INDIAN STATISTICAL INSTITUTE NORTH-EAST CENTRE

PLACEMENT BROCHURE

POST GRADUATE DIPLOMA IN STATISTICAL METHODS AND ANALYTICS

2023-2024

STATISTICAL
INDIAN
INSTITUTE
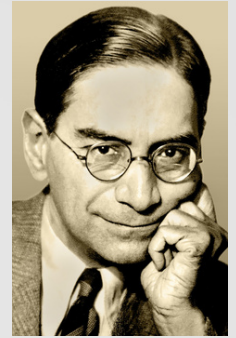मिन्नेष्वैक्यास दर्शनम्
UNITY IN DIVERSITY

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ABOUT
INDIAN STATISTICAL INSTITUTE

The Indian Statistical Institute (ISI) was founded by Professor Prasanta Chandra Mahalanobis in Kolkata on December 17, 1931. The institute gained the status of an Institution of National Importance by an act of the Indian Parliament in 1959.

The Indian Statistical Institute (ISI) holds immense importance in India and globally for several reasons. First and foremost, it is a premier institution dedicated to the field of statistics, mathematics, and related sciences. ISI has played a crucial role in advancing statistical research, fostering data-driven decision-making, and training a talented pool of statisticians and mathematicians. Its contributions to various sectors, including economics, social sciences, and industry, have been instrumental in shaping policies and driving innovation.

Furthermore, ISI conducts high-quality research and provides statistical expertise, which is invaluable for both government and private organizations in areas such as agriculture, healthcare, finance, and education. Its emphasis on research and education helps India harness the power of data for solving complex problems, making it an essential hub for statistical and mathematical knowledge. In addition, ISI's collaborations with international institutions contribute to global research and development. Overall, the Indian Statistical Institute is a cornerstone of India's academic and research landscape, serving as a vital resource for data-driven decision-making and fostering scientific excellence.

ABOUT ISI
NORTH-EAST CENTRE

On July 23, 2011, the North-East Centre of the Indian Statistical Institute (ISI) was inaugurated in Tezpur, with Shri Pranab Mukherjee, the Union Finance Minister and Chairman of the ISI council, presiding over the event. This marked the establishment of the fourth ISI center in India, alongside the ones in Delhi, Bangalore, and Chennai. The North-East Centre is a pivotal addition to the ISI network, offering a one-year Post-Graduate Diploma in Statistical Methods and Analytics.

This center actively engages in both training and research activities. Its primary research units include the Applied and Official Statistics Unit, Socioeconomic Research Unit, and Theoretical and Applied Sciences Unit. The faculty at this center possesses expertise in a wide range of research domains, such as Remote Sensing, Environmental Sciences, Applied Economics, Theory of Singularities, Macro econometrics, Social Epidemiology, Auction Theory, Survival Analysis, Credit Risk using Copulas, Machine Learning, and Data Science.

The North-East Centre plays a crucial role in assisting the North-Eastern states in enhancing their Official Statistical System. It strives to cultivate a skilled workforce with a strong statistical foundation, facilitating applications in diverse fields like Planning, Forecasting, Model Building, and Data Analysis. This center's presence is a significant step toward bolstering statistical expertise and knowledge dissemination in the North-Eastern region of India, contributing to its overall development.

CENTRE HEAD'S MESSAGE

Dear Recruiters,

The Indian Statistical Institute, an Institute of National Importance, is one of the premier institutes in India. It has a long and illustrious history of distinction in teaching, research and training across many academic fields with focus on Statistics, Mathematics, Computer Science and Quantitative Economics. The North-East Centre, established in 2011, currently offers a one-year Post Graduate Diploma programme in Statistical Methods and Analytics. I am glad that the alumni of our programme are successfully placed in reputed multinational companies and some of them have gone to academics as well. The current batch of students are bright and are well-trained in Statistical applications in Analytics.

I am happy that the placement cell of the North-East Centre has released the placement brochure for 2023-24. I extend my invitation to all potential recruiters to visit the North-East Centre campus at Tezpur for placement activities.

Best Wishes.

