

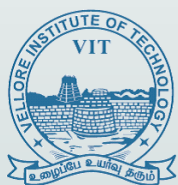
INFORMATION BROCHURE

VIT Research Entrance Examination

December - 2019



Admission to Research Programmes



VIT[®]
Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

1. ABOUT VIT

Vellore Institute of Technology (VIT) was founded in 1984 as Vellore Engineering College by the Chancellor **Dr. G. Viswanathan**. VIT attracts students from all the **29 states of India and more than 41 different countries** because of its academic excellence.

VIT – Recognised as Institution of Eminence (IoE) by Government of India

The credentials of VIT in Academics and Research, have placed VIT in the 16th position among the Engineering institutions and VIT Business School has been placed 29th position among the business schools in India by **NIRF, Govt. of India Ranking**. The world ranking body namely the **QS** has given **4 STAR rating** to VIT, and with that VIT becomes the **first institution in India** to have the **4 STAR rating**. In addition to this, the consortium of industries, **FICCI** has recognized VIT with the **“Excellence in Faculty”**. VIT has the record of publishing **maximum number of SCOPUS Indexed Research Journal papers in 2017**, among Indian Universities, overtaking all the premier institutions. VIT has also completed **3 cycles of NAAC accreditation** and has been rated as an **“A” grade** institution. In addition, VIT also has obtained the coveted **ABET accreditation** by **US agency**.

VIT has introduced many **innovations** in academic processes which add value to every student. **FFCS** (Fully Flexible Credit System), **PBL** (Project Based Learning) for better learning, **fully digitized** academic portals that assist students in equipping themselves for 2025 market place, **Hackathons / Makeathons** as part of curriculum exercise which kindle the interest and the curiosity of students and mould them to be better problem solvers. **The 8th module in every subject is handled by industry experts**, making the students contextualize the concepts they study in the classroom.

Sl. No.	School	Vellore		Chennai		VIT-AP	VIT-Bhopal
		I	II	I	II	I	I
1	School of Advanced Sciences ^{\$†}	√	*	√	*	*	√
2	School of Bio Sciences and Technology	√	√	*	*	*	√
3	School of Civil Engineering	√	√	√	√	*	*
4	School of Chemical Engineering	√	*	*	*	*	*
5	School of Computing Science & Engg. [#]	√	√	√	√	√	√
6	School of Electrical Engineering	√	√	√	√	*	√
7	School of Electronics Engineering	√	√	√	√	√	√
8	School of Information Tech. & Engg. [#]	√	√	*	*	√	*
9	School of Mechanical Engineering [@]	√	√	√	√	√	√
10	School of Social Sciences & Languages ^{\$}	√	*	*	*	√	*
11	VIT Business School	√	*	√	*	√	√
12	VIT Law School	*	*	√	*	√	*
13	VFIT Fashion Technology	*	*	√	*	*	*

- I. Ph.D. II. Integrated Ph.D. (Engg. Discipline only) (√) - Degree Offered; * - Degree Not Offered
- ([@]) Both Mechanical and Civil are under SMBS in Chennai Campus, (^{\$}) Maths, Physics, Chemistry, English, Sociology, Psychology and Geology are under SAS in Chennai Campus
- ([#]) Both CSE and Information Technology & Engineering are under SCSE in Chennai Campus, ([†]) Maths, Physics, Chemistry, English are under SAS in VIT-Bhopal(^{††}) Mngt. Sciences, Economics, Commerce and Accountancy are under the VITBS in Chennai Campus
- (^{††}) Management Sciences, Economics, Anthropology/Sociology are under the VIT-AP School of Business

2. Programmes available at various Schools at Vellore, Chennai Campuses and VIT-AP & VIT-Bhopal

In Vellore and Chennai campuses, only Internal Full Time [IFT] category will be offered. In VIT-AP and VIT-Bhopal campuses, both Internal Full Time [IFT] and External Part Time [EPT] categories are available.

