

### INDIAN INSTITUTE OF INFORMATION TECHNOLOGY PUNE

Ph.D. Admission Brochure

October 2018

### **CONTENTS**

| Sr. No. | Particulars  | Page No. |
|---------|--|----------|
| A.      | Important Guidelines for Ph.D. Application   | 3        |
| B.      | Schedule for Ph.D. Admissions  | 4        |
| C.      | General information  i. About Institute  | 4<br>4   |
| D.      | Application Categories & Eligibility Criteria                                      | 5        |
| E.      | Admission Procedure  | 7        |
| F.      | Ph.D. Fee Structure  | 8        |
|         | Appendices  i. Sponsorship letter for full-time candidates                         | 9        |
| G.      | ii. Employer's Letter in case of candidates joining Ph.D. programme on Study Leave | 10       |
|         | iii. Statement of Purpose for Ph.D. Application (SoP)                              | 11       |

#### Ph.D. Admissions, 2018

#### A. Important Guidelines

- i. Please read the instructions given in the brochure carefully before filling up the application form.
- ii. Application Form & Information Brochure is available on the Institute website at the following link, www.iiitp.ac.in

Applicants are required to submit the application OFFLINE by downloading it from the institute website. The duly filled application along with a nonrefundable demand draft of Rs.500/- (for GEN / OBC) and Rs. 300/- (for SC/ST/PwD) in favor of "**The Director, IIIT Pune**" payable at Pune, can be sent to the below mentioned address via post or in person on or before October 30, 2018 by 5:00 p.m.

The Faculty-In charge (Academics), Indian Institute of Information Technology Pune, A/P Sudumbre, Tal. Maval, Talegaon-Chakan Road, Pune-412109, Maharashtra

- iii. Application Fee is Non-Refundable
- iv. Superscribe the application envelope with "The Application for PhD in the stream of <Name of the Stream>"
- v. Employed candidates are required to submit the No Objection Certificate (NoC) from the respective organization
- vi. Incomplete applications, applications without prescribe fee and received after last date are liable to be rejected and will not be considered.
- vii. No TA/DA will be provided by the institute for attending written test and/or interview.
- viii. Shortlisted candidates called for selection process (written test/interview) should bring the following with them:
  - a. Photo ID Card.
  - b. Copy of the application form submitted.
  - c. Thesis / dissertation / report / publications
  - d. Copy of certificates and mark-sheets along with originals and
  - e. Two passport size photographs.
- ix. Any queries related to Ph.D. admissions may be directed to <u>academics.iiitp@gmail.com</u>.

#### B. Schedule for Ph.D. Admissions

| i.    | Advertisement and availability of application forms on website                     | Oct. 05, 2018    |
|-------|--|------------------|
| ii.   | Last date for submission of completed application forms                            | Oct. 30, 2018    |
| iii.  | Display of list of eligible candidates called for written test on institute websit | e Nov. 01, 2018  |
| iv.   | Written test and interview   | Nov. 10, 2018    |
| v.    | Declaration of Results   | Nov. 15, 2018    |
| vi.   | Payment of Ph.D. fees on or before   | Nov. 30, 2018    |
| vii.  | Registration   | ec. 01 -30, 2018 |
| viii. | Instruction Begins   | Jan. 01, 2019    |

#### C. General Information

#### i. About the Institute:

Indian Institute of Information Technology Pune (IIIT Pune), is an institute of national importance set up under the Indian Institute of Information Technology (PPP) Act 2017, with a view to develop new knowledge in information technology and to provide manpower of global standards for the information technology industry. IIIT Pune was established by Ministry of Human Resource Development, Govt. of India on not for profit basis in public private partnership (PPP) with Government of Maharashtra and industry partners. IIIT Pune currently offers four-year B. Tech programmes in Electronics & Communication Engineering (ECE) and Computer Science & Engineering (CSE) with intake of 60 in each specialization. The current campus is situated approximately 30 km from Pune railway station in the leased premises of Siddhant College of Engineering at Sadumbare, Tal. -Maval, Distt. -Pune, with natural and calm surroundings at Talegaon perfectly required for research and higher education.

