



**SMCPT** SIKKIM  
MANIPAL  
UNIVERSITY  
SIKKIM MANIPAL COLLEGE OF PHYSIOTHERAPY

# **“Biostatistics Essentials”**

**A Six-Day Online Workshop for Clinicians  
27th January – 1st February, 2026**

**Organised By**

**Sikkim Manipal College of Physiotherapy**

**Resource Person**

**Dr. Amit Kumar**  
Associate Professor & Head  
Department of Laboratory Medicine  
Rajendra Institute of Medical Sciences, Ranchi



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**Registration Fee : Rs 1000 INR**  
**E-certificate and Webinar recording will be provided**

## About the College



## SIKKIM MANIPAL COLLEGE OF PHYSIOTHERAPY

Established in the year 2001, Sikkim Manipal College of Physiotherapy(SMCPT) has been standing strong on the foundation and leadership of Sikkim Manipal University as its constituent unit.

Ranked 4th among the top 20 physiotherapy colleges, SMCPT is distinguished by its pursuit of academic excellence and unwavering dedication to research.

Sikkim Manipal College of Physiotherapy also serves as a clinical department as Department of Physiotherapy, in a 500-bedded Super-specialty Central Referral Hospital, 5<sup>th</sup> Mile, Tadong, Gangtok.

# About the Workshop



A 6 day online workshop aims to cover essential topics in clinical research such as statistical analysis, data interpretation, hypothesis testing and hands-on training in software tools for biostatistical computations.

## Eligibility

Faculties, Phd scholars, Research scholars, Interns, Graduate and Post-graduate students of all background

Registration Link & QR Code:

<https://forms.gle/f9XJjYCQxCd6dVwT6>



# About the Resource Person



## **Associate Professor & Head, Department of Laboratory Medicine Rajendra Institute of Medical Sciences (RIMS), Ranchi, India**

- Ph.D. (AIIMS, New Delhi); PG Diploma in Applied Statistics (IGNOU)
- Gold Medalist, ICMR Fundamental Health Research Course
- Domain Expertise: Laboratory Medicine, Biostatistics, Meta-analysis, Biochemistry, Neuro-Biochemistry, Molecular Biology, Genetics, Epidemiology, Research Methodology
- Research Impact: 100+ PubMed-indexed articles in the last decade; H-index 30, i10-index 83
- Leadership Roles: Principal Investigator, DHR-ICMR Technical Resource Centre for Evidence-Based Guidelines Development
- Memberships: Association of Clinical Biochemists, Evidence-Based Healthcare Society India, Indian Stroke Society
- Reviewer: 20+ international and national journals
- Awards: 5 International Travel Grants, Best Poster (Indian Stroke Association, 2012), Young Investigator Award (World Stroke Organization, 2014)
- Major Projects: Evidence-based guidelines, stem cell therapy in multiple sclerosis, haemoglobinopathies in tribal women, cerebral small vessel disease imaging, and stroke care quality improvement



# Workshop Schedule

## Mode : Online

### Time : 6:30pm - 8:30 pm

Day 1 (27 January 2026)	<p>Basics of Biostatistics, Data types and Study Design</p> <ul style="list-style-type: none"> <li>• Types of Data (Quantitative &amp; Qualitative)</li> <li>• Descriptive Statistics: Mean, Median, Mode, SD, IQR</li> <li>• Rates and Proportions</li> <li>• Study Designs: Cohort, Case Control, RCT, Cross-sectional</li> <li>• Bias &amp; Confounding</li> </ul>
Day 2 (28 January 2026)	<p>Parametric Statistical Tests</p> <ul style="list-style-type: none"> <li>• Assumption of parametric tests</li> <li>• Normality Testing (Shapiro-Wilk, KS test)</li> <li>• Independent Test</li> <li>• Paired t-Test</li> <li>• One-Way ANOVA</li> <li>• Post-hoc tests (Tukey, Bonferroni)</li> <li>• JAMOVİ hands-on: Data entry, Descriptive statistics and plot</li> </ul>
Day 3 (29 January 2026)	<p>Non-Parametric Statistical Tests</p> <ul style="list-style-type: none"> <li>• Mann-Whitney U test</li> <li>• Wilcoxon signed Rank Test</li> <li>• Kruskal – Wallis Test</li> <li>• Friedman Test</li> <li>• Clinical examples for skewed data</li> <li>• JAMOVİ Hands-on: All non-parametric tests</li> </ul>
Day 4 (30 January 2026)	<p>Qualitative Data Analysis and Hypothesis Testing</p> <ul style="list-style-type: none"> <li>• Hypothesis, p- value, confidence interval</li> <li>• Chi-square test</li> <li>• Fisher’s exact test</li> <li>• McNemar test</li> <li>• Effect measures for categorical data</li> <li>• JAMOVİ Hands-on: Contingency tables and tests</li> </ul>

**Workshop Schedule**  
**Mode : Online**  
**Time : 6:30pm - 8:30 pm**

Day 5 (31 January 2026)	<p>Correlation, Simple Regression and Risk Measures</p> <ul style="list-style-type: none"><li>• Pearson &amp; Spearman correlation</li><li>• Simple Linear Regression</li><li>• Introduction to Logistic Regression</li><li>• Odds Ratio (OR), Risk Ratio (RR)</li><li>• JAMОВI Hands-on: Correlation, Regression models</li></ul>
Day 6 (1 February 2026)	<ul style="list-style-type: none"><li>• Multiple Linear Regression</li><li>• Multivariable Logistic Regression</li><li>• Adjusted Odds Ratio</li><li>• Confounding &amp; effect Modification</li><li>• Model diagnostic</li><li>• JAMОВI Hands-on: Multivariate models</li></ul>

After successful registration, the participants will receive a confirmation via email. Please keep checking the spam folder of the email as the bulk email sent may end up in the spam folder.

An official group has been made for communication with the participants on “Whats App.”

The link to join the official group will be provided in the confirmation mail.

**Workshop Coordinator : Dr. Rahul Kumar Thakur**

For queries, mail us at: [rahulkumar.t@smims.smu.edu.in](mailto:rahulkumar.t@smims.smu.edu.in)



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