

**Information Brochure
for
Admission to**

Four-Semester Full Time PG (MSc) Programmes

in

Physics, Chemistry, Applied Mathematics, Applied Geology, and Food
Processing & Nutrition Science

2015-16



**INDIAN INSTITUTE OF ENGINEERING SCIENCE AND TECHNOLOGY, SHIBPUR
(formerly BENGAL ENGINEERING AND SCIENCE UNIVERSITY, SHIBPUR)
HOWRAH – 711 103, W.B., INDIA
Phone: (033) 2668 4561/62/63 Fax: (033) 2668 7575
Website: www.iiests.ac.in**

IMPORTANT

I) Applying for admission and mere fulfilling the eligibility criteria does not guarantee a CALL for TEST/INTERVIEW.

II) This year 50% of the total seats will be filled in through CCMN 2015 and the rest through the Institute's own admission procedure.

III) This brochure describes the on-line application procedure and other details for the Institute's own admission procedure

IV) Aspirant wishes to admit through CCMN 2015 are advised to see www.ccmn.in for MSc admission in NITs and CFTIs where IEST, SHIBPUR is one of the participating Institutes.

IMPORTANT DATES		2015
1.	On-line application starts from	1 May : Friday
2.	Last date of submission of on-line application	15 May: Friday
3.	Last date for submission of application money	15 May: Friday
4.	Publication of the list of eligible candidates for Test/Interview	26 May : Tuesday
5.	Test/Interview Dates	1 -3 June : Monday to Wednesday
6.	Date of publication of the rank list	9 June : Tuesday
7.	Date of 1 st counseling	16 June : Tuesday
8.	Date of admission (1 st)	16 – 17 June: Tuesday & Wednesday
9.	Date of 2 nd counseling & Admission	7 July : Tuesday
10.	Date of joining/commencement of classes	14 July : Tuesday

V) The dates may change. Please refer to our website (www.iiests.ac.in) for the final dates.

VI) Hostel accommodation is not guaranteed.

Date of joining Hostel (if applicable) July 13 (Monday)

INDIAN INSTITUTE OF ENGINEERING SCIENCE AND TECHNOLOGY, SHIBPUR

The **INDIAN INSTITUTE OF ENGINEERING SCIENCE AND TECHNOLOGY, SHIBPUR, or IEST, Shibpur, an Institute of National Importance under Ministry of Human Resource and Development, Government of India**, created by transforming the Bengal Engineering and Science University, Shibpur, established by the name **Calcutta Civil Engineering College**, way back in **1856**, with the idea of introducing engineering education in the country, have long and glorious past. In the year **1920**, the college was renamed as **Bengal Engineering College, Shibpur**. Up to **1992**, the Institute was a constituent college of the Calcutta University and has been offering PG Courses in Engineering since **1954**. In recognition of its service to the nation for all these years, the college was elevated to the status of a **Deemed University** in **1993** and the then Honorable President of India, Dr. Sankar Dayal Sharma formally inaugurated the University on **March 13, 1993**.

The Institute was elevated to the status of a State University from **1st October 2004** and was renamed as **Bengal Engineering and Science University, Shibpur**. On **July the 13th, 2005**, Dr. A. P. J. Abdul Kalam, the Hon'ble President of India, formally inaugurated the University. The University used to offer all its regular programs through three faculties, namely, Engineering and Technology, Basic and Applied Science and Management and Social Sciences.

Further, to fulfill the mandate of the Government of India to transform some selected Universities/Institutes to Institute of National Importance (INI), a new class of Institute (namely, IEST) which would primarily offer PG courses was planned to serve the need of the Country. Following the recommendation of the Ananda Krishnan Committee on the 12th 5-year plan BESU, Shibpur has got the distinction of the 1st IEST in the country with the promulgation of the IEST act at both houses of the Indian Parliament followed by the assent to this act by the Hon'able President of India is ushering a new era in higher engineering and science education from 4th March 2014.

VISION

Bengal Engineering Science University Shibpur aspires to produce graduate students who are creative, honest and technically competent to solve the global problems. They will possess adequate understanding of sustainability, and concern for environmental protection and socio economic global conditions.

MISSION

The mission of this Institute is to provide a congenial and conducive learning environment and opportunities for a diverse student population to achieve a high-quality, global educational experience, to engage in scholarly research, and creative activities, and to offer meaningful

public service to the community, the state, the nation, and the world so that the graduates are competent, socially informed, ethically upright and productive global citizens.

