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

Project Directorate on Animal Disease Monitoring and Surveillance

Hebbal, Bengaluru

1 Full Name : ....

2 Designation : ....

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

....

....

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/office number : ....

....

8 Email : ....

Date : ....

Place : ....

Signature

Duration: **Two days**

Time : **9.30- 5.00 PM**

Venue : Conference hall, Karnataka Veterinary council building, Veterinary college campus, Hebbal, Bengaluru-560024

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

Registration: **Rs. 2500/- per participant and Rs. 2000/- for students.**

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

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

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

Last date for registration: 14.01.2013

For Further information please contact

Dr. M. R. Gajendragad
Course Director
PD_ADMAS,
Hebbal, Bengaluru-560024
Cell: 7259808324
office: 080-23419576 ext-129
Email: gajendragad@gmail.com /
gajendragadmr@pdadmas.ernet.in

Dr. K. P. Suresh
Course coordinator
PD_ADMAS, Hebbal, Bengaluru-560024
Cell: 9481251968, 9341321900
Office: 080-23419576 ext-139
Email: sureshkp97@gmail.com
sureshkp97@rediffmail.com

Project Directorate on Animal Disease Monitoring and Surveillance
HEBBAL, BENGALURU

TRAINING PROGRAM ON RESEARCH METHODOLOGY, EPIDEMIOLOGY AND BIO-STATISTICS

(Using Web statistical software and SPSS)

Rescheduled to

7-8, December 2012

18-19, January 2013

Patron

Dr. H. Rahman,
Project Director, PD_ADMAS

Course Director

Dr. M. R. Gajendragad

Course co-ordinators

Dr. K. P. Suresh
Dr. S. S. Patil
Dr. D. Hemadri
Dr. B. Ganesh Kumar
Dr. G.B.Manjunath Reddy
Dr. B. R. Shome

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. PD_ADMAS is the premier animal science institute carrying out research on veterinary epidemiology in the country. The Institute has compiled large data on livestock disease which it uses for epidemiological analysis. During the 12th plan the institute will be upgraded and named as "National Institute of Veterinary Epidemiology and Disease Informatics (NIVEDI)".

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. PD-ADMAS is organizing two 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 masterhart 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