



INDIAN INSTITUTE  
OF INFORMATION  
TECHNOLOGY  
NAGPUR

## Ph.D. Information Brochure

### Admissions 2018 - 19

**Address:** IIIT Nagpur, BSNL-RTTC, beside Balaji temple, Seminary Hills, Nagpur, Maharashtra 440006

**Telephone:** (0712) 2985010

**Email:** [registrar@iiitn.ac.in](mailto:registrar@iiitn.ac.in)

## I. About the Institute:

INDIAN INSTITUTE OF INFORMATION TECHNOLOGY NAGPUR (IIITN), is an **institute of national importance set up under the THE INDIAN INSTITUTES OF INFORMATION TECHNOLOGY (PUBLIC-PRIVATE PARTNERSHIP) ACT, 2017.** IIITN is set up with the objective of making available facilities for higher education, research and training in various fields of Information Technology, to address the challenges faced by the Indian IT industry and growth of the domestic IT market. The Ministry of Human Resource Development (MHRD), Government of India has established Indian Institutes of Information Technology (IIIT), on a not-for-profit Public Private Partnership (PPP) basis. The partners in setting up the IIITs are the Ministry of Human Resource Development (MHRD), Governments of the respective States where each IIIT has been established, and the industry partners. On the same line INDIAN INSTITUTE OF INFORMATION TECHNOLOGY NAGPUR (IIITN) is newly established Educational Institute by the Ministry of Human Resources Development, Government of India, Government of Maharashtra, and following industry partners.

1. Tata Consultancy Services, Mumbai.
2. ADCC Infocad Ltd., Nagpur

## II. Ph.D. Program and Research Areas:

IIIT Nagpur invites applications for the Ph.D. program in the following disciplines:

- A. Electronics and Communication Engineering (ECE),
- B. Computer Science and Engineering (CSE)

IIIT Nagpur encourages research in interdisciplinary areas. The areas include but not limited to: Avionics, Civionics, Automotive Electronics, Internet of Things, Signal Processing, Communication, Big Data, Machine Learning, Biomedical Signal Processing, Data Mining, etc.

***Candidates working in industry/ organizations are highly encouraged to apply.***

## III. About the Ph.D. Scheme:

IIITN offers Ph.D. program in various categories given in **Section IV.** IIITN is supported under “Visvesvaraya PhD Scheme” also ([https://phd.medialabasia.in/student\\_data.php](https://phd.medialabasia.in/student_data.php)). ***As per the scheme, a student will be eligible to receive a one-time incentive of Rs. 2.5 lakh on successful completion of the Ph.D. program.*** The objectives and other salient features of the scheme are available on the following link: <https://phd.medialabasia.in>. The total number of seats available under Visvesvaraya scheme is limited to 20 seats. A candidate who would like to opt for the Visvesvaraya PhD scheme is required to mark the appropriate option in the application form.

***Admission to Ph.D program under IIITN scheme shall be as per availability of seats and without any financial support.***

#### IV. Ph.D. Admission -Categories

The Institute admits Ph.D. candidates under following categories:

Category	Minimum Duration for Thesis Submission	Eligibility	Financial Assistance	Visvesvaraya PhD scheme availability
External candidates from Industry (EX-I)	Three (3) years for candidates with Master's degree and Four (4) years for candidates with Bachelor's degree, from the date of joining the programme till the date of Submission of Thesis	<p><b>Essential:</b></p> <p>1. Master's Degree in Engineering/ Technology with Bachelor's in Engineering/ Technology, with First class or 60% marks (55% marks for SC/ST/PwD) / C.P.I. or C.G.P.A. greater than 6.75 (6 for SC/ST/PwD) on a 10 point scale.</p> <p><b>OR</b></p> <p>Bachelor's Degree in Engineering/ Technology, with First class or 60% marks (55% marks for SC/ST/PwD) / C.P.I. or C.G.P.A. greater than 6.75 (6 for SC/ST/PwD) on a 10 point scale.</p> <p><b>AND</b></p> <p>2. Minimum <b>5 years</b> of relevant experience in <b>CSE/ECE/IT</b> and allied fields.</p> <p><b>Note:</b> In-house research facilities to be made available by the respective organization.</p> <p><b>Desirable:</b> A valid GATE score is desired.</p>	NOT eligible for any financial support from the Institute.	YES