THE CAMPUS and Academic Block

The Institute has a beautiful green campus covering an area of nearly 49 hectares on the northern bank of the river Hoogly opposite to Kolkata Port. Several Institution buildings, accommodation for staff and students, campus amenities and services are the main components of the campus. The main building covers a total floor space of about 22,000 square meters is a four storied building with a central corridor. Most of the academic departments, *Office of the Dean (Academic affairs), and the Examination office are located in this building.*

A composite eight storied science and technology building with a carpet area of 14,400 square meters has newly been constructed to accommodate the expansion facilities of existing and upcoming departments. *Most of the administrative offices including the office of the Vice-Chancellor, Offices of other Deans, Registrar and Finance Officer are located here.*

The Workshop complex is housed partly in the premises of the heritage building and partly in the adjoining building. The total area of the workshop complex is about 8,500 square meters.

The M. N. Dastur block and A. K. Seal hall also house some of the academic and administrative departments.

The Institute is expanding, new buildings are being constructed, and some of the old buildings have been converted to accommodate Banks, offices as well as specialized schools set up for the research and development activities.

ACCOMODATION FOR STUDENTS AND STAFF

The Institute, with a student population of more than 3200, has 15 hostels including two for girls and 1 for girl scholars. However, residential requirement is optional for PG Students and accommodation of all UG students in the campus hostels is not guaranteed. The Institute also provides accommodation for a large number of faculty members and other categories of staff within the campus.

AMENITIES

Besides Institute building, students' hostels, staff quarters and various student and staff activity centers, the campus has the following amenities:

- (a) The Institute guest house and centenary alumni building.

- (b) The hospital with outdoor and indoor treatment facilities under the supervision of medical officers.
- (c) The staff recreation centre – staff common room, professors’ common room, etc.
- (d) The institute hall – a multipurpose auditorium.
- (e) B. E. College Model School (from KG to H.S. level).
- (f) A well equipped gymnasium and well maintained Sports Fields.
- (g) A student Canteen and a staff cum student canteen.
- (h) Campus wide networking; Bank and ATM counter.
- (i) A students’ activity centre to carry out activities of different societies like photography, drama, music, adventure sports etc.
- (j) A swimming pool.
- (k) A Meditation Centre
- (l) A students' innovation centre.

HEALTH SERVICE

The Institute has a hospital to cater to the needs of the campus inmates with medical officers other supporting staff. Besides, the hospital has an ID Ward to effectively isolate students suffering from infectious diseases such as chicken pox, mumps, measles etc. Outdoor treatment is available in two shifts: morning and afternoon except Sundays and holidays. Serious cases are generally transferred either to any city hospital or to the students' health home, Kolkata. This Institution has membership of the students' health home. The hospital of the Institute provides 24 hours ambulance service.

CAMPUS SERVICES & MANAGEMENT

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) with an Assistant Engineer-in-charge for maintenance of all buildings and roads, the Electrical Wing of the P.W.D. with a Sub Assistant Engineer-in-charge to look after the maintenance of electrical services and a Public Health Engineering Department with a sub-Assistant Engineer-in-charge for maintenance of water supply and sewage disposal services. For looking after the security of the campus and maintenance of the compound, there is an Estate Office.

CENTRAL FACILITIES

In addition to the academic and supporting departments, there are Central Facilities as follows:

COMPUTER CENTRE

All departments have computer facilities of their own. In addition, there is a Central Computer Centre which provides sophisticated computing machines for sponsored research and consultancy projects. All the departments, Computer Centre and all the hostels are connected in a campus wide network with fiber-optic backbone and the whole campus is wi-fi enabled.

LIBRARY

The Institute library has the distinction of being one of the oldest and the largest resourceful technical library in the Southeast Asia. The total area of the library is 3,000 square meter and it is open from 8.00 A.M. to 8.00 P.M. (Monday to Friday) and 9.00 A.M. to 1.00 P.M. (Saturday and Sunday). The library has hardware and integrated library management software, LIBSYS-4. The library is providing online search facilities (OPAC) of its database from any computer connected to the Internet through WebOPAC and four nodes installed in the library dedicated for the users. The library is connected to the local area network (LAN) of the Institute and providing e-mail and Internet browsing facilities to the users of the library. The present collection of books is about 1.32 lakhs and 40,000 bound volumes of journals, besides it has a huge collection of documents, such as patents, standards, technical reports and pamphlets. The library boasts of having a good collection of old and rare books and journals of nineteenth century. The Library is a member of Indian National Digital Library in Engineering Science and Technology (INDEST) and UGC-INFONET Digital Library consortium of Information and Library Network (INFLIBNET) Centre and providing access to all important online full text electronic resources to the users such as ASCE, ASME, IEEE/IEE etc.

