INFORMATION BROCHURE

Indian Institute of Information Technology Kalyani

Indian Institute of Information Technology Kalyani

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Message from Director

Prof. Partha P. Chakrabarti
Director, IIT Kharagpur,
Mentor Director, IIIT Kalyani

It is my pleasure to introduce you to one of the youngest and vibrant technological institutes in Eastern India, **Indian Institute of Information Technology, Kalyani, West Bengal.**

IIIT Kalyani has been set up by **Government of India (MHRD)**, **Government of West Bengal** and Industry Partners on a N-PPP basis. Additionally, Government of West Bengal has lent support to the institute by granting 50 acres of land for setting up the campus.

The major objective of IIIT, Kalyani is to set up a model of education which can produce best-in-class human resources in IT and harnessing the multidimensional facets of IT in various domains. Established in the year 2014 the "Newness" factor of IIIT Kalyani and its close collaboration with its mentor institute, **IIT Kharagpur**, the first and the largest IIT, allows us to be constantly dynamic in our curriculum. We enjoy the flexibility to quickly respond to the rapidly changing global socio-economic conditions and can efficiently adapt the best practices of leading technical institutes. We consider this agility essential for technical education today.

We look forward to build this Institute as a world-class academic institution with the highest quality of education and research activities.

1. Introduction

Indian Institute of Information Technology Kalyani was set up in 2014 under the "Institutes of Information Technology Bill 2010". It was among the eighteen IIITs set up by the Ministry of Human Resource Development, Government of India under the Not for profit Public Private Partnership (N-PPP) model. A Memorandum of Understanding (MoU) was signed between Government of India, Government of West Bengal and Industry Partners, viz; Coal India Limited, Rolta Foundation and WEBEL for setting up of Indian Institute of Information Technology (IIIT) at Kalyani using the above model. The stakes of the above-mentioned partners were at a ratio of 50:35:15 respectively in 2014. The Institute was declared as an Institute of National Importance as per "The Indian Institutes of Information Technology (Public-Private Partnership) Act, 2017 No. 23 of 2017".

Under the guidance of the Mentor Director Professor Partha P. Chakrabarti, Director of Indian Institute of Technology Kharagpur, Executive Director Prof. Anupam Basu, Director, National Institute of Technology Durgapur and a number of industry representatives, IIIT Kalyani aims to excel in education and research in Information Technology and allied areas. The institute is committed to provide state-of-the-art technical education in computer science, and also to catalyze transmission of knowledge making use the latest developments in pedagogy

IIIT Kalyani offers semester-oriented undergraduate and research programmes with an objective of imparting high-quality science and engineering education. Admission to the academic programmes are synchronized with the academic year and take place in accordance to the procedure laid down by JoSSA and CSAB (for UG level). Apart from this, the Institute also offers Doctoral programme in various streams.

2. Background

Since its inception, IIIT Kalyani operated from the campus of JIS Engineering College, Kalyani under the mentorship of IIEST Shibpur. On 19 August 2014, official inauguration of the Institute was done by Prof. Ajoy Kumar Ray, the Director of IIEST Shibpur and Mentor Director, IIIT Kalyani at that time. During February 2017 IIT Kharagpur was given the mentorship for the Institute and with the help of the Govt of West Bengal, the campus was shifted to WEBEL IT Park, Kalyani. Foundation stone of a 50-acre campus was laid by Chief Minister of West Bengal Ms. Mamata Banerjee very near to this interim location.

Currently the Institute is steered by Prof. Partha Pratim Chakrabarti, Director, IIT Kharagpur as the Mentor Director and Prof. Anupam Basu, Director, NIT Durgapur as the Executive Director of IIT Kalyani.

3. Vision, Mission and Objectives

Dedicated to the service of the Nation, the motto of IIIT Kalyani is "Vidya Dharma Sarva Dhanam Pradhanam". This literally translates to "Education is the most important wealth", essentially implying that doing your work well is (true) yoga. This can be traced to Sri Krishna's discourse with Arjuna in the Bhagavad Gita. The quote, in the larger context of the Gita, urges man to acquire equanimity because a mind of equanimity allows a man to shed distracting thoughts of the effects of his deeds and concentrate on the task before him. Equanimity is the source of perfection in Karmic endeavors that leads to Salvation.

