

# Workshop 2024

**National Level Workshop on  
Learning Statistics and Data Analysis using SPSS**  
(September 3<sup>rd</sup> & 4<sup>th</sup>, 2024)

Sponsored by  
**Biological Sciences RUSA 2.0**  
**BHARATHIDASAN UNIVERSITY**

**Organised by**



**Department of Microbiology**  
**Bharathidasan University**  
**Tiruchirappalli 620 024**  
**Tamil Nadu, India**

## **Bharathidasan University**

The Bharathidasan University was established in 1982 as an affiliating University. Bharathidasan University, Tiruchirappalli with the name of the revolutionary Tamil Poet Bharathidasan with a new vigour to prove its credibility and sustain its worldwide reputation. The University is one among those recognized by University Grants Commission are receiving grants as per section 12B of UGC Act. It is a member of the association of common wealth Universities. The University carries out teaching, research and extension services through Schools/Departments/Centres of excellence and through its affiliated colleges. There are around 1.3 lakhs students undergoing various Diploma/Under Graduate/Post Graduate/Research programmes in the affiliated colleges. To its credit it has been awarded 'A+' Grade by NAAC. The University main campus (Palkalaiperur Campus) is located 15 Kms away from Tiruchirappalli-Pudukkottai National Highway. For more details you please visit our website [www.bdu.ac.in](http://www.bdu.ac.in).

## **Department of Microbiology**

The Department of Microbiology emerged from the parent Department of Botany during 1992 in association with DBT sponsored National Facility for Marine Cyanobacteria. A post graduate programme on Microbiology was started during 1994, to this programme offered to students with merit basis in every year. The syllabus has been framed in such a manner that after completing the programme, the students can either do research, get employed in Microbiology related jobs or be their own employers and hundreds of doctoral Research Scholars are completed their M.Phil./Ph.D. programmes in various fields apart from the routine postgraduate students. The faculties in the Department are totally committed to provide high quality education at Post-graduate and Research levels and they are well recognized for their research contributions at National and International Levels. They have a unique specialization for their research and this helps to train the students in an excellent way. They have received project grants nearly Rs. 15 crores from various government funding agencies such as DOD (MoES), DBT, DST, ICMR, CSIR, UGC, IFS and INSA. Department of Microbiology has been received a non-sap fund from UGC, DST-FIST and PURSE and MHRD-RUSA I and II for the establishment. With respect to service, the faculty has an exemplary record of participation in National & International organization, editing professional journals and reviewing grant proposals from regional and national organizations.

Apart from these achievements the faculties of the department have received fellowships and awards to get training from overseas universities to train up themselves and to spread out the knowledge among student community. Students of microbiology are self-sustained and receive individual fellowships including Dr. Kothari Post-doctoral, DST Fast track Young Scientist fellowship, CSIR-SRF, DST-INSPIRE fellowship, Non-SAP fellowship, Jawaharlal Nehru Memorial Fund, RGNF, Maoulana Azad Minority fellowship, University Research Fellowship, TNSCST minor projects and RUSA BECH projects for M.Sc. students. And recently the department was received Best Department Award from Microbiologists Society, India on national level. The research outcomes of the department are well evidenced by numbers patents, publication of nearly thousand research papers in peer reviewed national and international journals with good impact factor. Not only in academics the department excels, has it showed an outstanding performance in extra-curricular activities too. The department regularly organizes national/international level seminars, symposia, workshops, refresher courses, summer courses, DST-INSPIRE programs, entrepreneurship programs for social and economically deprived populations. An annual intercollegiate meet-Cenitterz is being organized by the students every year since 2007. From all these progresses and growth, it is well envisaged that the members of Microbiology Department are well sustained to outrival the competitive scientific world with several MoUs.

## **About the Workshop**

Department of Microbiology, Bharathidasan University has proposed to organize a "National Level Workshop on Learning Statistics and Data Analysis using SPSS" from September 3<sup>rd</sup> & 4<sup>th</sup>, 2024. The assortments of biological applications are nearly endless, dealing with primitive organisms to advanced and their by-products in industries through environment, agriculture, medical and social welfare. The proposed workshop will address the basic applied statistical methods to advance statistical research tools on lecture as well as exercise and interpretation tricks.

