candidate should also provide the biodata of the prospective External Supervisor from his/her organization who would supervise the candidate's work at his/her organization (if applicable).

e) Candidates need to produce a NOC letter (Format available on website) at the time of application.

f) Candidates are required to submit a research proposal as part of their application. The research proposal should clearly state the research problem, the research questions, the research methodology, and the expected outcomes of the study.

g) The competence of these candidates will be assessed along with the regular candidates.

h) After joining, the rules and regulations as specified by IIPE for regular candidates with regard to academic performance will remain applicable for candidates under this category also.

i) The candidate shall have to spend at least one week per semester at IIPE, Visakhapatnam interacting with his supervisor that may include working in the laboratory.

j) External students are not eligible for a stipend or fellowship from the institute.

2.1.3. Sponsored: Part-Time

Part-time PhD programs in the Indian Institutes of Petroleum & Energy (IIPE) are designed for professionals who want to pursue doctoral studies while continuing with their jobs. A part-time candidate is a professionally employed personnel who can, while employed, attend regular classes as per schedule of the Institute. Candidates who meet the eligibility criteria mentioned in Section 2.2 are eligible to apply for a part-time PhD programme. In addition, candidates should have at least 01 year of work experience after obtaining their qualifying degree.

a) Such a candidate should be NOC by his/her employer and should have been in employment with the sponsoring organization for at least 01 year at the time of admission.

b) Candidates working as permanent faculty of a reputed university or academic/research/ professional organization/ institution.

c) Confirmed employees of IIPE fulfilling the eligibility criteria.

d) These candidates must have a Supervisor (Internal) from IIPE and an External Supervisor (Optional) from their parent organization where employed.

e) The candidate should also provide the biodata of the prospective External Supervisor from his/her organization who would supervise the candidate's work at his/her organization (if applicable).

f) Candidates are required to submit a research proposal as part of their application. The research proposal should clearly state the research problem, the research questions, the research methodology, and the expected outcomes of the study.

g) Sponsored: Part-time PhD students are not eligible for a stipend or fellowship from the institute.

2.2. Eligibility Criteria for Admission

2.2.1. Minimum qualifying degree required for seeking admission to the Ph.D. program

An applicant must have a Master's Degree (M. Tech/ME/MS) in Engineering/ Technology or a degree equivalent to any of the above in relevant subject after qualifying GATE with First Class/ division or a minimum 60% marks or a minimum 6.5 CGPA on a 10-point scale (55% or 6.0 CGPA for ST/SC/PwD).

OR

An applicant must have a Bachelor Degree (B.Tech /BE/BS) in Engineering/ Technology or a degree equivalent to any of the above in relevant subject with First Class/ division or a minimum 60% marks or a minimum 6.5 CGPA on a 10 point scale (55% or 6.0 CGPA on a 10 point scale for ST/SC/PwD).

<div align="center">OR</div>

An applicant must have a Master Degree (M.Sc/ M.Tech/ MS/M. Sc. Tech/ME) in Science/ an allied area or a degree equivalent to any of the above in relevant subject with First Class/ division or a minimum 60% marks or a minimum 6.5 CGPA on a 10 point scale (55% or 6.0 CGPA for ST/SC/PwD).

The minimum marks for being eligible for admission are without round-off.

2.2.2. Additional Requirements for different Admission category

The additional requirements for admission to the PhD program of the Institute are as follows:

2.2.2.1. Regular with Institute Research Fellowship

- A valid GATE/UGC/CSIR-NET/NBHM/National Level Exam score is required for the award of Institute Research Fellowship.
- A person who is in employment and is applying for Institute Fellowship and selected for admission, he/she must resign and produce the acceptance of resignation by the employer at the time of joining or produce a document that he/she is not receiving any salary from his/her employer along with proper document of sanctioned leave.

2.2.2.2. Degrees from IITs/IISc/IIPE/RGIPT/NITs

B. Tech Degree, Dual Degree (B. Tech & M. Tech), 5 year Integrated MSc degree, M. Tech and Master's Degree (admitted through JAM) from Indian Institutes of Technology (IITs), Indian Institute of Science (IISc), Indian Institute of Petroleum and Energy (IIPE), Rajiv Gandhi Institute of Petroleum and Technology (RGIPT) and National Institute of Technology (NITs) may be considered for Direct admission in Ph.D Programme with Institute Fellowships holders provided they meet following Minimum Criteria in terms of CGPA/% other than the eligibility criteria as mentioned in Section 2.2

Category	CGPA/%
All Categories	Greater than or equal to 8.0 on a 10.0-point scale or 75%
SC/ST/PwD	Greater than or equal to 7.0 on a 10.0-point scale or 65%

The minimum marks for being eligible for admission is without round-off.