Vision

The vision of IIIT Kalyani as elaborated by the MHRD is "to set up a model of teaching and learning process that can produce best in class human resources in information technology, computer science and engineering and electronics engineering harnessing the multidimensional facets of IT in various domains and fields; also to produce trained, qualified and knowledgeable engineering students to cater the need of the society and well as of country to fulfil the requirements of higher education".

Mission

To impact quality education, conduct high standard research through innovative and indigenous ways leading to produce highly skilled human resources for Unnat Bharat.

Objectives

The objectives of the Institute are to:

- provide broad-based education, that help students to enhance their professional skills and acquire the best-in-class capabilities in their respective disciplines;
- draw the best expertise in science, technology and management so as to equip students with the skills to visualize, synthesize and execute projects in these fields;
- imbibe a spirit of entrepreneurship and innovation among the students; and

- undertake sponsored research and provide consultancy services in industrial, educational and socially relevant areas.

4. IIIT Act, 2017

On the 9th of August 2017, "The Indian Institutes of Information Technology (Public-Private Partnership) Act, 2017" was notified in the Gazette of India. This Act has conferred the status of Institutes of National Importance to the Indian Institute of Information Technology Kalyani along with fourteen other IIITs set up on the N-PPP mode.

5. Campus

The Government of West Bengal has lent support to the Institute through allocation of 50 acres of land for setting up the campus. The construction of permanent campus will start soon on this land provided.

West Bengal Electronics Industry Development Corporation Limited (WBEIDC Ltd.), under the aegis of Department of Information Technology and Electronics, Government of West Bengal, the nodal body in driving Information Technology (IT) related investments across the state through its IT Parks, Hardware Parks and Electronic Manufacturing Clusters (EMCs). The Institute is presently running from an interim campus at WEBEL IT Park, Kalyani.

The existing infrastructure consists of a G+3 floor building on one acre of land that is well connected by road (Kalyani – Barrackpore Expressway), as well as by rail (Kalyani railway station 5.1 km distance). The building is suitably equipped and suffice for satisfactory functioning of the institution having air-conditioned classrooms that are able to accommodate more than 100 students and a modest laboratory space.

The exercise for construction of permanent campus (Phase-I) has been initiated. The workorder for the construction is already released by CPWD and work is expected to start within next few months.

6. Admission

The Institute currently admits students at the undergraduate and doctoral levels.

6.1 Undergraduate (B. Tech):

IIIT Kalyani's B.Tech. programme admits 130 students in Computer Science and Engineering (CSE) through Joint Seat Allocation Authority (JoSAA) based on the results of the JEE (Main) examination administered by Central Board of Secondary Education (CBSE).

6.2 Doctoral (Ph. D):

For the doctoral programme, research scholars are selected through written test and interview conducted by the Institute before commencement of each semester.

7. Departments

IIIT Kalyani currently has five Departments that form the basic academic units, namely Computer Science and Engineering (CSE); Electronics and Communication Engineering (ECE); Mathematics (MA); Physics (PH); and Humanities (HU).

8. Academic Programmes

The academic structure of IIIT Kalyani exhibits the diversity, comprehensiveness and depth befitting an institution of its age and stature. The programme/course offered at the Institute have the flexibility to evolve and change in response to new requirements and serve the dual purpose of building a solid foundation of knowledge while enhancing confidence, creativity and innovation among the students. A unique attribute of IIIT Kalyani's academic structure is the autonomy enjoyed by the faculty in designing and structuring their curriculum and courses. While the individual departments form the basic academic units and deliver the respective courses, some courses are offered jointly by multiple academic units and are classified as interdisciplinary courses.

A favorable student-teacher ratio ensures productive, personal contact between the student and the teacher. The credit-based academic programmes of the institute offer flexibility to students to progress at their own pace.

8.1 Undergraduate Programme

The undergraduate programme aims to mold young talents as engineers who can recognize and solve problems in different technical and social domains. The main emphasis of the program is to instill inquisitive thinking and curiosity with a sense of service to the nation and society at large.