Prof. Balakrishnan Ramakrishnan

Professor and Head

Indian Statistical Institute

North-East Centre

POST GRADUATE DIPLOMA IN STATISTICAL METHODS AND ANALYTICS

The course is intended to provide students with a comprehensive and rigorous training in basic theory and applications of Statistical Methods and Analytics, in addition to some exposure to Mathematics and Computational Techniques. The students are exposed to data handling using R and Python packages. The programme is so designed that on successful completion, the students will be able to take up jobs in industries and government departments where applications of statistics and data analytics are required.

The one-year programme consists of a total of 10 courses. There are five courses in the first semester and four courses plus a one-course project on data analytics supervised by a faculty in the second semester. This helps the students have some hands-on experience will real world data-driven projects. The course is run at the ISI NEC campus at Tezpur and ISI Chennai campus, where the selection is through a national level exam followed by an interview.

Semester I

- Probability Theory
- Statistical Methods I
- Statistical Inference
- Vectors, Matrices and Regression Methods
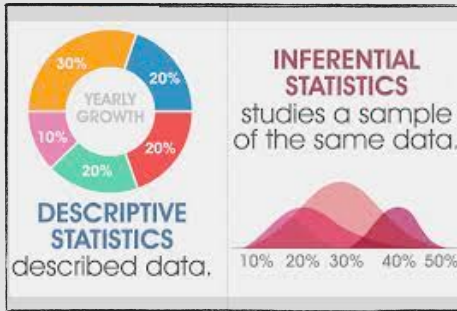- Programming: R and Python

Semester II

- Statistical Methods II
- Statistical Machine Learning
- Statistical Modeling
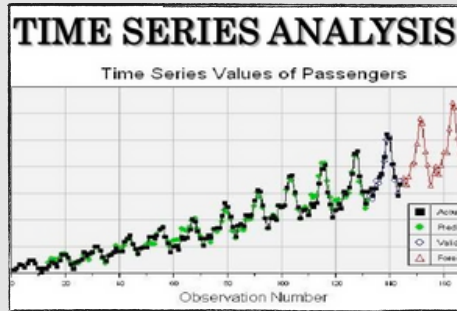- Time Series and Statistical Finance
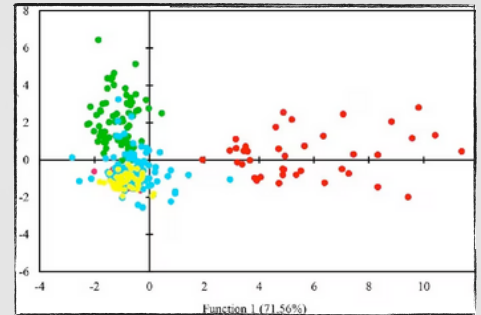- Project

KEY COURSE FEATURES

CORE KNOWLEDGE

INFERENTIAL STATISTICS
UNCOVER HIDDEN PATTERNS AND DRAW MEANINGFUL CONCLUSIONS FROM SAMPLE DATA.

TIME SERIES ANALYSIS
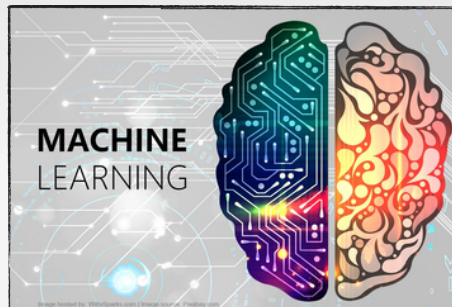DECODE PATTERNS AND TRENDS IN TIME-DEPENDENT DATA FOR INFORMED DECISION-MAKING.

MULTIVARIATE ANALYSIS
EXPLORE COMPLEX RELATIONSHIPS BETWEEN MULTIPLE VARIABLES TO GAIN DEEPER INSIGHTS.