PRESS

The Institute has a modest printing press with necessary staff and machines. The press is utilized to print Institute News Bulletins, Seminars and other miscellaneous materials. Recently, a Desk Top Publication System has been added. A NEWSLETTER is also published from time to time to enlighten the research works of our institute.

WORKSHOP COMPLEX

The Workshop Complex has nine engineering Shops to offer various training in different basic shop practice e.g., Carpentry Shop, Smithy Shop, Welding and Painting Shop, Fitting Shop, Machine Shop, Foundry and Pattern Shop, Boiler Shop, Electric Shop, Automobile Shop and Project Model Shop.

DEPARTMENT OF STUDENTS' AFFAIRS

Headed by a Professor In charge of Students' Affairs (Dean – Students), this department, encourages and enables the students to participate in Games, Sports and various Cultural Activities.

HUMAN RESOURCE MANAGEMENT

Department of Human Resource Management is responsible for facilitating job placements as well as practical training for the engineering students of this Institute. The departments assist the students in arranging training in industrial establishments during summer vacation for the pre-final year students and also coordinate Post Graduate Practical Training for fresh graduates in collaboration with Board of Practical Training, Eastern Region, Govt. of India. The activity is organized by the HRM Department through Campus/Off-campus process by reputed organizations. Following statistics of placement of students in jobs under the initiative of the HRM Department reveals the demand of students of the Institute in job markets as well as its changing trend during the current years.

ACADEMIC PROGRAMMES

A. Integrated Dual degree (B. Tech and M. Tech) Programme

The Institute offers 5-year full time dual degree courses in nine disciplines leading to the B. Tech and M. Tech degrees as listed below:

- a. Aerospace Engineering
- b. Civil Engineering
- c. Computer Science & Technology
- d. Electrical Engineering
- e. Electronics & Telecommunication Engineering
- f. Information Technology
- g. Mechanical Engineering
- h. Metallurgy and Materials Engineering
- i. Mining Engineering

A regular course of study for the dual degree courses extends over 10-semesters.

Other than the above mentioned dual degree course leading to combined B. Tech and M.Tech degrees the Institute continues offering the 10 semester.

- Bachelor in Architecture course

which is the only exception from the regular 10 semester dual degree program for other Engineering branches.

The UG/PG programmes from various departments are supported by the following departments who usually offer PG and Doctoral programmes. They are;

- Mathematics
- Physics

- Chemistry
- Earth Sciences
- Humanities and Social Sciences

B. POSTGRADUATE COURSES in Engineering and Technology

The Institute offers 4-semester postgraduate courses leading to **Master of Technology (M. Tech)** degree in 9 disciplines, namely, Civil, Electrical, Mechanical, Metallurgical, Mining, Electronics & Tele-Communication, Computer Science & Technology, Aerospace & Applied Mechanics, and Information Technology. Another postgraduate course is also offered by the Department of Architecture, Town and Regional planning leading to the degree of **Master of Urban and Regional Planning (MURP)**. All the ten courses are offered by the ten Engineering and technology departments of this Institute. A number of schools under this Institute offer 4-semester full time PG courses leading to M. Tech. degree in Materials Engineering, VLSI Design, Mechatronics and Safety.

C. POSTGRADUATE COURSES in SCIENCE and MANAGEMENT

The Institute offers PG course in Science and Management; they are

- 4-semester full time M.Sc. courses in Chemistry, Earth Sciences, Mathematics and Physics.
- 4-semester full time course in Master of Business Administration (MBA) under School of Management Science (SOMS)
- 4-semester M.Sc. Course on Food & Nutrition Science

D. DOCTORAL PROGRAMMES

The academic departments offer guidance and facilities for Ph.D. Programme. Total number of registered candidate in the doctoral program at present is more than 500.

E. CONTINUING EDUCATION PROGRAMMES

From time to time, the academic departments organize various continuing education programmes including summer and winter schools sponsored by AICTE, ISTE etc. These departments also organize seminars and workshops for working engineers in collaboration with the industries and professional societies.