2.2.2.3 Individual Fellowship (CSIR/UGC/DBT/ICAR/INSPIRE etc.)

- All candidates applying for the Individual Fellowship category must have a valid award letter with fellowship issued by the respective funding agency (i.e. CSIR/UGC/DST/DBT/ICMR etc.) along with the eligibility criterion as mentioned in Section 2.2.

- Candidates having provisional Individual Fellowship award letter must give an undertaking that "In case of cancelation/withdrawal of Provisional award of fellowship by the funding agency, the admission at IIPE Visakhapatnam will be cancelled from the date of joining the Ph.D. program and there is no liability on the part of IIPE in this regard".

2.2.2.4. Ph.D. through Project

- Candidates who possess the prescribed qualifications as mentioned in the eligibility criteria as mentioned in Section 2.2 and are working on a sponsored project in the Institute shall be eligible for admission to the Ph.D. program under the project category.
- An intending candidate must submit his/her application in prescribed form for admission through Principal Investigator, Head of the Department and Dean (Research and Development) with suitable endorsement.
- The minimum remaining period of the project as well as tenure of the project employee should be at least 1 year from the date of joining the Ph.D. program.
- The minimum remaining period should be 3 Years for DST Inspire or project of similar nature.
- The PhD scholar who is getting Project fellowship may be converted to Institute fellowship.

2.2.2.5. QIP (Quality Improvement Program) category

- Candidates fulfilling the eligibility criteria as mentioned in Section 2.2 (Without GATE/ CSIRNET/ UGC/ NBHM) and a minimum of One (01) years teaching experience as full-time regular/permanent teachers of AICTE/UGC-approved Degree level Institutions are eligible to apply.
- An intending sponsored candidate under QIP category must submit his/her application in the prescribed form along with No objection certificate for admission through his/her employer, who will forward the same to the Institute with suitable endorsement.
- They are expected to be released for course work, Comprehensive Examination and Research Proposal Seminar and research at the Institute for a minimum period of three (03) years.
- A candidate under QIP Category 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.
- There is no provision for any financial assistance for QIP candidates.

2.3. International Students: Resident/Non-Resident

a. PIO/OCI/NRI/Foreign Nationals can register as a Resident/Non-Resident Research Scholar.
b. A foreign national with a degree from Indian Universities will be treated on par with an Indian national for admission purposes.
c. Candidates with a foreign degree must meet the minimum educational requirements as given in Section 2.2 equivalent to candidates with Indian degree in the relevant disciplines. The language of teaching is English. Qualifying National Level examinations such as GATE is not mandatory.
d. The Non-Resident candidates shall have to spend at least one week per semester at IIPE, Visakhapatnam interacting with his supervisor that may include working in the laboratory. The certificate to be issued by the Supervisor in this regard.

- A person who is in employment and is applying for Institute Fellowship and selected for admission, he/she must resign and produce the acceptance of resignation by the employer at the time of joining or produce a document that he/she is not receiving any salary from his/her employer along with proper document of sanctioned leave. The Institute Research Fellowship shall be awarded for a maximum period of 5 years which include the period the fellowship received through project, if any.

- No Research Student shall be permitted to receive any other emoluments, salary, stipend or any other scholarship/fellowship during the tenure of Institute Research Fellowship.

2.5. Sanctioned Seats

From time to time, Institute will decide the number of seats for the PhD admission.

a. In admission to Ph.D. seats shall be reserved as per the Government of India norms.
b. The merit list for admission to all programmes shall be published separately for each branch by allocating seats to the candidates of reserved categories.
c. It is mandatory that the candidate of SCs/STs/OBCs/PwD shall mention their category at the time of submission of the application form in the prescribed format and produce the original Caste Certificate of the respective reserved category issued by the competent authority for admission..
d. The Person with Different Ability (PwD) is distributed horizontally over all category and shall not be considered for less than 40% of disability.