<b>Other External Candidates (EX-O)</b>	<b>Three (3) years</b> , from the date of joining the programme till the date of Submission of Thesis	<b>Essential:</b> Master's Degree in Engineering/ Technology with Bachelor's in Engineering/ Technology in <b>ECE/CSE and allied disciplines</b> , with First class or 60% marks (55% marks for SC/ST/PwD) / C.P.I. or C.G.P.A. greater that 6.75 (6 for SC/ST/PwD) on a 10 point scale.  <b>Desirable:</b> A valid GATE score is desired.	<b>NOT</b> eligible for any financial support from the Institute.	<b>YES</b>
<b>Externally Funded Project Staff (EX-P)</b>	<b>Three (3) years</b> , from the date of joining the programme till the date of Submission of Thesis.	<b>Essential:</b> Master's Degree in Engineering/ Technology with Bachelor's in Engineering/ Technology in ECE/CSE and allied disciplines, with First class or 60% marks (55% marks for SC/ST/PwD) / C.P.I. or C.G.P.A. greater that 6.75 (6 for SC/ST/PwD) on a 10 point scale. <b>Desirable:</b> A valid GATE score is desired.	<b>NOT</b> eligible for any financial support from the Institute.	<b>NO</b>

## V. Important Guidelines for Ph.D. Application

- A. Please read the instructions given in the brochure carefully before filling up the application form.
- B. Application Form & Information Brochure is available on the Institute website at the following link, [www.iiitn.ac.in](http://www.iiitn.ac.in)
- C. Applicants are required to submit the application **OFFLINE** by downloading it from the institute website. The duly filled application along with a DD of Rs. 1000/- (for GEN / OBC) and Rs. 500/- (for SC/ST/PwD) in favor of “**The Director, IIIT Nagpur**” can be sent to the “**The Registrar, IIIT Nagpur, BSNL-RTTC Campus, beside Balaji Temple, near TV Tower, Seminary Hills, Nagpur, Maharashtra 440006**” via post or in person on or before **14 September 2018 by 5:00 P.M.**
- D. Superscribe the application envelope with “**The Application for PhD in the stream of <Name of the Stream>**”
- E. Employed candidates are required to submit the No Objection Certificate (NOC) from the respective organization in the format available in the **Annexure-B** of Ph.D. brochure.
- F. Incomplete applications, applications without DD of Rs. 1000/- (for GEN / OBC) and Rs. 500/- (for SC/ST/PwD), and received after last date are liable to be rejected and will not be considered.

G. No TA/ DA will be provided by the institute for attending written test and/or interview.

H. For more details regarding six-monthly seminar and other academic rules related to Ph.D. program, students can refer to the Academic Rulebook available on the institute.

#### VI. Schedule of Ph.D. Admissions

No.	Particulars	Important Dates
1.	Advertisement and availability of application forms	August 13, 2018
2.	Last date for submission of completed application forms	September 14, 2018
3.	Display of list of eligible candidates called for written test	September 20, 2018
4.	Written test (for all categories) and display of list of candidates qualified for interview.	October 5, 2018
5.	Interview (for all categories)	October 6, 2018
6.	Declaration of Results	October 10, 2018
7.	Payment of Ph.D. fees on or before	November 12, 2018
8.	Registration	November 15 - December 15, 2018
9.	Instruction Begins	January 2, 2019

#### VII. Selection process (all categories)

Admission will be on the basis of 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 interview, 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**.

##### **Stage 3:**

A combined score will be calculated on the basis of score in written test, score in interview, and GATE qualification with following weightages.