ADMISSION TO 4 SEMESTER FULL TIME PG (MSc) PROGRAMMES

Applications are invited for admission to the following 4-semester full time Postgraduate courses leading to the Master of Science (MSc) degree of IEST, Shibpur for the session 2015-16. Details are shown in the following table.

INDIAN INSTITUTE OF ENGINEERING SCIENCE AND TECHNOLOGY, SHIBPUR (IEST, SHIBPUR): COMPLETE ELIBILITY SEAT MATRIX for our admission process 2015-16

Table - 1

Department	Program		Eligible B. Sc Degree	JAM Subject	Number of Seats									Special Eligibility Criteria (if any)
	Name	Duration (Years)			OC	OB	SC	ST	OC-PWD	OB-PWD	SC-PWD	ST-PWD	Total	
Physics	M. Sc. (Physics)	2	Physics (Honours/Major)	PH	7	3	2	1	1	0	0	0	14	60% or equivalent CGPA in Hons. Subject for General candidate
Chemistry	M. Sc. (Chemistry)	2	Chemistry (Honours/Major)	CY	7	3	2	1	1	0	0	0	14	60% or equivalent CGPA in Hons. Subject for General candidate
Earth Science	M. Sc. (Applied Geology)	2	Geology / Applied Geology (Honours/Major)	GG	7	3	2	1	1	0	0	0	14	60% or equivalent CGPA in Hons. Subject for General candidate
			Physics / Chemistry / Mathematics (Honours/Major)	PH / CY / MA										60% or equivalent CGPA in Hons.and Geology as one of the subsidiary subject (60% marks or equivalent CGPA) for General candidate
Mathematics	M. Sc. (Applied Mathematics)	2	Mathematics (Honours/Major)	MA	7	3	2	1	1	0	0	0	14	60% or equivalent CGPA in Hons. Subject for General candidate
School of Community Science & Technology	M. Sc. (Food Processing and Nutrition Science)	2	Chemistry (Honours/Major)	CY	7	3	2	1	1	0	0	0	13	60% or equivalent CGPA in Hons. Subject for General candidate
			Biological Science (Honours/Major)	BL										60% or equivalent CGPA in Hons. Subject and Chemistry as one of the subsidiary subjects for General candidate

Note: 1) For SC/ST/PWD candidates the eligibility requirement is 55% for all the above programmes.

2) 50% of the available seats will be admitted through CCMN-2015 and the rest 50%(as shown above) will be admitted through direct admission procedure of IEST, Shibpur Shibpur

DEPARTMENT OF CHEMISTRY:

In accordance with the fast changing global scientific development, the four semester M.Sc. course in Chemistry aims at satisfying newer demands of academia and industries. Each final semester post-graduate student is assigned with a project under the supervision of a specific departmental faculty member to get a flavor of focused research program. The post-graduate curriculum is a unique blend of fundamental chemistry, with emphasis on emerging thrust areas of chemical science and its diverse applications.

The Chemistry Department with its glorious past envisages stronger bonding between Science & Technology, with emphasis on doing research in various thrust areas. We strive to enlighten the students about various interdisciplinary areas of chemistry with other branches of science and engineering. Currently the Department has 15 Faculty members. During the last five years, besides association with both UG & PG teaching, the faculty members have produced outstanding research publications, around 380 in peer reviewed National and International journals and at present 80 research scholars have been working under various schemes for their Ph.D. degree in the Department. The Department of Chemistry has been identified as Research-intensive Department and a number of sophisticated instruments obtained from different Funding Agencies have been used to support various research facilities.

At present the faculty members are involved in frontier areas of research which include Photoelectrochemical Solar Cells & Corrosion Science: Solar hydrogen generation; Coordination Chemistry and Nanomaterials; Thin Film Semiconductor, Gas Sensors and Solar Cells; Carbohydrate Chemistry and Glycobiology; Homogeneous and Heterogeneous Catalysis and Catalytic Activity of Nanomaterials; Coordination and Bioinorganic Chemistry; Nonlinear Optical Properties: Theoretical Modeling and Computation; Theoretical Molecular Sciences: Electronic structure theory and non-equilibrium statistical mechanics; Synthetic Organic and Organometallic Chemistry; Homogeneous Catalysis and Bio-inspired Coordination Chemistry of Redox-Active Ligands; Supramolecular Chemistry; Design and Synthesis of Fluoroionophores; Fuel Cell Technology, Nano Materials for Energy Conversion and Dye Sensitized Solar Cell; Biophysical Chemistry, Chemical Darwinism, Analytical and Environmental, Energy and Nano Science.

