Government Medical College, Ratlam

&

Institute of Applied Statistics

Jointly Organizes

WORKSHOP ON
SHORT TERM COURSE ON
DIAGNOSTIC TOOLS & ACCURACY ASSESSMENT

16th & 17th September, 2022

at

Government Medical College, Ratlam, Madhya Pradesh

Accredited by Madhya Pradesh Medical Council

Chief Patron

Mr. Sandeep Yadav
Commissioner,
Ujjain Division

Organizing President

Dr. Swarn Kanta Likhar
Professor & Head,
Dept. of Community Medicine

Guest Speaker

Dr. R. N. Mishra
Former Prof. & Incharge,
Division of Biostatistics,
Banaras Hindu University,
Varanasi, Uttar Pradesh

Patron

Dr. Jitendra Gupta
Dean & CEO,
Government Medical College,
Ratlam, Madhya Pradesh

Dr. Malvika Mahendra Tiwari
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Institute of Applied Statistics

Organizing Secratary

Dr. Umesh Sinha
Associate Professor,
Dept. of Community Medicine

Dr. Dhruvendra Pandey
Associate Professor,
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Dr. C. B. Tripathi
Head
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Dilsad Garden, Delhi

Dr. Shubham Pandey
National Coordinator,
(PSRD Scheme),
Additional Director,
Institute of Applied Statistics

WORKSHOP ON
SHORT TERM COURSE ON DIAGNOSTIC TOOLS & ACCURACY ASSESSMENT

ABOUT THE COURSE

This course offers in-depth understanding of the concepts and practises of diagnostic tests, enabling students to appreciate the reliability and validity of a new diagnostic test, the biases and difficulties in study design, and to review diagnostic research articles critically. There will be lectures and a number of practical exercises in this course.

COURSE CONTENT:

i. Fundamental concept of screening / diagnostic tool.

ii. Concept of sensitivity, specificity, PPV, NPV.

iii. Concept of likelihood ratio test.

iv. ROC curve and finding the cut off value.

v. Fundamental concept of agreement analysis.

vi. Type of reliability internal consistency Kappa and ICC.

vii. Kappa and weighed kappa prevelence and biased adjusted kappa.

viii. Interclass correlation coefficient (ICC).

ix. Method comparison technique blant-altman plot.

x. Sample size calculation for diagnostic test.

OBJECTIVE:

- The learn the concept of what is disease
- To learn the diagnostic thinking process and the phases of development of diagnostic tests
- To understand the principles of Validity and Reliability
- To be competent in calculating and interpreting diagnostic statistics, sensitivity, specificity, PPV,NPV
- To understand the concept of Bayesian thinking and the basic Bayesian formula
- To be able to calculate and interpret Likelihood ratios as well as post test probabilities
- To be able to interpret serial and parallel tests
- To understand the concepts of ruling in or ruling out disease with respect to ideal cut-off points
- To learn ROC curves-principles and interpretation
- To interpret screening tests and their use and pitfalls
- To be able to critically appraise an article on Diagnostic test accuracy
- To be able to understand the concept and critically appraise a diagnostic systematic review
- To introduce the concept of health technology assessment

COURSE FEE
2000/- INR Per Participant
(18% GST Included)

(The Fee includes study material kit, lunch & Evening Tea-Snacks)

WHO SHOULD ATTEND:

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

StatisTiko
A Statistical Learning App

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 Workshop.

COORDINATORS:

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