

## **National Workshop on Data Analysis with SPSS and R**

**6<sup>th</sup> November, 2017-12<sup>th</sup> November, 2017**

**Organizer**

**Arya Mahila P.G. College, Chetganj, Varanasi**

**Grade 'A' Accredited by NAAC & College with Potential for Excellence**

**Admitted to the Privileges of B.H.U. Varanasi**

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**[www.ampgc.ac.in](http://www.ampgc.ac.in)**

### **Theme of the workshop**

Research is an activity that involves thorough study of literature to find the gaps or inconsistencies in theories or mismatch realized. It aims at enhancing the capacity and analytical skill of researchers across different disciplines. In research, various steps are involved that consist of identifying research problem, formulation of hypothesis, collection of data, analyzing the facts and reaching certain conclusions either in for of solutions towards the concerned problem or specific generalizations for some theoretical formulations. In the present era all that is required to be successful is churning knowledge from piles of raw data. Keeping this in mind, this workshop is envisioned to young researchers where they would involve with the experts and would practice research related activities that will enhance their capacity and quality.

### **The objective of the workshop**

The workshop is unique in the sense that it will not only make participants to train them with knowledge of using statistical packages (SPSS) as data entry, data coding, data cleaning, as well as uni-variate and multi-variate analysis and factor analysis. This workshop also aims to enable the participants to select and make use of suitable statistics to analyse their research questions with appropriate analysis of data in their research. Further, the workshop aims to introduce 'R', import data, manage data, transform data, and create graphics and also to equip participants to perform basic and advanced statistical analysis.

## **About the college**

Arya Mahila P.G. College, Chetganj, Varanasi was founded and managed by Shri Arya Mahila Hitkarini Parishad which was established in 1956 by the efforts of Smt. Vidya Devi Ji, an able disciple of Shri Gyanand Maharaj Ji who laid the foundation of Bharat Dharma Mahamandal to promote the cause of women in the field of education and to preserve the Indian culture and human values.

College has initiated P.G. Courses and Ph.D research work in various disciplines and it has endeavored to organize the national and international seminars, workshop as interdisciplinary academic institutions of repute.

The college is also a study center of various correspondence courses of IGNOU and Mahatma Gandhi Antar-rashtriya Hindi Vishwa Vidyalay Wardha University, Maharashtra.

### **Patron**

**Dr. Shashikant Dixit**  
Manager, AMPG College

### **Co-Ordinator**

**Prof. Rachana Dubey**  
Principal, AMPG College

### **Organizing Committee**

#### **Organizing Secretary**

**Dr. Garima Gupta**  
Assistant Professor, AMPG College

#### **For Registration contact:**

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**+91-9044074044**

**Contact: +91-868720882, [grm.gupta2@gmail.com](mailto:grm.gupta2@gmail.com)**

#### **Members:**

- Dr. Manju Rai, Associate Professor**
- Dr. Sachi Malviya, Associate Professor**
- Dr. Brijbala Singh, Associate Professor**
- Dr. Madhumita Bhattacharya, Associate Professor**
- Dr. Shashibala Srivastava, Associate Professor**
- Dr. Chandrakanta Rai, Associate Professor**
- Dr. Arti Srivastava, Associate Professor**
- Dr. Bindu Lahiri, Associate Professor**

**Resource Persons:**

**Dr. Amitabh Patnaik & Dr. Lalit Prasad, Associate Professor, Padmashree Dr. D. Y. Patil Institute of Business Management, Pune, Maharashtra.**

**Dr. Imran Khan, Scientist D, DRDO, Lucknow Road Timarpur, New Delhi-110054.**

**Fees and Registration Procedure**

There are 30 seats for this workshop. The fees of the workshop is 2500/-. The college will not bear any travel or lodging expenses therefore, outstation participants have to bear their own cost. Any leave during the training period is strictly impermissible.

**Target Audience:** Faculty members, Professionals, Research Scholars, and students who are interested to learn and new to R.

**How to Apply**

Interested candidates may fill the registration form enclosed with this brochure. The Registration form can also be downloaded from the college website [www.ampgc.ac.in](http://www.ampgc.ac.in). The candidates are required to send the registration form to the course director either in hard or soft copies.

## Application form

Name (CAPITAL LETTERS): \_\_\_\_\_

Designation: \_\_\_\_\_

Gender: Male / Female

Affiliating Institution: \_\_\_\_\_

Mailing Address: \_\_\_\_\_  
\_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_

Pin code: \_\_\_\_\_

Mobile No\*: \_\_\_\_\_

Email Id \* \_\_\_\_\_

\*Mobile No. and Email ID is mandatory

Registration Fee Payment Details: \_\_\_\_\_  
\_\_\_\_\_

### Topics to be covered under Each Sessions (Tentative)

Sl. No.	Day	Session	Themes to be Covered
1.	Day - 1	Pre-Lunch Session	Types of Data – Metric, Non Metric, Continuous, Discrete, Types of scale – Nominal, Ordinal, Interval, Ratio
2.	Day – 1	Post-Lunch Session	Introduction to R, R structure, Advantages and Disadvantages of R, Downloading R and installation, IDEs for R Overview of R environment, Variables and Value Assignments, Naming Variables, Data Types, Data Structure
3.	Day - 2	Pre-Lunch Session	Population and sampling – sampling and non-sampling error, sample size calculation for quantitative Research, Hypothesis testing - – one tail test, two tail test, type I error, type II error, level of significance and p value, confidence interval
4.	Day – 2	Post-Lunch Session	Data Handling, Reading and writing data files, Importing Data Initial exploration of Statistics with R, Objects and functions, R scripts, Generating frequency table Cross tabulation, Basic calculation and arithmetic & logical operators
5.	Day - 3	Pre-Lunch Session	Introduction to SPSS , Starting SPSS, Creating Variables, Data and its types, Descriptive statistics, Importing Data into SPSS from Excel
6.	Day – 3	Post-Lunch Session	Basic Statistical Applications, Central tendencies, Data visualization and graphical representation
7.	Day - 4	Pre-Lunch Session	Performing t-tests, Chi – Square Test, Correlations, Bi-serial and point bi-serial correlations, Part and Partial Correlation with SPSS
8.	Day - 4	Post-Lunch Session	Performing t-tests, Chi – Square Test, Bi-serial and point bi-serial correlations, Part and Partial Correlation With R
9.	Day - 5	Pre-Lunch Session	Performing ANOVA & Linear Regression Analysis methods and its assumptions with SPSS
10.	Day – 5	Post-Lunch Session	Performing ANOVA & Linear Regression Analysis with R
11.	Day – 6	Pre-Lunch Session	Performing Factor Analysis with SPSS
12.	Day – 6	Post-Lunch Session	Performing Factor Analysis with R
13.	Day -7	Pre-Lunch Session	Performing Factor Analysis with R continue
14.	Day – 7	Post-Lunch	Valedictory and certificate distribution