DEPARTMENT OF EARTH SCIENCES:

IEST, Shibpur and the subject Geology possess a century old relationship. Many eminent geoscientists have offered their teaching and research expertise to uphold the department to the present status. The Department of Geology has started to offer independent post-graduate courses in Applied Geology after its separate identity as a science department since 2005. **The ‘Department of Geology’ has been renamed as the ‘Department of Earth Sciences’ in 2011.** Department has received financial support from DST, Govt. of India under FIST programme, 2009. The department is offering postgraduate courses with a syllabus at par with other established and reputed institutes in India. In the curriculum, the department has emphasized on the exposure of the students towards the emerging and important aspects which are at this

moment globally challenged. Students are being trained in classroom as well as in the field by permanent and eminent visiting faculties of national and international repute in the diverse fields of Geology. The students of this department are offered training in the field by ONGC exploration-geologists and geoscientists of AMD, DAE, Govt. of India. The frontier areas of research of the department are basin tectonics, sedimentology, palaeontology, hydrogeology and structural geology. Faculty members of the department are actively involved with R&D projects funded by different agencies like ONGC, UGC, DST, AICTE and Govt. of West Bengal. The faculty members have published scientific books and research papers in national and international journals of repute. The faculty members inspire the students to get involved with an aspiration to ignite geological research- faculty within the upcoming geoscientists. Research scholars are engaged with research activities in different fields of earth sciences for Ph.D. degree. Students of the department have been able to find employment opportunity in GSI, mining companies and petroleum industries as well as further academic involvements in national institutes of international repute as well.

DEPARTMENT OF MATHEMATICS :

Since the inception of B. E. College, the Department of Mathematics earned a glorious heritage of conducting research activities in various fields of Pure and Applied Mathematics. More than 80 Ph.D. and 03 D.Sc. degrees have been awarded based on research work carried out in this department during the last four decades. 36 research scholars have been awarded Ph.D. degree from this department during the last five years. More than 250 research papers have been published in various journals of national and international repute during the last 4 years. At present about 80 research scholars are working in various areas of mathematics and statistics in the Department.

The department undertakes the teaching of Mathematics, including Statistics, Operations Research, Numerical Analysis, Computational Techniques etc. in the B.E/ B.Tech., B.Arch. and M.E. programmes of this Institution. Two years (four semester) M.Sc. programme in Applied Mathematics was started in the year 2000.

Almost all the M.Sc.(Applied Mathematics) students graduated from this Institute are engaged in various academic Institutions like Schools, Engineering Colleges, Govt. aided Colleges, University/ Research Institutions as teachers or research scholars and in the corporate sectors where they have been recruited through campus interview.

The present faculty members of this Department are carrying out research works in the following areas of Pure Mathematics, Applied Mathematics and Statistics:

- ❖ fuzzy optimization
- ❖ fuzzy mathematics

- ❖ classical elasticity
- ❖ generalized thermo elasticity and thermo-visco-elasticity
- ❖ micro-polar elasticity
- ❖ fracture mechanics
- ❖ maximum entropy models
- ❖ mathematical and statistical theory of life testing and reliability
- ❖ quantum information theory
- ❖ relativity and cosmology
- ❖ special functions
- ❖ mathematical ecology
- ❖ mathematical modeling in biology, epidemiology and delay systems
- ❖ neural network
- ❖ non-linear dynamics
- ❖ non-linear data analysis
- ❖ fluid dynamics
- ❖ functional analysis etc.

DEPARTMENT OF PHYSICS :

The department of Physics has a century old past and has come through the era of revolutionary thoughts in the world of physics to the present century of technological revolution. As far back in 1926, Professor S. N. Bose and Professor M. Saha, the then post graduate students of Calcutta University, used to come to this department to study original works of Max. Planck and Albert Einstein. Our library was so rich even at that time under the able leadership of Prof. Bruhl. They also used to do their M.Sc. practical experiments in the laboratory of physics department. An unforgettable name in the history of the department is Prof. S.S. Boral who initiated the course on Electronics and Telecommunications which itself finally branched out to be one of the advanced engineering department of the university. Our department can justifiably feel proud of eminent teachers like Professor P. K. Chattopadhyay, Professor B. R. Gupta, Professor N. C. Mukherjee, Professor M. Mitra and others who taught the undergraduate engineering students of B.E. College and made a strong base for their further studies. Our present faculty members are also faithfully tracing their paths.

