



# **2nd NATIONAL WORKSHOP**

ON

**STATISTICAL APPLICATION AND INTERPRETATION  
IN SOCIAL SCIENCE RESEARCH**

**MAY 24 -27, 2019**

**Organized by  
Department of Management**



**IPS College of Technology & Management**

P.O. IPS College, Shivpuri Link Road

Gwalior-474001, M.P., India

Website: [www.ipsgwalior.org](http://www.ipsgwalior.org)



In the current scenario, data has become the most important buzzword. “Data” is the smallest possible unit on to which the wisdom of business decision making and social prosperity can be written and modified. Methodology and Modeling are the two important supports available for a feasible and relevant decision making. Therefore, knowledge of appropriate methodology will certainly provide an edge towards finding appropriate answers of day to day complex business decisions. The program aims at empowering an understanding on theoretical as well as practical knowledge of research methodology for decision making and research purposes.

OBJECTIVES AND AIMS

This workshop aims to develop conceptual understanding of the various parametric and non-parametric statistical tests of hypotheses employed by the researchers of social science disciplines. The forum of this workshop will hopefully facilitate the researchers in gaining proficiency in the skill of using software application like SPSS for exploring the nature of the data, testing underlying assumptions, running the various tests of hypotheses and writing proper interpretation. These objectives are to be achieved through presentations, experiential learning, problem solving and independent laboratory work. The program is designed to empower the participants in matters of application of suitable Statistical tests and their Interpretation.

FOR WHOM

Participant/Professional Beneficiaries: Members of Academic Fraternity, Research Scholars and Corporate Professionals.

PEDAGOGY

A mix of pedagogical strategies like presentation, experiential learning, demonstration of different statistical tests, and independent laboratory work will be used in the workshop. Hands on experience will be given on SPSS. Participants will be provided with the suitable research example data sets for the purpose of carrying out statistical analysis and interpretation.

Resource Person  
Prof. S. K. Tyagi  
ICSSR Senior Fellow  
Former Head and Dean  
School of Education  
Devi Ahilya Vishwavidyalaya, Indore



PROGRAMME SCHEDULE

Day One - May 24, 2019		Day Two - May 25, 2019		Day Three - May 26, 2019		Day Four - May 27, 2019		
Time	Details	Time	Details	Time	Details	Time	Details	
0:00 AM-10:30 AM	INAUGURATION	10:00 AM-11:30 AM	Trouble shooting and review of the participants' work	10:00 AM- 11:00 AM	<b>Test of comparison of several means:</b> One-way Analysis of Variance (ANOVA), Underlying rationale: ANOVA versus Multiple t-tests, Research Objectives and hypotheses, Assumptions testing, Interpretation of results, Post-hoc tests: LSD, Bonferroni, Duncan, Sidak and Games Howell.	10:00 AM- 11:00 AM	<b>Two-way ANOVA:</b> Factorial design ANOVA with two factors, Concept of Main and interactional effects, Research objectives and hypotheses, Tabulation of results and writing interpretation, Interpretation of significant interaction	
0:45 AM-11:00 AM	TEA	11:30 AM-11:45 AM	TEA	11:00AM-11:15AM		11:00AM- 11:15AM		TEA
1:00 AM-01:00 PM	<b>Independent samples t-test:</b> Research Objectives, Stating null and Directional hypothesis; Significance of Test statistics, Testing assumptions of Normality and Variance homogeneity, Running t-test and interpreting output of SPSS, One and two-tailed test.	11:45 AM- 01:00 PM	<b>Non-parametric counterpart of independent t-test:</b> Mann Whitney test, Rationale, Research Objectives and hypothesis, Working and tabulation of test results. Interpretation of one and two-tailed test, Use of SPSS	11:15PM-01:00PM		11:15PM 01:00PM		
1:00 PM-01:45 PM	LUNCH	01:00 PM- 01:45 PM	LUNCH	1:00 PM-01:45 PM	LUNCH			
1:45 PM-03:45 PM	<b>Lab. Work:</b> Hands on practice in the use of SPSS: Data Entry, t-test: Application and interpretation.	01:45 PM-03:45 PM	<b>Lab Work:</b> Working on SPSS with a suitable research data for the test	1:45 PM-03:45 PM	Working on SPSS by participants with a couple of ANOVA problems: Data entry, assumption testing, running ANOVA and interpretation of results	1:00PM-2:00PM	LUNCH	
							2:00PM-	VALEDICTORY





## ABOUT INSTITUTE OF PROFESSIONAL STUDIES

Institute of Professional Studies (IPS), Gwalior (M.P.) [www.ipsgwalior.org](http://www.ipsgwalior.org) is an organically growing Institution in Gwalior. It has sprawling 80 acres campus offering courses in the field of Engineering (Comp.Sc., IT, MECH, EC, CIVIL, EE), Pharmacy ( B. Pharma & M. Pharma.) , Physical Education (B. P. Ed.& M. P. Ed.) , Teacher Education( B.Ed. & M. Ed.), Business Administration and Commerce (BBA, B.Com), Computer (BCA) streams and Management Education (MBA in Marketing, Finance, HRM and IB). The Institution is situated in the south west zone of Gwalior facing Shivpuri Link Road. Institute of Professional Studies is the dream mission of Deen Dayal Krishi Avam Gramin Prodyogiki Vikas Sansthan, Gwalior, founded in the year 2005 with a vision to convert the potential of today's youth into productive human resource of the society. The group believes in the philosophy of education of the whole person in spirit, mind and body and its collective contribution to the society.

