MATHEMATICS & STATISTICS

IIT KANPUR

Placement Brochure 2019-20

Student Placement Office

Message from the Faculty

Established in 1959 as one of the first Indian Institutes of Technology, the institute was created with the assistance of a consortium of nine leading US research universities as part of the Kanpur Indo-American Program (KIAP).

The Department of Mathematics, since its inception in 1959, has emerged as a national center for excellence in mathematics and allied areas, in terms of research, teaching and mentoring of students. It is one of the oldest research hubs for mathematics in the country. The department has churned out batches of motivated and dedicated students with the commitment and competence to pursue careers in academia and industry in the areas of mathematics, computer science and finance. The rigor of pure mathematics coupled with the most flexible elective driven structure in the institute gives the students an ample opportunity to their skill in varied fields of interests ranging from data analytics, computational mathematics, optimization, parallel computing to statistics, finance and other applied fields.

The courses offered here are taken by professors who are leading researchers in that field. The courses being based on pragmatism, utility and function, not only enrich the theoretical knowledge but introduces them to practical aspects through course projects which are often done in groups forging team spirit.

With a strong focus on research, through Undergraduate Project (For BS Students) and MS Project (For BS-MS dual degree students), the students are encouraged to tackle theoretical as well as industrial problems transforming them into motivated individuals who can be great asset for any organization, be it academic, R&D, software, analytics or finance.

Programmes Offered

Bachelor of Sciences (BS)

A 4-years program started from 2011 which allows admission through the Joint Entrance Examination (JEE). It focuses directly on the departmental courses enabling students to concentrate on the theory and applications of mathematics and statistics. The enrolled students also have an option to do a minor in any other department like Economics, MBA or Computer Sciences.

Bachelor of Sciences-Master of Sciences (BS-MS) Dual Degree

The 4-years BS program in Mathematics and Scientific Computing has replaced the 5-year integrated MSc program which was running since 1960's. However, for a more thorough knowledge, the students have an option to do masters also which will result in 5-year BS-MS dual program. Apart from their main degree, they also have an option to do a minor in another field or department of their interest.

Master of Sciences (MSc) 2 Year

This 2-year course takes admission from Joint Admission Test for MSc (JAM) in two separate streams of Mathematics and Statistics. This program focuses more on the pure subjects of the streams and lays a good foundation for doing impactful PHD's from abroad.

"The professors are experienced and accessible. They try to give additional help outside the classroom which really helps the students in getting hold of the subjects."

- Prof. Amit Mitra, Department of Mathematics and Statistics, IIT Kanpur

Courses Offered

Mathematics

Real analysis	Linear Algebra	Topology
Discrete Mathematics	Differential Equation	Abstract Algebra
Introduction to Fourier series	Multivariable Calculus	Probability Theory

Applied Statistics

Statistical Simulation and Data Analytics	Probability and Statistics	Regression Analysis
Applied Stochastic Process	Statistical Inference	Analysis of Variance
Mathematical Modelling	Time Series Analysis	Sample Survey
Matrix Theory and Linear Estimation	Robust Statistical Methods	Design of Experiment

Computer Sciences

C Programming Language	Machine Learning	Data Mining
Natural Language Processing	Data Structures and Algorithms	Computer Networks
Game Theory and Mechanism design	Principles of Database System	Theory of Computation
Information Retrieval	Randomized Algorithm	Big Data

Economics and Finance

Microeconomics	Mathematical Finance	Money and Banking
International Economics	Financial Economics	Econometrics
Securities, Derivatives and Portfolio Management	Financial Management	Macroeconomics

Inter-disciplinary Courses

Operation Research and Management	Quantitative Decision Models	Game theory
Management in Financial Systems	Cost and Financial Accounting	Manufacturing Strategy
International Business Management	Property Management	Combinatorial Optimization

Internships

Over the summers, students undertake internships, either in the industry or in leading academic institutions. This takes education outside the classroom into the offices of corporate or the rooms of the research labs. The graduating batch of 2019-20 has done internships in a lot of diverse organizations and fields which has helped them gain a lot of academic as well as corporate experience.