INDUSTRY KNOWLEDGE

PROGRAMMING

EMPOWER DATA ANALYSIS WITH COMPUTATIONAL SKILLS, ENABLING EFFICIENT MANIPULATION AND ANALYSIS OF LARGE DATASETS.
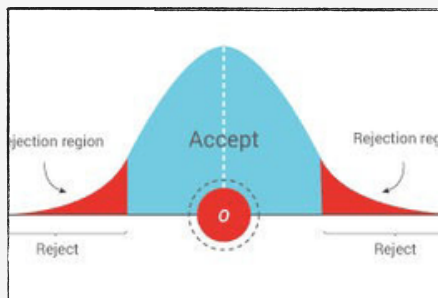

MACHINE LEARNING

HARNESS THE POWER OF DATA AND ADVANCED ALGORITHMS TO MAKE ACCURATE PREDICTIONS AND UNCOVER VALUABLE INSIGHTS.

FINANCIAL STATISTICS

UNLOCK THE SECRETS OF FINANCE THROUGH STATISTICAL ANALYSIS, ENABLING INFORMED DECISION-MAKING AND RISK MANAGEMENT.

SAMPLING TECHNIQUES AND DESIGN OF EXPERIMENTS
ENSURE ACCURATE DATA REPRESENTATION AND OPTIMIZE EXPERIMENTAL DESIGNS FOR RELIABLE RESULTS.

BAYESIAN INFERENCE

UTILIZE PROBABILITIES TO MAKE PRECISE PREDICTIONS AND QUANTIFY UNCERTAINTY FOR OPTIMAL DECISION-MAKING.

DEMOGRAPHICS

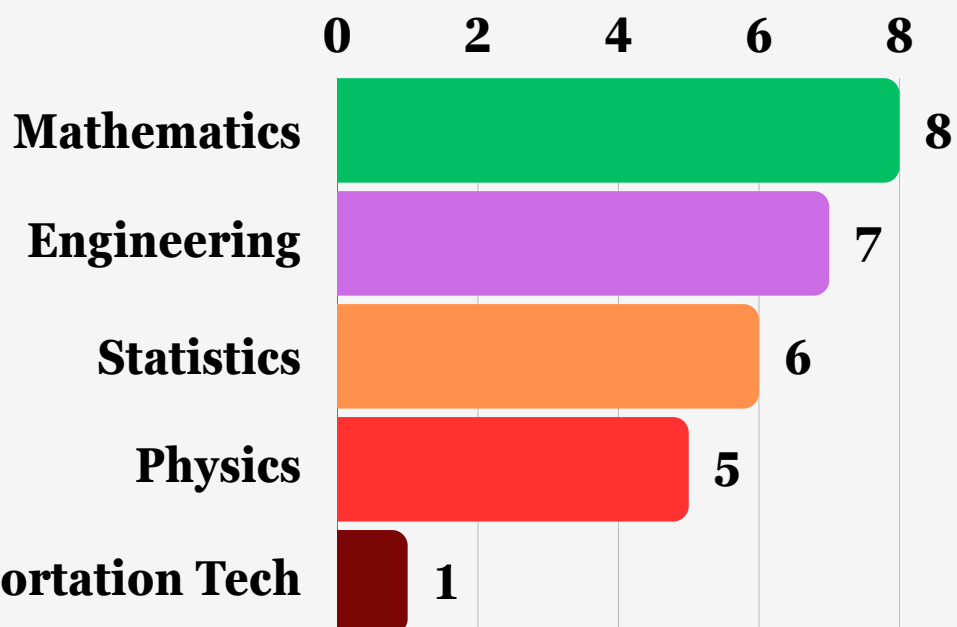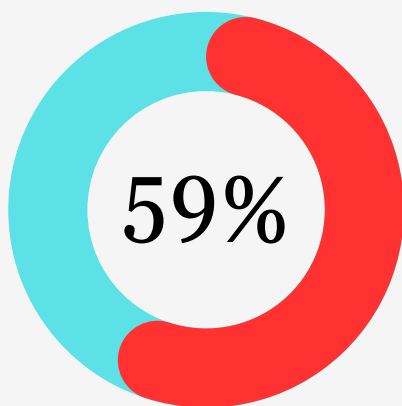## CURRENT BATCH STRENGTH

MALE - 18

FEMALE - 9

Our PGDSMA batch of 2023-24 is a diverse community of students representing seven states across India, with a healthy gender ratio. Students come from different educational backgrounds, all having exposure to pre-requisites of data science (attested by the entrance exam and interview for admission).

