

Information Brochure
Admission to Ph. D. Program
2019–2020
(December cycle)

Indian Institute of Engineering Science and Technology, Shibpur

भारतीय अभियांत्रिकी विज्ञान एवं प्रौद्योगिकी संस्थान, शिबपुर
ভারতীয় প্রকৌশল বিজ্ঞান এবং প্রযুক্তিবিদ্যা প্রতিষ্ঠান, শিবপুর

Formerly Known as Bengal Engineering and Science University, Shibpur

Howrah 711 103, West Bengal, India

NIRF Ranking (Year-2019)
Engineering – 19; Overall – 36



Website: www.iiests.ac.in

December, 2019

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1 IMPORTANT INFORMATION

Applications are invited for admission to the Ph.D. Program (Regular, Individual Fellowship i.e. CSIR/UGC/DBT/ICMR/INSPIRE etc., Sponsored Research Project & Sponsored Candidates categories of the Institute) in the December cycle of 2019-20 in all disciplines of Engineering, Technology, Science, Architecture, Town & Regional Planning, Humanities & Social Sciences. Admission to the candidates in the reserved category will be done as per the notification of the Government of India. Applicants are required to apply online only at www.iiests.ac.in

Application fee is Rs. 1500/- for OC/OBC(NCL)/EWS and Rs. 1000/- for SC/ST/PwD candidates.

The candidates are advised to read each and every instruction given in this Information Brochure very carefully before applying online.

- a. Initially, a candidate with M.Tech./M.E./ Integrated M.Tech /M.Arch./M.Plan./M.T.R.P./ M.Sc./M.A./M.Phil./ and/or B.Tech. degree can **apply ONLY in one of the core Department** listed in the table (page no. 7). **For the written test (for screening only), applicable for Institute Fellowship category, the candidate has to appear in one of the GATE subject** for Engineering, Technology and Architecture, Town & Regional Planning or **one of the NET subject** for Science, as listed in the page no. 11. Accordingly, a candidate can submit his/her application in one core Department through a single online application. However, candidates qualified in the written test (for screening) will have options for appearing in the interview for maximum another two allied Departments/Centres/Schools.
- b. Institute reserves the right to restrict the number of candidates to be called for interview on the performance in the screening test.
- c. IEST, Shibpur will not be responsible for wrong entries and technical error(s) while making the online application/payment of the fee.
- d. Admission will be offered subject to the availability of seats, faculty members in the respective specializations and availability of Institute Fellowships.
- e. Please visit the Institute website (www.iiests.ac.in) regularly for any updates about subsequent amendments in the advertisement and results. **No correspondence in any form in this regard will be made by the Institute with an individual candidate.**
- f. The admission will be purely provisional subject to the confirmation that they satisfy the prescribed eligibility conditions.
- g. Hostel accommodation is not guaranteed. A limited number of hostel accommodations are available which will be allocated on a preferential basis.
- h. **Age limit:** Maximum age limit prescribed for the award of Institute Fellowship Category is 30 years as on 27th December 2019. Relaxation in upper age limit of 05 years is applicable for SC/ST/Persons with Disability (PwD) and Female applicants (i.e. 35 years as on 27th December 2019). For other categories of admission to Ph.D. Program, the age limit shall be as per guidelines of funding agency.
- i. Candidates, who are already working in a research project in the Institute, may be allowed to appear in the written test and the interview and if selected, a NOC from the PI of the concerned project is needed for availing the institute fellowship and in such cases, he/she will be treated as a regular candidate and has to start from the enrollment procedure afresh.
- j. **Reservation for SC/ST/OBC (NCL)/EWS/PwD Categories:** The Institute will follow the reservation policies of the MHRD, Govt. of India. Certificate for EWS/OBC(NCL)/SC/ST/PwD will be as per Govt. of India Rules. For OBC (NCL) category, the format for certificates must be as per DoPT OM No. 36036/2/2013-Estt (Res) dated 30/05/2014 and for EWS category, the format for certificates must be as per DoPT OM No. 36039/1/2019-Estt (Res) dated 31.01.2019.
- k. Candidates who are selected for appearing in the interview for admission to the Ph. D. program, but whose results are yet to be declared, have to produce the final original certificate with the minimum qualification at the date of the interview failing which they will not be allowed for interview and their candidature is liable to be nullified.
- l. All the original documents will be verified before beginning of the interview. If anything found wrong, applicant's candidature will liable to be cancelled.

Instructions to Fill the Online Application Form

STEP-I : Register with your Email ID and Login to online submission system at www.iiests.ac.in. Fill up the ONLINE application form with appropriate data. Please note that you have to upload your documents wherever it is required to validate your information along with your digital photograph and signature.