The year 2000 was a landmark for our department when the M.Sc. course in Applied Physics was introduced. New faculty members started joining the department, having expertise in modern thrust areas of physics and related technology. Experimental as well as theoretical works in several fields of physics are undertaken in the department in collaboration with other research institutions to create a rich environment of advanced research. In addition to both UG & PG teaching, the faculty members have contributed excellent research publications in international journals of repute and international conference proceedings. The areas of research are as follows.

- Nuclear structure and nuclear astrophysics

- High energy physics
- Quantum field theory at finite temperature and density
- Synthesis & characterization of thermoelectric nanomaterials and composites
- Magnetic properties of materials
- Characterization of Fuel cells & its components
- Preparation & characterization of oxide glass by sol-gel route
- Spectroscopic investigation on rare earth and transition metals in search of LASER materials.
- Fluorescence and phosphorescence study of rare earth materials.
- Design and optimization of optical fibers for dense WDM system.
- Nonlinear pulse propagation through single mode optical fibers.
- Fabrication & Characterization Optical nano fibers
- Atomic Physics in Plasmas, Laser-atom interactions.
- Spectroscopy of confined quantum systems, Many-body techniques in atomic physics.
- Silicon nanostructure based : Light emitters, Detectors, Microcavities , Sensors.
- Processing and characterization of electroceramic materials used as capacitor dielectrics, sensors and actuators etc.

SCHOOL OF COMMUNITY SCIENCE AND TECHNOLOGY:

School of Community Science and Technology (SOCSAT) was created at IEST, Shibpur in 2004 to foster sustainable development of different marginalized communities by empowering stakeholders with inputs from institutionalized S & T community. The school is dedicated to minimize environmental damage and maintain ecological balance coupled with the gearing up S & T innovation with special focus on gender equity, so as to establish an atmosphere that will enhance the nation's capacity, capability and scientific temper to develop and sustain basic and applied research at the cutting edge of science to meet the needs of the twenty – first century. The objectives and activities of the school is given below:

- Awareness generation
- Dissemination of technical know-how
- Organic relationship with the academic and the society
- Society oriented interdisciplinary research *Promote Innovation
- *Integrating S&T with moral, ethical and economic issues and settings priorities
- *Promote interdisciplinary research and education to encourage better understanding of community related issues

Food Processing and Nutritional Science has emerged as one of the most important branches of studies and research in the modern era of Applied Science. Keeping this in view the School has

introduced 4 semester M.Sc course on “Food Processing and Nutrition Science” from the academic session 2007-2008 The school has modest research and analytical laboratory and the research activities of the school have been progressing with significant stride commensurate with the available infrastructure within the School at the Institute, to pursue interdisciplinary research. It has also the facilities of a sub-library and computational laboratory. Within the short span of three/four years it has published good number of research work in reputed journals and has ongoing Ph.D research activities in the relevant fields of Food Processing and Nutrition Science , Food Microbiology, Biochemical and community interest. The areas of Research are as follows:

- Nanotechnology in food products
- Extrusion technology in food
- Development and evaluation of nutritionally enriched spread products
- Isolation and utilization of non oil constituent of oil bearing materials
- Technology developments for Non- Dairy products of superior Nutritional Quality at significantly reduced cost.
- Technology development particularly microbial fermentation process for making value-added products from waste fruits and vegetables for food applications.
- Studies on production and applications of structured Lipids,Bioactive peptide. Food enzymes and biocolours from microbial sources for food use.
- Bioflavour by enzymatic conversion with isolated enzymes by fermentation process.

Apart from the activities discussed above SOCSAT is carrying out a variety of projects in diverse field with a number of Govt. and private sponsoring partners.

ELIGIBILITY

- a) A candidate who has appeared for the qualifying degree may apply.
- b) All candidates who are eligible for admission but whose results are yet to be declared, will be allowed provisional admission, if selected. They will be required to submit their results of the qualifying degree examinations by 30.09.2015 failing which their admission may be treated as canceled.
- c) Minimum 60% (6.75 CGPA) for General candidates and 55% (6.25 CGPA) marks is required for SC/ST/PH candidates in the Honours/Major subject in the qualifying examination.
- d) Date of closing of the admission will be announced in the Institute website.