2.6. Admission Procedure

This section covers the admission procedure for all candidates wishing to get admission into to the Ph.D. program in the Institute, irrespective of whether they opt for Full-Time or Sponsored Ph.D. programs. This section also applies to candidates holding positions in projects at the Institute.

a. The admission procedure consists of (i) Shortlisting through GATE/NET/Appropriate National Level Examination, and (ii) Selection is based on Written Examination/and or Interview conducted by the department.
b. A candidate, selected under Prime Ministers Research Fellowship (PMRF) scheme, shall be directly admitted to the PhD program without any interview.
c. In very exceptional cases, for example for faculty rigorously selected under TEQIP for a mentee institution of IIPE Visakhapatnam, the Senate may directly admit candidates for the Sponsored Candidate Ph.D. program, provided the minimum eligibility criteria for admission is fulfilled.
d. HoD will submit the list of selected students to the Office of the Academic Affairs for approval.
e. Candidates whose selection has been approved by the Dean Academics/Director will be admitted into the PhD program after obtaining a medical fitness certificate as per the norms of the Institute and payment of prescribed fees.
f. The admission to Ph.D. program will normally be held during May-June for the Autumn Semester and during November-December for the Spring Semester.
g. For admission to Ph.D. program, the candidate must apply on the prescribed form.

h. Before the admission process, the Department must provide a list of the names of faculty members along with their research areas who will be available for guiding scholars. All the faculty members of a Department can be the members of the written test/interview committee.

i. All admissions to Ph.D. program will be made on the approval of the Chairman, Senate/DoAA on the recommendations of the duly constituted Departmental Selection Committee/Admission Committee. The Departmental Selection Committee shall consist of faculty members from the Department and at least one faculty member from the sister Department. The constitution of the Departmental Selection Committee shall be proposed by the Head through DoAA for the approval of the Director.

j. Candidates in the final year of the qualifying degree may be considered for provisional admission provided that they give an undertaking that the results will be made available to Institute before the start of next semester classes else admission is liable to be cancelled. The Institute Fellowship will be put on hold till the results are submitted.

k. The Office of the Academic Affairs will issue the admission letters to the candidates who will be required to accept the offer of admission by depositing the prescribed fee before the specified date.

l. In case a candidate does not accept the offer by paying the prescribed fee by the specified date, the offer of admission may stand withdrawn, and the admission may be offered to the candidates in the waiting list, if any, in the order of merit.

m. The offer of admission may also stand withdrawn if the candidate, who has accepted the offer, fails to register.

n. Application fee: The institute will charge the fee as applicable and is non-refundable.

2.7. Physical Fitness

All selected students will have to submit a medical examination report at the time of admission from a registered medical practitioner in a format prescribed at the time of admission.

2.8. Cancellation of Admission

a. All students are considered provisionally admitted to the academic programme until the submission of all required and valid documents including mark-sheets, provisional certificates, reserved category certificates (if applicable), and/or other supporting documents of the qualifying examination to the Office of Academic Affairs.

b. Student should bring the original documents for verification.

c. These documents should be submitted by the last date specified for this purpose in the admission/declaration form.

d. The admission of any student who fails to submit the required documents by the specified date or meet other stipulated requirements is liable to be cancelled.

e. The Senate may also cancel the admission at any later stage if it is found that the student has/had provided false information or suppressed relevant information while seeking admission.

f. Further, the Institute has the right to cancel the admission of any student and terminate his/her academic programme at any stage, on grounds of unsatisfactory academic performance, irregular attendance in classes, or acts of indiscipline.

2.9. Choice of Supervisor

a. After mutual discussion, the names of the potential supervisors in the order of preference and their signatures will be submitted to the DoAA through HoD.

b. Allotment of candidates to faculties will be made by the Departmental selection committee taking into consideration the research profile of the department and the preferences of the candidates and Supervisors.

c. There shall be no more than two Supervisors from the Institute for a candidate.

d. Additional Supervisor from outside the Institute can be allowed with the approval of the DoAA/Director.

e. Co-Supervisor from other Institutions / Industries with a minimum academic qualification of PhD in relevant area may be nominated for PhD scholars on the request of Supervisor with proper justification subject to approval of the DoAA/Director.

f. If a Supervisor is from any IITs/IISc/RGIPT/NITs then the permanent faculties of the Institute can act as Co-Supervisor.

g. Appointment of Co-Supervisor by DoAA/Director on the recommendation of the DSC within 12 months from the date of joining for the PhD scholars.

h. In case the Supervisor leaves the institute, the DSC will decide another Supervisor from relevant research field and the former Supervisor may act as co-Supervisor from his/her current institute.

i. From a financial point of view, the Institute should have no obligation to the Co-Supervisor.

j. The Doctoral Scrutiny Committee (DSC) of a candidate may recommend a change of Supervisor or appointment of a co-Supervisor for valid reasons.

k. All the administrative work like maintaining leave record, recommendation for fellowship will be maintained by the Supervisor and her/his Department.

