

## Mathematical Modelling Workshops

# Mathematical Modelling Workshops

NTHRYS BIOTECH LABS provides a diverse array of workshops in the realm of Mathematical Modelling. Explore our comprehensive offerings below

[Mathematical Modelling Workshops Application Process](#)

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## Mathematical Modelling Bound: Explore Our Exciting Workshops!

1. [Workshop in Introduction to Mathematical ModellingPDF](#)
2. [Workshop in Advanced Techniques in Mathematical ModellingPDF](#)
3. [Workshop in Mathematical Modelling in Biomedical ResearchPDF](#)
4. [Workshop in Innovations in Mathematical ModellingPDF](#)
5. [Workshop in Ethical and Regulatory Perspectives in Mathematical ModellingPDF](#)

## 1. Workshop in Introduction to Mathematical Modelling

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**Date:** Pre Selected Date

**Fee:** Rs 6000/-

**Duration:** One Day

**Mode:** Offline and Virtual

**Location for Offline:** NBL Cherlapalli IDA Branch

**Facilitator(s):** NTHRYS TEAM

**8:00 AM - 8:30 AM: Registration and Welcome Coffee**

Participants arrive, register, and network over coffee.

**8:30 AM - 8:45 AM: Opening Remarks**

Welcome by the host.

Brief overview of today's focus.

**8:45 AM - 10:15 AM: Session 1: Basics of Mathematical Modelling**

Overview of mathematical modelling principles and applications.

Hands-on session on creating simple mathematical models.

Introduction to the importance of mathematical modelling in various fields.

**10:15 AM - 10:30 AM: Coffee / Tea / Snacks Break**

Networking and refreshments.

**10:30 AM - 12:00 PM: Session 2: Data Collection and Analysis**

Interactive session on data collection techniques for modelling.

Workshop on analyzing and interpreting data for model building.

Practical demonstration of data preprocessing steps.

**12:00 PM - 1:00 PM: Lunch Break**

Catered lunch and networking opportunity.

**1:00 PM - 2:30 PM: Session 3: Building Mathematical Models**

Exploring techniques for building mathematical models.

Hands-on training on differential equations and statistical models.

Case studies on the application of mathematical models in research.

**2:30 PM - 2:45 PM: Short Break**

Time for a stretch and informal discussions.

**2:45 PM - 4:15 PM: Session 4: Model Validation and Testing**

Workshop on validating and testing mathematical models.

Practical techniques for model verification and validation.

Case studies on ensuring model accuracy and reliability.

**4:15 PM - 4:30 PM: Coffee / Tea / Snacks Break**

Last networking opportunity with snacks.

**4:30 PM - 5:30 PM: Closing Session: Implementing Changes and Technology Adoption**

Group discussions on implementing new techniques learned today.  
Dialogue on overcoming challenges in adopting new technologies in similar sectors.  
Feedback session and closing remarks.

**Certificate Issue**

**5:30 PM: Workshop Concludes**

## **2. Workshop in Advanced Techniques in Mathematical Modelling**

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**Date:** Pre Selected Date

**Fee:** Rs 6000/-

**Duration:** One Day

**Mode:** Offline and Virtual

**Location for Offline:** NBL Cherlapalli IDA Branch

**Facilitator(s):** NTHRYS TEAM

**8:00 AM - 8:30 AM: Registration and Welcome Coffee**

Participants arrive, register, and network over coffee.

**8:30 AM - 8:45 AM: Opening Remarks**

Welcome by the host.  
Brief overview of today's focus.

**8:45 AM - 10:15 AM: Session 1: Advanced Modelling Techniques**

Introduction to advanced techniques in mathematical modelling.

Hands-on session on using partial differential equations and complex models.  
Practical demonstration of advanced modelling applications.

### **10:15 AM - 10:30 AM: Coffee / Tea / Snacks Break**

Networking and refreshments.

### **10:30 AM - 12:00 PM: Session 2: Computational Modelling**

Exploring computational approaches in mathematical modelling.  
Workshop on using software tools for computational models.  
Case studies on the applications of computational modelling in research.

### **12:00 PM - 1:00 PM: Lunch Break**

Catered lunch and networking opportunity.

### **1:00 PM - 2:30 PM: Session 3: Stochastic Modelling**

Hands-on session on stochastic modelling techniques.  
Exploring techniques for modelling random processes and uncertainty.  
Practical applications of stochastic modelling in various fields.

