



NATIONAL INSTITUTE OF TECHNOLOGY GOA
Farmagudi, Ponda – 403-401, Goa
(An Institution of National Importance under MHRD,
Govt. of India, New Delhi)

Information Brochure for Admission to Full-time
Ph.D. Programmes 2017-18 (Even Semester)

Advt. No. NITG/Ph.D/advt./OW/714

Dated: 25/09/2017

Applications are invited for admission to full-time Ph.D. Programmes (Regular scheme) for the academic year 2017-18 (Even Semester) at NIT Goa. A student applying for more than one department will have to fill separate application forms.

Ph.D. Programme (Discipline and Qualifications)

Engineering and Technology

Master's Degree in Engineering or Technology (M.E. or M.Tech.) in the relevant discipline with a minimum 6.5 CGPA on a 10 point scale grading system or 60% marks in both Bachelor's and Master's levels from recognized Technical Institute or University. For SC/ST candidates a minimum 6.0 CGPA on a 10 point scale grading system or 55% marks.

Humanities & Sciences (Mathematics, Physics, Economics and English)

Master's degree in Sciences or Humanities / M. Tech. in the relevant area with a minimum 6.5 CGPA on a 10 point scale grading system or 60% marks in both Bachelor's and Master's levels from recognized Institute or University. For SC/ST candidates a minimum 6.0 CGPA on a 10 point scale grading system or 55% marks.

Candidates will be considered for Ph.D. programme on the basis of:

- VALID GATE score or CSIR/NBHM/UGC-NET qualification.

Indicative list of Broad Areas of Research

- **Computer Science and Engineering:** Machine Learning, Big Data Analysis, Cyber Security, Digital Cash and Blockchain, Visual Computing, Digital Forensics and Cyber Crime Investigation, Cyber Physical Systems, Machine Learning for Video Analysis, Data Mining, Social Mining & Stream Mining, Cryptography and Information Security, Cloud Security, Key Management and Distribution, Design and Performance Aspects of Computer Networks using Different Application: Optimization Technique, Fuzzy Control and Nature Inspired Techniques (Genetic Algorithm, Swarm

Optimization, Artificial Neural Networks), Markov Chain, Hidden Markov Model (HMM), Algorithmic Game theory, Stochastic Petrinets, IoT: Internet of Things and their Application in e-Healthcare and Security Issues, Network Pricing: Cellular network Pricing(4G and 5G), Pricing for Virtual Network or Cloud, Wireless Sensor Networks.

- **Electronics & Communication Engineering:** Embedded Systems, Network on Chip, Analog and Mixed Signal Design, Image and Video Processing, Antenna Array, Microstrip Patch Antenna, Fractal Antenna, Scannable Antenna Array, Radar, Design of Microwave Components, Image Frequency Reduction in Wireless Receiver System, Microwave Imaging, Ground Penetrating Radar, Tera Hertz Imaging, Biomedical Signal Processing and Analysis, Antennas, Microwave Filters, Microwave Integrated Circuits, Computational Electromagnetics, Wireless Communication, Distributed Signal Processing, Wireless Sensor Network, Biomedical Infrared Instrumentation and Image Processing, Alternate Energy Technology
- **Electrical & Electronics Engineering:** Power and Energy Systems, Control Systems, Power Electronics and Drives, Digital Signal / Image processing.
- **Humanities and Sciences (Mathematics, Physics, Economics and English):**
 - Mathematics:** Applied Mathematics; Computational fluid dynamics; Linear and nonlinear stability theory; Optical Tomography; Computational inverse problems; Numerical Optimization; Bio-medical imaging; Partial differential equations; Mathematical biology and Finite element methods.
 - Physics:** Photonics; Fiber Optic Sensors and Magnetic motor.
 - Economics:** Intellectual property rights, firms' innovation, technology transfer; economic development and Tribal economics.
 - English:** Indian Writing in English and Comparative Mysticism.

Attention

Candidates MUST specify broad areas of research in the application form. Selection will be based on academic credentials, performance in the written test and personal interview. Institute reserves the right to reject the application(s) if a faculty member is not available to guide the candidate(s) in his/her proposed research area. Incomplete application forms and forms submitted after the last date specified will be rejected. Institute will not be responsible for any postal delay. Canvassing in any form will lead to rejection of application form. List of short-listed candidates for written test and personal interview will be uploaded on the Institute website. No separate intimation will be sent to the applicants.

The candidates are required to see our website for fee structure and faculty expertise and are advised to visit our website regularly for the updates.

Scholarship/Assistantship

The selected candidates shall be entitled for scholarship/assistantship and HRA as per Govt. of India norms from time to time. Research scholars selected for the Ph.D. programme will have to complete the allotted course work within two years of joining to the Ph.D. programme and will be governed by Ph.D. rules and regulations of the Institute.