## Workshop Schedule & Technical Topics

Date	Time	Topics
Day 1: 03.09.2024 (Tuesday)	10:00-1:00 PM	<ul style="list-style-type: none"> <li>• Application of statistics in research - Lecture</li> <li>• Introduction to IBM SPSS,</li> <li>• Data entry, Define Variables and labels,</li> <li>• Recoding variables, and Computing</li> <li>• Frequency analysis</li> </ul>
	1:00-2:00 PM	Lunch Break
	2:00-5:00 PM	<ul style="list-style-type: none"> <li>• Descriptive analysis,</li> <li>• Split files,</li> <li>• SPSS Tables</li> <li>• SPSS Graphs and Charts (Bar chart, pie chart, Histogram, Clustered bar chart, Bar chart with error, Scatter plot &amp; Box plot)</li> <li>• Cleaning and editing survey related research data</li> <li>• Import Excel data file to SPSS</li> <li>• Reliability analysis,</li> <li>• Analyzing multiple response variables in survey related research</li> </ul>
Day 2: 04.09.2024 (Wednesday)	10:00-1:00 PM	<ul style="list-style-type: none"> <li>• Testing data normality,</li> <li>• Parametric methods: t - tests - (one sample t test, independent t test, paired t test).</li> <li>• One way analysis of variance &amp;</li> <li>• Two-way analysis of variance</li> <li>• Analysis of covariance (ANCOVA)</li> <li>• Repeated measures of ANOVA</li> </ul>
	1:00-2:00 PM	Lunch Break
	2:00-5:00 PM	<ul style="list-style-type: none"> <li>• Correlation (Pearson and Spearman, Kendall's Correlation)</li> <li>• Simple Linear Regression &amp; Multiple Linear Regression</li> <li>• Nonparametric methods: Cross tabulation, Chi-square test,</li> <li>• (Wilcoxon signed rank test, Mann–Whitney U test, Kruskal Wallis, Friedman test and McNamar's test).</li> </ul>

### Language

The official language of the workshop is English. No translations will be provided.

### Registration

Admission is only for Ph.D. Research Scholars, and they will be charged Rs. 800. This fee includes refresments and a working kit. Selection is based on first-come-first-serve basis for up to 40 slots. The registration fee should be sent through bank draft drawn in favour of “The Professor & Head, Department of Microbiology”, Bharathidasan University, Tiruchirappalli-620 024, India and send the same to the Organizing Secretary, (BioStat-2024), Department of Microbiology, Bharathidasan University, Tiruchirappalli-620 024, India before August 25<sup>th</sup>, 2024.

### Accommodation

Accommodation will be arranged in our University International Guest House on selected candidate request.

### Climate & Clothing

The weather in Tiruchirappalli during September the average temperature varies from 26-35°C during the day but evening temperatures can be lower up to 20°C. Smart casual attire is appropriate; however, participants are advised to bring warm clothing.

## **Organizing Committee**

### **Chief Patron**

Prof. Dr. M. Selvam, Hon'ble Vice Chancellor  
Bharathidasan University, Tiruchirappalli

### **Patron**

Prof. Dr. R. Kalidasan, Registrar  
Bharathidasan University, Tiruchirappalli

### **Conveners**

Prof. Dr. K. Jeganathan, Co-ordinator-RUSA 2,0,  
Bharathidasan University, Tiruchirappalli  
Prof. Dr. K. Emmanuvel Rajan, Co-ordinator, Biological Sciences-RUSA 2,0,  
Bharathidasan University, Tiruchirappalli

### **Organizing Secretary**

Prof. Dr. Velu Rajesh Kannan  
Head, Department of Microbiology,  
Bharathidasan University, Tiruchirappalli

### **Executive Members**

Dr. K. Natarajaseenivasan, Professor, Department of Microbiology  
Dr. D. Dhanasekaran, Professor, Department of Microbiology  
Dr. G. Muralitharan, Professor, Department of Microbiology  
Dr. P. Thiyagarajan, Assistant Professor, Department of Microbiology  
Dr. Suresh SS Raja, Associate Professor, Department of Microbiology  
Dr. R. Vijayakumar, Associate Professor, Department of Microbiology  
Dr. K. Sivasankari, Guest Faculty, Department of Microbiology  
Dr. U. Suresh, Guest Faculty, Department of Microbiology

### **Contact for Information**

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 <p>Bharathidasan University</p>	<p><b>NATIONAL LEVEL WORKSHOP ON LEARNING STATISTICS AND DATA ANALYSIS USING SPSS</b> (SEPTEMBER 3<sup>rd</sup> to 4<sup>th</sup>, 2024) <b>DEPARTMENT OF MICROBIOLOGY, BHARATHIDASAN UNIVERSITY</b> <b>TIRUCHIRAPPALLI – 620 024, TAMIL NADU, INDIA</b></p>	 <p>RUSA</p>
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## REGISTRATION FORM

(Please type or write legibly and tick wherever appropriate)

Name	:		
Department	:		
Institute/University	:		
Postal Address	:		
City with Pin Code:	State:		
Email:	Mobile & WhatsApp No.:		
Need accommodation?	: Yes/No		
Area of Research	:		
Research Supervisor Name & Contact details			
Why are you interested in attending this workshop?			
Payment details:			
Registration Fee: Bank DD No. with Date:		Bank Details:	

Place:

Date:

Signature of the Participant