



CERTIFICATE COURSE ON

AI-ENABLED DATA MANAGEMENT AND ANALYSIS IN RESEARCH

(November 6-13, 2025)

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 a 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 and the nation.

About the Programme

This certificate course is designed to equip researchers, scholars, and students with the essential knowledge and practical skills needed to leverage the power of Artificial Intelligence (AI) for more efficient and insightful data management and analysis. In today's data-driven world, traditional methods can be slow and often fail to uncover hidden patterns in large data sets. This program will bridge that gap by providing a comprehensive overview of how AI tools and techniques can automate tedious tasks like data cleaning, integration, and organization, allowing one to focus on high-level analysis and discovery. Through a mix of theoretical sessions and hands-on demonstrations, the participants will learn how to automate data pre-processing, apply machine learning and deep learning models to identify complex patterns, and utilize generative AI to assist with everything from literature reviews to drafting research summaries. A key focus will also be on understanding the ethical considerations and best practices for using AI in research to maintain data privacy and academic integrity. Upon successful completion, participants will receive a certificate, validating their expertise in this cutting-edge field.

AI-Enabled Analysis:

AI-enabled analysis is a revolutionary approach that uses artificial intelligence to process, manage, and interpret data more effectively than traditional methods. In today's world, we're dealing with immense amounts of data, and manually sifting through it is often too slow and can lead to missed insights. This is where AI comes in, which automates the tedious and time-consuming tasks of data preparation, like cleaning and organizing messy datasets, so researchers can focus on the bigger picture. Beyond that, AI-enabled analysis uses powerful machine learning algorithms to find complex patterns, correlations, and anomalies that a human might never spot. This allows for more accurate predictions, deeper discoveries, and a much faster research workflow. Essentially, this technology is not just about making things faster; it is about helping you find deeper meaning in your data, transforming it from a simple collection of numbers into a powerful tool for informed decision-making and groundbreaking researches and innovations.

Course Objectives:

Upon completion of this course, participants will be able to:

- Explain the core principles of AI and their specific applications in managing and analyzing research data.
- Utilize AI tools and techniques to effectively organize complex research datasets, automating tedious tasks and saving time.
- Apply AI and machine learning models to conduct deeper and more insightful data analysis than is possible with traditional methods.
- Master the fundamentals of data management and analysis using Microsoft Excel, covering essential functions and best practices.
- Use SPSS to perform statistical analysis, building on a solid understanding of fundamental statistical concepts.
- Apply foundational statistical methods, including informative statistical techniques, descriptive visuals, and database management principles, to their research.

Course Content:

- Data Management Fundamentals
- Foundational Statistics
- Introduction to SPSS
- Introduction to AI in Research
- AI for Data Preparation
- Advanced Data Analysis with AI
- Project-Based Application

Course Outcomes

Upon successful completion of this certificate course, participants will be able to:

- Demonstrate proficiency in core data management tasks using Microsoft Excel, including data cleaning, organization, and basic analysis.
- Apply fundamental statistical methods to their research, using both descriptive visuals and statistical tests with confidence.
- Utilize SPSS to perform statistical analysis and interpret the results effectively.
- Explain the foundational principles of AI and machine learning and their specific applications in academic research.
- Integrate AI tools into their workflow to automate the preparation and organization of complex datasets, saving significant time and effort.
- Conduct advanced data analysis by applying AI and machine learning models to uncover deeper insights and patterns.

Registration

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

Last Date of Registration : 03.11.2025



Link for Registration: <https://forms.gle/vNDGU4cqUHGJJSo38>

Registration Fee: **500/-** (Non-refundable)

Account No. 50472466551, IFS Code: IDIB000A583

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