#### ii. Ph.D. Programme

The academic programme leading to the Ph.D. degree is broad-based and involves a course credit requirement and a research thesis submission. The Institute also encourages research in interdisciplinary areas through a system of joint supervision and interdepartmental group activities. Research activities in IIIT Pune are carried out under the ambit of academic departments (ECE and CSE) and research centres (a) Centre of Robotics and Security in IoT Space, (b) Centre of Indian Languages and Computational Intelligence, (c) Centre of VLSI and Nanotechnology. With an aim to develop new knowledge in all aspects of teaching and research, IIIT Pune invites applications from eligible Indian Nationals for the admission to the Doctor of Philosophy (Ph.D.) programme of the institute. IIIT Pune plans to develop world class research facilities in areas of Software Engineering, Mobile Computing, Information Security, IoT, Robotics, Machine Learning, Speech & Image Processing, Medical Informatics, Cyber Physical Systems, Wireless Networks, VLSI Design and Nanotechnology. Ph.D. applicants are encouraged to apply in any of the above focus areas.

#### D. Admission Categories & Eligibility Criteria

#### Currently, the admissions are offered under below mentioned categories.

- i. Govt. Fellowship Awardees (FA)
- ii. Sponsored candidates (SP)
- iii. External candidates (EX)
  - a. Candidates sponsored from R&D organizations
  - b. Institutional faculty

#### **General Eligibility Criteria**

| Computer        | B. Tech/ BE (GATE qualified) in CSE/ IT with a CGPA of at least 7 on a           |
|-----------------|--|
| Science and     | scale of 10 (or equivalent) or 70%. OR MCA/MSc (CSE/IT) degree                   |
| Engineering     | considered equivalent to the B. Tech/BE degree. <b>OR</b> M. Tech/ MS/ ME in     |
|                 | CSE/ IT with a CGPA of at least 7 on a scale of 10 (or equivalent) or 70%.       |
|                 |  |
| Electronics and | B. Tech/ BE (GATE qualified) in ECE/ EE with a CGPA of at least 7 on a           |
| Communications  | scale of 10 (or equivalent) or 70%. OR MCA/MSc (ECE/EE and allied                |
| Engineering     | areas) degree considered equivalent to the B. Tech/BE degree. <b>OR</b> M. Tech/ |
|                 | MS/ ME in ECE/ EE with a CGPA of at least 7 on a scale of 10 (or                 |
|                 | equivalent) or 70%.  |

#### Admission category specific criteria

- i. Govt. fellowship awardee (FA): Applicants who have qualified UGC/CSIR NET-JRF exam or have obtained INSPIRE PhD fellowship, will be admitted based on their performance in the entrance test and subsequent interview. The institute does not provide any assistantship or fellowship to such a student.
- ii. Sponsored candidates (SP): Applicants who are sponsored by their employers for doing research work in the Institute. They are expected to be released for full-time course-work and full time research at the institute for a minimum period of three years. They will not receive any financial support from the Institute. Sponsorship letter (Appendix I) should be submitted at the time of written test and/or interview.
- iii. External candidates (EX): A student in this category is sponsored by a recognized R&D institution or industry or academia for doing research in IIIT Pune. He/She must be a regular employee of the sponsoring organization with at least two years of professional experience in respective field. The institute does not provide any assistantship or fellowship to such a student.

