

# D. Y. PATIL DEEMED TO BE UNIVERSITY SCHOOL OF AYURVEDA, NERUL, NAVI MUMBAI





# INSTITUTE OF APPLIED STATISTICS, KANPUR

Jointly Organising

## **WORKSHOP ON** INTRODUCTORY COURSE ON RESEARCH METHODOLOGY & BIOSTATISTICS

Date: 11th & 12th September, 2023

at

D.Y. Patil Deemed To Be University School of Ayurveda

Sector 7, Nerul, Navi Mumbai, Maharashtra, Pin Code - 400706



## Under Maharshi Charak Ayurveda Research & Development Scheme

#### **Organizing Chairperson**

#### Dr. Mahesh K. Harit

Dean

DY Patil Deemed to be University School of Ayurveda Nerul, Navi Mumbai, Maharashtra

#### **Program Coordinator**

#### Dr. Mridul Chitrakar

**Associate Professor** Department of Swasthavritta and Yoga DY Patil Deemed To Be University School of Ayurveda Nerul, Navi Mumbai, Maharashtra

## **Guest Faculty**



#### Dr. C. R. Yadav

Dean research Head, Department of Kriva Sharir National Institute of Ayurveda, Jaipur Deemed To be University (De Novo) Ministry of AYUSH, Govt. of India



#### Dr. Shubham Pandev

**Project Director** MAharshi Charak Ayurveda R&D Scheme **Institute of Applied Statistics** Kanpur, Uttar Pradesh



# INTRODUCTORY COURSE ON RESEARCH METHODOLOGY & BIOSTATISTICS

#### **ABOUT THE COURSE**

This workshop focused on the procedure to do quality research. As a researcher it is mandatory for one to know the basics and have a core idea in order to satisfy the purpose of research and establish an acceptable conclusion. This course has given this opportunity to the academicians to enhance the knowledge of biostatistics, their researching skills and understand the methodologies.

#### **COURSE CONTENT:**

#### 1. Basis Steps of Fundamental Biostatistics:

Research, Objectives of Research, Need and Purpose of Research, Types of Research, Research according to application or objectives, Scope and Areas of Research, Role of Statistics in Research, Statistics,

#### 2. Fundamentals of study Design Tools:

Study design, Experimental study design (Intervention Studies), Cohort Study, Case control study, Bias in case-control study, Cross sectional study

#### 3. Fundamentals of sampling & Data Collection:

Sampling, Probability or Random Sampling, Non-Probability Sampling, Selection of Subjects/Data collection, Techniques of Data Collection

#### 4. Fundamentals of Reliability & Validity of Data:

Study Tools, Introduction to Reliability & Validity, Sources of "Unsystematic" Threats to Reliability.

#### 5. Fundamentals of Qualitative & Quantitative Analysis:

Qualitative analysis, Quantitative analysis

#### 6. Descriptive Statistics:

Tabulation Presentation- Introduction, Classification of data Graphical presentation- Introduction, General Rules for Graphic - Presentation of Data and Information, Types of Graphs, Pie Charts, The Histogram, Scatterplots, Line Graphs, Frequency Polygon or Histograph, Frequency Curve, Cumulative Frequency Curve or Ogive, Merits of a Graph presentation, Limitations of a Graph presentation.

Central Tendency- Introduction, Median, Mode, Geometric Mean, Harmonic Mean, Quartiles, Deciles, Percentiles, Measure of Dispersion, Kurtosis, Skewness.

#### 7. Inferential Theory:

Inferential Statistics, Hypothesis Testing, Types of hypothesis, Power of a test and power function, Level of Significance, Concept of critical region, Two-Tailed Hypothesis Tests, One-Tailed Hypothesis Tests, Degree of freedom.

#### 8. Fundamentals of Correlation & Regression Theory:

Correlation coefficient, Calculation of the correlation coefficient, Spearman rank correlation, Regression, Assumptions.

#### **OBJECTIVE:**

To focus on basic biostatistics and epidemiology in the Ayurveda Research and give a demonstrate knowledge and scientific research in health-related fields and explain the concepts of basic biostatistics & epidemiology, and to perform the computations involved in statistical techniques

## COURSE FEE 2000/- INR Per Participant

(18% GST Included)

#### **WORKSHOP REGISTRATION:**

- Where to Register: https://iasdcs.com/
- Hard Copy of Certificate & Study Material will be provided to all the participants.
- Lunch & Evening Tea-Snacks will be provided during the Workshop.

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#### WHO SHOULD ATTEND:

Doctors / faculty, any Research scholar of any Medical or non-medical colleges / Universities.

## COORDINATORS:

Dr. Mridul Chitrakar

Associate Professor, Dept. of Swasthavritta and Yoga School of Ayurveda, DY Patil Deemed To Be University Navi Mumbai, Maharashtra

#### Dr. Seema Dwivedi

National Coordinator Maharshi Charak Ayurveda R&D Scheme, Institute of Applied Statistics, Kanpur, Uttar Pradesh

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