### **2:30 PM - 2:45 PM: Short Break**

Time for a stretch and informal discussions.

### **2:45 PM - 4:15 PM: Session 4: System Dynamics Modelling**

Workshop on using system dynamics for mathematical modelling.  
Practical techniques for simulating complex systems.  
Case studies on the role of system dynamics in understanding system behavior.

### **4:15 PM - 4:30 PM: Coffee / Tea / Snacks Break**

Last networking opportunity with snacks.

### **4:30 PM - 5:30 PM: Closing Session: Implementing Changes and Technology Adoption**

Group discussions on implementing new techniques learned today.  
Dialogue on overcoming challenges in adopting new technologies in similar sectors.  
Feedback session and closing remarks.

**Certificate Issue**

**5:30 PM: Workshop Concludes**

### **3. Workshop in Mathematical Modelling in Biomedical Research**

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**Date:** Pre Selected Date

**Fee:** Rs 6000/-

**Duration:** One Day

**Mode:** Offline and Virtual

**Location for Offline:** NBL Cherlapalli IDA Branch

**Facilitator(s):** NTHRYS TEAM

**8:00 AM - 8:30 AM: Registration and Welcome Coffee**

Participants arrive, register, and network over coffee.

**8:30 AM - 8:45 AM: Opening Remarks**

Welcome by the host.

Brief overview of today's focus.

**8:45 AM - 10:15 AM: Session 1: Role of Mathematical Modelling in Biomedical Research**

Overview of the importance of mathematical modelling in biomedical research.

Hands-on session on studying disease mechanisms using models.

Case studies on the impact of mathematical modelling in biomedical research.

**10:15 AM - 10:30 AM: Coffee / Tea / Snacks Break**

Networking and refreshments.

**10:30 AM - 12:00 PM: Session 2: Modelling in Pharmacokinetics and Pharmacodynamics**

Exploring the role of mathematical modelling in pharmacokinetics and

pharmacodynamics.

Workshop on using models to predict drug behavior and effects.

Case studies on the applications of mathematical modelling in drug development.

### **12:00 PM - 1:00 PM: Lunch Break**

Catered lunch and networking opportunity.

### **1:00 PM - 2:30 PM: Session 3: Modelling Biological Systems**

Hands-on session on the use of mathematical modelling in studying biological systems.

Exploring techniques for modelling cellular and molecular processes.

Practical applications of mathematical modelling in biology.

### **2:30 PM - 2:45 PM: Short Break**

Time for a stretch and informal discussions.

### **2:45 PM - 4:15 PM: Session 4: Clinical Applications of Mathematical Modelling**

Workshop on translating mathematical modelling research into clinical practice.

Practical techniques for using models in clinical settings.

Case studies on the impact of mathematical modelling on medical treatments.

### **4:15 PM - 4:30 PM: Coffee / Tea / Snacks Break**

Last networking opportunity with snacks.

### **4:30 PM - 5:30 PM: Closing Session: Implementing Changes and Technology Adoption**

Group discussions on implementing new techniques learned today.

Dialogue on overcoming challenges in adopting new technologies in similar sectors.

Feedback session and closing remarks.

Certificate Issue

### **5:30 PM: Workshop Concludes**

## **4. Workshop in Innovations in Mathematical Modelling**

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**Date:** Pre Selected Date

**Fee:** Rs 6000/-

**Duration:** One Day

**Mode:** Offline and Virtual

**Location for Offline:** NBL Cherlapalli IDA Branch

**Facilitator(s):** NTHRYS TEAM

**8:00 AM - 8:30 AM: Registration and Welcome Coffee**

Participants arrive, register, and network over coffee.

**8:30 AM - 8:45 AM: Opening Remarks**

Welcome by the host.

Brief overview of today's focus.

**8:45 AM - 10:15 AM: Session 1: Emerging Technologies in Mathematical Modelling**

Introduction to emerging technologies in mathematical modelling.

Hands-on session on using advanced tools and techniques in modelling research.

Case studies on innovative applications of new technologies in mathematical modelling.

**10:15 AM - 10:30 AM: Coffee / Tea / Snacks Break**

Networking and refreshments.

**10:30 AM - 12:00 PM: Session 2: AI and Machine Learning in Mathematical Modelling**

Exploring the role of AI and machine learning in mathematical modelling.