2.10. Eligibility for being Supervisors

The following may be a Supervisor for a Ph.D. scholar:

a. All regular faculty members of the Institute.

b. Continuance of retired faculty members / emeritus faculty as Supervisors.

c. When a faculty member, who has guided a candidate for at least 3 years, retires, he will continue to be a Supervisor. However, a co-Supervisor who is in service will be appointed in addition.

d. A faculty member who is to retire within 3 years may be permitted to become a Supervisor to a new scholar with another faculty member, who is not likely to retire within 5 years as co-Supervisor, at the time of registration itself. Upon retirement, the faculty member will continue to be a Supervisor and will be invited to the Doctoral Scrutiny Committee (DSC) meetings, synopsis meeting and viva voce examination.

e. CSIR and other Emeritus Fellows / Scientists / Emeritus Professors, who hold office at this Institute for a period of 2 years or more, can become co-Supervisors for scholars along with a Supervisor from IIPE, with at least 5 years' service still left at the time of registration of the scholar.

f. Visiting Faculty/Tenure Track/ DST Inspire Faculty or Faculty of similar status can act as a Co-Supervisor for Institute Fellowship or Sponsored Candidates. However, for PhD Candidates joining through Project, if the funding agency permits, she/he can act as Supervisor.

g. In case a faculty member who is a Supervisor goes on leave exceeding one-year duration,

another faculty member will be identified to become a co-Supervisor of the candidate.

  h. Co-Supervisor for PhD scholars can be appointed from foreign / Indian universities within the time limit approved (12 months).

  i. The date of registration of the PhD candidate should be before the date of award of PhD supervisor.

2.11. Doctoral Scrutiny Committee (DSC)

- For each research scholar, the HoD will be intimate **Dean Academics/Director**, the broad area of research, along with DSC within 2 weeks of the date of joining of the candidate as per approved composition of DSC.
- The following is the composition of the DSC:
  a. A faculty member of the institute: Chairman
  b. Two departmental faculty members
  c. One faculty member form sister department
  d. Supervisor (s)

- Supervisor will propose the DSC as per the above constitution to DoAA through HoD for approval.
- In case any member goes on leave exceeding one-year duration, or leaves the Institute, the Supervisor will propose another Chairman for its approval to DoAA through HoD.
- Scientific/Design staff and others who are eligible to be Supervisor of PhD scholars may be nominated as members of the DSC.
- If Supervisor desires he can have a member from other institute as a part of DSC. The same can be included as a part of DSC along with his /her consent to be a part of DSC stating the Proposed Title, Student Name and Name of the Supervisor.
- Supervisor will act as a Convener of the DSC meetings except for Comprehensive Examination.

ACADEMIC REQUIREMENTS

3.1. Coursework

The DSC will recommend the proposed broad area of research and the courses of the PhD Scholar **normally within one week of being constituted**. All candidates enrolled for the Ph.D. programme are required to complete the coursework as prescribed below:

● English for Technical Writing (Compulsory for all except sponsored candidate) a three-credit course. It's an audit course with grades P/F. This course can be cleared any time before the submission of the thesis.
● A set of subjects to be recommended by the DSC considering the student's skill requirements for the research work to be undertaken by the student and his/her academic background to have a minimum credit loading as under:

Post M. Tech or equivalent (Minimum of 6 years including Undergraduate Programme)	Post B. Tech or equivalent (Less than 6 years including Undergraduate Programme)
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● DSC may consider the relevant course credits from the M. Tech or PhD course work completed by the candidate from IITs for PhD course work at IIPE and a waiver in the minimum requirement can be made.

● **Course work requirement for Sponsored and Part-time Candidates**

  • DSC may recommend relevant courses of CourseEra (Stanford) /Open Course Ware (MIT)/Purdue Global/MOOCS/NPTEL/ /virtual classrooms/interactive exercises and active learning programs offered only by IIPE/IIT/IISc/IIM/IISER/AIIMS besides the available courses in the Institute.
  • Students opting for Online courses can either take their exams conducted by the online platform or clear the exams as conducted by the concerned Faculty of the Institute. However, for Online courses the student needs to provide a proof of enrolment.
  • If the student takes a course on Online platform and also its examination then he/she needs to Pass at least with C grade.
  • A semester is a typically of 12 weeks thus a course of L-T-P (3 0 0) will have 36 hours of class. This typical course will be of 3 credits. The credits will be calculated on pro rata basis as per the duration of the course in weeks. Thus, 8 weeks course (24 hours) will be treated as 2 credits and a 4-week course (12 hours) will be treated as 1 credit course.
  • For online courses a minimum of 10 weeks (30 hours) can be treated as 3 credit courses. The credits will be calculated on pro rata basis as per the duration, in weeks, of the online course. Thus, 6–9-week course (minimum of 18 hours) will be treated as 2 credits and a 3–5-week (minimum of 9 hours) course will be treated as 1 credit course.