STEP-II : Make PAYMENT and SUBMIT Application. Payment of application fee has to be made through online payment gateway only.

STEP-III : Take PRINT OUT of your submitted application. Download the **Admit Card** for written test (for screening) as per the schedule given below. This printed application may be retained with you for future requirement.

- ❖ All candidate must carry a valid Photo ID proof issued by the Government agency.
- ❖ The print out of the generated application form must be submitted in the Examination Hall of written test (for applicants in the Institute fellowship category).
- ❖ For other categories, the applicants must submit the print out of the generated application form during Interview(s) / counseling.

Please note that sending any hard copy of the application is not required.

Additional instructions to candidates with B. Tech.–M.Tech.

Dual Degree Candidates are advised to fill up the 'Academic Qualification' option in the online application format as

- 'Sl. No. 3': fill up the CGPA / % Marks up to 8th Semester (year of passing: 8th Semester Examination year).
- 'Sl. No. 4': fill up the CGPA / %Marks of the 7th to 10th Semester (year of passing: 10th Semester Examination year).

Important Dates[#]:

Sl. No.	Event	Date
1	Publication of advertisement	6 th December 2019
2	Online application starts	6 th December 2019
3	Last date of submission of online application with payment of application fee	27 th December 2019 (11:59 pm)
4	Download of Admit card for Written test (for screening) examination	Three days after successful payment of submitted online application till 1 st January 2020
5	Written test (for screening)	08 th January 2020 (11.00 a.m. to 12.30 p.m.)
6	Publication of written test (for screening) result in the Institute website	08 th January 2020 (evening)
7	Date(s) of Interview/ counseling	09-10 th January 2020
8	Publication of final list of selected candidates for Ph.D. admission-December cycle 2019-20 in the Institute website	To be notified in the institute's website
9	Date(s) of admission	

[#] Please visit the Institute website (www.iiests.ac.in) regularly for any updates about subsequent amendments in the advertisement and results. **No correspondence in any form in this regard will be made by the Institute with an individual candidate.**

2. THE INSTITUTE

Indian Institute of Engineering Science and Technology, Shibpur (IEST, Shibpur) started its journey in 1856 as the Calcutta Civil Engineering College and emerged as a premier engineering college in the pre-independence India. It was renamed the Bengal Engineering College, Shibpur in 1920. The College received the status of Deemed University in 1993 and was subsequently transformed to the Bengal Engineering and Science University, Shibpur in 2004. The institute has been upgraded to an Institute of National Importance by the NITSER Act of the Parliament in 2014 and renamed as the Indian Institute of Engineering Science and Technology, Shibpur. The Institute has fifteen departments of Engineering & Technology, Science and Humanities & Social Science disciplines. In addition to this, it has five research Schools and two research Centres dedicated for imparting education and conducting research in interdisciplinary areas. One of the remarkable strengths of the Institute is the pool of excellent faculty members. State-of-the-art research facilities and other academic resources are helpful to undertake fruitful and relevant research at the Institute. The century-old legacy of the Institute has produced illustrious alumni who made remarkable contributions in different fields across the globe. The current NIRF ranking (Engineering) of the Institute is 19 (year 2019); overall ranking 36.

3. VISION-MISSION STATEMENTS

Vision

The Vision of IEST, Shibpur is to become one of the best Institutes in the world in providing the state-of-the-art multi-disciplinary research ambience that will usher innovative world class technologies developed towards realizing the goal of Developed India, and thereby establish a unique identity for the institute amongst national and international academic and research organizations through knowledge creation, acquisition and dissemination for the benefit of society and humanity.

Mission

The Mission of the Institute are as below:

- To generate high quality human and knowledge resources in our core areas of competence and emerging areas to make valuable contribution in technology for social and economic development of the nation.
- To make focused efforts towards identification, monitoring and control of objective attributes of quality for continuous enhancement of academic processes, infrastructure and ambience.
- To efficaciously enhance and expand, even beyond national boundaries, its contribution to the betterment of technical education and offer international programmes of teaching, consultancy and research.

4. Ph.D. PROGRAMS

The Doctor of Philosophy (Ph.D.) is recommended for those research scholars who are really interested in leadership careers in academia, research institutions, research industries and important decision making bodies of government. After completion of the program, they are expected to be involved in knowledge generation activities.