3. MINIMUM QUALIFICATION FOR ADMISSION

(10+2+4+2 or any equivalent for Ph.D. in Engineering)

(10+2+3+2 or any equivalent for Ph.D. in Non-Engineering)

For Ph.D. in Engineering:

1. Master's degree in Engineering/Technology in the relevant discipline with a first class or a minimum of 60% marks/ CGPA 6.5 on a 10 point scale in cases where the University/Institute does not award any class or
2. Equivalent qualifications like M.Sc. (Engineering) / M.S. [By Research.] / M.Tech [By Research].

3. M.Sc Computer Science, M.Sc(IT), MCA and M.S.Software Engg.) degree holders are not eligible to apply for Ph.D. Program.

For Integrated Ph.D in Engineering / Technology:

Bachelor's Students with outstanding academic record in the Bachelor's degree in Engineering Technology with an aptitude towards advanced scientific and technological research are eligible to apply. A minimum of 80% marks or a CGPA of 8.0 is mandatory. Candidates who are appearing for the final examination can also apply provided they meet all the requirements before admission.

For Ph. D in Sciences :

Master's degree in the relevant discipline of Science with a first class (or a minimum of 60% marks/CGPA 6.5 on a 10 point scale in cases where the University/ Institute does not award any class).

For Ph. D in Languages:

Master's degree with a minimum of 55% marks or 6.0 CGPA

For Ph. D in Management:

Master in Business Administration or M.E./ M.Tech. with a first class or a minimum of 60% marks/CGPA 6.5 on a 10 point scale in cases where the University/Institute does not award any class.

For Ph.D. in Law

Master's Degree in law (LLM/ML) from any recognized University/Institute, in the relevant field with a minimum of 55% marks or 6.0 CGPA.

For Ph. D in Fashion Technology:

M.Tech./M.E./M.Fashion Tech/M.S.[By Research]/M.Tech[By Research] in the field of Textile/Textile Engineering/Fibre Science/Textile Chemical Processing/Fashion/Apparel/Garment with a first class or a minimum of 60% marks/CGPA 6.5 on a 10 point scale in cases where the University/Institute does not award any class.

4. CATEGORIES AND ELIGIBILITY**Internal Full Time candidates:**

A candidate who wishes to work for Ph.D / Integrated Ph.D degree on full time basis (including project staff working in sponsored projects being carried out at VIT) should apply in the prescribed form on or before the specified date.

External Part Time candidates

Teachers working in other colleges in a permanent position and candidates sponsored by R&D organizations of following categories are eligible to apply to work on a part time basis for Ph.D degree:

- Laboratories run by the Council of Scientific and Industrial Research/ Department of Atomic Energy / Department of Space etc.
- Public Sector undertakings with R & D Units.

- Private Industries recognized by The Department of Scientific & Industrial Research, *Government of India* as engaged in R&D work or contributing to R&D efforts. A copy of the certificate issued by the Department of Scientific and Industrial Research (DSIR) in this regard will be required to be produced in such cases.
- Medical Industry, Institutions and Hospitals with approved R&D in the relevant area. (A copy of the certificate issued by the appropriate authority to be produced).

For all the Research Programmes, it is mandatory that the candidate should have studied in regular, full time and formal education in their previous degree programmes (UG and PG).

Selection Procedure for International candidates

- Candidates of foreign nationality who hold Degrees from Indian Universities seeking admission to research programmes with the necessary clearance from the Government of India (The Ministry of Human Resource Development) and possess valid Visa will be treated on par with Indian nationals for purposes of admission to the Institute.
- Indian nationals having degrees from Indian Universities may apply as NRI candidate. After receiving their application and required documents, they will be interviewed via skype or other web technology. The fee is payable only as USD.
- Foreign nationals with foreign degrees must meet the minimum educational requirements as given in Section 3. Their degrees must be equivalent to Indian degrees mentioned in Section 3 in Engineering/ Technology/ Science and they should have a good academic record. International Students are expected to have a good working knowledge of English. Candidates with valid GRE and TOEFL scores will be given preference. The case of each foreign applicant will be examined and admission will be offered purely on merit.

5. MINIMUM PERIOD OF STUDY

Doctor of Philosophy (Ph.D.)

The minimum period of study and research from the date of registration for the Ph.D programme to the date of submission of thesis will be 30 months for full-time research scholars and 36 months for part-time research scholars.

Integrated Ph.D.

The minimum period of study and research from the date of registration for the Integrated Ph.D program to the date of submission of thesis will be 4 years.