- For ongoing online courses, the grade assigned at the end of the course will be directly transferred to the student's coursework. For all other courses, a faculty member having expertise in that subject will set the question paper and evaluate the performance of the student.
- At the end of the online & contact courses listed above, the student should submit the course completion certificate(s) with grades/marks for record in his/her course work.
- Submission of semester progress report through seminar and presentation is a must.

3.2. Grades

a. Based on the semester performance, each PhD scholar is awarded a final grade at the end of the semester in each subject following the grading system of IIPE.
b. Candidates shall obtain a minimum of "C" grade in each prescribed course. If more than the minimum required courses have been taken, only the courses with the best performance will be considered for computing the CGPA.
c. Once a subject is successfully completed with a minimum grade C, the course cannot be repeated.

3.3. Comprehensive examination

Comprehensive Examination after completion of minimum course work is to be conducted.

3.3.1 Every PhD scholar shall take and perform satisfactorily in a Comprehensive Examination.
3.3.2 The mode of the comprehensive exam shall be decided by the Department.
3.3.3 The Comprehensive Examination shall be conducted by a Comprehensive Examination Committee of the Department, consisting of the DSC of the scholar and at least two other faculty members of the Institute nominated by the DSC Chairman.
3.3.4 The first Comprehensive Examination is to be conducted within 2 months after successfully clearing all the course requirement.
3.3.5 If the performance of a candidate in the Comprehensive Examination in the first attempt is not satisfactory, he/she will be given one more opportunity to appear for the comprehensive examination within six months of the first attempt.
3.3.6 The registration of a candidate who fails to successfully complete the Comprehensive Examination in both attempts will be cancelled. The objective of the Comprehensive Examination is to test the general capability of the candidate and the breadth of his/her knowledge in his/her discipline and areas related to his/her field of research.
3.3.7 The Comprehensive Examination Committee shall intimate the candidate sufficiently in advance the scope of the Comprehensive Examination, along with mode of examination (Written/Oral/Both), to enable the scholar to prepare adequately for it.
3.3.8 The PhD candidates are normally expected to successfully complete the Comprehensive Examination within a year after his/her enrollment in the PhD program and in any case not later than two semesters after her/his registration in the PhD program else the name of the scholar will be deleted from the rolls of the Institute.

3.4. Registration Seminar

- Every Ph.D. scholar admitted to the candidacy for the PhD. degree is required to deliver a Registration Seminar on the area of research before the DSC. This seminar must be delivered within **SIX** months of clearing the Comprehensive Examination. The DSC report of satisfactory

completion of this requirement is to be communicated to the office of the Academic Affairs by the Supervisor. If a scholar fails to successfully deliver the seminar/is unable to deliver the seminar due to some unavoidable circumstances within the stipulated SIX months, then on request of the scholar and recommendation from the DSC, the Dean (Academic Affairs) may grant an extension up to ONE month. If a scholar fails to deliver the Registration Seminar even after the extension or the performance in the Registration Seminar is NOT SATISFACTORY then the academic program of the scholar is deemed to be terminated.

- It is mandatory for all the eligible scholars to deliver the Registration Seminar, with satisfactory grade (s), before the start of the classes for the next semester.

3.5. Enhancement Seminar (Only for Full Time Candidates)

After 2 years of joining and after successful completion of Registration Seminar, Enhancement seminar shall be conducted. A minimum of 3 months gap is required between Registration and Enhancement seminar. On successful completion of this seminar only, the students will be promoted to Senior Research Fellow (SRF). Scholarship will be with-held for the students who fails to give the enhancement seminar by 2 years from date of enrolment. Enhanced scholarship will be activated from the date of enhancement seminar.

3.6. Progress Report

a. A candidate shall, after Registration, submit annually a Progress Report to Supervisor.
b. The same will be reviewed by the DSC once a year. Continuance of registration, and award/continuance of scholarship/ Research Fellowship will be based on the recommendation of the DSC members.
c. In case of Sponsored candidates, the DSC will pay particular attention to the quantum of effort put in by the scholar. Inadequacy of effort/progress can be a reason for cancellation of registration.