NOTE: Accommodation is NOT available for the Ph.D. scholars in the Institute hostel. However, accommodation is available on rent at an affordable cost within 2-4 Kms radius from the Institute.

Selection Procedure

The admission to Ph.D. Programme will be based on the criteria given below:

- a) Overall academic performance and written test conducted by the respective department.
- b) Performance in personal interview

All candidates selected for admission shall be required to deposit the requisite Institute fee and necessary original documents at the time of admission.

Details of Ph.D. Fee Structure for the year 2017-18 (Tentative)

Sl. No.	Semester Fee	First Year		Second Year		Third Year	
		I Sem	II Sem	III Sem	IV Sem	V Sem	VI Sem
1.	Tuition Fee (exempted for SC/ST students)	7500/-	7500/-	7500/-	7500/-	7500/-	7500/-
2.	Other Fee	4000/-		4000/-		4000/-	
3.	Group Insurance Coverage of Students	1200/-		1200/-		1200/-	
4.	Security Deposit (refundable)	4000/-					
5.	Institute Development Contribution-IDC (SC/ST Rs.1000/- instead of 4000/-)	4000/-					
6.	Alumni Association	1000/-					
7.	Admission	750/-					
	Total in 1st Sem (for Gen, OBC)	22,450/-					
	Total in 1st Sem (for SC/ ST)	11,950/-					

How to apply for admission to Ph.D. programme

The application form and other relevant information for admission to Ph.D. program may be downloaded from the Institute website: www.nitgoa.ac.in. The duly filled application form must be enclosed with a crossed Demand Draft of Rs. 500/- for General and OBC, and Rs. 300/- for SC/ST candidates. The DD should be drawn in favour of “**Director NIT Goa**” payable at **Ponda, Goa**. The complete application form and should reach **NIT Goa, 403401** on or before **20/10/2017**.

Enclosures

The following documents (whichever is applicable) arranged in the order given below should be enclosed along with the duly filled application form:

- i. One recent passport size photograph of the candidate.
- ii. Self-attested copy of GATE/UGC/CSIR/NBHM/NET qualified certificate.
- iii. Self-attested copy of Master’s degree marks sheet & degree/provisional degree certificates of the qualifying examinations.
- iv. Self-attested copy of undergraduate degree certificate and marks sheet.
- v. Self-attested copy of certificate of matriculation / X class as the proof of age of the candidate.
- vi. Self-attested copy of Caste Certificate in case of SC/ST candidates, issued by the competent authority (not below the rank of SDO/SDM/DC/DM/Tahsildar)
- vii. Self-attested copy of caste certificate in case of OBC candidates, issued by the competent authority (not below the rank of SDO/SDM/DC/DM/Tahsildar) indicating the status regarding creamy layer for the financial year ending 31st March 2017.
- viii. Self-attested copy of Experience Certificate
- ix. Research Proposal up to 1000 words should be attached with the application form.
- x. No Objection Certificate duly signed by the HoD/Head of the Institute in case of employee of state Government engineering college(s) and R&D Labs .
- xi. Self-attested copy of credentials including AICTE recognized short-term courses attended, research publications, professional qualifications, awards and medals etc.
- xii. Demand draft towards application fee as per category of the candidate i.e. Rs. 500/- for General / OBC and Rs.300/- for SC/ST candidates.

(Incomplete/incorrect applications without necessary enclosures will not be considered).

NOTE: The envelope containing the application should be superscribed as “Application for full-time Ph.D. Programme (**Even semester 2017-18**) for the Department of _____”.

Legal Jurisdiction

All disputes pertaining to the counselling and admission for the Ph.D. programme of NIT Goa shall fall within the jurisdiction of Goa only.

SCHEDULE OF ADMISSION FOR Ph.D. PROGRAMME

2017-18 (EVEN SEMESTER)

No.	Particulars	Date
1.	Newspaper advertisement and website advertisement by	26/09/2017
2.	Last date for receipt of duly filled application form	20/10/2017
3.	Tentative date of written test / personal interview at NIT Goa	09/11/2017 and 10/11/2017
4.	Announcement of results	After 11/11/2017

NOTE: Intimation regarding written test / personal interview shall be posted on the Institute website. No separate interview letter / communication will be sent to individual candidates. Visit institute website: www.nitgoa.ac.in regularly for more details and updates.

Disclaimer

The Institute reserves the right to make changes at any time without notice, changes in and additions to the regulations, conditions governing the admission, requirements, seats, fee and any other information, or statements contained in this information brochure.

ADDRESS FOR CORRESPONDENCE

**Registrar,
National Institute of Technology Goa,
Farmagudi, Ponda, 403401
Goa- India,
Telephone: 0832-2404205/207/216
Email: phdadmissions@nitgoa.ac.in
Website: www.nitgoa.ac.in**

**-sd-
Director**