

# Information Brochure

*for Admission to*

## Ph.D. (Part Time) in Applied Mechanics and Computer Science Engineering



**2012-13**

Visvesvaraya National Institute of Technology,  
South Ambazari Road,  
Nagpur – 440 010 (MH)

## 1. PROGRAMMES OFFERED BY THE INSTITUTE

Sr. No.	Programme	Departments
1.	Ph.D. (Part Time)	Applied Mechanics and Computer Science Engineering

**\*Candidates desirous of seeking admission to Ph. D. (Part Time) Program should note that**

- 1. Two seats are available in each of the above mentioned engineering departments.**
- 2. Number of seats per department may change depending on the availability & suitability of the candidates.**

### Important dates to remember

- Date of notification : 24.10.2011
- Last date of submission of application : 14.11.2011
- Display of list of eligible candidates : 21.11.2011
- Written test for eligible candidates : 28.11.2011
- Interview for short listed candidates : 28.11.2011 (afternoon)

## 2. ELIGIBILITY CRITERIA

- *Candidates, whose M.E. / M.Tech. result is awaited, can also apply. They will have to submit the result of M.E. / M.Tech. exam by 31<sup>st</sup> of January 2011, till which time their registration will be provisional.*

Sr. No.	Name of the Department	Eligibility
1.	Applied Mechanics	B.E. / B.Tech / AMIE (Civil) and M E / M.Tech in Structural Engineering related specialization with a minimum of First Class (C.P.I. or C.G.P.A. greater than 6.75 on a 10 point scale) at Bachelor's or Master's level. Desirable: GATE score
2.	Computer Science and Engineering	BE / B.Tech. in any branch of Engineering and M.E./M. Tech in one of the following branches Computer Science/ Computer Technology/Computer Engineering/ Information Technology/ Information Science with a minimum of First Class (C.P.I. or C.G.P.A. greater than 6.75 on a 10 point scale) at Master's level. Desirable: GATE score.

### 3. ADMISSION PROCEDURE

**3.1** The application form is available on Institute website [www.vnit.ac.in](http://www.vnit.ac.in). The form, duly filled in by the candidate, should be submitted by stipulated date to the Academic Section. (Applicants are requested to submit xerox copies of the certificates and photograph duly attested.) Incomplete applications and those received late will not be processed.

**3.2** Candidates will be required to appear for written test to be conducted in the respective departments on the date specified in the information brochure. Further, the candidates shortlisted on the basis of performance in the written test shall be interviewed. Candidates will be required to appear for written test / interview at their own cost.

**3.3 The interviews for the short listed candidates will be conducted in the concerned departments as per the schedule given in this brochure. The constitution of the interview committee will be as follows:**

1. HoD of the concerned department - Chairperson
2. Director's Nominee
3. All faculty members from the concerned department/ discipline who are recognized Ph.D. supervisors– Members

**3.4 The written test score will be appropriately factored in for deciding the relative merit. The weightages will be as follows:**

- |   |       |
|---|-------|
| 1. Written Test   | - 50% |
| 2. Interview  | - 40% |
| 3. GATE Score (Above qualifying marks in the respective categories) | - 10% |

**3.5 Selected candidates shall be intimated about their provisional selection and allotted supervisor. Candidates, in consultation with the supervisor shall identify the area of research and prepare a synopsis. The registration will be w.e.f. 1<sup>st</sup> January 2012.**

**3.6** The supervisor will propose a **Research Progress Committee, (RPC)** for Ph.D. The R P C shall monitor the progress of Ph.D. work of the candidate.

**Following shall be the composition of RPC.**

Head of the Concerned Department – (Chairperson)

Supervisor(s)

Expert from Department (nominated by supervisor & approved by HoD)

Expert from allied Department/ Discipline (nominated by supervisor & approved by HoD)

**3.7** RPC shall recommend the courses to be undertaken by a candidate as per norms.

### 4. REQUIREMENT OF COURSE WORK

#### **1 Requirement of course work for Ph.D.**

Candidates are required to complete a minimum of 12 credits. The departments may specify the requirement of more than 12 credits as applicable in specific cases. In addition to this every candidate shall be required to audit a course in Research Methodology.

**4.2** Course work must be completed within first 2 years of joining the Program.

## 5. MINIMUM DURATION FOR COMPLETING THE PROGRAM

: Four (4) Years

## 6. VALIDITY OF REGISTRATION

**6.1.** The registration will be valid for a period of 6 years from the date of registration and no further extension will be granted under normal circumstances.

**6.2.** After 6 years, if a candidate wishes to continue research, he / she will be required to register again. A candidate should apply for re-registration before completion of 6 years of registration period. Failure to do so a candidate will be required to register again following the procedure for fresh candidates.

## 7. PAYMENT OF FEES AND DEPOSITS

a) Application fee for registration : **Rs. 500/-** Nonrefundable (Through DD drawn in favor of **Director, VNIT Nagpur**)

b) **Other fees :**

	<i>Head</i>	<i>I Year</i>	<i>Annual</i>
<b>1.</b>	<i>Registration fees</i>	<i>10500</i>	<i>--</i>
<b>2.</b>	<i>Library Deposit (refundable)</i>	<i>1500</i>	<i>--</i>
<b>3.</b>	<i>Library Fees</i>	<i>2000</i>	<i>--</i>
<b>4.</b>	<i>Development Fees</i>	<i>6000</i>	<i>6000</i>
<b>5.</b>	<i>Retention Fees</i>	<i>--</i>	<i>4000</i>
	<i>Grant Total (i )</i>	<i>20000</i>	<i>10000</i>

***“Annual fee is to be paid every year in the month of July.”***

**Examination Fee :** The examination fee of **Rs. 25000/-** shall be paid by the candidate prior to the submission of the thesis.

**Note:**

- 1. The delay in payment of annual fees may invite cancellation of registration. Payment of fees is annual. Six-monthly seminar will not be conducted without payment of fees.*
- 2. If the thesis submission is done after 30<sup>th</sup> June, candidate will be required to pay the fees for next academic session.*

## 8. THE SYLLABUS & AREA Of RESEARCH FOR WRITTEN TEST

### 8.1. Syllabus for the written test

SN	Name of Department	Syllabus for Written Test
1.	Applied Mechanics	a) Engineering Mechanics and Strength of Materials b) Theory of Structures c) Design of Steel Structures d) Design of Concrete Structures e) Computer Programming
2.	Computer Science Engineering	a) Programming & Data Structures b) System Programming/OS c) Compiler d) Theory of Computation e) Analysis of Algorithm f) Discrete Mathematics g) Computer Organization h) Database Management Systems i) Computer Networks

### 8.2 Areas of Research

S N	Department	Area of Research
1.	Applied Mechanics	1) Earthquake Engineering 2) Nonlinear Analysis of structures 3) Structural Engineering
2.	Computer Science	1) Parallel & Distributed Computing 2) Data Mining & Warehousing 3) Pattern Recognition 4) Security Information 5) Artificial Intelligence 6) Soft Computing 7) Mobile Computing 8) Knowledge Management