3.7. Synopsis

a. On satisfactory completion of the prescribed courses, the comprehensive examination and the research work, the scholar shall seek approval from the DoAA by filling the appropriate form for the Synopsis.
b. Once approved, the Supervisor will notify the Date of Synopsis.
c. The candidate shall present the Synopsis before the DSC. The DSC will, if it approves the work reported in the synopsis, permit the candidate to submit the thesis.
d. The scholar should have at least two paper either published or accepted for publication in refereed journals of which one must be published in internationally reputed (SCI/SCIE/Scopus indexed) journal. The scholar should have at least one journal paper with he/she as the first/corresponding author.
e. Prior to submission of the Synopsis, the scholar is required to give at least two seminar talks on the topic of his/her research and the first seminar talk must be given before the end of third year.

3.8. Submission of Thesis

a. The scholars should submit the synopsis along with draft thesis in soft copy on the day of synopsis meeting. The Supervisor through Chairperson DSC forward the synopsis along with Panel of Examiners to Dean (Academic). The final thesis needs to submitted to the Office of Dean (Academic) within one month from the Date of Synopsis meeting. If for some reason the PhD Scholar is unable to submit the thesis within one month then he may have to take permission and a new Date of Synopsis meeting needs to be notified.

b. The DoAA may grant additional time beyond one month on request from the scholar through DSC for valid reasons.

c. The guidelines for use of anti-plagiarism software for the PhD thesis are as follows:
   ● The scholars must certify that the software "Turnitin" or any other standard software of the Institute / platform was used for checking against Plagiarism.
   ● The Supervisor must ensure checking against plagiarism through any standard software before submission of PhD thesis and endorse the undertaking of the scholar.

d. The Supervisor may obtain a special relief from this checking from the Dean Academics/Director on grounds of IP implications or National Security, if applicable.

3.9. Panel of Examiners

a. Supervisor through Chairman, DSC will recommend a panel of examiners of Indian and Foreign experts to DoAA for approval by the Director. In total six examiners are required with at least two Indian and two Foreign Examiners. The examiners should be Professors or equivalent.

b. The thesis shall be referred to three examiners out of which one must be Indian by the Dean Academic/Director.

c. Request may be sent to the alternate examiner for the evaluation of the PhD thesis, if the assigned examiner does not respond after accepting to evaluate the thesis.

3.10. Thesis Report

a. The examiner is expected to send the report on the thesis within the stipulated time frame.

b. If an examiner suggests resubmission of the thesis, after revision, the candidate will be allowed to resubmit the thesis within the time stipulated by the DSC failing which the revised thesis may not be accepted and his/her registration may be cancelled.

c. If two examiners report the thesis as not recommended, the registration of the scholar may stand cancelled.

d. If reports of two examiners declare the thesis as recommended the DSC will consider the reports and recommend conducting the viva-voce examination. The viva-voce examination will be conducted normally not earlier than one week.

e. In all other cases, not covered by the above Regulations, the matter will be referred to the Dean Academics for consideration.

3.11. Viva Voce Examination

a. The Board for the Viva-Voce Examination is the DSC along with the Indian Examiner. Chairman DSC will act as the Chairman of the Viva-Voce Board.

b. The Viva-Voce Board will examine the scholar on his/her thesis work and evaluate his/her performance as satisfactory or otherwise.

c. The Viva-Voce Board will ensure that the scholar answers satisfactorily the questions raised by the thesis examiner(s).

d. E-copy of the thesis along with the Examiner's Report to be circulated prior to Viva-Voce.

e. If the report of the Viva-Voce Board declares the performance of the candidate NOT SATISFACTORY, he/she may be asked to re-appear for Viva-Voce at a later date (not earlier than a month and not later than six months from the date of the first viva voce).

f. The Chairman of the Viva-Voce Board shall forward the thesis to the academic section certifying that the revisions recommended by the viva voce board, if any, have been incorporated in the copy of the thesis along with the report of the viva voce board.

g. All the candidates shall submit one copy of the final form of thesis and an electronic version in PDF format after the Viva-Voce Board recommends the award of the PhD degree.

3.12. Award of PhD Degree

a. If the performance of the candidate in the viva voce is satisfactory, he/she will be awarded PhD. degree on the recommendation of the Dean Academics and with the approval of the Board of Governors of the Institute.

b. PhD. degree will be awarded after successfully completing the PhD. requirement.

GENERAL GUIDELINES

4.1. Semester Registration

All candidates who are in residence and whose registration for research degree is still in force are required to enroll in person each semester on the stipulated date till their submission of thesis, on payment of the requisite fees. Those not in residence may enroll in absentia during the stipulated period by paying of the requisite fees. The enrolment will be cancelled if the progress is not satisfactory.