PhD Category	Total Marks	Distribution		
		Written Test	Interview	GATE Qualification*
EX-I	100	40	50	10
EX-O and EX-P	100	50	40	10

\* Candidates with GATE qualification would be obtaining the allotted marks

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

VIII. **Exam Pattern:**

A. **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.

**Syllabus for Section-2**

**1. For External Candidates from Industry (EX-I)**

Basic Engineering Maths; Basic Programming and Engineering Knowledge and Skills; Engineering Logical Analysis, Arithmetic, Industry Standards.

**2. For Other External Candidate (EX-O) and Externally funded (EX-P):**

Stream	Syllabus
Electronics and Communication Engineering	Engineering Mathematics, Networks, Signals and Systems, Electronic Devices, Analog Circuits, Digital Circuits, Control Systems, Communications, Electromagnetics
Computer Science and Engineering and Information Technology	Engineering Mathematics, Digital Logic, Computer Organization and Architecture, Programming and Data Structures, Algorithms, Theory of Computation, Compiler Design, Operating System, Databases, Computer Networks

B. **SoP Presentation:**

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

*Candidates applying under the category External Industry Candidates (EX-I) are required to give a short presentation of maximum 5 slides specifying a brief of intended / targeted problems at the time of interview.*

**IX. Minimum exit criteria**

Credit Requirement:

All the registered Ph.D students need to complete the requirement of coursework of 6 credits by M.Tech degree holders and 12 credits by B.Tech degree holders in either of the following modes.

- A. Courses offered by the institute.
- B. Credits can be earned through successful completion of the online courses available on MOOC platforms like NPTEL, MIT-OCW, Coursera, edX, etc.

Publications:

The minimum requirement for submitting the thesis is publication in *1 SCI indexed journal and 1 SCI / Scopus index journal*.

**X. Fees for Ph.D. students (subject to revision as per MHRD / BoG decision)**

<b>Sr.No.</b>	<b>Particulars</b>	<b>Fee (per semester)</b>
1	Tution fee	100000
2	Welfare fee	2000
3	Registration Fee	7500
4	Library Fee	2500
5	Medical insurance	500
6	Internet Charges	2500
7	Infrastructure Usage Fee	2500
8	Development fee	6000
9	Gymkhana activity and Magazine fee	1500
<b>Total Fees*</b>		<b>125000</b>

**XI. Corrigendum / Addendum of the Advertisement, if any, would appear only on the institute website ([iiitn.ac.in](http://iiitn.ac.in)) and will not be published in newspapers.**

**XII. IIIT Nagpur Director's decision will be final in all respect.**

**STATEMENT OF PURPOSE**

Statement of Purpose (SOP) is an opportunity to share with the admission committee your thoughts and feelings about Postgraduate studies at IIT Nagpur 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.

- 1) If you are applying for more than one academic discipline, you may include separate SoP for each discipline.
- 2) The proposal should contain
  - a) problem identification / research area,
  - b) brief review of literature, and
  - c) methodology.

**Name:** \_\_\_\_\_

**Ph.D. Programme in** \_\_\_\_\_



**No Objection Certificate from Employed Candidates for Ph.D. (To be typed on  
letterhead of the Company / Organization / College / University)**

Dear Sir,

This is to certify that Shri./Smt./Kum. \_\_\_\_\_ is an employee of our  
Company / Organization / College / University since \_\_\_\_\_ and is currently  
serving as \_\_\_\_\_ (designation).

Our Company / Organization / College / University has no objection to his/her application in  
the \_\_\_\_\_ (department) to join the Ph.D. Programme at IIIT Nagpur., under  
external category.

Further, if selected, the Company / Organization / College / University has 'NO OBJECTION"  
to allow Shri./Smt./Kum. \_\_\_\_\_ to undergo the programme  
of studies and also to fulfill the coursework requirements (and qualifier examination, if  
applicable) at IIIT Nagpur.

Signature & Seal of the Head of the Company / Organization / College / University