5. ELIGIBILITY CRITERIA FOR Ph.D. ADMISSIONS:

The Ph.D. program shall be open to candidates of any Nationality and candidates with the following qualification shall be eligible for admission to the Ph.D. Program of the Institute:

5.1 Minimum qualifications for all categories:

Candidates possessing M.Tech. / M.E. / M.Sc.(Engg.) / M.Arch. / M.U.R.P. / M.Plan. / M.T.R.P. / M.Sc. / M.A. / M.Phil. or an equivalent postgraduate degree in the relevant branch from a recognized University/Institute with minimum 60% marks or 6.5 CGPA on a ten point scale (throughout from class X

to the qualifying degree) are eligible to apply for admission in the relevant departments.

For SC/ST/ Person with Disability (PwD) category, a minimum 55% marks or 6.0 CGPA on 10 point scale (throughout from class X to the qualifying degree) is required.

Note: CGPA will not be converted into percentage marks and vice versa.

5.2 Categories of admission:

5.2.1 Regular Candidates with Institute fellowship:

The maximum age is 30 years as on 27th December 2019. Relaxation of 5 years is applicable for SC/ST/ Person with Disability (PwD) /Female candidates. These candidates have to appear for a Ph.D. written test (for screening) and interview. To be eligible for Institute Fellowship, the candidates must have a GATE score preceding their admission to the Master's programme in Engineering/ Technology (No intermediate GATE score will be entertained) or a valid GATE/NET score for Science/Humanities discipline.

Candidates possessing B.Tech./B.E./B.Sc.(Engg.)/B.Arch./B.Plan. or an equivalent Degree in the relevant branch from a recognized University/Institute with minimum of 80% aggregate marks or 8.5 CGPA on a 10 point scale (throughout from class X to the qualifying degree) and a valid GATE score are eligible to apply for admission in the relevant departments/schools/centres.

Candidates, who are already working in a research project in the Institute and **satisfying the minimum eligibility criteria as mentioned in 5.1 and 5.2.1**, may be allowed to appear in the written test and the interview and if selected, a no objection certificate (NOC) from the Principal Investigator (PI) of the concerned project is needed for availing the institute fellowship and in such cases, he/she will be treated as a regular candidate and has to enroll afresh.

5.2.2 Candidates with Individual Fellowship (CSIR–NET JRF/UGC–NET JRF/ICMR/DST-INSPIRE etc.):

Candidates who are qualified for the Individual Fellowship category (i.e. CSIR/ UGC/ ICMR/ DST-Inspire etc.) and who fulfill the minimum eligibility criteria as prescribed in the **Section 5.1** are eligible to apply for admission in the relevant departments/schools/centres. They must have a valid offer letter of the fellowship issued by the respective funding agency. They are exempted from appearing in the written test (for screening) and the interview, but they have to appear in the counseling process. **Candidates admitted under this category will not be entitled to the award of institute fellowship.** The maximum age will be considered as per prevailing norms of the respective funding agency.

5.2.3 Candidates from Sponsored Research Project:

Candidates who are already working in a research project in the Institute, appointed through the Office of the Dean (R&C) and applying for Ph.D. under Sponsored Research Project category, must fulfill the minimum eligibility criteria as prescribed in the Section 5.1. They are exempted from appearing in the written test (for screening) and the interview, but they have to appear in the counseling process, provided they work in the same sponsored project. If selected, a no objection certificate (NOC) from the PI of the concerned project is needed for enrolment in the Ph.D. program. The minimum remaining period of the project as well as tenure of the said project employee should be at least 2 years from the date of interview of the Ph.D. program. **The Institute will not provide any assistantship /fellowship to such a research scholar.**

5.2.4 Sponsored Candidates

Sponsored candidates who are regular faculty/ regular staff members of this Institute or regular faculty members of Govt./Semi Govt. /reputed academic institute or regular employee of reputed industrial or research organization having adequate R&D facilities and who have fulfilled the eligibility criteria as prescribed in the Section 5.1 and have a minimum of two years of professional work experience are eligible to apply for admission to Ph.D. programme in the relevant departments/schools/centres. **They will have to produce a NOC (at the time of interview) from her/his employer stating clearly that, in the event**

of her/his being offered an admission, she/he shall be granted a leave of appropriate kind at least for a period of three years to enable her/him to undertake doctoral research at the Institute. Under special circumstances, the Institute may, in its own discretion, permit a candidate belonging to this category to take admission in the PhD programme if she/he is granted a minimum of six months' study leave to enable her/him to complete such part or parts of the course requirement. **The Institute will not provide any assistantship /fellowship to such a research scholar.** They are exempted from appearing in the written test (for screening), but they have to qualify in the interview. After completion of the necessary course work, the candidate may be allowed to work from their parent organization.