Students with Post-Graduation

59%

Students' Backgrounds

	0	2	4	6	8
Mathematics					8
Engineering				7	
Statistics				6	
Physics			5		
Transportation Tech	1				

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BATCH PROFILES

Farhan Ahmed
Master of Science in Statistics
Skills: Python, R, Visualization, Predictive Analytics, SQL, C++
AOI: Image Processing, AI, ML, Big Data

Rupshree Goswami
Master of Science in Mathematics
Skills: Python, R Programming, Visualization

Piyush Anand
Bachelor of Science in Physics
Skills: Python, R Programming, Power BI, SQL
AOI: ML, Deep Learning, Business Analytics, Decision Science

Shubham Jaiswal
B Tech in Textile eng. and Fiber science
Skills: Python, R Programming, Visualization
AOI: Business analysis, Stock market analysis, Banking analysis, ML, Statistics analysis

Daisy Barman
M Sc in Electronics and Com. Technology
Skills: Python, R, ML, SQL, Power BI, Excel.
AOI: ML, AI, IoT, Fintech, Forecasting, E-commerce

Sarabjit Kaur
Master of Science in Mathematics
Skills: Python, R, SQL, Visualization, Excel
AOI: ML, AI, Regression, Forecasting.

Sukanya Barman
Master of Science in Mathematics
Skills: Python, R, C, SQL, Excel, Data Visualization and Handling
AOI: ML, DL, Forecasting, AI.

Amit Kumar
MBA(IIFM Bhopal)
B E Mechanical Engineering
Skills: Python, R Programming, Visualization
AOI: Time series Forecasting, Credit Risk Modeling, Statistical Finance

Sourav Chakraborty
Bachelor of Science in Statistics
Skills: R programming, SQL, PowerBl
AOI: Statistics, ML

Uttaran Nandy
Bachelor of Science in Mathematics
Skills: Python, R Programming, Visualization
AOI: Probability, Inference, Regression, ML

Supreeti Chetia
Master in Mathematical Sciences
Skills: Python, R, SQL, data handlig
AOI: AI, ML, Linear Algebra, Data Handling

Paheli Paul
B Tech in Electrical Engineering
Skills: Python

Uday Ghosh
Master of Science in Physics
Skills: Python, R, SQL, PowerBI, Tableau, C, Excel
AOI: ML, Predictive Modeling, Big Data, Time Series Forecasting, MCMC and Financial Statistics.

Anurag Prasad
B Tech in Computer Science & Engg
Skills: Python, R, SQL, Tableau, Statistical Modeling
AOI: ML, Deep Learning, Computer Vision, Augmented Reality

*AOI: Areas of Interest

BATCH PROFILES

Sonit Prasad
B Sc in Transportation Technology
Skills: SQL, Python, R Programming, Excel
AOI: Machine Learning

Debarathi Saha
Bachelor of Science in Statistics
Skills: Python, R Programming
AOI:ML,R, Python, Power BI

Subham Kar Purkayastha
Bachelor of Science in Statistics
Skills: Python,R,SQL, PowerBI
AOI:ML,AI,Data visualisation, Image Processing,Fintech

Mounajyoti Sarkar
Master of Science in Mathematics
Skills: Python,R , SQL, Visualization
AOI:Fintech, business analysis, sports analysis, health care analysis, weather prediction

Roja Rahman
Master of Science in Mathematics
Skills: Python, R programming, SQL, PowerBI, Excel
AOI:ML, AI, finance, data mining, data analytics

Tanay Sarma
Master of Science in Physics
Skills: Python, R, C Programming, Spreadsheet, SQL
AOI: ML Algorithms, Predictive analysis, TSA, Big Data analysis, Database management

Nirmalya Sarma Roy
Bachelor of Science in Statistics
Skills: Advanced Excel, Python, R, SQL
AOI: Regression, TSA, Survival DM,Bayesian Inference, MCMC and Financial statistics

Himanshu Singh
B Tech in Mechanical Engineering
Skills: Python, R ,SQL, Data visualisation
AOI:ML , AI, Business intelligence, Deep learning, Pattern recognition