Workshop on developing predictive models using AI and ML.

Case studies on the applications of AI in enhancing mathematical modelling.

**12:00 PM - 1:00 PM: Lunch Break**

Catered lunch and networking opportunity.

### **1:00 PM - 2:30 PM: Session 3: Integrative Omics in Mathematical Modelling**

Hands-on session on integrating multi-omics data in mathematical modelling.  
Exploring techniques for combining genomics, proteomics, and metabolomics.  
Practical applications of integrative omics in modelling research.

### **2:30 PM - 2:45 PM: Short Break**

Time for a stretch and informal discussions.

### **2:45 PM - 4:15 PM: Session 4: Future Directions in Mathematical Modelling**

Discussion on emerging trends and future directions in mathematical modelling.  
Workshop on integrating new technologies in modelling research.  
Case studies on the potential impact of future innovations in mathematical modelling.

### **4:15 PM - 4:30 PM: Coffee / Tea / Snacks Break**

Last networking opportunity with snacks.

### **4:30 PM - 5:30 PM: Closing Session: Implementing Changes and Technology Adoption**

Group discussions on implementing new techniques learned today.  
Dialogue on overcoming challenges in adopting new technologies in similar sectors.  
Feedback session and closing remarks.

**Certificate Issue**

### **5:30 PM: Workshop Concludes**

## **5. Workshop in Ethical and Regulatory Perspectives in Mathematical Modelling**

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**Date:** Pre Selected Date

**Fee:** Rs 6000/-

**Duration:** One Day

**Mode:** Offline and Virtual

**Location for Offline:** NBL Cherlapalli IDA Branch

**Facilitator(s):** NTHRYS TEAM

**8:00 AM - 8:30 AM: Registration and Welcome Coffee**

Participants arrive, register, and network over coffee.

**8:30 AM - 8:45 AM: Opening Remarks**

Welcome by the host.

Brief overview of today's focus.

**8:45 AM - 10:15 AM: Session 1: Ethical Considerations in Mathematical Modelling Research**

Overview of ethical issues in mathematical modelling research.

Case studies on ethical dilemmas in studying mathematical models.

Workshop on addressing ethical considerations in modelling research.

**10:15 AM - 10:30 AM: Coffee / Tea / Snacks Break**

Networking and refreshments.

**10:30 AM - 12:00 PM: Session 2: Regulatory Frameworks for Mathematical Modelling**

Exploring regulatory guidelines and requirements for mathematical modelling research.

Case studies on navigating regulatory challenges.

Workshop on understanding international regulatory frameworks.

**12:00 PM - 1:00 PM: Lunch Break**

Catered lunch and networking opportunity.

**1:00 PM - 2:30 PM: Session 3: Public Perception and Communication**

Workshop on improving public understanding of mathematical modelling research.

Techniques for effective science communication.

Case studies on public engagement and education initiatives.

### **2:30 PM - 2:45 PM: Short Break**

Time for a stretch and informal discussions.

### **2:45 PM - 4:15 PM: Session 4: Policy and Planning for Mathematical Modelling**

Discussion on policy and planning for sustainable mathematical modelling research.  
Case studies on effective policies and planning strategies.  
Workshop on integrating ethical and social considerations in mathematical modelling research.

### **4:15 PM - 4:30 PM: Coffee / Tea / Snacks Break**

Last networking opportunity with snacks.

### **4:30 PM - 5:30 PM: Closing Session: Implementing Changes and Technology Adoption**

Group discussions on implementing new techniques learned today.  
Dialogue on overcoming challenges in adopting new technologies in similar sectors.  
Feedback session and closing remarks.

**Certificate Issue**

### **5:30 PM: Workshop Concludes**

Note: NTHRYS Management reserves the right to modify the workshop module at any time without prior notice. Registered or enrolled candidates will receive the module that is current on the day of enrollment.

## **NTHRYS Workshops Department**

**M: +91-7993084748**

**Email: workshops ( a t ) nthrys [ d0t ] com**

## **Mathematical Modelling Workshops Application Process**

1. Select a workshop from the list.
2. Contact via whatsapp on the number present above to request fee details and dates suitable

- for joining. Alternatively, you can send an email to workshops ( a t ) nthrys [ d 0 t ] com.
3. Our Workshop department will contact you promptly to provide further assistance.