6. SELECTION PROCEDURE FOR NON NRI/FOREIGN CANDIDATES

Ph.D.

Applicants along with the printed copy of application and necessary enclosures, should also submit a proposal containing field of Research, Proposed Title of the work, Research Problem, Scientific Background, Research Gap, Novelty, Objectives, Methodology, Research time Plan (Chart): and Possible outcome. This will also be assessed for selection.

Ph.D. candidates, who satisfy the criteria prescribed, shall appear for VITREE 2019, a computer based test (CBT) for 2 hours on **December 14th, 2019** at their test venue of Campus of choice. Change of Venue Campus, date of Interview or program will not be permitted. The question paper will have 100 MCQs (Technical – 70 questions; English communication skills – 15 questions; Statistics and probability – 15 questions).

The shortlisted candidates should appear for personal interview at the campus of their choice on **December 14th, 2019 at 2.00 PM onwards**. The selected candidates will be intimated by **December 18th, 2019** and they should report in the appropriate campus to select a guide and to complete the admission process before **January 6th, 2020**.

Integrated Ph.D

Applicants for Integrated Ph.D. should send a copy of application along with necessary enclosures and a research proposal containing the name of the candidate, Field of Research, Proposed Title of the work, Research Problem, Scientific Background, Research Gap, Novel, Objectives, Methodology, Research time Plan (Chart) and Possible outcome. This will also be assessed for selection. The Integrated Ph.D. applicants who satisfy the criteria prescribed, shall appear for VITREE-2019 to be held at their test venue of Campus of choice on **December, 14th, 2019**. The shortlisted candidates should appear for personal interview at the campus of their choice on **December, 14th, 2019 at 2.00 PM onwards**. The objective type question paper will have 100 MCQs (Technical – 80 questions; English communication skills – 20 questions).

The selected candidates will be intimated by **December 18th, 2019** and they should report to the appropriate campus to select a guide and to complete the admission process before **January 6th, 2020**.

7. FEES

Programme	Caution Deposit (Rs.)	Tuition Fee (Rs.)	Thesis Fee (Rs.)
Ph. D. Internal Full Time	3000	40,000	10,000
Ph. D. External part Time (Teachers)	3000	60,000	10,000
Ph. D. External part Time (Industry)	3000	75,000	10,000
Integrated PhD	3000	40,000	10,000

8. JOINING THE RESEARCH PROGRAMME

Selected candidates of research programmes will be asked to identify a guide at their school and pay the fees as mentioned in the provisional admission letter along with certificates/documents at the respective campus on or before **January 6th, 2020**. Without an identified guide, the provisional admission letter will be treated as withdrawn.

9. RESEARCH FELLOWSHIP

- All Internal Full-Time scholars admitted into Ph.D programme will get a fellowship of Rs.20,000/- per month
- All Internal Full-Time scholars admitted into Integrated Ph.D programme will get a fellowship of Rs.12,000/- per month for the first two years and Rs.20,000/- per month for the next two years.
- All Internal Full-Time scholars who have a valid GATE score percentile of 80 and above will get an additional fellowship of Rs.5,000/- per month.
- Apart from this, scholars are encouraged to apply for JRF (CSIR / UGC) / Inspire Fellowships / Rajiv Gandhi Scholarships (minority community and backward community).

10. OTHER INFORMATION

- ◇ Hostel accommodation is available for limited candidates. Others should be ready to make their own arrangements for their stay at Vellore / Chennai / VIT-AP (Amaravati) / VIT-Bhopal during their research programme.
- ◇ All suits and actions arising out of or relating to VIT shall be instituted within the jurisdiction of courts at Vellore, Tamil Nadu.
- ◇ Further correspondence / enquiry can be made to the Office of the PG Admissions over phone, (No.0416-220 2050 / 2149) or in person between 9.30 am to 5.30 pm on all days (Saturdays and Sundays are holidays).