### How to Reach IPS

Gwalior is connected by Air, Rail and Road. Transport facility will be made available in the morning of 24th May 2019 at Gwalior Railway Station. One may also avail three/four wheeler vehicles which are easily available.

### Accommodations & Food

Budget Hotels are available in the city at reasonable rate, could be booked on request with booking charges.

### Nearby Tourist Attractions

Historical Gwalior Fort, Jai Vilas Palace (Scindia Museum), Sun Temple and Tansen Tomb. Taj Mahal, Agra (100Km); Fatehpur Sikri, Agra (115 Km); Khajuraho (275 Km); Metawali and Padawali (40Km).

### For details

Please visit the website of India Tourism ([www.tourismindia.com](http://www.tourismindia.com)) and Madhya Pradesh Tourism ([www.mptourism.com](http://www.mptourism.com)). One day

visit to nearby Tourism Attraction will be arranged on request and on payment.

### Climate of the City

During the month of May, the climate remains hot with temperature ranging between 40°C- 42°C.





**Chief Patron**  
Smt. Shobha Mishra  
Chairperson  
IPS-GOC,Gwalior

**Patron**  
Dr. Arun Kumar Tyagi  
Director  
IPS-GOC,Gwalior

### **Advisory Committee**

Mr. P.K. Ghosh CAO IPS-GOC,Gwalior	Mr. Ashwini Mishra Working President IPS-GOC,Gwalior	Dr. P.S. Chauhan Principal IPS-CTM,Gwalior
--	--	--

**Convener**  
Dr. Mrs.Rama Tyagi  
Principal  
IPS, Gwalior

**Organizing Secretary**  
Dr. Vinod K. Bhatnagar  
Head, Department of Management  
IPS CTM, Gwalior

### **Workshop Coordinator**

Dr. Shweta Saxena  
Assistant Professor  
Department of Management  
IPS CTM, Gwalior

### **CONTACT FOR REGISTRATION**

**Dr. Vinod K. Bhatnagar**  
Mobile No: 9329082151, 9131431234  
Email: dr.vinodbhatnagar@gmail.com  
ipsdomgwalior@gmail.com

**Dr. Shweta Saxena**  
Mobile No. : 9893023330,7000367676  
Email: er.saxenashweta15@gmail.com  
ipsdomgwalior@gmail.com

### **Registration fee, mode and last date of payment**

#### **Registration Fee**

1. Students	₹ 1500
2. Research Scholars	₹ 2000
3. Faculty/ Corporate Executives	₹ 2,500

Registration fee is Non Residential and will cover Workshop Materials, Participation Certificates, Tea, and Lunch.

#### **Accommodation**

Advance booking for accommodation will be arranged on request. The charges of different Hotel/guest houses will be informed after obtaining the confirmation.

### **Payment Mode**

**Net Banking:** Account Name IPS College of Technology & Management

Account No.	63016155289
Bank Name	State Bank of India
Address:	SME Branch Patankar Bazar Lashkar, Gwalior (M.P.) 474001

Branch Code	30119
IFSC Code	SBIN0030119
MICR Code	474002026

**Demand Draft:** IPS College of Technology and Management, Payable at Gwalior

***Last Date of Registration: 15 May 2019***

### **DESIRABLE**

It is recommended that the participants bring their personal laptops having SPSS software installed in it for deriving maximum benefits from the workshop. However, participants who are not able to bring their own laptops will be allowed to work on the desktop computers available in the Computer Lab.

**2<sup>nd</sup> NATIONAL WORKSHOP**  
**ON**  
**STATISTICAL APPLICATION AND INTERPRETATION IN SOCIAL SCIENCE RESEARCH**  
**MAY 24-27, 2019**  
**Organized by**  
**Department of Management,**  
**IPS College of Technology & Management, Gwalior**

**Registration Form**

1. Name of the participant (In Capitals): Dr./Mr./Ms \_\_\_\_\_
2. Designation: \_\_\_\_\_
3. Organization: \_\_\_\_\_
4. Address: \_\_\_\_\_
5. E-mail: \_\_\_\_\_
6. Contact No.: Fixed Line: \_\_\_\_\_ Mobile: \_\_\_\_\_
7. Sponsoring Body( if any): \_\_\_\_\_
8. Email ID of the sponsoring authority: \_\_\_\_\_
9. Date of Birth: \_\_\_\_\_
10. Qualifications: \_\_\_\_\_
11. Do you need accommodation? Yes \_\_\_\_\_ No \_\_\_\_\_
12. Fee Details: D.D. No. \_\_\_\_\_ Date: \_\_\_\_\_
- Issuing Bank: \_\_\_\_\_

(Please write your Name and Contact Number behind the DD)

Fee can be deposited by Bank Draft drawn in favor of:

**IPS College of Technology & Management, payable at Gwalior.**

**For Net Banking Option**

A/C NO.: 63016155289

Bank Name: State Bank of India, SME Branch, Patankar Bazar, Lashkar, Gwalior, (M.P.),  
474001.

Branch Code: 30119 MICR Code: 474002026

IFSC CODE: SBIN0030119

Duly filled in application form along with DD should reach to the following address:

**IPS Group of Colleges, Shivpuri Link Road, Gwalior-474001, M.P. India**

Email ID: [er.saxenashweta15@gmail.com](mailto:er.saxenashweta15@gmail.com), [dr.vinodbhatnagar@gmail.com](mailto:dr.vinodbhatnagar@gmail.com),  
[ipsdomgwalior@gmail.com](mailto:ipsdomgwalior@gmail.com)

**Contact No.:**

**Dr. Shweta Saxena: 9893023330, 7000367676**

**Dr. Vinod K. Bhatnagar: 9329082151, 9131431234**