Notes

1. Candidates **who do not report for written test/Interview** at the scheduled time, date and venue, as will not be eligible for admission in this session. Request for change of time, date and venue for interview will **not** be entertained.
2. Certificate for SC/ST: Scheduled caste/Scheduled Tribe candidates in W.B, as specified in Govt of W.B Order No. 112(2)-TW/EC dated 07.03.91 are eligible for seeking

admission under SC/ST Quota. SC/ST candidates hailing from states other than West Bengal are not eligible for such benefits and they will be treated as General category candidates.

ATTENDANCE REQUIREMENT

To appear in the final/annual examination each student is required to have **at least 75% attendance in each subject.**

DISCIPLINE

Students are expected to observe norms of good behavior, rules and regulations prescribed and orders issued by the Institute authorities from time to time.

Fees and other details for PG (M.Sc.) courses

I. Fees

Item (Per semester basis)	Amount in Rs.
Admission Fee	500
Students Activity and others	500
Infrastructure Maintenance Fee	2500
Tuition Fee	15000
Examination Fee	1000
Total (per semester)	19,500
Total at the time of admission (see note a. below)	22,500

Note:

- a. **During admission to 1st year 1st semester M.Sc., a onetime caution deposit (refundable) of Rs. 3000/- is required to be paid.**
 - b. **Tuition fees for SC/ST candidates are waived for all semester.**
 - c. **All fees are to be paid only by Demand Draft/Pay Order in favour of "Registrar, IEST, Shibpur" and payable at par at any branch of Nationalized Bank in Kolkata.**
- II. 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 PG-course made to him **will stand cancelled.**
- III. **The admission of students is provisional and subject to the submission of migration certificate before 1st semester M.Sc. examination.**

- IV. The session will commence on and from 14th July, 2015. The students admitted must report to the respective Head of the department along with the Provisional **Admission Certificate** issued by the Dean (academic). Regarding class routine the candidates should contact concerned Head/Director of the Department/School.

Proof of CASTE etc.

Caste certificate (where applicable), Mark sheet and other relevant documents in original are required to be produced at the time of admission.

GENERAL INFORMATION

Compliance to Institute Rules:

All students are bound by the Institute Rules and must obey such orders as may be issued from time to time by the appropriate authority. Serious breach of Institute Rules may entail removal from the University. Following rules should be rigidly followed:

- (i) All new students, who have been allotted hostel accommodation, on their first arrival at the Institute, should report themselves to the corresponding Hostel Superintendent.
- (ii) A Superintendent may not enter a student's name in the roll of the Hostel or assign him a seat, until he/she produces the Cashier's Receipt for the first installment of fees.
- (iii) Every student, on first joining the Institute, must provide himself with bedding and mosquito net. Except with special permission from the PICSA, no furniture should be brought into the Institution.
- (iv) Students are not allowed to stay outside their hostels beyond 10 p.m. without prior permission from their respective Superintendents.
- (vi) Disorderly or indecent conduct in the campus will lead to disciplinary action
- (vii) Students are liable to have their names entered in the Conduct Register maintained by the office of the Vice-chancellor for offences indicated below:
 - * Disobedience to orders
 - * Absence without leave and
 - * Insubordination or disrespect to the members of the Institute Staff.