Internship profiles of students, of graduating batch of 2018-19, from Department of Mathematics and Statistics:

FOREIGN UNIVERSITIES

University of Clermont-Ferrand, France
Jean Monnet University, France
University College, London
University of Wisconsin-Madison, U.S
IE Business School, Spain
University of British Columbia, Okanagan
Johns Hopkins University, U.S
University of Waterloo, Canada
University of Alberta, Canada
Univ. of Manitoba, Winnipeg, Canada

INDIAN UNIVERSITIES/INSTITITUTES

ISI, Chennai
ISI, Bangalore
IISC, Bangalore
IISER, Mohali
NISER, Bhubaneswar
HCRI, Allahabad
NNMCB- IISER PUNE
IMSc, Chennai

FELLOWSHIP

MITACS
IAS(Indian Academy of Sciences)
INSPIRE
NMCB
NBHM

COMPANIES

Deutsche Bank
Adobe
Siemens Bangalore
American Express
Flipkart
Fuzzy Logix
Goldman Sachs
Edelweiss Financial Services
Kiwi Capital
Adoro Marketplace
Adobe Research
NoBroker
EXL Services
Fractal Analytics
Credit Suisse
Reliance Jio
Airbus group
Samsung R&D
Pervazive
IBM India Research Lab
Remedoc

PROFILES

Data Scientist
Data Analyst
Strategic Analyst
Research Intern
Product Development
Corporate Finance
Machine Learning
Big Data Analytics
Cryptography
Consultancy
Software Developer
Risk Management
Decision Model Analysis
Programming
Data Analytics
Machine Learning
Social Network Analysis

Distinguished Faculty

The department takes pride of the distinguished faculty that enriches the deep roots of education in the institute. There are a total of 39 Professors, Associate Professors and Assistant Professors whose research interests provide a lot of in pure as well as applied Mathematics and Statistics. Moreover, the **Faculty: Student Ratio is 0.9:1** for every batch.

Akash Anand. (PhD, University of Minnesota)

Santham, G. (PhD, TIFR, Mumbai)

Arijit Ganguly (PhD, TIFR Mumbai)

Bidyut sanki (PhD, Indian Institute of Science, Bangalore)

D Bahuguna. (PhD, IIT Kanpur)

Kaushik Bal (PhD, UPPA, France)

Malay Banerjee (PhD, University of Calcutta)

Samuel Preena (PhD, IMSc, Chennai)

Mohua Banerjee (PhD, University of Calcutta)

Suprio Bhar (PhD, Indian Statistical Institute, Bangalore)

Sameer Chavan (PhD, University of Pune)

Aparna Dar (PhD, S.U.N.Y StonyBrook, USA)

Debraj Das (PhD, North Carolina State University, USA)

Subhra Sankar Dhar (PhD, ISI, Calcutta)

Subhajit Dutta (PhD, ISI, Kolkata)

Pravir Dutt (University of California, Los Angeles)

Ghorai S. (PhD, Leeds, UK)

Satyajit Guin (PhD, IMSc, Chennai)

Somnath Jha (PhD, TIFR Mumbai)

Amit Kuber(PhD, University of Manchester, UK)

Debais Kundu (PhD, Pennsylvania State University)

Arbind Kumar Lal (PhD, Indian Statistical Institute, Delhi)

Roy, Prosenjit (PhD, University of Zurich, Switzerland)

Maloo, Alok Kumar (PhD, TIFR, Mumbai)

Mandal, Ashis (PhD, ISI, Kolkata)

Misra, Neeraj (PhD, IIT Kanpur)

Mitra, Amit (PhD, IIT Kanpur)

Mitra, Sharmistha (PhD, IIT Kanpur)

Mukhopadhyay, Minerva (PhD, ISI Kolkata)

Mohanty, Parasar (PhD, IIT Kanpur)

Muthukumar, T. (PhD, Institute of Mathematical Sciences)

Nilakantan, Nandini (PhD, IISC, Bangalore)

Pal, A. (PhD, Indian, Statistical Institute, Kolkata)

Patnaik, S. (PhD, University of Cincinnati, USA)

Pattanayak, S. K. (PhD, CMI, Chennai)

Rawat, Rama (PhD, ISI, Bangalore)

Rathish Kumar, B.v. (PhD, SSIBL, Prasanthi Nilayam)

Sen D. (PhD, Isi, Kolkata)

Shalabh (PhD, University of Lucknow)

Sharma, Sachin (PhD, IMSC Chennai)