Currently, IIIT Kalyani is offering only B.Tech. in Computer Science and Engineering (130 seats) since 2017. The Institute has designed its course structure based on the curriculum of IIT Kharagpur, NIT Durgapur and other reputed institutes of national importance, and aligning the curriculum as per projected industry need. This has been the rationale of incorporating career-oriented subjects like Artificial Intelligence, Machine Learning, Deep Learning, Data Analytics, IOT, GIS, etc., into the curriculum (some as compulsory subjects while others as electives). Compulsory project work is included in the curriculum for third year and fourth year students. Students are envisaged to learn the practical application of Artificial Intelligence, Machine Learning, Deep Learning, Data Analytics, Computer Vision, etc., while doing their project work.

8.2 Doctoral Programme

IIIT Kalyani awards the degree of Doctor of Philosophy (Ph.D.) in Engineering/Science to a candidate after successful completion of the stipulated Programme of Research. The Programme with the governing rules and regulations are formulated by the Senate/Chairman with recommendation of Departmental Research Committee (DRC) of the Institute. Every scholar being admitted to the Ph.D. Programme undertakes research under the guidance of a faculty member of the Department/Centre in which he/she is admitted. A candidate becomes eligible for the award of Ph.D. degree after fulfilling all the academic requirements prescribed by the Senate/Chairman with recommendation of DRC of the Institute.

9. Administration

The Institute is administered under the guidance of Mentor Institute and Mentor Director. As with other similar institutions under the MHRD, the Board of Governors and the Senate are the primary administering bodies.

The directions of the BOG, Senate, Mentor Director and Executive Director are implemented through Registrar and Assistant Registrars. Faculty members are also given collateral responsibilities in assisting the Director in various academic and administrative functions.

Indian Institute of Technology Kharagpur is the Mentor Institute for IIIT Kalyani. The current composition of the key administrative functionaries are as follows:

- Prof. Partha P. Chakrabarti, Director, Indian Institute of Technology, Kharagpur *(Mentor Director)*
- Prof. Anupam Basu, Director, National Institute of Technology Durgapur *(Executive Director)*
- Mr. Sambhunath Datta, Deputy Registrar & Finance Officer, IIEST, Shibpur. *(Officiating Registrar)*

- Dr. Madhumita Sengupta *(Asst Registrar – Academic)*
- Mr. Amalesh Chandra Saha *(Asst Registrar – Administration)*
- Mr. Mrityunjoy Dey *(Asst Registrar – Finance)*

In addition to the above, IIIT Kalyani currently has the following staff member.

S. No.	Employee	Department	Number	Remarks
1	Placement Officer	Training & placement	1	Contractual
1	Library Assistant	Library	1	Regular
2	Junior Assistant	Office	1	Regular
4	Junior Assistant	Office	1	Contractual
5	Office Attendants	Office	2	Contractual
6	Hostel Caretakers	Hostels	5	Contractual

10. Faculty and Academic Staff

IIIT Kalyani currently has the following regular faculty and academic staff.

S. No.	Employee	Stream	Number
1	Assistant Professors	Computer Sc. and Engg.	7
2	Assistant Professors	Electronics	2
3	Assistant Professor	Mathematics	1
4	Assistant Professor	Physics	1
5	Technical Assistants	CSE	3
6	Technical Assistant	ECE	1

In addition, IIIT Kalyani has six visiting faculty members (including senior professors) from IIT Kharagpur, ISI Kolkata and other reputed institutes and industries who take various courses for all the four batches of students.

The current incumbents to the above positions are summarized below.

Faculty Coordinator
Dr. Imon Mukherjee (CSE)

Computer Science and Engineering (CSE)
• Dr. Imon Mukherjee • Dr. SK Hafizul Islam • Dr. Sanjoy Pratihar • Dr. Oishila Bandyopadhyay

- Dr. Sanjay Chatterji
- Dr. Debasish Bera
- Dr. Bhaskar Biswas

Electronics and Communication Engineering (ECE)
- Dr. Tamal Ghosh
- Dr. Dalia Nandi

Physics
- Dr. Uma Das

Mathematics
- Dr. Anirban Lakshman

11. Students

IIIT Kalyani currently has the following student strength.