4.2. Minimum Residential Requirement

- The minimum period of study and research for regular full-time candidates required at the Institute from the date of admission for the PhD. Program in engineering to the date of submission of PhD. thesis shall be 24 months for candidates who requires to clear a minimum of 9 credits and 36 months for candidates who requires to clear a minimum of 18 credits,
  a. The minimum period of study and research for regular full-time candidates from the date of registration for the PhD Program in Sciences to the date of submission of the PhD thesis shall be 24 months.
  b. The minimum residential requirement for the PhD. Scholar under sponsored/external registration International Students (Non-Resident) 7 days per semester.
  c. Withdrawal from the regular program is permitted for a semester or longer for reasons of ill health or other valid grounds as duly recommended by DSC.

4.3. Maximum Duration of Program

a. It is expected that the Full-Time Ph.D. scholar will submit the thesis within 5 years from the date of admission.

b. The maximum duration under various category is as follows:

Category	Maximum Duration (From the Date of Admission)
Institute Fellowship	7 Years
Institute Fellowship (who availed Maternity Leave)	7 and half Years
Other Categories	8 Years

c. If a candidate fails to submit the thesis within the maximum duration, then her/his registration will be automatically cancelled.

4.4. Withdrawal from the program

a. A scholar may be permitted by Dean Academics/Director to withdraw from the program for a semester or longer for reasons of ill health or other valid grounds duly recommended by the DSC. Normally a scholar will be permitted to discontinue from the program for a maximum continuous period of two semesters.

4.5. Cancellation of Registration

a. DSC will evaluate the progress of the candidates every semester. The registration of a candidate whose progress is not found to be satisfactory by the DSC in 2 semesters or who has not registered consecutively for 2 semesters is liable to be cancelled. For delayed registration delayed by a semester the Scholar needs to pay fine.
b. The registration of a candidate who has not submitted his/her thesis before the end of the maximum permissible period will be cancelled.

4.6. Institute fellowship

a. PhD scholars are expected to be given teaching fellowship of 8 hours per week.
b. The Institute may provide financial assistance in the form of teaching or research fellowship to the full-time Ph. D. scholars who have qualified GATE or any other eligible national level examination. Fellowship is provided for a period up to five years (inclusive of Project and Institute funding) or up to the date of submission of thesis, whichever is earlier, subject to devoting up to eight hours per week towards teaching/laboratory fellowship assigned to them.
c. The Institute norms to assess the research progress of the scholar by the DSC must be followed at the end of every academic session. The concerned supervisor shall maintain the annual progress report. And if the DSC observes, as per the feedback of the supervisor, that the progress on research work is unsatisfactory then a report should be sent to the Academic Section for reduction/discontinuation of fellowship of the scholar. The extension will be given by the academic section based on the recommendation of DSC.
d. A report on the scholar's performance in the fellowship task will be provided by the concerned faculty to the scholar's supervisor.
e. The fellowship will be released only after completing the semester registration, including payment of Registration Fees, and clearance of outstanding dues, if any, and if the Departmental Selection Committee does not recommend otherwise.
f. The Institute norms to assess the research progress of the scholar by the DSC must be followed at the end of every academic session. The concerned supervisor shall maintain the annual progress report. And if the DSC observes, as per the feedback of the supervisor, that the progress on research work is unsatisfactory then a report should be sent to the Academic Section for reduction/discontinuation of fellowship of the scholar.
g. *Upgradation from JRF to SRF:* On completion of minimum of two years and after satisfactory completion of Enhancement Seminar within the stipulated duration, the scholar will be eligible for upgradation from JRF to SRF. Accordingly, the scholar will be entitled to get enhanced fellowship, as applicable, on the basis of the recommendation of the DSC.

4.7. Change of Registration from Full-Time to Part-Time/External Ph.D. Program

a. A scholar admitted as a full-time Ph.D. scholar may be permitted to convert to a part-Time/External Ph.D. scholar. A scholar requesting such a conversion must: (i) have completed the minimum course work, passed the comprehensive examination, delivered the research proposal seminar which is adjudged as satisfactory, and (ii) get the request endorsed by the supervisor(s) and the DSC. However, External scholars need to have a 'No Objection Certificate' from the employer. Such conversion, if approved by the Dean (Academic), will be subject to the following conditions: (i) The scholar must complete his/her thesis within the stipulated time limit. (ii) Provision of conversion from full-time to part-time status can be availed only once by the scholar during his/her program, and (iii) the progress of the scholar will be reviewed by the DSC at least once in every semester after the conversion, and his/her continuation on part-time status will be subject to his/her making satisfactory progress towards completing the Ph.D. thesis.