- B.Tech. / B.E. candidate seeking admission to the Ph.D. programme should have at least 80% marks or 8.5 CGPA on the scale of 10 throughout her/his academic career.
- B.Tech. / B.E. candidate having more than 06 years and less than 10 years experience in the reputed industry with R&D facility and having at least 70% marks or 7.5 CGPA on the scale of 10 throughout her/his academic career.
- B.Tech. / B.E. candidate having 10 years or more experience in the reputed industry with R&D facility should have at least 60% marks or 6.5 CGPA on the scale of 10 throughout her/his academic career.

5.3 Research Areas:

Broad areas of research available in the different Departments/Centres/Schools are listed below:

Name of the Department / Center / School	Allied branches	Research Specializations
Core Departments		
Aerospace Engineering and Applied Mechanics	Mechanical / Civil / Physics / Mathematics / Chemistry / Geology	Aerodynamics, Structure, Astrodynamics, Robotics, Mechatronics, Fluid Power System, CAD/CAM, Automation, Aerospace structure, Space dynamics, Propulsion, Space Engineering, Turbulence, Hydromechanics, Bio-mechanics, Earthquake Engineering, Soil dynamics, Structural dynamics, Computation Mechanics, Bio-mechanics, Fluid mechanics, Hydraulics, Hydraulic Structure, Earthquake Engineering, Structural Engineering, Plasticity, Fracture, Fatigue, Microfluidics, Thermal Engineering, CFD, Solid Mechanics, FEM, Flight Mechanics, Green Fuels for propulsion & combustion
Architecture, Town and Regional Planning	Urban Design, Urban Planning, Regional Planning and Equivalent Branches, Design (Visual Design, Product Design, Communication Design)	City Planning, Regional Planning, Environmental Planning, Transportation Planning, Tourism Planning, Sustainable Planning, Mathematical Models in Planning, Urban Studies, Urban Design, Urban Renewal, Urban Housing, Urban Semiotics, Remote Sensing and GIS Applications in Planning, Heritage Conservation, Sustainable Architecture, History and Theory of Architecture, Energy Resilient Architecture, Disaster Mitigation, Appropriate Technology, Bamboo as Design Element, Architectural Psychology, Climate and Architecture
Chemistry		Synthetic Organic Chemistry, Synthetic Inorganic Chemistry, Homogenous Catalysis, Materials Chemistry, Theoretical Chemistry, Photoelectrochemistry, Experimental Spectroscopy
Civil Engineering	Aerospace Engineering, Earthquake Engineering, Ocean/Offshore Engineering, Naval Architecture, Applied	Environmental Engineering, Geotechnical Engineering, Structural Engineering, Transportation Engineering, Water Resources Engineering

	Mechanics	
Computer Science and Technology	Information Technology/Electronics and communication	Dynamical Systems, Image Processing, Computer Vision, Topological Data Analysis, Medical and Biological Image Analysis, Cellular Automata and Computation-in-memory, Hardware Security, Data Analysis, Mobile crowd sensing and IoT security, Pattern Recognition, Natural Language Processing, IoT for Smart cities, Social Network Analysis using Machine Learning, IoT and Security, Routing in Internet of Things, Reconfigurable Cryptographic Processor, Sequence Motif, Disaster Management, Vehicular Ad-Hoc Network
Earth Sciences		Hydrogeology, Sedimentology, Sequence Stratigraphy, Basin Tectonics, Environmental Geology, Structural Geology, Experimental Geology
Electrical Engineering	Electronics & Instrumentation for CSI Specialization	Control System & Instrumentation, Power & Energy Systems, Power Electronics & Machine Drives
Electronics and Telecommunication Engineering		Frequency selective surface, Hybrid satellite terrestrial networks, Wireless information and power transfer, DSP architectures using CORDIC for real time signal processing, VLSI architecture design for Digital Image Processing systems, Communication under challenging conditions, Video based health monitoring system, Graphene derivative and other 2D material based gas sensor device development, Computational electromagnetics/metamaterials, Design of high capacity free space communication channel using angular momentum of light
Humanities and Social Sciences		Strategic Management & Entrepreneurship, English Literature & Cultural Studies
Information Technology	Computer Science and Engineering/Technology; Electronics and Communication Engineering or Equivalent	Approximate Computing, Memristor based Logic and Circuit Design, Cognitive Radio in IoT, Medical Image Analysis using AI, Shape Analysis using Digital Geometry, Cellular Automata, Advanced Wireless Communication Network, Application Specific Intelligent Embedded System Design, Future Generation Computing System, IoT Based Intelligent System Design, Hardware Security, MEDA based Biochip Design and Test
Mathematics		Mathematical Biology, Fuzzy Systems, Mathematical Analysis, Cosmology and astrophysics, Mathematical Theory of Reliability, Non-parametric Statistics, Operation Research, Relativity, Quantum Mechanics, Applied Functional Analysis, Thermo-elasticity, Decision making in uncertain environment, Matrix Theory
Mechanical Engineering		Vibration & Control, Tribology / Biotribology, Machine Design, Composite Materials, Heat Transfer, Fracture Mechanics, Non-traditional Machining, Cutting Tool Development using advanced materials, Renewable Energy, Greenhouse Technology, Renewable Energy, Greenhouse Technology, Desiccation System, Non-traditional Machining, Computational Fluid Dynamics, Energy Harvesting using Non-linear Systems
Metallurgy and Materials Engineering	Mechanical / Production / Electrical / Electronic/Materials Science / Electronics Science / Physics.	High Strength Steel, Diffusion bonding, Friction stir welding, Nano porous stainless steel for advanced application, Metal matrix composites, Ultra-high strength steel, Polymer matrix composite material, Thermo mechanical simulation of non-ferrous alloys,