11. IMPORTANT INSTRUCTIONS PERTAINING TO COMPUTER BASED TEST (CBT) FOR VITREE-2019

Date and Time of Test (CBT) : December 14th, 2019, Time: 10 am –12 noon

Venue : (VIT-Vellore/VIT-Chennai/VIT-AP(Amaravati)/VIT-Bhopal)

Date of Personal Interview for shortlisted candidates : December 14th,2019, Time: 2.00 pm onwards on the same day of examination at the respective campus

- ◆ Candidate is expected to arrive at the examination hall at least 1 hour before the commencement of examination, with Admit Card (hard copy). If the candidate does not report on time, they are likely to miss the general instructions given in Exam Hall.
- ◆ A candidate who does not possess the admit card issued by VIT shall not be permitted to attend exam under any circumstances.
- ◆ Candidate will not be permitted to enter into examination hall after 10.15 am .
- ◆ Candidate is instructed to complete Registration Process with the help of Hall Invigilators
- ◆ Candidate will be allotted a computer system by Hall Invigilator to take the Computer Based Test (CBT)
- ◆ Candidate is not permitted to carry any text material (printed / written), slide rulers, log tables, electronic watches with facility of calculator, mobile phones or any other electronic devices.
- ◆ Candidate should bring a pencil or pen to carry out any rough calculations . A scratch pad will be provided
- ◆ Test will start exactly at the time specified in Admit Card and an announcement will be made by Hall Invigilator to start and stop the exam.
- ◆ During the exam process, the hall Invigilator can request for the admit card for verification of the candidate.
- ◆ Exam comprises of Multiple Choice Questions (MCQ) with question number and the time left for the exam to be completed appearing at the top center of computer screen.
- ◆ Under any circumstances, the candidate will not be permitted to take extra time, unless and otherwise permitted by the Center Superintendents.
- ◆ For each question, candidate should select the right option using the mouse.
- ◆ Candidate will not be permitted to leave the exam hall until the completion of the exam.
- ◆ Candidates are requested to keep the Admit Card safely with them and bring it during the Admission Process. Candidate should produce it on demand.

Detailed Syllabus available at

[https://www.dropbox.com/s/lgcqujuz080qoou/VITREE Syllabus Dec 19 F.pdf?dl=0](https://www.dropbox.com/s/lgcqujuz080qoou/VITREE_Syllabus_Dec_19_F.pdf?dl=0)

Applicable subjects to be undertaken for entrance examination in each school for Vellore Campus

Sl.	School	Ph.D.	Integrated Ph.D.
1.	School of Advanced Sciences	PHY, CHY, MAT	-
2.	School of Bio Sciences and Technology	BBT	LS
3.	School of Civil Engineering	CVL	CI
4.	School of Computing Science & Engg.	CIE	IT
5.	School of Chemical Engineering	CEE	CE
6.	School of Electrical Engg.	ELE, EIE	EE, EI
7.	School of Electronics Engg.	ECE, BME	EC, BM
8.	School of Information Technology & Engg.	CIE	IT
9.	School of Mechanical Engineering	MEE	ME
10.	School of Social Sciences & Languages	ENG, TAM, CMA, ECO, HIN, PSY, SOY	-
11.	VIT Business School	MGT	-

Applicable subjects to be undertaken for entrance examination in each school for VIT-Bhopal

Sl.	School	Ph.D.
1.	School of Advanced Sciences	PHY, MAT, CHY, ENG
2.	School of Bio Sciences and Technology	BBT
3.	School of Computing Science & Engg.	CIE
4.	School of Electrical Engg.	ELE
5.	School of Electronics Engg.	ECE
6.	School of Mechanical Engineering	MEE
7.	VIT Business School	MGT

Applicable subjects to be undertaken for entrance examination in each school for Chennai Campus

Sl.	School	Ph.D.	Integrated Ph.D.
1.	School of Advanced Sciences	PHY, CHY, MAT, ENG, SOY, PSY, GEO	-
2.	School of Computing Science & Engg.	CIE	IT
3.	School of Electrical Engg.	ELE	EE
4.	School of Electronics Engg.	ECE	EC
5.	School of Mechanical & Building Sciences	MEE, CVL	ME, CI
6.	VIT Business School	MGT, ECO, CMA	-
7.	VIT Law School	LAW	-
8.	VFIT Fashion Technology	FTY	-

Applicable subjects to be undertaken for entrance examination in each school for VIT-AP

