APPLICATION FOR PARTICIPATION IN TRAINING PROGRAM ON RESEARCH METHODOLOGY, EPIDEMIOLOGY AND BIO-STATISTICS

National Institute of Veterinary Epidemiology and Disease Informatics (NIVEDI)
Yelahanka, Bengaluru

1 Full Name : .....

2 Designation : .....

3 Name of the Organization and Address : .....

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4 Educational Qualifications : .....

5 Are you a student : ☐ Yes ☐ No

6 If yes ☐ M.Sc., ☐ M.D. ☐ MVSc. ☐ MDS

☐ Ph.D. ☐ Others .....

7 Cell phone number.....

.....

8 Email : .....

Date : .....

Place : .....

Signature

Duration: Three days

Time : 9.30- 5.00 PM

Venue : Auditorium, Indian Veterinary Research Institute, Hebbal, Bengaluru 560024 (Diagonally opposite to CBI office)

Eligibility : Teachers, scientists, officers and students (PG & above) from research organisations, industries, Research institutes & colleges

Registration: **Rs. 3000/- per participant and Rs. 2200/- per students.**

Registration fee is to be paid by demand draft in favour of "ICAR unit, PD_ADMAS A/c." drawn on any bank

*Students should provide a proof in the form of College ID card or letter from Head of the Department indicating that they are bonafide students.

Boarding & Lodging : No boarding & lodging is provided. working lunch will be provided during the training program

Seats are limited and available on first come first serve basis.

Filled in Registration form along with Bank Draft may be sent to Course Director on or before 10-01-2015
Scanned Copy may be sent to : tprmeb@gmail.com

For Further information please contact

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ICAR-National Institute of Veterinary Epidemiology and Disease Informatics (NIVEDI)

(Formerly PD_ADMAS)
Yelahanka, BENGALURU

TRAINING PROGRAMME ON RESEARCH METHODOLOGY, EPIDEMIOLOGY AND BIO-STATISTICS

(Using Web statistical software and SPSS)

16-18, January 2015

Patron

Dr. H. Rahman,
Director, NIVEDI

Course Director

Dr. M. R. Gajendragad

Course co-ordinators

Dr. K. P. Suresh
Dr. S. S. Patil
Dr. G. B. Manjunatha Reddy

BACKGROUND

The Project on Animal Disease Monitoring and Surveillance was initiated by the ICAR in the 7th Five Year Plan as an All India Coordinated Research Project (AICRP). Realizing the need of animal disease monitoring and surveillance on entire livestock sector and to give a boost on this, ICAR upgraded the project to an independent Project Directorate status on 1st April 2000 (in 9th plan) **and named as "Project Directorate on Animal Disease Monitoring and Surveillance (PD_ADMAS)"** The Directorate got further impetus with the addition of five more collaborating units in the X plan and two mission mode NATP projects *viz.*, Animal Health Information System and Data Monitoring System (AHIS_DMS) and Weather based Animal Disease Forecasting (WB_ADF) having 17 and 20 collaborating units, respectively. The institute has been renamed as "National Institute of Veterinary Epidemiology and Disease Informatics (NIVEDI). NIVEDI is carrying out research on veterinary epidemiology in the country. The Institute has compiled large data on livestock disease which it uses for epidemiological analysis.

Epidemiology and Bio-statistics are research tools useful for designing the study, collection of experimental or observational data, analysis and interpretation. In this information era, a large volume of data is generated through various research activities. Most of the research workers often face difficulty in handling data, in addition to the use of suitable statistical methods to extract the relevant information. NIVEDI is organizing three day training program on research methodology, epidemiology and bio-statistics using web based statistical software and SPSS for better conducting research, data analysis with overall aim of improving the quality of research outcome.

Contents of training program

A. Introduction to Research methodology

1. How to rise research questions
2. Converting research questions to research hypothesis
3. Research as decision making system
4. Study population and sample
5. Sample size estimation and study power calculation
6. Randomization procedures
7. Type I error and Type II error
8. Types of research hypothesis
9. One tailed and two tailed research hypothesis
10. Strategies to control type I & II errors for good conduct of research
11. Role of inclusion and exclusion criteria for defining study population
12. Superiority, equivalence and non-inferiority study designs
13. Types of variables and choosing appropriate statistical methods
14. Qualitative vs Quantitative variables
15. Dependent vs Independent samples

B. Study designs and sampling techniques

1. Role of study designs in good conduct of research
2. Types of study designs
3. Observational vs Experimental study designs
4. Advanced study designs for minimizing cost with improved efficiency
5. Role of sampling techniques in observational study
6. Basic sampling techniques
7. Advanced sampling techniques
8. Sample size vs Sampling techniques
9. Reliability and validity measures for developing questionnaire for data collection
10. Good laboratory practices

C. Epidemiology

1. Surveillance and Monitoring
2. Measures of disease frequency
3. Case reports and case series
4. Cohort studies vs cross-sectional studies
5. Confounding and control of confounding variables
6. Effect modification
7. Annual Infection rate, incidence, prevalence, Hazard rates, Odds Ratio, Risk Ratio, Absolute reduction rate, NNT, Attack rate, Case fatality rate
8. Screening tools
9. Diagnostics tools

D. Biostatistics I (Univariate and Bivariate)

1. Data entry and masterchart preparation
2. Normality testing
3. Estimation of missing observation
4. Descriptive statistics viz. frequency, counts, mean, median, range, SD, SE
5. One sample test (proportion and mean)
6. Student t test (Independent/Dependent)
7. ANOVA test
8. Non-parametric tests
9. Chi-square test/Fisher Exact test
10. Correlation and Regression analysis

E. Biostatistics II (Multivariate)

1. Multiple regression analysis
2. Multivariate logistic regression analysis
3. ANCOVA
4. Introduction to cluster analysis and factor analysis
5. Probit analysis

F. Publishing Scientific articles

1. Thumb rules for writing research articles
2. Submitting research paper to scientific journal
3. Revising and resubmitting the article
4. Dealing with rejection