		Crystallographic Texture, Surface Engineering, Hot deformation of Steels, Composite Materials, Role of microstructure on wear Behavior of Steels, Advanced Manufacturing, Dissimilar material joining, High Temperature Mg alloy, Degradation of Metallic Materials
Mining Engineering	Mining Machinery/ Mineral Processing/ Environmental Engg./ Civil Engg./ Chemical Engg./ Petroleum Engg. / Mechanical Engg./ Metallurgical Engineering/ Electrical Engineering / Electronics Engineering / Materials Science and Technology/ Environmental Science/ Biotechnology/ Microbiology/ Applied Geology/ Geology/ Applied Geophysics/ Applied Physiology/ Ergonomics/ Work physiology/Chemistry /Applied Chemistry	Extraction of metal values from mine Waste/ tailings/ low grade ores, Value added products from mine waste, Design and optimization of Mineral Dressing process/equipment, Metallurgical accounting and mineral processing design, Sustainable Development framework, Low grade Coal washing, Mineral processing, Material Handling and Transport, Overburden Dump Slope Stability, Wellbore Stability, Environmental Management of Mine Waste, Clean Coal Technology, Bioreactor for Mineral Recovery, Biomining of Deep Seated Deposit, Human Factors & Ergonomics, Mine Support Design, Underground Coal Extraction Technology, Mine Machine & Simulation, Design of Compliant tailings disposal facilities, Mine Closure – Ecological Economics Approach, Methodology design for EIA of Mining Projects, Safety, optimization, strata control and communication in underground coal mines.
Physics		Condensed Matter Physics, Nuclear Physics
Centres		
Centre for Healthcare Science and Technology	Aerospace Engineering and Applied, Mechanics, Chemistry, Electronics and Telecommunication Engineering, Information Technology, Metallurgy & Materials Engineering, Physics	Biomaterial , Early cancer diagnosis, nanomedicine for cancer and Alzheimer's diseases, Stem cells, Genomic Data Analysis / Identifying Gene Expression using Machine Learning.
Centre of Excellence in Green Energy and Sensor Systems	Physics, Electrical Engineering, Computer Science and Technology	Silicon based Solar Cell research, Renewable Integrated Microgrid, Machine learning application in energy prediction
Schools		
School of VLSI Technology	Computer Science & Technology, Electronics & Telecommunication Engineering, Electrical Engineering, Information Technology	Monolithic 3D IC testing, VLSI Architecture on Cognitive Radio"/Image Processing, Routing Algorithms in VLSI Physical Design, Intelligent Embedded Systems for Societal Aspects, Graphene based Interconnects for Future VLSI Applications, SiC Based high Power Device with fast switching, Approximate Computing for VLSI Circuits, Intelligent VLSI system Design
Dr M.N. Dastur School of Materials Science and Engineering	Mechanical/ Electrical/ Metallurgical Engg. / Electronics / Materials Science and Engineering/ Electronics Science/ Chemistry/ Physics	Polymer based composites, Carbon based nano-structures for opto-electronic applications, Electro Chemistry, energy storage material, shape memory alloy
School of Community Science & Technology	Chemistry	Food Product Development
School of Mechatronics & Robotics	Mechatronics / Robotics / Mechanical / Electronics / Instrumentation	Robotics & Mechatronics

5.4 Seat Matrix:

The Institute fellowships are available in the following Departments/Centres/Schools:

Name of the Department / Center / School	OC	EWS	OBC	SC	ST	OCPWD	EWSPWD	OBCPWD	SCPWD	STPWD	Total
Departments											
Aerospace Engineering and Applied Mechanics				1							1
Architecture, Town and Regional Planning	2	1	1	1		1					6
Chemistry	2	1		2							5
Civil Engineering	2	1	2		1						6
Computer Science and Technology	1	1	2	1							5
Earth Sciences			1								1
Electrical Engineering	2	1	1	1	1						6
Electronics and Telecommunication Engineering			1	1	1						3
Information Technology	2		2	1	1						6
Mathematics			2	1	1				1		5
Mechanical Engineering					1		1				2
Metallurgy and Materials Engineering	1	1									2
Mining Engineering	2		1								3
Physics	3	1	1	1	1						7
Centres											
Centre for Healthcare Science and Technology			1								1
Centre of Excellence in Green Energy and Sensor Systems	1										1
Schools											
School of VLSI Technology			1								1
Dr M.N. Dastur School of Materials Science and Engineering			1								1
School of Community Science & Technology	1										1
School of Mechatronics & Robotics	1										1
	20	7	17	10	7	1	1	0	1	0	64

Note: In absence of any applicant from PwD category, the seat reserved for PwD category will be filled by the candidate(s) who belong to the same category (without PwD).

5.5 Written test (for screening)

- **A written test (for screening)** shall be conducted for all eligible candidates. The duration of the test will be **one and half hour** following MCQ pattern with 100 marks, out of which 70% questions will be from the subject area (in which the candidate has qualified GATE / NET), 20% questions will test the analytical ability and 10% questions for proficiency in English. In the test, each question will carry 01 (one) mark for a correct answer, zero if not attempted, zero for multiple selections and a negative mark of 0.25 for each incorrect answer.
- Any unforeseen issue(s) arising out of the process will be resolved by the Institute within its provisions and its decision in all such matters will be final and binding.

5.6 Syllabus for written test

In general, the syllabus for the Engineering, Technology, Architecture, Town and Regional Planning Departments will be the same as of the GATE syllabus in the respective Departments and for Science Departments, the syllabus will be same as the NET syllabus in the respective Departments, as per following table.

Core Department	GATE Paper Code	Core Department	NET Paper
Aerospace Engineering and Applied Mechanics	AE	Chemistry	Chemical Sciences
Architecture, Town and Regional Planning	AR	Earth Sciences	Earth, Atmospheric, Ocean And Planetary Sciences
Civil Engineering	CE	Mathematics	Mathematical Sciences
Computer Science and Technology	CS	Physics	Physical Sciences
Electrical Engineering	EE		
Electronics and Telecommunication Engineering	EC		
Information Technology	CS		
Mechanical Engineering	ME		
Metallurgy and Materials Engineering	MT		
Mining Engineering	MN		

5.7 Fees and other details for the Ph.D. program

Every Research Scholar shall be required to pay the following fees at the time of joining. All Fees may be revised as per the decisions of the Institute authority. The candidates will be notified about such revisions through the Institute website.

Sl. No.	Item	Amount per semester (Rs.)
1.	Enrolment Fee (One time and non-refundable)	3,000
2.	Research scholar Activity Fee	500
3.	Infrastructure Maintenance Fee	2,500
4.	Examination Fee (One time and non-refundable)	1,000
5.	Tuition Fee	7,500
6.	Institute Caution Money (One time and refundable)	3,000

Total amount payable at the time of admission: Rs. 17,500/- for all candidates.

Institute fees (Tuition fees and Examination fees etc.) are collected through the individual bank account of the student (to be opened with UCO Bank, BESUS Branch). This is mandatory and is to be opened within a month from the date of admission. A student is expected to keep a sufficient fund in his/her bank account. The dues are notified from time to time and deducted automatically from the account of the research scholar. Defaulters with pending dues are not allowed to pursue further academic activities of the Institute. In future, the payment method may change.

Joining the Ph.D. Programme

1. On receiving the offer for admission, if a candidate fails to take admission in the respective course on scheduled date and time, the offer for admission to the Ph.D. course made to him/her will stand canceled.
2. The admission of research scholar migrating from other Institution/ Universities is provisional and subject to the approval of the Institute / Universities, from which they come. The candidate are required to submit a Migration Certificate.
3. The research scholar admitted should report to the respective Head of the Department along with the Provisional Admission Certificate issued by the Dean (Academic).

5.8 Delay in joining the Institute

Any research scholar who is unable to join the Institute on the scheduled day must send an application for extension of the offer (not more than two weeks), countersigned by his/her guardian clearly stating the reason of delay. In case of illness, a medical certificate must be attached.

5.9 Compliance to Institute Rules

1. All Ph.D. scholars are bound by the Institute Rules and must obey such orders as may be issued from time to time by the appropriate authority. If any student is found violating the rules and regulations, strict disciplinary action, to the extent of expulsion from the Institute, may be taken. Research scholars are liable to have their names entered in the Conduct Register maintained by the office of the Dean (Student Welfare) for offenses indicated below:
 - Disobedience to orders
 - Absence without approved leave and
 - In subordination or disrespect to any faculty member/officer/staff member or fellow students of the Institute.
2. The Research scholar may be expelled for habitual or gross misconduct or for continued absence or negligence of work, or for frequent entry of their names in the Conduct Register.