Sl.	School	Ph.D.
1.	School of Social Sciences & Languages	PHY, MAT, CHY, ENG
2.	School of Computing Science & Engg.	CIE
3.	School of Electronics Engg.	ECE
4.	School of Information Technology and Engineering	CIE
5.	School of Mechanical Engineering	MEE
6.	VIT Business School	MGT, ECO, SOY
7.	VIT-AP School of Law	LAW

Subjects and Subject codes for Ph.D			
Code	Subjects	Code	Subjects
BBT	Bio Sciences & Bio-Technology	ECO	Economics
BME	Biomedical Engineering	HIN	Hindi
CEE	Chemical Engineering	LAW	Law
CHY	Chemistry	MAT	Mathematics
CMA	Commerce & Accountancy	MEE	Mechanical Engineering
CIE	Computation & Information Engineering	MGT	Management
CVL	Civil Engineering	PHY	Physics
ECE	Electronics Engineering	PSY	Psychology
EIE	Instrumentation Engineering	SOY	Sociology
ELE	Electrical Engineering	FTY	Fashion Technology
ENG	English	GEO	Geology
TAM	Tamil		

Subjects and Subject codes for Integrated Ph.D	
Code	Subjects
CI	Civil Engineering
EI	Instrumentation Engineering
EE	Electrical and Electronics Engineering
EC	Electronics and Communication Engineering
IT	Computer Science Engineering & Information Technology
LS	Life Sciences
ME	Mechanical Engineering
BM	Biomedical Engineering

COMMON SYLLABUS FOR ALL SUBJECTS OF PHD PROGRAMME

ENGLISH COMMUNICATION (15 QUESTIONS)*

1. Grammar
 - Subject – Verb Agreement
 - Tense forms
 - Voices
 - Articles and Preposition
- Use of Conjunctions
2. Writing Technical Instructions
3. Writing Memos & Writing Minutes
4. Transcoding
5. Preparing Questionnaire
6. Proof Reading

STATISTICS & PROBABILITY (15 QUESTIONS)

Unit 1: Statistics

Definitions, Scope and Limitations - Sampling methods - Collection of data-Classification and Tabulation - Frequency distribution - Diagrammatic and graphical representation - Measures of Central Tendency - Mean, median, mode Partition values (Median, quartile, Deciles and percentiles)- Measures of Dispersion- Coefficient of variation- Skewness and Kurtosis.

Unit 2: Correlation- and regressions

Scatter diagram-Coefficient of correlation – Rank correlation- Lines of linear regression – Partial correlation-multiple correlation - Multiple linear regressions.

Unit 3: Probability

Events - Addition Law of probabilities – Conditional Probabilities-Multiplication Law of probabilities - Baye's Theorem – random variable – Discrete-continuous-cumulative distribution function-probability mass function-probability density function - mathematical expectation. Binomial and Poisson's distributions. Tests of hypothesis- small and large samples tests- chi-square test- Analysis of variance (ANOVA).

SYLLABUS FOR ALL SUBJECTS OF INTEGRATED PHD PROGRAMME

ENGLISH COMMUNICATION (15 QUESTIONS)*

1. Grammar
 - Subject – Verb Agreement
 - Tense forms
 - Voices
 - Articles and Preposition
- Use of Conjunctions
2. Writing Technical Instructions
3. Writing Memos & Writing Minutes
4. Transcoding
5. Preparing Questionnaire
6. Proof Reading

Important dates

Last date for closing of online application	22.11.2019
Last date for submitting hard copy of applications at respective campuses of VIT along with Xerox of all certificates	25.11.2019
Date, time and Venue of Entrance Examination (CBT) (VIT-Vellore/VIT-Chennai/VIT-AP(Amaravati)/VIT-Bhopal) (Date: 14.12. 2019 - Saturday ,Time: 10.00 am–12.00 noon)	14.12.2019
Date and time of Interview (at respective campus of choice) (Date: 14.12. 2019 - Saturday Time: 2.00 pm onwards)	14.12.2019
Results (tentative)	18.12 .2019
Reporting to the Dean/Director concerned school to select guide & payment fees at their campus of choice before	06.01.2020

For queries related to research admission please contact

Office of the PG-Admissions

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