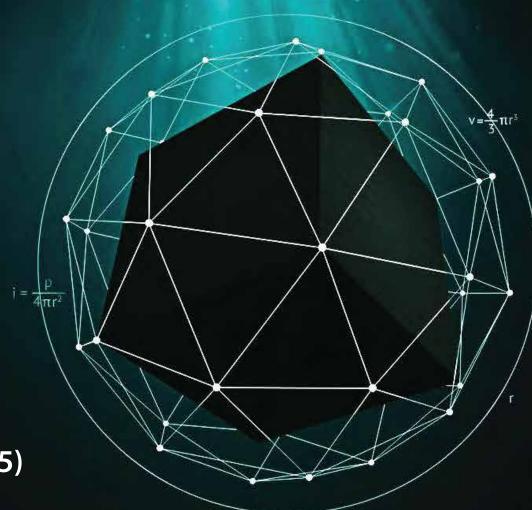


Indian Institute of Technology Guwahati



PLACEMENT BROCHURE (2014-2015)

DEPARTMENT OF MATHEMATICS

B.Tech. (MATHEMATICS AND COMPUTING)



Message from the Head

It is my immense pleasure to introduce the sixth batch of students graduating in B.Tech. (Mathematics and Computing) from our department in 2015.

The 4-year programme, B.Tech. in Mathematics and Computing, is a unique programme and the first of its kind in the country. The curriculum for this program is designed to meet the need of sophisticated mathematics in modern scientific investigations and technological innovations. The programme has three components: mathematics, computing and financial engineering which are perfectly blended so that the strong mathematical and analytical components that are in-built in the curriculum form the basis on which the technological aspects of computing and finance are developed. Consequently, the programme, which is run by a team of committed faculty as instructors, produces a group of students with multiple skills in mathematics, computer science and financial engineering.

Though the programme is relatively new, its success has already been manifested through internships and job placements, and admissions for higher studies at premier institutions in the last four years. Further, I am happy to state that many of the students of current batch have completed internship in industry, academia and financial institutions, both within India and abroad.

On behalf of the department, I take great pleasure in inviting you to participate in the placement process at the campus. I am sure that our rigorous training has prepared our students to meet the professional requirements of their potential employers. I look forward to a bright future of our students with your continued support.

Prof. Bhaba K. Sarma Head, Department of Mathematics



About the Department

The Department of Mathematics, since its inception in 1995, has emerged as a national centre for excellence in mathematics and allied areas, in terms of research, teaching and mentoring of students. It is the nodal point of mathematical sciences in the north-eastern part of the country, contributing to research and training in this region. The department has churned out batches of motivated and dedicated students with the commitment and competence to pursue careers both in academia and industry in the areas of mathematics, computer science and finance.

IIT Guwahati has played a pioneering role by being the first mathematics department in an Indian institute to offer a B.Tech. degree in Mathematics and Computing, providing a fusion of mathematics, computer science and financial engineering.

FACULTY

The department is home to 32 dedicated mathematicians as faculty members. A good number of distinguished mathematicians from various reputed universities and organizations visit the department every year.

STUDENTS

The graduates of the department imbibe the analytical skill that comes from training in mathematics. They effectively can use this training and background in mathematics to work on challenging problems whether they are pursuing higher studies or working in the industry.



About the Programme

Being first of its kind among the IITs in the country, the main objective of the programme is to create tailor-made technocrats who can immediately deliver the know-how in developmental activities of the financial or software industries.

The curriculum focuses on providing in-depth knowledge in theoretical and mathematical aspects of Finance, Computer Science and Mathematics.

The duration of the course is eight semesters spanning over four years which includes a final year project. Admission to the program is based strictly on IIT-JEE rank.

Number of Students: - 46

Competencies

Algorithm Design & Programming Operating Systems Database Design and Architecture Network Design and Analysis Information Technology Web Design and Development

Financial Mathematics
Business Analysis
Market Research
Data Analysis and Statistics
Quantitative and Financial Analysis
Portfolio Management & Risk Analysis

Analytics
Cryptography
Pure Mathematics
Scientific Computing
Operations Research
Research and Development



Course Structure

COMPUTER SCIENCE

Data Structure and Algorithms - Theory & Lab Digital Design Computer Organization and Architecture Formal Languages and Automata Theory Theory of Computation Operating Systems - Theory & Lab Data Communications Computer Networks - Theory & Lab Databases - Theory & Lab Functional and Logic Programming*

FINANCE

Monte Carlo Simulation - Theory & Lab
Financial Engineering - I
Financial Engineering - II - Theory & Lab
Stochastic Calculus for Finance
Statistical Analysis of Financial Data - Theory & Lab
Computational Finance - Theory & Lab
Portfolio Theory and Performance Analysis*
Financial Risk Management and Modelling*

MATHEMATICS

Discrete Mathematics
Probability Theory and Random Processes
Real Analysis
Modern Algebra
Scientific Computing - Theory & Lab
Optimization
Matrix Computations - Theory & Lab
Number Theory and Cryptography *
Mathematical Modelling and Numerical Simulation*

MINOR IN MATHEMATICS

Real Analysis
Mathematical Statistics
Modern Algebra
Differential Geometry
Scientific Computing

*Elective courses



Summer Internships

The students of the graduating batch of 2015 have successfully completed their internships in the following companies and universities:-

COMPANIES:

Amazon

Adobe Advanced Technologies Lab

Google

Futures First

Samsung-SIRB

Capital IQ

Microsoft

TCS Quantitative Finance

Wipro Limited

Siemens

Reserve Bank of India

UNIVERSITIES:

JAIST, Japan

Verimag Lab, France

Ecole Centrale Paris, France

KAIST, South Korea

Universite de Montreal, Canada

Institute of Computational Science, Lugano, Switzerland

Imperial College Business School, London, UK

Eindhoven University of Technology, Netherlands

Institute of Statistical Mathematics, Tokyo, Japan

University of Stralsund, Germany

Victoria University of Wellington, New Zealand

Indian Institute of Science, Bangalore

Indian Institute of Foreign Trade, Kolkata

Indian Institute of Management (IIM), Calcutta

ULM University



Past Recruiters

Altair Engg

Adobe

Amazon

Amadeus

Bank of America

Capital IQ

CA Technologies

Cisco Systems

Cognizant Engg.

Credit Suisse

Deloitte

Directi

Edelweiss

Ericsson Global

Evalueserve

EXL Service - DA

Facebook

FICO

Flipkart - GT

Flipkart - SDE/MT

Futures First

Google- Mountainview US

Global Analytics

Goldman Sachs -Strategies Group

Goldman Sachs - Tech Division

HP R&D

IBM - GBS

ICICI

Infosys

InMobii

iRunway

Microsoft

Microsoft IDC

Myntra

Oracle

Oracle - AD

Oracle - OFSS

Oracle - IPE

Oracle - System

Paypal/e-Bay

PWC

Samsung - SIRB

SCA Tech

Schlumberger Asia

TCS

TCS-CTO (Quantitative Finance)

Verizon

Virtusa

Wipro

Xerox Research

Yahoo

YMedia Labs

ZS Associates

3D Solid Compression



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