4.8. Relief from PhD. program to take up job

a. PhD. Scholars who got a job offer can get relief from the program, while keeping their registration alive on payment of the requisite fees every semester, on the following conditions:
- Scholars who take up jobs will be relieved on their request, based on the recommendations of DSC, after registration seminar, if they have completed their:
  - Minimum residential requirement
  - Course work
  - Comprehensive examination.
  - Registration seminar
- The renewal of their registration for every year/semester, however, will be considered only if the DSC finds his/her progress to be satisfactory and recommends continuance of registration.

4.9. Medium of Instruction

a. The medium of instruction in the Institute is English. The answers written in languages other than English language need not be taken cognizance of and the part written in language other than English will not be considered.

4.10. Students Grievances Redressal

Students can submit duly signed hard copy of the grievance regarding teaching standards and related matters to STUDENTS' GRIEVANCES REDRESSAL COMMITTEE (SGRC) members of which will be Dean of Student Affairs (Chairman), HoD of the concerned Department, two members nominated by the Director. The Committee shall conduct enquiry into such complaints, as and when received and shall submit its report to the Chairperson, Senate.

LEAVE RULES

Application for leave of absence should be addressed to the HoD with a medical certificate, if applicable. Leave taken beyond the entitlement (approved or otherwise) will result in loss of scholarship and/or penalty. In no case, can the student be on leave without prior approval. If a student is on leave without prior approval it will be treated as unauthorised absence and can attract disciplinary action.

a. A candidate (PhD student) is required to carry out his/her research work regularly under the guidance of the Supervisor(s), without any interruption during the period he/she enjoys the fellowship.

b. A scholar shall be entitled to (i) casual leave of 15 days and (ii) medical leave of 15 days in a year counting from the date of joining the program. The HoD will be the sanctioning authority in such cases concerned through the Supervisor. Any leave not availed of shall not accumulate. If leave is taken along with one weekend (Saturday and Sunday), addition of weekend shall be allowed only as a prefix or suffix.

c. Leave for Academic Activities: Students will be granted leave, without loss of scholarship for academic activities like attending conferences and conducting field work, provided it is certified by thesis supervisor. The leave application for this purpose should be submitted to the Office of Academic Affairs. Further, students proceeding on leave for academic activities are expected to be present for registration, examination and all other mandatory activities. The student should not proceed on leave to visit abroad for attending conferences/seminars etc. without prior approval of the funding agency, well in advance. The entire duration of such foreign visits if funded by any national/international agency, whether partially or fully, would be treated as leave without stipend.

d. Married candidates admitted to the PhD of the IIPE shall, in addition to casual leave and medical leave be entitled to maternity/paternity leave as per Government of India rules if the request for the leave is supported by a medical certificate from a Registered Medical Practitioner. Leave up to 6 weeks can also be granted for miscarriage including medical termination of pregnancy, if supported by a proper medical certificate. Such leave can be combined with any other leave due and will not entail any loss of financial fellowship. The Head of the Department will be the sanctioning authority in such cases.

e. Any absence over and above the admissible leave as prescribed above shall be without fellowship, which shall be deducted on a pro-rata basis for the days of such absence.

f. A candidate may, on the recommendation of the Supervisor and the HoD, be granted a leave without fellowship for a total period not exceeding three months, during the entire tenure of fellowship by the Dean of Academic Affairs.

g. In exceptional circumstances, the Dean of Academic Affairs may, on the recommendation of the DSC grant a candidate leave without fellowship for a period not exceeding 12 months in the entire period of his tenure for the purpose of accepting teaching/research assignment on a temporary basis provided the post accepted by candidate is in the same department or in an educational institution, R & D organization or an industry of repute. When a scholar is granted

 h. such leave without fellowship the enhancement of the value of fellowship shall be deferred for the appropriate period.

 i. If a scholar falls ill while on the campus, the medical certificate must be obtained from the Institute's medical officer. If he/she falls ill outside the campus while on sanctioned leave, the medical certificate must be obtained from a registered medical practitioner.

Power to Modify

- The Chairman, Senate has the authority to decide on the issues which are not mentioned here in and present a report to the senate during its upcoming meeting.
- Notwithstanding all that has been stated above, the Academic Senate and Board of Governors has the right to modify any of the above regulations from time to time.