Sl. No.	Batch	Total	Boys	Girls
1	2015-19	69	63	6
2	2016-20	61	58	3
3	2017-21	96	84	12
4	2018-22	99	90	9

In addition, the institute has one full time JRF, one external JRF and 25 part-time Ph.D. scholars who have joined the Institute recently.

12. Academic Calendar

The Institute has a pre-determined Academic Calendar. The academic session begins during the first week of July every year and ends during the last week of April and comprise of two semesters namely the Autumn Semester (from the first week of July to the last week of November) and the Spring Semester (from the first week of January to the last week of April).

Dates of important events such as orientation, registration, late registration, commencement of classes, submission of documents, examinations, submission of grades, vacation, mid-semester recess, etc., during the Academic Session are specified in the Academic Calendar of the Institute which is published in the

Institute website (www.iiitkalyani.ac.in) at the beginning of every academic session.
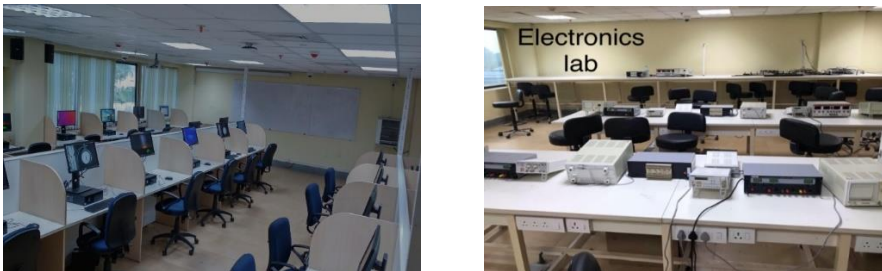
13. Facilities

The Institute provides academic facilities such as Library with sufficient text books, reference books and Journals; hardware and software laboratories, network facility etc. Along with the academic facilities, it also provides other facilities such as hostels and mess for students, guest house for visitors and visiting faculty members, sports facility, medical facility etc.

13.1   Laboratory Infrastructure

IIIT Kalyani promotes hands on learning approach and as such the Institute is equipped with three software and three hardware labs. IIIT Kalyani has three large air-conditioned Computer Science labs and one large Electronics lab. Two more small Electronics labs are being designed for the students.

All labs remain open from 9:30 A.M. to 5:30 P.M. as per routine (see Annexure I) on all working days and even beyond such usual working hours if required.

The laboratory curriculum is such that the students are exposed to most relevant experimentations in Electronics, Microprocessor and Microcontroller systems, etc along with Physics based experiments. Further, measures are being taken to create a high-end computational facility for studies on Big data, Data Analytics, Artificial Intelligence, etc.

Figure 1: Software and Hardware laboratory

13.2   Library

The Library functions as the primary information resource center and repository of printed and electronic resources for teaching and research activities at the

Institute. The Library of IIIT Kalyani has a total of 4075 books for various courses. The collection also includes books required for preparations of competitive examinations like GATE, CAT, GRE, etc.

In addition, the institute houses newspapers and magazines in the library. The students are issued 5 books at a time and on request extra books are also issued with special permission from Faculty-in-charge.

Figure 4: Students studying at library

13.3   Network Facility

The Institute is serviced through a broadband Internet connection and Wi-Fi connectivity all around the campus. Students have their individual login id for accessing the Wi Fi. The Labs are also connected to a LAN connection which provides a fast internet access to the desktops.

13.4   Hostels

There are presently four hostel buildings (on monthly rental basis), two for boys and two for girls' students within the Kalyani township. Facilities available in all four hostels includes:
- Security persons for 24 hours

- Sweepers (four sweepers in total) for cleaning of rooms, corridors, toilets and bathrooms regularly
- Bus service for reaching Institute
- CCTVs installed in all hostels in adequate numbers
- All bathrooms are equipped with Geysers
- Sufficient number of washing machines in all hostels
- Hostel common room with television
- Indoor games – Carroms, Chess, Badminton
- Outdoor Sports items – Volleyball, Cricket, Football
- Internet facility (is being provided by BSNL)

13.5 Medical Facilities

IIIT Kalyani had arranged the medical facilities with the College of Medicine & JNM Hospital, Kalyani. Ambulance service (with ICU facility) is available for 24 hours on call basis.

