WORKSHOP ON INFECTIOUS DISEASE MODELING

Date
14th , 15th March 2024

Time
09:30 AM – 5:00 PM

Background

Infectious disease modeling is a vital tool in understanding and predicting the spread of infectious diseases. Compartmental models enable us to simulate epidemics, guide public health interventions, and inform policy decisions. Mathematical modeling play a crucial role in predicting pandemics, optimizing vaccination strategies, and evaluating the effectiveness of interventions. This modeling has been like a guiding light, helping us understand and navigate through the complexities of disease spread.

Objective

The objective of this workshop is to provide participants with a comprehensive understanding of mathematical models used to study the spread of infectious diseases. Through practical examples and interactive sessions, participants will learn how to apply these models to analyze epidemic dynamics and make informed public health decisions.

Venue

ICMR-National Institute for Research in Tuberculosis
No. 1, Mayor Sathyamoorthy Road, Chetpet, Chennai 600031

Intended Participants

This workshop is designed for Medical College Graduates, Post Graduates and public health professionals. Prior registration is Mandatory and restricted to first 30 participants.

Registration is Free

https://forms.gle/hGuxupopw5onnzdeA

Last date for registration 5th March 2024

Mode of Event

In-person event

Jointly Organised By

Centre for Excellence in Mathematical Biology, SSSIHL, ICMR-National Institute for Research in Tuberculosis & Department of Health Research, Government of India.

Topics covered

- Overview of Infectious disease modeling
- Principles of Disease Modeling and its applications
- Introduction to modeling of Force of Infection
- Deterministic SIR modeling and applications
- Formulation of SIR model
- Case studies: SIR,SEIR,SIS,SIRS models
- Infection induced mortality
- Modelling TB diagnosis, treatment and vaccination
- Introduction to Python programming and hands on exercises for simple disease models.

Participants will collaborate in small groups to develop proposals for applying mathematical modeling to real-world scenarios in infectious disease dynamics.

Contact Person

Dr. M Muniyandi
Scientist-E & HOD, Department of Health Economics, ICMR-NIRT, Chennai
Mobile: 9840137837
E-mail: muniyandi.m@nirt.res.in