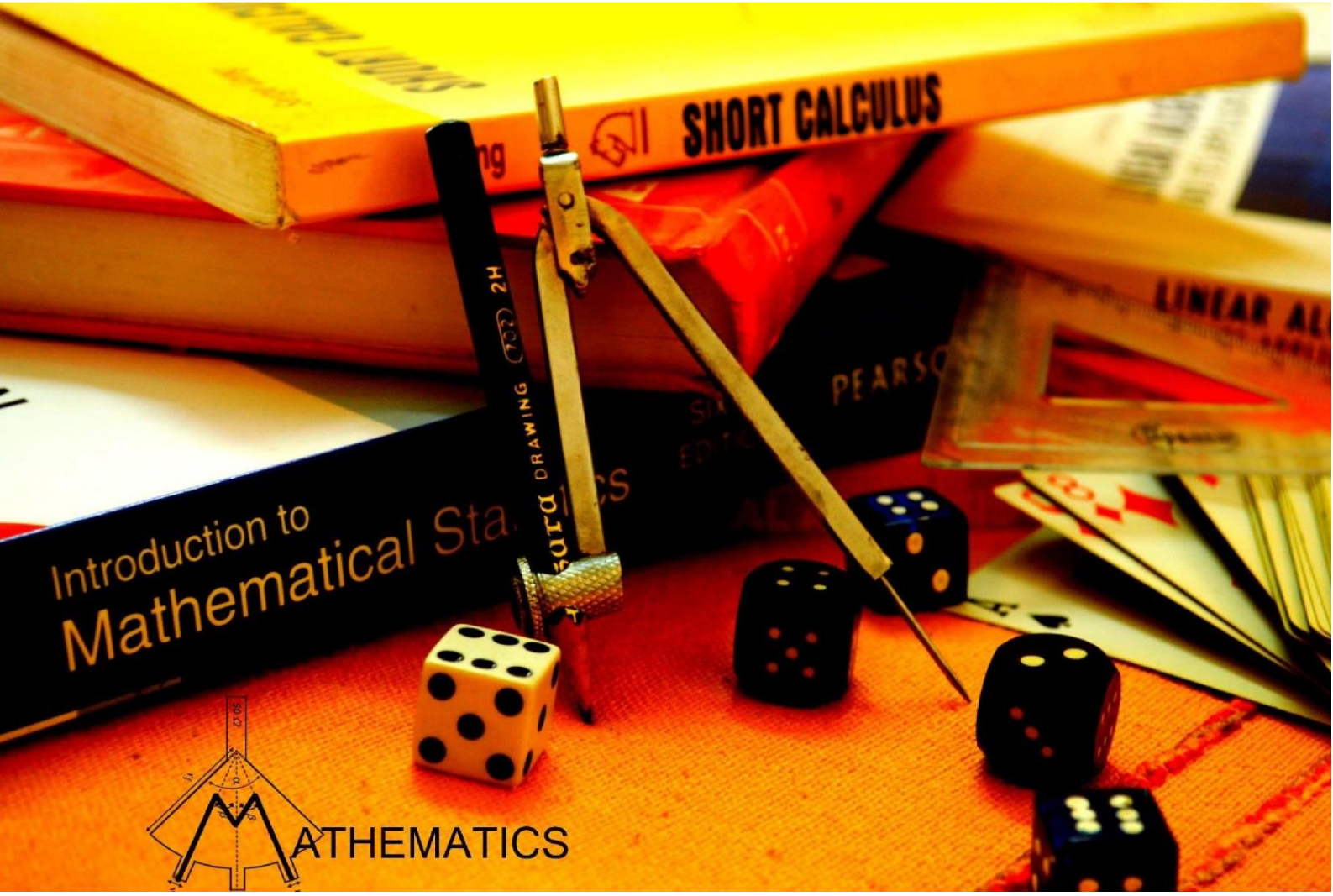
Shunmugaraj, P. (PhD, IIT Bombay)

Sinha, Prawal (PhD, IIT Bombay)

Shekhar, Sudhanshu (PhD, TIFR, Mumbai)

Thakur, Ajay Singh (PhD, TIMS, Chennai)

PAST RECRUITERS
IBM
HSBC
Goldman Sachs
OPERA SOLUTIONS
FUZZY LOGIX
Cognizant
Adobe
EXL SERVICE
global solutions. value delivered.
AMERICAN EXPRESS
GLOBAL analytics
amazon
Mu Sigma
Flipkart
iRageCapital
Fractal
SAMSUNG
McKinsey&Company
accenture
BCG
THE BOSTON CONSULTING GROUP
JBM Group
citi
BRIDGE i2i
INFORMATION - INSIGHT - IMPACT
snapdeal.com
Delhivery
CREDIT SUISSE
Deloitte.
ORACLE
Fidelity INVESTMENTS
GENPACT
POLARIS
live your dream
:practo
Progeon
an Infosys company
marketRx
Walmart
AXTRIA
INGENIOUS INSIGHTS
Microsoft
facebook
Deutsche Bank
JPMorganChase
pwc
a supply chain analytics company
Pfizer
ASPECT RATIO
Intelligence From Data
Deskera
RUN YOUR BUSINESS
EVALUESERVE
POWERED BY MIND+MACHINE
Futures First
ERICSSON



Contact Us

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For any queries, please contact the Departmental Placement Coordinators or SPO during office hours.