14. Placement

IIIT Kalyani has a full-time training and placement officer who heads the Training and Placement Cell (T&P Cell) that also consist of student representatives. Presently, the T&P Cell works under the guidance of IIT Kharagpur as and when necessary. For first batch (2014-2018), the T&P Cell with help of Executive Director and Mentor Director put up a commendable performance of more than 85% placement. For the current batch (2015-2019) also, the placement scenario is very promising where placement of 82% students has already been achieved. Placement process is in progress and many more companies are expected to visit the campus soon. The placement statistics till date is as follows.

Batch	2014-2018	Batch (ongoing)	2015-19
Total students appeared for placement process	40	Total students appeared for placement process	56
Total jobs offered	44	Total jobs offered	77
Average salary	3 LPA	Average salary	3.4 LPA
Total students selected	32	Total students selected	47
Students pursuing higher studies	2	Students pursuing higher studies	NA
Students Starting their Own Company	0	Students Starting their Own Company	NA
Highest salary	10 LPA	Highest salary	8 LPA

Percentage of Students Placed	85%	Percentage of Students Placed	84%

15. Internships

The Institute has arranged 100% summer internships for all students of 1st (2014-2018), 2nd (2015 – 2019) and 3rd batch (2016-2020) in reputed institutes like IIT Kharagpur/Bombay/Patna, NIT's, IISC, VECC and home internships from IIT Bhubaneswar, IIIT Sri City etc. Some internships are arranged in Industries (C-DAC, MAQ, Skybits) also.

16. Sports & Cultural Activities

IIIT Kalyani encourages and nurtures extra-curricular activities of the students. Financial support is provided to the students for organizing different cultural and sport events. IIIT Kalyani Gymkhana was constituted in September 2018 to take care of all sports, cultural and technical events.

The Institute has arranged sports facility for students at the nearby Kalyani Stadium. Cricket, Football, Badminton, Table tennis and Swimming facilities are used under trained coach in each event. The Gym facility is also added with a subsidized rate. Bus facility is added for the students to attend the practice. The bus route covers all the hostels and guest houses to bring the students to Kalyani stadium from 6 AM to 8:30 AM.

Students have also participated in national level sports events organized by other IITs and IIITs. With the financial support in each such event and faculty members and officers accompany the student group every time to encourage them. List of few events include IIIT Sports Meet 2017; Spardha 2018; multiple local cricket matches and so on. Preparations have begun for Spardha 2019 participation. Some other achievements in sports include
- Kancheepuram – January 2017;
  - Chess Competition: 1st Runner-up;
  - Athletics for Women: 2nd Runner-up

Figure 2: Students playing outdoor and indoor games at Kalyani Stadium

Under Gymkhana, students also have following clubs for nurturing various extra-curricular and cultural activities such as Flim and media club (FMC); drama club (SEMBALANCE); and club for dance and beats (groovZ).

Various cultural events have been organized such as Ek Bharat Shreshtha Bharat (EBSB) Cultural Day, 21st March, 2018; EPISTEME 2K18 – 2nd and 3rd September, 2018; and Teachers' Day celebrations 2015, 2016, 2017, 2018

Figure 3: Cultural program by students

17. Student Achievements

IIIT Kalyani believes in close faculty-student interaction to foster intellectual growth among students. Faculty members of IIIT Kalyani often encourage their students to excel their ideas through project and research work. IIIT Kalyani is feeling proud to see the students' accomplishments.

Student Publications

International Conference: 9
National Conference: 0
International/National Journal: 0
Book Chapter: 1

Coding Competition and Hackathon

The faculty members guide students to identify different technical themes and motivate them to propose new ideas. The Institute Innovation Council (IIC) of IIIT Kalyani organizes idea presentation workshop for hackathons. IIIT Kalyani students participates in different coding competitions and Hackathons. The students achieved success in national level also. In Smart India Hackathon 2019, teams from IIIT Kalyani have bagged **first and second prizes**.

18. Seminars/Workshops

During the past few years IIIT Kalyani has organized several seminars, lectures and workshops.

