

## ABOUT R LANGUAGE

R is a programming language and free software environment for statistical computing. The R language is widely used among statisticians and data miners for developing statistical software and data analysis. R provides a variety of statistical (linear and nonlinear modeling, classical statistical tests, time-series analysis, classification, and clustering) and graphical techniques, and is highly extensible. One of R's strengths is the ease with which well-designed, publication-quality plots can be produced, including mathematical symbols and formulae where needed.

The advantages of the R language include:

- Effective data handling and storage facilities
- A suite of operators for calculations on arrays
- An integrated collection of tools for data analysis
- Graphical facilities for data analysis
- A well-developed, simple, and effective programming language"

## Payment Details

Name: All Department

A/C No: 168301000020931

IFSC Code: IOBA0001683

Bank: Indian Overseas Bank (IOB)

Branch: Auxilium College

## RESOURCE PERSONS



Ms. V. Shakila  
Assistant Professor (SS)  
Dept. of Humanities and Sciences,  
Mathematics  
Rajalakshmi Engineering College  
Thandalam



Ms. Kezline Dharshini Suresh  
Research Associate  
Good Business Lab, Bangalore

### REGISTRATION FEE

UG, PG & B. Ed. students - Rs. 200/-  
Research Scholars & Faculty Members - Rs. 300/-  
Certificate and a Working lunch will be provided

- Only 50 registered participants can be accommodated.
- Selection of the registered participants will be on 'first come first serve basis'.

### Registration Link

<https://forms.gle/XU7wRpgb1j3mVJS17>

WhatsApp link

<https://chat.whatsapp.com/CIMzwljy03lDEHzUCExTUD>

**Last Date for Registration: 28.08.2024**



**Auxilium College (Autonomous)**  
(Accredited by NAAC with A Grade in the 4<sup>th</sup> Cycle)  
Gandhi Nagar, Vellore - 632006  
Tamil Nadu, India



## PG & Research Dept. of Mathematics

*organizes*

## National Level Workshop

Hands-on Training

on

## R PROGRAMMING



Date: 30.08.2024

Time: 10 a.m. - 4 p.m.

Venue: Muriel Block  
(Room No. 2)

## ABOUT AUXILIUM COLLEGE

Auxilium College founded in 1954 is the first women's College in the Vellore district and is affiliated to the Thiruvalluvar University. Auxilium has been granted the status of autonomy by the UGC and the Thiruvalluvar University from the academic year 2007-2008. The College has consistently received high accreditation grades from the National Assessment and Accreditation Council (NAAC): A<sup>+</sup> in 2003, A with a CGPA of 3.41 out of 4 in 2010, A<sup>+</sup> with a CGPA of 3.55 out of 4 in the 3<sup>rd</sup> cycle in 2016 and A<sup>+</sup> again in the 4<sup>th</sup> cycle in 2024. It is a minority institution established and administered by the Daughters of Mary Help of Christians, commonly known as the Salesian Sisters of Don Bosco, belonging to the Catholic Church.

## ABOUT THE DEPARTMENT

The Department of Mathematics was started in 1966, with the single-minded purpose to improve the level of mathematical maturity, logical and analytical thinking among the students from rural areas of Vellore District. The M.Sc. course was started in 1999. From 2010, the department is also offering Ph.D. programme in Mathematics. In a period of five and half decades of its existence, the department has become a full-fledged research department.

## ORGANIZING COMMITTEE

### Patron

Dr. (Sr.) Mary Josephine Rani A.

Secretary

Auxilium College (Autonomous), Vellore

### Co - Patron

Dr. (Sr.) Arokia Jayaceli A.

Principal

Auxilium College (Autonomous), Vellore

### Convener

Dr. (Sr.) Amala Valarmathy A.

Vice Principal

Auxilium College (Autonomous), Vellore

### Coordinator

Dr. Sujatha L.

Assistant Professor & Head

PG & Research Dept. of Mathematics

Auxilium College (Autonomous), Vellore

### Organizing Secretary

Ms. Priya P.

Assistant Professor

PG & Research Dept. of Mathematics

### Organizing Members

- Ms. Aruna G., Assistant Professor
- Ms. Lakshmi Bai R., Assistant Professor
- Dr. Yuvarani S., Assistant Professor

## TOPICS COVERED IN THE WORKSHOP

- Installing R and R Studio on Linux
- Installing R and R Studio on Windows
- Introduction to basics of R
- Introduction to Data Frames in R
- Introduction to R Studio
- Introduction to R script
- Working directories in R Studio
- Indexing and Slicing Data Frames
- Creating Matrices using Data Frames
- Operations on Matrices and Data frames
- Merging and Importing Data
- Data types and Factors
- Lists and its Operations
- Data Manipulation using dplyr Package
- More Functions in dplyr Package
- Pipe Operators
- Conditional Statements
- Functions in R
- Plotting Histograms and Pie Chart
- Plotting Bar Charts and Scatter Plot
- Introduction to gg plot2
- Aesthetic Mapping in gg plot2

**For further details contact:**

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