



KONGUNADU ARTS AND SCIENCE COLLEGE
(AUTONOMOUS)
Re-accredited by NAAC with A⁺ Grade - 4th cycle,
College of Excellence – UGC
52nd Rank among Colleges in NIRF 2024
Coimbatore - 641 029, Tamil Nadu, India



DEPARTMENT OF COMPUTER SCIENCE (AIDED)
Supported by
DBT STAR COLLEGE SCHEME
REPORT

Name of The Event	Hands On Training on “Exploring R in Data Science”
Date	14.03.2025
Time	10.00AM
Venue of The Programme	Lab VI
Resource Person	Dr.S.P.Gayathri, Department of Computer Science, Government Arts College for Women, Nilakottai.
Objectives of the Programme	It is to equip users with the knowledge and skills to leverage R for data manipulation, visualization, statistical analysis, and machine learning, enabling effective data-driven decision-making.
Outcome of the Programme	The users will gain proficiency in data manipulation, visualization, statistical analysis, and machine learning, enabling them to analyze complex datasets and derive meaningful insights for data-driven decision-making.
Number of Beneficiaries with class (Both students and faculty)	II-B.Sc Computer Science - 45 Faculty - 4 Dr.A.Kavitha Ms.K.Deekshana Dr.M.Jagadeeswari Mrs.S.Vishalini Total No of Beneficiaries : 49

Report in Detail:

"Exploring R in Data Science" highlights the significance of R as a powerful programming language for data analysis, visualization, and statistical computing, widely used in research and industry. The report covers R's capabilities in data manipulation, exploratory data analysis, machine learning, and predictive modeling, demonstrating its application in various domains such as healthcare, finance, and marketing.

It also explores R's integration with libraries like `ggplot2`, `dplyr`, and `caret`, enabling efficient data processing and visualization. While R offers robust analytical tools and flexibility, challenges such as a steep learning curve and performance limitations with large datasets are noted. Overall, R remains a valuable tool for data scientists, supporting data-driven decision-making and complex analytical tasks.

"Exploring R in Data Science" examines the role of R as a versatile programming language for data analysis, visualization, and statistical computing. The report discusses R's ability to handle large datasets, perform advanced statistical modeling, and integrate with machine learning techniques. It highlights key libraries such as **ggplot2** for data visualization, **deployer** for data manipulation, and **caret** for machine learning, demonstrating how R simplifies complex analytical tasks.

The applications of R span various industries, including healthcare, finance, and academia, where data-driven insights are essential for decision-making. Despite challenges such as a steep learning curve and computational limitations, R remains a preferred tool for statisticians and data scientists due to its flexibility, open-source nature, and strong community support. The report concludes that mastering R enhances data science capabilities, enabling professionals to extract meaningful insights and make informed business decisions.



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Photos

