

## **CERTIFICATE COURSE**

ON

# DATA MANAGEMENT AND ANALYSIS IN QUANTITATIVE RESEARCH

(August 27-31, 2024)



## **OFFLINE MODE**

**ORGANIZED BY** 

## **Department of Education**

(Under the aegis of IQAC)

ISWAR SARAN DEGREE COLLEGE, PRAYAGRAJ

(A Constituent PG College of University of Allahabad, Prayagraj)

# **About the College**

Iswar Saran Degree College, a premier constituent college of the University of Allahabad came into existence in 1970 under the aegis of Harijan Sewak Sangh. This college was founded by late Munshi Iswar Saran, a close associate of Mahatma Gandhi. The bonding and association of Late Munshi Ji with Mahatma Gandhi was so strong that he visited the campus twice which accorded the heritage significance to our institution. Later on, as a tribute to its founder, the society was renamed as Iswar Saran Ashram. UGC has granted the title of 'College with Potential for Excellence' (CPE) status to Iswar Saran Degree College. The mission of the college is to disseminate knowledge, skills, values and character to the students which helps them to face ever emerging global challenges in life. Apart from the traditional courses, the college runs various certificate courses. Such courses enable the students to face challenges and concerns of life and contribute to the society in general.

# **About the Programme**

Research in the social sciences is a very dynamic and quickly changing field. For significant social science research, one needs to stay current on the most recent data analysis. The process of creating data is not difficult; however, deciphering the information concealed within it can be difficult. This effort can be made easier by learning how to analyze data. In addition to producing superior results, it will also significantly expand the body of knowledge, which will benefit society and the researcher alike. Softwares like SPSS and Microsoft Excel make the job easier to the researcher, so it's important to used to know which software to use for a particular research as well as how and when. In this regard, the Department of Education at Iswar Saran Degree College Prayagraj is working to organize a Certificate Course on Data Management and Analysis in Quantitative Research.

This course will provide the participants a practical platform and theoretical understanding of using the (SPSS and MS-Excel) softwares. This course is intended primarily for social science research scholars, and it will undoubtedly improve participants' ability to use the right software to conduct high-caliber research.

## **SPSS**

One of the most widely used statistical programs, Statistical Package for Social Sciences (SPSS), can carry out extremely complicated data manipulation and analysis with straightforward instructions. It is a statistical software package that is created commercially and is widely utilized in the fields of industry, education, sociology, economics, and psychology. One of the most popular statistical analysis tools in social science is SPSS, a robust suite of tools for tabulating, reporting, data analysis, and modelling. It is widely utilized by customers who need to perform statistical analysis of huge amounts of quantitative data in fast and precise manner. It is the go-to data analytic software program in the present times. The functionality of SPSS extends beyond basic plots and charts to include far more complex statistical tests. It can be used for a wide variety of tasks, from relatively basic tasks like frequency calculations and list and chart creation to much more complex statistics like variance analysis, multivariate analysis, cluster analysis, etc.

# **Microsoft Excel**

Microsoft Excel is an all-purpose spreadsheet program that is used all over the world for financial analysis and data organization. Charting, financial modelling, data entry, and management are some of its primary characteristics. Excel's durability and flexibility make it a popular tool in accounting and finance for forecasting, analysis, and budgeting. To increase efficiency and productivity, it provides a number of functions, formulas, and shortcuts. Excel is an essential tool for professionals working in accounting, finance, education and other sectors where organizing and analysing data is necessary.

A large collection of integrated statistical, financial, and text data manipulation tools are available in Excel. Pivot Tables improve data comprehension by facilitating rapid summarization and analysis of big data sets. To show data trends and patterns, it offers a range of chart formats and visualisation tools. In order to maximize efficiency and data management, it also facilitates the automation of tedious processes, allows customization with Visual Basic for Applications, and integrates easily with other Office programs. It is an indispensable tool to have in social science research when dealing with huge quantitative data.

# **Objectives of the Workshop**

- 1. To introduce the prospective researchers to the instruments and methods used in the social science research sector for data analysis.
- 2. To acquaint participants with the basics and proper applications of Microsoft Excel.
- 3. To utilize SPSS to acquaint people with the fundamentals of statistics.
- 4. To familiarize participants with the basics of informative statistical methods, descriptive statistics visuals, and database management activities.

# **Course Outcomes**

Upon completion of the course, learners will be able to:

- 1. Use SPSS and MS Excel to carry out a variety of data management tasks.
- 2. Comprehend the fundamental functions of MS Excel and SPSS, and carry out elementary statistical analysis.
- 3. Manage databases, create descriptive statistics and visuals, and do basic inferential statistics.
- 4. Verify the data and make basic charts and tables.
- 5. Use Microsoft Excel and SPSS to conduct advanced analysis in research.

## **Course Outline**

- SPSS: A brief introduction, interface and features.
- Preparation and management of data in SPSS.
- Transforming the Data
- Advanced Data Tabulation
- Descriptive Statistic
- Data Analysis for Hypothesis Testing
- Inferential Data Analysis
- Correlation Analysis
- Regression Analysis
- T-Test
- ANOVA
- Creating & Editing Quantitative & Categorical Graphs/Charts

# Registration

Note: The workshop is designed for Research Scholars only and 100% attendance is mandatory to receive its certificate



Link for Registration: <a href="https://forms.gle/4w9DvV4RvtKFt71C9">https://forms.gle/4w9DvV4RvtKFt71C9</a>

Registration Fee: 300/- (Non-refundable)

Account No. 50472466551, IFS Code: IDIB000A583

Account Holder: PRINCIPAL, ISWAR SARAN DEGREE COLLEGE,

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(Vice Chancelor, AU)

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