- a. The candidates employed in recognized R&D organizations and desirous of pursuing Ph.D. programme while in employment may apply for admission as external candidates. After fulfilling the coursework requirement at the Institute, these candidates will be allowed to register for Ph.D. with a Supervisor (internal) from the Institute and a Co-supervisor (external) from their parent organization where they will be doing the research work. The admissions are based on the following norms:
  - 1. The competence of these candidates will be assessed along with the regular candidates.
  - 2. The candidate should submit at the time of application, a Sponsorship Certificate (Appendix II) from the organization in which he / she is employed giving an undertaking that the candidate would be released from the normal duties to fulfil the coursework requirement. The certificate should also provide details of facilities relevant to the research programme and available to the candidate.
  - 3. The candidate is required to be at the Institute as a full-time student for the coursework of his/her Ph.D. Programme. The coursework requirement is likely to be a period of 1-2 semesters. Depending on the student's background and the programme requirements, an additional semester may be needed to complete the coursework.
  - 4. To promote interaction between the internal supervisor and external co-supervisor, meeting between them should be arranged at least twice in a year in the Institute or in the sponsoring organization.
  - 5. The Ph.D. registration of an external candidate would be reviewed at the end of each year from the date of registration in terms of his progress in courses / seminars / approved research programme by a Research Progress Committee (RPC) nominated by Academic Progress Evaluation Committee (APEC).
  - 6. The option of external registration is for applicants who are working in well-equipped scientific institutions, laboratories, R&D establishments and industrial organizations engaged in research based activities.
  - 7. At the time of joining the programme, the students will have to produce a "Relieving certificate" from his / her employer that he / she has been fully relieved from normal duties during the semester(s) to complete the course work and other academic work at IIIT Pune.
- b. Institutional Faculty: The candidates employed as faculty members in Colleges and Universities in the vicinity of IIIT Pune and desirous of pursuing Ph.D. Programme while in employment and without availing study leave may apply for admission under this Category. The admissions are based on the following norms:
  - 1. The competence of these candidates will be assessed along with the regular candidates.
  - 2. The candidate should submit at the time of application, an undertaking duly signed by head of the institute, that the candidate would be relieved from the normal duties to fulfil the coursework requirements.
  - 3. The candidate is required to fulfil the coursework requirement (and qualifier examination, if applicable) of his/her Ph.D. Programme which is likely to be a period

- of 1-2 semesters. Depending on the student's background and the programme requirements, an additional semester may be needed to complete the coursework.
- 4. After fulfilling the coursework requirements, these candidates will be allowed to register for Ph.D. with a Supervisor (internal) from the Institute and a Co-supervisor (external) from their parent organization. Appointment of external co-supervisor is optional based on recommendations of the supervisor and research progress committee.
- 5. Place for research will be treated as IIIT Pune even though candidate may be carrying out part of the work at their Institute. These candidates are required to be available with the Supervisor (internal) for interaction during weekends, holidays and vacations

#### E. Admission Procedure

Admission will be on the basis of written test and interview. Merely satisfying the general eligibility criterion as well as criterion set for each admission category is no guarantee for being called for test and interview. Depending on the number of applications received and considering the constraints of time and other resources for conducting written test and interview, the academic units may put additional academic performance based shortlisting criterion. No TA/DA will be paid for attending the written test and interview. The procedure will be as follows.

**Stage 1: Written test:** Eligible candidates are required to appear for the written test.

Qualifying score in written test: The minimum qualifying score will be a normalized score decided taking into account the number of candidates to be called for test, but in no case it will be less than 40%. The normalization will be done by considering the top most score to be 100% and scaling the scores of other candidates accordingly.

**Stage 2: Interview:** Candidates qualifying the written test are required to appear for the Personal Interview.

<u>Stage 3:</u> A combined score will be calculated on the basis of score in written test, score in interview, and GATE qualification with following weightages.

| Distribution    |           |                       |             |
|-----------------|-----------|-----------------------|-------------|
| Written<br>Test | Interview | GATE<br>Qualification | Total Marks |
| 40              | 50        | 10                    | 100         |

The final merit list will be prepared based on a combined score.

#### **Exam Pattern:**

#### I. Written test

The question paper for written test shall comprised of two sections. Section-1 will be common for all and would comprised of questions on General Ability and Communication Skills. The Section-2 will have questions based on the syllabus for respective categories as follows.

