

International Workshop on  
**Linear Mixed Models in Practice:**  
An As-REML-Oriented Approach

13-15 October, 2016

**Application Form**

Name: \_\_\_\_\_

Designation: \_\_\_\_\_

Affiliation: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Mobile: \_\_\_\_\_

Email: \_\_\_\_\_

What is your primary area of interest?  
\_\_\_\_\_

Are you conversant with AsREML?  
\_\_\_\_\_

Are you bringing your own data for analysis?  
\_\_\_\_\_

Are you bringing your laptop?  
\_\_\_\_\_

Are you making a poster presentation?  
\_\_\_\_\_

If yes kindly send the abstract copy.

Do you need accommodation?  
\_\_\_\_\_

Details of Fees paid:  
\_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Important Dates:  
Last date of Receipt of Application at CIFE  
**9<sup>th</sup> October 2016**  
Communication of Selection  
**10<sup>th</sup> October 2016 by email/ Mobile**

Convener  
**Dr. Gopal Krishna**

Director, CIFE &  
President Indian Fisheries Association

Organizing Secretary  
**Dr. Shrinivas Jahageerda**  
Principal Scientist, FGB Division, CIFE

The Application along with the DD to may be sent to

The Director  
**ICAR-Central Institute of Fisheries Education**  
Panch Marg, Versova,  
Mumbai-400061  
Fax:022-26361573  
and email a copy to organizing secretary at  
[jahageerda@cife.edu.in](mailto:jahageerda@cife.edu.in)

Organizers  
**Indian Fisheries Association**  
Mumbai

and  
**Central Institute of Fisheries Education**  
Deemed University, ICAR  
Panch Marg, Versova  
Mumbai

International Workshop on  
**Linear Mixed Models in Practice:**  
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Venue  
Central Institute of Fisheries Education  
Mumbai

Organizers



Indian Fisheries Association  
Mumbai

and



**ICAR-Central Institute of Fisheries Education**  
Mumbai

In a majority of agricultural, animal and fisheries experiments both fixed and random effects are found invariably. Despite this many researchers continue to use of the conventional analysis of variance (ANOVA) model or general linear model (GLM) leading to wrong analyses. Ignoring or mistreating random effects inadvertently leads to inappropriate analyses and thus to dubious conclusions. Analysis of a mixed model is a formidable task, however the NARS scientists can adapt mixed model analyses with little difficulty if equipped with the appropriate software and a solid understanding of some basic principles of mixed model.

The present workshop focuses on teaching the requisite principles involved in mixed models and their analysis by hands on training employing the AsREML. The workshop will be conducted under the overall guidance of Dr. Arthur Gilmour, Ret. Professor NSW DPI, Australia, and one of the developers of the AsREML software will be the key resource person for this workshop.

AsREML is a statistical package that fits linear mixed models using residual Maximum Likelihood (REML). It is flexible statistical software and has applications in (un) balanced longitudinal data, repeated measures data and most importantly in univariate and multivariate plant, animal and fish breeding and genetic data with a relationship matrix for correlated traits. Due to its versatile nature this software is extensively used worldwide in the analysis of the research data.

The Indian fisheries Association, Mumbai always thrives to bring in the latest development in science to the NARS scientists involved in India. As a part of this IFA is organizing a three days workshop for the scientists, teachers and research scholars on the '**Linear Mixed Models in Practice: An As-REML-Oriented Approach**' From 13-15 October, 2016.

The familiarity with mixed model theory and some basic AsREML is preferred but not compulsory. The course is structured around 4 x 1.5 hour sessions per day, most with 30 minutes of lectures and 1 hour of practical sessions in groups of 2 using AsREML and some supporting software. Also one session is provided for the poster presentation. Opportunities for participant's data analysis will be provided. Those participants who want to analyze their data need to send their data in Ms-Excel format to the Organizing Secretary along with the details in advance.

The data and supporting materials will be provided to all participants. AsReml is not provided, but a trial copy can be obtained from <http://www.vsni.co.uk/products/asreml/> Participants will be provided with PCs on share basis, however if participants are bringing their own laptop they are requested to obtain AsREML trial copy and load on their laptop.

## Who should attend

The Scientists, faculty members and researchers where the mixed models are involved in their experiments.

There are only 25 seats available for this workshop The course fee for the workshop is Rs.7500/- for the in-service candidates and Rs.2500/- for the students and need to be paid along with the application form.

The course fee is inclusive of the workshop kit, course material and the working lunch. Students or research scholars will not get the workshop kit however, they will be provided with the course material and the working lunch. Accommodation at Government guest house or hotels will be made available on request and on payable basis. Students will be accommodated in the CIFE hostel dormitory on a nominal fee. The filled in application form along with the course fee may be sent to the address given overleaf. The course fee may be paid through demand draft drawn in favor of 'Secretary, Indian Fisheries Association, Mumbai' payable at Mumbai. Students/Research Scholars need to produce a bonafide certificate from their respective dean/adviser.

More information may be had from The President Indian Fisheries Association, Mumbai.

Mumbai is well connected by road, rail and air. Weather during this part of the year is slightly hot and you are requested to bring light clothing.



### Workshop program

Introduction to mixed models;  
Introduction to ASReml; ASReml Primer;  
ASReml Options; Univariate analysis;  
Multivariate analysis Estimation of genetic parameters; Analysis of binary data; Analysis of trainees data;  
Paper/Poster presentation by participants

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