Shalini Roy
Master of Science in Mathematics
Skills: Python, R
AOI:AI, ML, Programming language

Susen Sinha
M Tech in Water Resources and Irrigation
Skills: Python, R, PowerBI, Excel
AOI: Spatial analysis, Hydrometereology, Climate-Risks, ML

Subhrajyoti Roy
Master of Science in Physics
Skills: Python, Java, SQL, Linux Script, HTML
AOI: ML, Fintech, Business analysis, health care analysis, system analysis, Image processing, weather science

Ramashankar Kumar Yadav
B Tech in Mechanical Engineeringc
Skills: R programming, python,SQL, Power BI
AOI:Image processing,AI ,Data engineer, Quantitative Analyst

Anik Saha
Bachelor of Science in Statistics
Skills: R Programming,SQL,Python, Excel
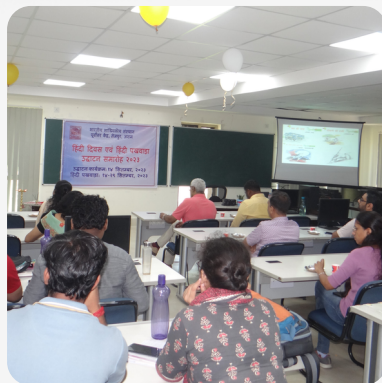AOI: AI, ML

*AOI: Areas of Interest

BATCH OF 2023 - 2024

With Head of ISI, NEC

COMMUNITY ENGAGEMENT

CAMPUS ACTIVITY

WORKSHOP ON DATA SCIENCE AND ARTIFICIAL INTELLIGENCE

6TH WINTER SCHOOL IN MATHEMATICS FOR POST GRADUATE STUDENTS OF NER

ONE WEEK WORKSHOP ON DEVELOPMENT OF STATISTICS FOR TEA-GARDEN WORKERS AT AAU JORHAT

TRAINING PROGRAMME ON OFFICIAL STATISTICS FOR OFFICIALS FROM THE DIRECTORATE OF ECONOMICS AND STATISTICS, GOVT. OF ASSAM

WHERE ARE OUR PAST STUDENTS?

A strong alumni network is a testimonial to the bond that is shared by students across the batches, helping the students community find personal and professional support wherever they go. Past students from the PGDSMA course at ISI-NEC have successfully made their mark in data-driven jobs. Students interested in higher education have also joined masters and doctoral level courses in reputed universities/institutes across the world.
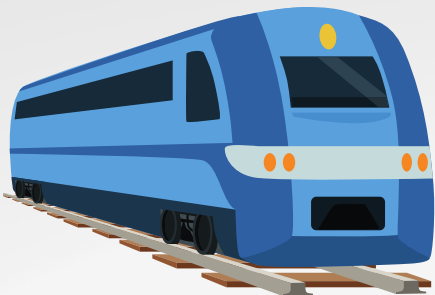
HOW TO REACH US?

Air connectivity

Tezpur has its own domestic airport named as Salonibari Airport, Tezpur. It is well connected to flights from Kolkata, Guwahati, Lakhimpur and Pasighat by Alliance Air and Spice-Jet. The nearest International Airport from Tezpur is Lokpriya Gopinath Bordoloi International Airport, Guwahati, roughly 165 Kms from Tezpur.

Railways

Operational railway station in Tezpur is Dekar Gaon, that provides connectivity to major railway stations like Guwahati. Rangapara is another railway station 25 Kms from Tezpur.

Buses

Tezpur is 63 Kms from Nagaon, 75 Kms from Udalguri, 162 Kms from Guwahati, 163 Kms from Itanagar, 206 Kms from East Kameng and 263 Kms from Sagali via Assam State Transport Corporation (ASTC) and some private travel services.

PLACEMENT COMMITTEE

Faculty Coordinators

Dr. Mridu Prabal Goswami
Dr. Kushal Banik Chowdhury

Student Coordinators

Uday Ghosh

Anurag Prasad

Farhan Ahmed

Debarathi Saha

Nirmalaya Sarma Roy

Amit Kumar

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Debarathi Saha (8402069364)