- (viii) Students may be expelled for habitual or gross misconduct or for continued absence or neglect of work, or for frequent entry of their names in the Conduct Register.
- (iv) Students leaving their rooms must see that those are properly locked.
- (v) Smoking within the campus including the Class Rooms, laboratories and Workshops etc. is strictly prohibited.
- (vi) The Inmates of a room are collectively held responsible for the care of all fittings and furniture in and, near their rooms. Any damage, other than that due to normal wear and tear, will be chargeable to the Inmate or Inmates responsible for the damage.
- (vii) The Institute swimming pool, beyond scheduled hours, and all ponds are strictly out-of-bounds for students.
- (viii) The Oval Ground is out-of-bounds after dusk.
- (ix) Students found involved in the act of ragging will be punished as per rules.
- (x) No students should use slippers during class hours.
- (xi) Use of microphones, external lighting, VCR and Cable TVs in hostels are strictly prohibited.
- (xii) Students are advised to carry Identity cards, especially when they move outside the campus.
- (xiii) Swimming and bathing are prohibited in: (a) The river Hooghly, (b) Ponds inside the campus.
- (xiv) The main gate will be closed at 10.30 p.m. However, in case of urgent work students must get prior permission from the Hostel Superintendent to go outside after 7 p.m.
- (xv) Study hours are 7.00 p.m. to 10.00 p.m. Loitering of the students in the campus after 7 p.m. will not be allowed. However, for consultations with their classmates, students may go to other hostels with prior permission of both the Hostel Superintendents.
- If any student found loitering inside campus or outside without prior permission of the respective Hostel Superintendent, disciplinary action may be taken against him/her.
- (xvi) Hostel gates will be closed at 10.30 p.m.
- (xvii) If any student is found violating the rules and regulations, disciplinary action up to expulsion from the Institute may be taken.
- (xviii) No bike/scooter will be allowed to remain in the Hostel.

Medical Arrangement

The campus inmates are under the general medical supervision of two Resident Medical Officers. There is a dispensary and a hospital within the campus, where minor cases of illness can be treated. Serious cases are referred to Government Hospitals. Besides, the University has universal membership for the Students Health Home, Kolkata.

Games and Sports

Students are to join games or participate in some form of physical training. Every student must possess a pair of black shorts and a pair of white tennis shoes. All students must join the athletics Club and any of the societies in the Students' Activity Centre.

National Cadet Corps (NCC) /Physical Training :

The University provides NCC/Physical Training as Compulsory Additional Elective Subject under extracurricular activity for all the 1st year (B.E. /B.Arch) students. The students both boys and girls not enrolled in NCC course must be enrolled in Physical Training course. They will have to undergo Physical Training once in a week by specially trained Gents/Lady Physical Instructor.

Vacations and Holidays

The Institute has only one vacation – the Summer Vacation. No student may stay at the Hostels/Halls during the vacation without the special permission of the Dean of Students'. Other than the two month plus summer vacation students enjoy Puja Holidays for a couple of days and a winter recess for a week. Institute holiday list and the academic calendar are available in the website www.iiests.ac.in.

Hostel Charges

Hostel charges per semester as detailed below (for those who stay in Hostel) has to be paid in advance as and when they move to next semester.

Sl. No.	Item	Amount (Rs.)
1.	Hostel Maintenance Charge (per semester)	1,000
2.	Seat Rent (per semester)	600
3.	Electricity & water (per semester)	300
	Total:	1,900
4.	Mess Charges	**

Hostel Maintenance Charges and Mess Dues are to be paid at the time of admission to Hostel: Hostel Charges of Rs. 1900/- is to be deposited in the United Bank of India, BESUS Branch. This branch is located in the ground floor of the Heaton Hall (Adjacent to Pandya Hall as well as Wolfendon Hall) within the Institute Campus, 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 University’s copy of the Receipt and shall enclose the University’s copy of the Receipt together with his/her application form for admission to Hostel.

** The mess is run by the students with the supervision of the Hostel/Hall superintendent and logistic support from the mess staff. The exact amount of mess dues (approximately Rs. 2000/- per month at present) vary from time to time. Two major meals are supplied in the mess.

Note:

1. Mess fee is to be deposited in the United Bank of India, BESUS, either in Cash or by Demand Draft. Exact amount will be notified in due course.
2. Mess Caution Money will be forfeited if it is not claimed within 1 year after graduation or leaving the Institution for any other reason, whichever is earlier.

All Charges may change as per orders of the appropriate authority.

SCHOLARSHIPS

Scholarships will be available as per the MHRD rules.

GAABESU SCHOLARSHIPS

Other than the above scholarships several other scholarships are offered to the students by the Global Alumni Association of this University. These scholarships are offered by individuals as well as past alumni batches and several chapters of Alumni situated all over country and beyond. GAABESU acts as the nodal agency for these scholarships. For details see www.becollege.org.

MIGRATION

A candidate who is registered with a Board/Council other than West Bengal Council of Higher Secondary Examination and/or a University/Institute other than the IEST, Bengal Engineering, Shibpur shall have to produce a migration certificate and pay the requisite Registration fee to the IEST, Shibpur within four months from the date of admission failing which his/her admission to any course under the IEST, Shibpur is liable to be cancelled.