The campus of IEST, Shibpur is RAGGING FREE zone. At the time of admission, each Ph.D. candidate will be required to furnish an undertaking in a non-judicial stamp paper of Rs.10/- signed by a notary in a prescribed format (text will be made available on the website) that the Ph.D. candidates will not indulge in any form of ragging. Ph.D. scholars found to be involved in the act of ragging will be strictly punished as per rules.

5.10 Vacations and Holidays

As per rule of the Institute.

6. CAMPUS

The Institute has a beautiful green campus covering an area of about 49 Hectares situated on the northern bank of the river Hooghly, next to the Indian Botanical Garden and opposite to the Kolkata Port. The campus has a number of academic and administrative buildings, library, accommodations for staffs and research scholar, guest house, auditorium, swimming pool, research scholar amenities, banks, school, hospitals, and general services.



A portion of The Institute Campus

Institute: Academic Area

The main academic complex is a four-storied-building-covering-about-22000 sq. meter area that accommodates most of the engineering departments, Department of Human Resources Management, Office of the Dean and Office of the Controller of Examinations.

The newly constructed eight-storied Science and Technology building accommodates some of the existing engineering departments, science and management departments, and various centers and schools. Offices of the Director, Deans, Registrar, and other financial and administrative offices are also located in this building. The old Workshop complex where the Bengal Engineering College was originally started in this campus is now a heritage building. Part of the workshop is housed in the adjoining building. The workshop complex is quite large, encompassing an area of about 8500 sq. meter.



Main Academic Building

Accommodation

The Institute, with a student population of more than 3700, has 18 hostels including three girls'

hostels. However, residential accommodation of all research scholars is not guaranteed due to a shortage of hostels.

Students' welfare

Office of the Dean of Students Welfare will facilitate the Ph.D. scholars to use different facilities available at the campus. The Ph.D. scholars of this Institute are encouraged to participate in sports and games, various cultural activities like music, photography, dramatics, paintings, model making, creative writing, debating, as well as to explore innovation and incubation of business plans, etc.

Besides Institute academic building, hostels, staff quarters, the campus has the following facilities for use by the Ph.D. scholars:

1. Centre for Creative Expressions with different hobby clubs
2. R. N. Banerjee Student Recreation Centre
3. Institute Hall: A Multipurpose Auditorium
4. Gymnasium
5. Oval and Lords - Two sports grounds
6. Swimming Pool
7. Alpona Banerjee Memorial Centre for Innovation
8. Basketball court
9. Vivekananda Youth Circle
10. Institute Guest House.
11. Hospital with outdoor and indoor facilities.
12. Student canteens /cafeteria
13. Three banks with ATM facilities
14. Shanti-Neer: A Meditation Centre
15. Tagore Green Business Incubation Centre

Health Service

The Institute has a hospital to cater to the needs of the campus inmates with Medical Officers and other supporting staff. It provides 24hours ambulance service. Besides, the hospital has an ID Ward to effectively isolate research scholar suffering from infectious diseases. Serious cases are generally transferred to any city hospital.



Oval Ground



Gymnasium



Swimming Pool



Hospital Building

Research scholar' Amenities Centre

Meditation Centre

Campus Services

The Institute is provided with uninterrupted power supply from the Calcutta Electric Supply Corporation. Water supply is provided by the Howrah Municipal Corporation. In addition, the Institute has its own captive generation plant and also water supply sources. There are three agencies which look after the maintenance of various services in the campus: the Public Works Department (Maintenance) for maintenance of all buildings and roads, the Public Works Department (Electrical) to look after the maintenance of electrical services and a Public Health Engineering Department for maintenance of water supply and sewage disposal.

7. CENTRAL FACILITIES

In addition to the academic Departments, Schools and Centers, there are Central Facilities are as follows:

Computer Centre

All the departments, schools and centres of the Institute have computing facilities of their own. In addition, there is a Central Computer Centre which provides computing facilities for UG/PG labs and research works. This Computer Centre along with all departments, schools, centers offices and hostels are connected to a campus-wide network with fibre optic backbone and the whole campus is Wi-Fi enabled.

Library

The Institute has a library covering 3000 sq. meters area and is open from 09:00 h to 24:00 h (Monday to Friday) and 10:00 h to 18.30 h (Saturday and Sunday).

