



## ICAR-NATIONAL INSTITUTE ON FOOT AND MOUTH DISEASE

International Centre for Foot and Mouth Disease  
(FAO Reference Centre for FMD)  
Arugul, Bhubaneswar- 752050, Odisha, India

### ORGANIZES

National Training program  
on  
ADVANCES IN  
SURVEY RESEARCH AND DATA ANALYSIS  
USING  
OPEN-SOURCE SOFTWARE

18<sup>th</sup>-22<sup>nd</sup> August, 2025

Online-Mode

### Patron

**Dr Rabindra Prasad Singh**

Director

ICAR-National Institute on Foot and Mouth Disease,  
Bhubaneswar

### Coordinator

**Dr Samarendra Das**

Senior Scientist

ICAR-NIFMD, Bhubaneswar

&

### Co-Coordinator

**Dr Rajeev Ranjan**

Senior Scientist

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### ADDRESS FOR COMMUNICATION

**Dr Samarendra Das**,  
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### About ICAR-NIFMD

ICAR-National Institute on Foot and Mouth Disease (NIFMD), established as an All India Coordinated Research Project (AICRP) for FMD in 1968, has played a pivotal role in FMD research in India. Over the five decades of its existence, the project's scope got expanded, achieving numerous milestones. Initially an AICRP, it evolved into the Project Directorate on FMD in July 2001, upgraded as Directorate of FMD in 2015-16 followed by ICAR-National Institute on FMD (NIFMD). Presently, there are 32 state FMD Centers, technically supported by ICAR-NIFMD, and financially by DAHD. ICAR-NIFMD having BSL-3 Ag containment facility. The institute has developed scientific expertise in conventional and cutting-edge areas related to diagnosis, epidemiology, and vaccine research. Its mandate includes conducting research on FMD epidemiology, developing technologies to control the disease, and working toward eventual eradication. Additionally, the institute provides technical support, scientific input, and information to planners and strategy-making agencies involved in FMD control in India and the SAARC region. It also has a recognition as FAO reference center for FMD.



## About the training program

The 21<sup>st</sup> century is known as the "century of data", as data is becoming increasingly valuable and central to scientific advancements, decision making, understanding socio-economic status, shaping public policy, driving economic growth, *etc.* Surveys have become very crucial in research including disease surveillance and monitoring, socio-economic, public policy studies, *etc.* to gather large amount of data in a cost-effective and efficient way for understanding complex scientific, social and behavioural phenomena. Further, the survey can be used to test hypotheses, describe populations, and evaluate interventions. The success of survey studies primarily depends on the proper planning, designing, implementation, data analysis and interpretations. Thus, the researchers need to be equipped with essential skills in designing, analyzing, and interpreting survey-based research across diverse domains, including scientific disciplines, disease surveillance, socio-economic development, healthcare, education, and financial awareness. The scheduled training programme will focus on bridging research with practical applications by providing hands-on training in various open-source statistical software(s) essential for survey research and data analysis thereon. Therefore, this training programme will be extremely helpful to the research scholars, students, faculty members, researchers/scientists, industry partners for equipping them with advanced state-of-the-art tools for effective survey designing, data collection, and analysis.

## Course content at a glance

### Day 1 (August 18, 2025)

Topic 1: Basics of data and big data in survey research  
Topic 2: Survey designing  
Topic 3: Online Survey platforms  
Topic 4: Questionnaire setting & preparation for survey  
Topic 5: Case study

### Day 2 (August 19, 2025):

Topic 1: Probabilistic sampling techniques/methods  
Topic 2: Purposive sampling techniques/methods  
Topic 3: Data cleaning & preparation  
Topic 4: Data pre-processing & standardization  
Topic 5: Case study/hands on

### Day 3 (August 20, 2025)

Topic 1: Basics of R & R studio  
Topic 2: Data visualization/graphical analysis using R & R studio  
Topic 3: Data summarization and inferential statistics  
Topic 4: Parameters estimation in survey research  
Topic 5: Case study/hands on data analysis using R & Python

### Day 4 (August 21, 2025)

Topic 1: Statistical models in survey research  
Topic 2: Linear statistical modeling  
Topic 3: Time-series modeling & analysis  
Topic 4: Forecasting  
Topic 5: Case study/hands on modeling using R

### Day 5 (August 22, 2025)

Topic 1: Introduction to Python  
Topic 2: Data visualization using Python  
Topic 3: Data analysis using Python modules  
Topic 4: Machine learning in Python  
Topic 5: Case study/hands on data analysis

## WHO WILL APPLY?

Students, Research Scholar, Scientists, Faculties, Industry personnels *etc.*

## HOW TO APPLY?

Interested participant please register yourself below link. Registration is mandatory to attend the training program.

<https://forms.gle/XFXY7o1dboNLgGSAA>

## REGISTRATION FEE

Students/Research Scholar	: Rs. 1000/-
Scientists/ Faculties	: Rs. 2000/-
Industry Personnel	: Rs. 2500/-
Overseas Participants	: Rs. 4000/-

## PAYMENT DETAILS

All payments are to be made through NEFT/IMPS/DD. The DD shall be drawn inf favour of "ICAR Unit PD on FMD" payable at SBI, Jatni, Odisha.

**Name of the Bank:** State Bank of India, Jatni

**Account No.:** 11576142063

**Account name:** ICAR Unit PD on FMD

**Account Type:** SB

**IFSC Code:** SBIN0002071

**MICRO Code:** 751002046

## IMPORTANT NOTE

- Last date of registration: 10.08.2025
- Mention your name in net banking transaction comments
- Registration confirmation will be send through email.
- Certificate will be provided to all participant after filling feedback form.