Year	Description	Speakers/Organization
2018-2019	Workshop on "Digital Geometric Algorithms, Applications and Prospective Future Directions" (28th - 30th October, 2018) [Sponsored by National Board of Higher Mathematics (NBHM), and IEEE GRSS Kolkata Chapter]	1. Prof. J. Mukhopadhyay, IIT Kharagpur 2. Prof. P. Bhowmick, IIT Kharagpur 3. Prof. B. Chanda, ISI Kolkata 4. Prof. A. Biswas, IIEST, Shibpur 5. Dr. R. Biswas, IIT Roorkee
	One day lecture series on Computational Intelligence (26th July, 2018)	1. Prof. Mike Hinchey, University of Limerick, Ireland, 2. Prof. Ashok Deshpande, University of California, Berkeley, USA
	Seminar on "Quantum Computation; A Basic Perspective" (16th November, 2018)	Prof. P. K. Panigrahi (Professor, IISER Kolkata)
	Workshop on "Text and Image Processing" (7th April, 2018)	1. Prof. D. P. Dogra, IIT Bhubaneswar 2. Dr. R. Prasanth, IIIT Sri City

	Workshop on "Benchmark Advance Computer Network Lab" (7th February, 2019)	Benchmark Electronic Systems Pvt. Ltd., Chennai
	Seminar on "Introduction to Intelligent User Interface" (5th February, 2019)	Prof. Pradipta Biswas, IISC Bangalore
	Workshop on "Smart India Hackathon Idea Presentation" (8th March, 2019)	3rd year and 2nd year students and faculty members of IIIT Kalyani
	Seminar on "Higher Studies Opportunities in France" on 7th March, 2019	Institut Francais, Campus France (French Institute in India)
	CODACHARYA 2019 (10th March, 2019)	Inter College Coding Competition
	Lecture on "156th birth anniversary of Swami Vivekananda" 12th Jan, 2019	Maharaj Swami Kalikananda Puri from Matri Mission 'O' Mandir Seva Trust, Sree Sree Adya Mandir, Kalyani
	CODACHARYA 2018 (8th April, 2018)	Inter College Coding Competition
2017-2018	Workshop on "Python and its application with IoT" (25th -26th March 2018)	1. Ms. Yashi Asthana (Chief Executive Officer, Softpro India) 2. Mr. Brijesh Mishra (Sr. Manager IT, Softpro India) 3. Mr. Rohit Kumar (Sr. Software Engineer, Softpro India)
	NASCOM Lecture on IoT (11th September, 2017)	Mr. Atul Prakash Agarwal (Director, APT Software Avenues Pvt. Ltd.)
	Seminar on "Enterprise Information Extraction from Open Web" (13th October, 2017)	Dr. Tirthankar Dasgupta (TCS Innovation Lab, Kolkata)
	Seminar on "Frontier in Computer Science" – II (26th April, 2017)	1. Prof. Mandar Bose (Indian Statistical Institute, Kolkata) 2. Dr. Sourav Sengupta (Indian Statistical Institute, Kolkata)

2016-17	Lecture Series on "Your Cognitive Future" (27th November, 2016)	1. Prof. Ajay Roy (Director, IIEST, Shibpur) 2. Dr. Sandipan Sarkar (Cognitive Computing Leader, IBM Institute for Business Value)
	Lecture Series on "Frontier in Computer Science" – I (3rd March, 2017)	1. Prof. P. P. Chakraborti (Director, IIT Kharagpur) 2. Prof. Indranil Sengupta IIT Kharagpur) 3. Prof. Mandar Bose (Indian Statistical Institute, Kolkata) 4. Dr. Sourav Sengupta (Indian Statistical Institute, Kolkata) 5. Prof. Ansuman Banerjee (Indian Statistical Institute, Kolkata) 6. Prof. Goutam Biswas (IIT, Kharagpur) 7. Prof. Pabitra Mitra (IIT Kharagpur)

19. Social Activities

IIIT Kalyani has social responsibilities towards local students. The Institute organize a one-month **Computer Literacy Program** for 10+2 students free of cost during winter holidays every year since 2017. The objective of this program is to help the local students to get accustomed with computers and improve their basic programming skills. In last two years 140 students have participated in this program.