The library has a library management software, LIBSYS-4 and provides online search facilities (OPAC) of its database from any computer connected to the Internet through Web OPAC and also from the computers in the library dedicated for the users. Currently, the library has more than 1.4 lakhs text and reference books, and 40,000 bound volumes of journals. It also has a huge collection of documents including patents, standards, technical reports and pamphlets. The library boasts of having a good collection of old and rare books and journals of the nineteenth century. The library is a member of the Indian National Digital Library in Engineering Science and Technology (INDEST) and UGC-INFONET Digital Library Consortium of Information and Library Network (INFLIBNET) Centre and provides online access to full text of journals including American Society of Civil Engineers (ASCE), American Society of Mechanical Engineers (ASME), Economic and Political Weekly, IEEE /IIEE Electronic Library (IELOnline), ISID, JCCC@INFLIBNET, JSTOR, Science Direct, Springer Link and many others.

Workshop

The Workshop Complex has nine engineering workshops extending facilities to all the engineering departments for teaching as well as for development of prototypes/models to of any Ph.D. student.

Games and Sports

Research scholars are encouraged to join games or participate in some form of physical training.

8. HOSTEL ACCOMMODATION

The Institute, with a student population of more than 3700, has 18 hostels including three girls' hostels. However, residential accommodation of all Ph.D. scholars is not guaranteed due to a shortage of hostels. Hostel accommodation will be provided as per the availability of the rooms. All new Ph.D. scholars, who have been allotted hostel accommodation, should report themselves to the respective Hostel Warden on their first arrival at the Institute. Hostel Warden may not enter Ph.D. candidate's name in the roll of the hostel or assign him/her a seat until he/she produces the Receipt for the first installment of fees.

Hostel Dues and *Mess Dues* are to be paid by Ph.D. scholars residing in hostels. All these dues are to be paid in advance at the time of admission to the first semester and also at the beginning of other semesters. Caution money, however, is to be paid one-time only (during admission) and need not be paid in other semesters. Caution money will be refunded after the completion of the course. However, caution money will be forfeited if not claimed within one year after passing the course or leaving the Institution for any other reason, whichever is earlier. Research scholars withdrawing from the Institute after admission may get some refund as per the refund policy of the Institute.

Hostel Dues (for Ph.D. scholars staying in hostels)

Hostel Charges of **Rs. 4000/-** is to be deposited in the UCO Bank, BESUS Branch located in the ground floor of the Eight-Storeyed Building (either in Cash or by Demand Draft/Pay order drawn in favour of "Registrar, IEST, Shibpur", payable at Kolkata. The candidate should collect his/her copy of the bank receipt as well as the Institutes' copy of the receipt and shall enclose the Institutes' copy of the receipt together with his/her application form for admission to Hostel. **HRA for such candidates will not be provided, as per Institute norms.**

Sl No	Item	Amount per Semester (Rs.)
1	Hostel Maintenance Charge	2200
2	Seat Rent	1000
3	Electricity and Water Charges	800
	Total amount payable at the time of admission	4000

All charges may change as per the orders of the Institute authority, from time to time. The candidates will be notified about the changes through the website.

Mess Dues (for Ph.D. scholars staying in Hostels)

Mess dues of Rs. 25500/- is to be deposited in the State Bank of India, BESU Branch preferably through HMS (Hall Management System Portal "**MESS ADVANCE / MESS ENTRANCE / MESS CAUTION / MESS ESTABLISHMENT A/C**") at the time of admission. The candidates are requested to carry Debit Card /Credit Card or may pay using Net Banking.

SI No	Item	Amount Per Semester (Rs.)
1	Mess Caution Money (one time and refundable)	1000
2	Mess Dues Advance (per semester and adjustable)	17500
3	Mess Entrance Fee (per year and non-refundable)	3000
4	Mess Establishment Fees (per semester and non-refundable)	4000
	Total amount payable at the time of admission	25500

All charges may change as per orders of the Institute authority. The candidates will be notified about the changes through the website.

Opening of Bank Account

Institute fees (Tuition fees and Examination fees etc.) are collected through the individual bank account of the student (to be opened with UCO Bank, BESUS Branch). This is mandatory and to be opened within a month from the date of admission failing which the candidature of the student will be canceled. A student is expected to keep a sufficient amount in his/her account. The dues are notified from time to time and deducted automatically from the account of the research scholar. Defaulters with pending dues are not allowed to pursue further academic activities of the Institute. In future payment method may change.

For any specific inquiry regarding Ph.D. admission 2019-2020 December Cycle, please mail us at

phd_admission@iiests.ac.in

Professor Chandan Kumar Chanda, Professor-In-Charge of Admission & Examination

Professor Binay Krishna Ghorai, Admission-In-Charge, PhD December 2019-2020 cycle

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