

RABINDRANATH TAGORE UNIVERSITY

In Collaboration with

GARGAON COLLEGE

ONE WEEK FDP ON DATA ANALYSIS USING R (BASIC, ONLINE)

The role of data analysis in research cannot be overstated, as it serves as the foundation for informed decision-making and scholarly advancement. In today's academic landscape, the extraction, interpretation, and utilization of data are pivotal in shaping the trajectory of research outcomes across diverse domains. Through meticulous analysis, researchers gain insights, identify patterns, and draw conclusions that substantiate their hypotheses or theories.

Among the multitude of statistical programming tools available, R stands out as an indispensable asset in research endeavors. Its versatility, extensive range of statistical functions, and open-source nature make it a preferred choice for data manipulation, visualization, and complex modeling. R empowers researchers to delve deep into data, facilitating advanced analyses and enabling the presentation of findings in a comprehensible manner.

As the Faculty Development Program welcomes participants from varied fields, understanding the significance of data analysis, particularly through tools like R, can foster enhanced research methodologies and outcomes, enriching the academic landscape across disciplines.



DATE: 23RD-27TH DEC 2023
TIME: 07:00 PM TO 09:00 PM

MODE: ZOOM PLATFORM



RESOURCE PERSON

Dr. Arpita Basak
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PROGRAM CO-ORDINATOR

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Mr. Indrajit Mazumder



RABINDRANATH TAGORE UNIVERSITY: AT A GLANCE

Rabindranath Tagore University, Hojai, came into existence as a result of upgrading of Hojai College as per ASSAM ACT NO. XXXIV of 2017. This newly founded university has successfully completed four years and is making rapid progress in affirming its role as a premiere university in the state, thanks to the unwavering determination of the RTU community. The dedicated faculty members and staff are carrying out their responsibilities with utmost sincerity. The students' enthusiasm for learning and active participation in academic and extracurricular activities contribute to the overall excellence of the institution. The University aims for national and global eminence, fostering an environment nurturing societal, intellectual, and cultural development.

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ORGANISED BY

**DEPARTMENT OF COMMERCE
AND IQAC, RABINDRANATH
TAGORE UNIVERSITY**

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Registration Link

<https://forms.gle/PJaCWkpGe75ct2qA7>

You Can Also Scan
the Alongside QR for
Registration Link



Payment Information

FDP Fees: Rs 800 Only.
Account Name: Rabindranath
Tagore University
Branch: SBI, Hojai Branch
A/C No: 38560758714
IFSC Code: SBIN0002065

UPI ID: 9435318050@SBI

**The Zoom Link of the FDP will be
shared in the WhatsApp Group.**



GARGAON COLLEGE: AT A GLANCE

Established in 1959, Gargaon College in Assam stands as a prestigious institution committed to higher education excellence. Driven by its founder Principal, Dr Harendra Nath Phukan, the college has strived for learner development and societal progress. Affiliated with Dibrugarh University, it attained government support in 1966 and provincialization under Tanu Konger's leadership. The college's dedication to quality education led to the addition of diverse courses and vocational programs, complemented by career guidance initiatives. Continuously adapting, it enhances its educational approach and infrastructure, reflected in NAAC accreditations in 2004, 2010, and 2019. Notably, the college shoulders the responsibility of uplifting its students from the region's socio-economic challenges, aiming to shape them into exemplary contributors to society's advancement.

Program Schedule:

All 5 Days	TOPICS TO BE COVERED
Day 1	<ul style="list-style-type: none">✓ Installation of R,✓ Introduction to the Basic Structure of R,✓ Data Types, Data Entry, and Variables,✓ Hands-On-Practice.
Day 2	<ul style="list-style-type: none">✓ Data Structure (Vector, Data Frames)✓ Importing Data✓ Working on Sample Data Set✓ Hands-On-Practice
Day 3	<ul style="list-style-type: none">✓ Data Entry to Validation, Data Transformation, Manipulation & Cleaning✓ Descriptive Statistics and Graphical Representation of Data (Bar Diagram, Pie Diagram, Line Diagram)✓ Hands-On-Practice
Day 4	<ul style="list-style-type: none">✓ Introduction to Statistical Tests in R (T Test, Paired T Test, ANOVA, Chi-Square Test)✓ Correlation✓ Linear Regression Analysis✓ Hands-On-Practice
Day 5	<ul style="list-style-type: none">✓ Logistic Regression Analysis✓ Principal Component Analysis (PCA)✓ Hands-On-Practice

After the End of the Program the Participants Will Learn:

As the program progresses, participants will explore essential data structures like vectors and data frames, learning to import and work with datasets effectively. Hands-on sessions will solidify their grasp on data entry, validation, transformation, and cleaning, indispensable skills in real-world data analysis scenarios. Emphasis will be placed on descriptive statistics and various graphical representations such as bar diagrams, pie diagrams, and line diagrams, enabling participants to visually communicate and interpret data insights.

Moreover, participants will delve into statistical tests integral to data analysis, including T-tests, Paired T-tests, ANOVA, and Chi-Square tests. They will explore correlation and delve into linear regression analysis, understanding predictive modelling using data relationships. Moving further, the program will cover logistic regression analysis, offering insights into binary outcomes, and principal component analysis (PCA), aiding in dimensionality reduction and data interpretation.

By the culmination of the FDP, participants will emerge equipped with a multifaceted skill set in R, capable of proficiently handling data, performing statistical analyses, conducting regression analyses, and employing advanced techniques like PCA. The combination of theoretical learning and practical application through hands-on exercises ensures that participants can confidently navigate R's functionalities, empowering them to apply their knowledge effectively in academic research or professional settings, thereby enhancing their data analysis capabilities significantly.

THANK YOU