National Workshop (Online) on R Programming for Social Sciences Research and Data Analytics

Organized by

Department of Economics

Jamia Millia Islamia

(NAAC Accredited A++ and 3ʳᵈ Best University in India as per the ranking of Ministry of Education, GOI, 2022)

During

16-17 September, 2022

Under the aegis of Golden Jubilee Celebrations of the Department of Economics, JMI- New Delhi.

About R Programming Language

R is an open source programming language and a free statistical software designed and highly suitable for in-depth data analysis, Visualization, data manipulations, data modelling, forecasting and making inferences. R runs on all the major Operating System platforms. R is one of the most sought-after software for conducting data science research and is also highly popular among the academic community, besides Python.

Workshop Objectives/Outcomes

The main objectives of this workshop are:

I) To provide an opportunity for the faculty members, research scholars, corporate professionals and aspirants to get an exposure in the use of R programming language in social science research and data analytics.

II) To provide hands on experience in handling and manipulating data on R

III) Leaning of data visualization techniques in R

IV) A better understanding of Statistical and Econometrics concepts and learning how to apply them on real data and interpret the result and reach at meaningful conclusion.

Workshop Methodology

The workshop will be purely online and we shall be conducting online, hands-on practice sessions in R, covering various aspects of the tools and techniques that the software provides its users.

Topics to be covered in the Workshop

- Introduction to Basic of R programming, R and R studio
- Data Structures in R: vectors, lists, arrays, matrices, data frames, etc.
- Data manipulation techniques: importing and exporting data in R
- Basic Data visualization,
- Advance Data Visualisation using gg-plot 2 package
- Data Manipulations using dplyr package
- Various statistical techniques in R: Hypothesis testing in R- (One sample t test independent sample t test, paired or dependent sample t test Chi Square test, Normality tests, ANOVA)
- Correlation

- Bivariate OLS regression
- Multivariate OLS Regression
- Violation of OLS Assumptions
- Unit root tests
- Testing of short run and long run relationship in economics etc.
- CASE study with real life data

Benefits from this Workshop

- Researchers who are working with data and need insights and inferences
- Academicians who want to brush up their technical and research skills
- Engineering, economics, computer sciences students who wish to stay abreast with the modern-day world's requirements of data science and R
- Students/scholars who are doing or wish to pursue research in near future
- Industry professionals who wish to enhance their data science abilities
- Medical,biotechnology and biology students who are required to work on patient data and draw meaningful conclusions

Resource Persons/Speakers

Eminent faculty from IITs, IIMs, research centres, JMI and Other Central and State universities and industry experts will be invited to deliver lectures.

Registration Fee

Academia: Rs 499

Industry: Rs 749

Bank Details for fee submission:

Institute Name- Jamia Millia Isalmia
Beneficiary Name- JMI- Seminar and Symposium
Name of Bank- Indian Bank
Branch- Jamia Millia Islamia
Account No.- 6767690486
IFSC Code- IDIB000J029
MICR Code- 110019041

After submitting the fee applicants are requested to send the receipt to the email: events.economics@jmi.ac.in

Link for registration:

Pre- Requisite

A Desktop/Laptop with internet connection will be a requisite for attending this workshop. Participants are advised to download R and R-Studio software from the website.

Selection of participants: Selection of participants will be based on first-come- first serve basis.

Application Deadline: 13, September, 2022

About Jamia Millia Islamia

Jamia Millia Islamia, an institution originally established at Aligarh in United Provinces, India in 1920 became a Central University by an act of the Indian Parliament in 1988. In Urdu language, Jamia means 'University', and Millia means 'National'.

The story of its growth from a small institution in the pre-independence India to a central university located in New Delhi—offering integrated education from nursery to research in specialized areas—is a saga of dedication, conviction and vision of a people who worked against all odds and saw it growing step by step. They "built up the Jamia Millia stone by stone and sacrifice by sacrifice," said Sarojini Naidu, the nightingale of India. Jamia is a NAAC A++ accredited university and it been declared as the 3rd best university in India as per the ranking of National Institutional Framework (NIRF), Ministry of Education, GoI.

About Department of Economics

The Department of Economics is one of the oldest Departments, established in 1971, under the Faculty of Social Sciences. The department is highly reputed and well- recognized in the country for its Programmes, viz., Ph.D., M.Phil. M.A. (Economics), M.Sc. (BFA) and B.A. (Hons.), as it has always maintained high standards of the teaching-learning process. It has state-of-the-art

Infrastructural support where all the computers of the Department have internet connectivity, a Smart Class Room – unique and only in the university, two other classrooms with AC facilities, and a Computer Laboratory well-equipped in terms of Hardware and Software, including application of Econometric Software's like SPSS, E-views, STATA, R and Python etc.

Contact Details

Prof. Asheref Illiyan
Head and Workshop Director
Dept. of Economics, JMI
Contact Email: events.economics@jmi.ac.in
9990818484