

WORKSHOP HIGHLIGHTS

ACADEMIC RELEVANCE:

R is a powerful programming language known for its extensive statistical capabilities and data visualization tools. This five-day workshop is a comprehensive programme designed to equip academics with the necessary skills to effectively handle, analyse, and interpret data for their research. By the end of the workshop, the participants will gain a comprehensive understanding of R with the ability to perform robust statistical analysis, create impactful visualizations, and produce reproducible research for enhancing the rigour and impact of their research work.

The workshop will demonstrate how to calculate and interpret common descriptive statistics, explore inferential techniques, cover time series analysis and introduce machine learning techniques for predictive modelling.

Participants will learn how to create impactful graphs, charts, and plots for effective representation of findings in research papers. Participants are introduced to R Markdown for creating dynamic documents that combine code, output, and explanatory text.

OUTCOME

Academics will gain practical skills to integrate R into their teaching, research projects, and publications for advancing their contributions to the field of their research.

ABOUT AIU-AADC

The Association of Indian Universities (AIU) is a premier representative body of the universities and HEIs of India. AADC initiative is a forward-looking program introduced by AIU to strengthen the academic and administrative ecosystem of HEIs.

The centre aims to enhance the professional capacities of faculty and administrative staff in universities and other Higher Educational Institutions. The centre focuses on :

- Training faculty for online/offline/blended teaching learning methodologies.
- Developing e-content and leveraging technology for continuous assessment and evaluation
- Facilitating research collaboration
- Conducting programs on effective university governance and administration through technological advancements

ADVISORY COMMITTEE

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| 2. | Joint Secretary | AIU | Member |
| 3. | Prof. Amar Jyoti Choudhary | Director, Dr. BHCC, RGU | Member |
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| 7. | Prof. Hiren Kumar Deva Sarma | Professor, Department of IT, Gauhati University | External Member |
| 8. | Dr. Rashmi Dutta Baruah | Associate Professor, Department of CSE, IIT Guwahati | External Member |
| 9. | Dr. Deepjyoti Choudhury | Associate Professor & HOD, Dept of CSE, RSET | Member |
| 10. | Dr. Aruna Dev Rroy | Associate Professor & HOD, RSC | Member |
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| 12. | Mr. Shamim Goney | Dy Registrar, RGU | Member |
| 13. | Mr. Sasanka Boruah | Sr. Manager (IT), RGU | Member |



In association with RGU - IQAC

**FIVE DAY ONLINE WORKSHOP
ON
DATA ANALYSIS FOR
ACADEMIC RESEARCH WITH R**
13th October to 17th October, 2025



OBJECTIVES OF WORKSHOP

- **To familiarize participants** with the R environment, including installation, interface, and basic coding practices.
- **To enhance research data management skills** by teaching methods for importing, cleaning, and structuring datasets.
- **To develop competence** in applying statistical techniques (descriptive and inferential) relevant to academic studies.
- **To equip participants** to create effective visualizations for presenting research findings clearly and impactfully.
- **To promote reproducible research practices** by demonstrating the use of R scripts and documentation.
- **To encourage interdisciplinary applications** of R in social sciences, natural sciences, management, and other academic fields.
- **To strengthen analytical confidence** so participants can independently handle their own research data.
- **To foster collaboration and knowledge sharing** among academics through participative learning exercises.
- **To prepare participants** to integrate R into their teaching, scholarly writing, and future research projects.

WHO SHOULD ATTEND

- **Faculty Members from HEIs**
- **Research Scholars**



Registration fee:
Rs. 500 (including GST)

Registration Link:

<https://forms.gle/NBFZdKn35dQTEhQk9>

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ABOUT RGU

The Assam Royal Global University, since its inception in 2017, has been a trendsetter in the higher education landscape in the North-East. The University in its endeavour to build a legacy of character and reputation in the state of Assam and in Northeastern region is committed to offer quality education at affordable price. The university has been striving towards achieving the goals of academic and professional excellence in conformity with the vision and the goals of the National Education Policy (NEP) 2020 and Sustainable Development Goals (SDGs) envisioned by the United Nations. The University constantly endeavours to motivate, inspire and guide the young minds to serve the society, the nation and the whole world as conscious, conscientious and committed citizens with highest level of professionalism, basic human values and virtues for a sustainable world. Our faculty comprises accomplished professionals who bring global perspectives and expertise gained from esteemed institutions and organizations across the globe.

The university is on a fast growth trajectory with 23 schools, 9 centres, 8500 plus students, 500 plus faculty members and more than 130 programmes offering UG, PG and PhD level besides having state-of-the-art infrastructure facilities for nurturing innovation, research, sports, cultural diversity, environmental sustainability, etc.

Date: 13th Oct, 2025– 17th Oct, 2025

Time: 11am– 1 pm and 2 pm –4 pm

Mode: Online

WORKSHOP SCHEDULE

DAY 1 (13.10.2025)

10:30 am – 11:00 am **Inaugural Session**

Session 1: 11:00 am – 1:00 pm

Introduction to R and R Studio

(Dr. Ambar Dutta, Amity University Kolkata)

Session 2: 2:00 pm – 4:00 pm

Data Structures and Management

(Dr. Bikash Baruah, Dept of CSE, RGU)

DAY 2 (14.10.2025)

Session 3: 11:00 am – 1:00 pm

Advanced Data Visualisation

(Dr Jiten Singh, ICMR, New Delhi)

Session 4: 2:00 pm – 4:00 pm

Descriptive Statistics and Data Summaries

(Dr. Himadri Barman, Dibrugarh University)

DAY 3 (15.10.2025)

Session 5: 11:00 am – 1:00 pm

Hypothesis Testing using R

(Dr Arpita Basak, Gauhati University)

Session 6: 2:00 pm – 4:00 pm

Simple and Multiple Linear Regression

(Dr Vivek Verma, Assam University)

DAY 4 (16.10.2025)

Session 7: 11:00 am – 1:00 pm

Machine Learning and Predictive Modelling using R

(Dr. Jiran Meitei, Agrasen College, New Delhi)

Session 8: 2:00 pm – 4:00 pm

Time Series Analysis and Forecasting

(Prof. Eshankur Saikia, Gauhati University)

DAY 5 (17.10.2025)

Session 9: 11:00 am – 1:00 pm

Hierarchical Linear Modelling

(Dr. Rashad P. P., Institute of Analytics, ISDC, Kochi)

Session 10: 2:00 pm – 4:00 pm

Spatial Analysis using R

(Dr Jiten Singh, ICMR, New Delhi)

4:00 pm – 4:30 pm **Valedictory Session**