For Electronics and Communication Engineering Branch: Engineering Mathematics, Networks, Signals and Systems, Electronic Devices, Analog Circuits, Digital Circuits, Control Systems, Communications, Electromagnetics

For Computer Science and Engineering and Information Technology Branch: Engineering Mathematics, Digital Logic, Computer Organization and Architecture, Programming and Data Structures, Algorithms Theory of Computation, Compiler Design, Operating System, Databases, Computer Networks

#### II. SoP Presentation:

All the candidates are required to attach the Statement of Purpose (SoP) in the format available in the Annexure-IV

#### **F. Ph.D. Fee structure\*** (The annual fee structure is as shown below)

| Sr. No. | Particulars                        | Fees (Per Year) in Rs. |
|---------|------------------------------------|------------------------|
| 1       | Tuition fee                        | 50000                  |
| 2       | Registration Fee                   | 2000                   |
| 3       | Library Fee                        | 5000                   |
| 4       | Medical Insurance                  | 1500                   |
| 5       | Internet Charges                   | 6000                   |
| 6       | Gymkhana activity and Magazine fee | 2000                   |
| 7       | Exam Fee                           | 2000                   |
| 8       | I-Card                             | 300                    |
| 9       | Laboratory                         | 5000                   |
| 10      | Gathering                          | 1500                   |
| 11      | Student Aid Fund                   | 700                    |
|         | Total Fees                         | 75000                  |

<sup>\*</sup> This is the tentative fee structure. It is to be revised in next BoG meeting and may vary for candidates based on their admission categories.

# Sponsorship Letter for Full-time Ph.D. Candidates (SP) (To be typed on letterhead of the sponsoring organization)

| To,  |  |
|--|--|
| The Director,  |  |
| Indian Institute of Information Technology Pune.         |  |
| Sub: Sponsoring of an Employee for Ph.D. programm        | ne   |
| Dear Sir,  |  |
| We hereby sponsor the candidature of Shri. /Smt          |  |
| employed in our organization as                          | (designation) for joining his / her Ph.D       |
| programme in (departme                                   | nt) at your Institute as a full-time candidate |
| He/ She is employee of our organization since            | We shall bear the total expenses of his        |
| her studies. We shall fully relieve him/ her of his/ her | duties in the organization during the entire   |
| period of the Ph.D. programme, to enable him/ her t      | o devote full-time to his/ her studies in the  |
| Institute.   |  |
|  |  |
|  |  |

Signature and Seal of the Sponsoring Authority

## Sponsorship Certificate for Ph.D. External Registration (EX) (To be typed on letterhead of the Sponsoring Organization)

| Name of the sponsoring organization:  |
|---|
| Present Designation of the applicant:   |
| Present status of the applicant: (Permanent/Quasi Permanent/Temporary)  |
| Division where research work is proposed to be done:  |
| Name of supervisor from the sponsoring organization:  |
| (Bio-data of supervisor to be enclosed giving details of designation, qualification, research experience etc.)  |
| Details of facilities relevant to the research problem which will be made available to the candidate  |
| by the organization:  |
|   |
|   |
| Statement of proposed Co-supervisor (external)  |
| If Shri / Kum. / Smt is registered for the doctorate degree, I agree to act as his/ her research Co-supervisor along with the research Supervisor from IIIT Pune. |
| Signature of proposed Co-supervisor (external)  |
| If Shri./ Kum./ Smt is admitted to the Ph.D. programme, we shall  |
| allow him/ her to undergo the programme of studies at IIIT Pune. Further, if Shri./ Kum./ Smt.  is admitted to the Ph.D. programme, we shall fully                |
| relieve him/her from normal duties to complete the course-work requirement at IIIT Pune. During   |
| the period of Doctoral programme, the candidate will be permitted to carry out his / her research   |
| work at our laboratories / organization and will be given the required facilities. We also give our   |
| consent to of our organization to be the Co-supervisor  |
| (external) of the Ph.D. thesis, along with a faculty member of IIIT Pune as the Supervisor.   |

Signature and Seal of the Sponsoring Authority

#### APPENDIX III

#### STATEMENT OF PURPOSE

Statement of Purpose (SOP) is your opportunity to share with the admission committee your thoughts and feelings about research studies at IIIT Pune including your preparation for the same. Briefly describe past project/ research work done by you. Restrict yourself to 500-600 words. The personal SOP will aid the admission committee in evaluating your application.