Faculty Development Programme

on

Mastering Multivariate Data Analysis in Management and Social Science Research (MMDAMSSR-2024)

18-24 September 2024

Organized By

Department of Management Studies

ABV- Indian Institute of Information Technology & Management, Gwalior

www.iiitm.ac.in

Programme Coordinators

1. **Prof. Naval Bajpai** (Professor, ABV-IIITM Gwalior)
2. **Dr. Manoj Dash** (Associate Professor, ABV-IIITM Gwalior)
3. **Dr. Rashmi Ranjan Behera** (Assistant Professor, ABV-IIITM Gwalior)

Publicity Chair: Prasant Kumar Pandey (Assistant Professor, GL Bajaj Institute of Technology & Management, Greater Noida)

About ABV-IIITM Gwalior

Atal Bihari Vajpayee Indian Institute of Information Technology and Management (ABV-IIITM) Gwalior is an autonomous institution incepted by the Ministry of Human Resource and Development (MHRD), Government of India in the year 1997 as a centre of excellence in the field of Information Technology and Management. It is located in Gwalior, Madhya Pradesh, India. The Institute's activities are aimed at developing a culture of inquiry and research through a highly competitive academic environment and close interaction between the Institute and the corporate world. Vibrant links with the industry is also active. It has also been declared as Institute of National Importance by the Government of India.

About the Programme

The Faculty Development Program (FDP) titled "Mastering Multivariate Data Analysis in Management and Social Science Research" aims to elevate the proficiency of participants in utilizing advanced statistical techniques for data analysis within the realms of management and social sciences. Multivariate data analysis, involving the simultaneous examination of multiple variables to discern intricate relationships and patterns, constitutes a focal point of this FDP. Participants have the opportunity to explore into the core aspects of multivariate analysis, with expert speakers delving into the intricacies of data analysis, advanced pedagogies, and proposing reforms by identifying gaps. The FDP is designed to explore diverse dimensions and paradigms of multivariate data analysis, covering techniques such as factor analysis, regression analysis, discriminant analysis, cluster analysis, and structural equation modeling, thereby enriching participants' knowledge of data analysis in research. Instructors will employ a step-by-step approach to elucidate the practical applications of MS Excel, Minitab, and SPSS in research methodology. Hands-on workshops and practical exercises will anchor discussions on various data analysis topics, facilitating participants' meaningful engagement with methodological nuances.

Objectives

Improve participants' proficiency in utilizing advanced statistical techniques for multivariate data analysis in the fields of management and social sciences.

Enable participants to understand complex relationships and patterns in data through the simultaneous analysis of multiple variables

Introduce participants to a curated range of multivariate statistical tools and data mining techniques designed to assist in making crucial management decisions within the industry.

Offer participants the chance to acquire hands-on experience with cutting-edge statistical software in real-world management scenarios.

Offer insights and guidance from expert speakers to navigate the intricacies of data analysis and advanced pedagogies.

Learning Outcomes

- Conceptual clarity of the Multivariate data analysis
- Develop advanced analytical skills among participants, enabling them to proficiently apply multivariate data analysis techniques in research.
- Gain hands-on experience in using statistical software tools such as MS Excel, Minitab, and SPSS for effective multivariate data analysis in real-world research scenarios

Resource Persons

Many leading resource persons from industry and academic institutes like IIITs, IITs, and IIMs will deliver the lectures online.

Programme Content

Introduction of research methodology and multivariate analysis, Inferential statistics for hypothesis testing, Hypothesis testing for single population, Hypothesis testing for two population, Hypothesis testing for categorical data, Analysis of Variance and Multivariate analysis of variance, Simple linear regression analysis, Multiple regression analysis, Discriminant analysis, Logistic regression, Non parametric test, Factor analysis, Cluster analysis, Conjoint analysis, Structural equation modelling, Overview of multicriteria decision analysis, Research paper writing.

Targeted Participants

This is a programme specially designed for faculty members from academic institutions/universities/government and private colleges. In addition, practitioners and researchers from the industry who have a strong orientation toward research are also welcome.

Pedagogical Approach

This program adopts a peer-learning methodology, resulting in a highly interactive and rigorous learning experience. The emphasis is placed on mutual learning and the

dissemination of best practices among participants. Given their advanced academic backgrounds, participants are anticipated to contribute their valuable knowledge, experiences, and challenges to the discussions, fostering collective learning. The programme delivery will have a mix of lectures, demonstrations, interactive sessions, assignments, and hands-on training on the latest version of IBM- SPSS and other important statistical software. Participants are requested to use their laptops during training for live exercises. The program coordinator and resource persons primarily serve as facilitators in this process.

Programme Material

The presentations will be made available to participants, subject to the consent of the resource person. Certificates will be provided to each participant.

FDP Venue

The FDP will be conducted **online** through **Google Meet**

Registration details

Registration Fee - ₹2500

Mode of Payment

Participants are required to transfer the fee amount to the following account through bank transfer/NEFT/UPI.

Account number: **945210110009380**

Account Name: **Director, ABV-IIITM, Gwalior**

Bank Name: **Bank of India, ABV-IIITM Gwalior branch**

IFSC Code: **BKI D0009462**

After successful payment, please click on the following link for registration

https://forms.gle/L5p6yMM7koNRJnv78

Assistance

For queries on registration, programme, and schedule, contact:

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Prasant Kumar Pandey **Mob:** 9559922238 **Email:** prasantp@iiitm.ac.in

Schedule for Faculty Development Programme

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Mastering Multivariate Data Analysis in Management and Social Science Research (MMDAMSSR-2024)

(Date-18th September 2024- 24th September 2024)

Date	11:15-12:45 PM Session I	12:45-2:00 PM	2:00-3:30 PM Session II	3:00-3:45 PM	3:45-5:15 PM Session III
18/09/24	Registration Introduction/ Inauguration & Overview	LUNCH BREAK	Research methodology and Multivariate analysis: An Introduction	TEA BREAK	Inferential statistics for hypothesis testing
19/09/24	Hypothesis testing for single population		Hypothesis testing for two population		Hypothesis testing for categorical data
20/09/24	Analysis of Variance and Multivariate analysis of variance		Simple linear regression analysis		Multiple regression analysis
21/09/24	Discriminant analysis		Logistic regression		Non parametric test
22/09/24	Factor analysis		Structural equation modelling		Cluster analysis
23/09/24	Conjoint analysis		Correspondence analysis		MCDM I
24/09/24	MCDM II		Research Paper Writing	LUNCH	Valedictory function

PLEASE NOTE THIS SCHEDULE IS TENTATIVE AND SUBJECT TO CHANGE