

Workshop Title: Integrating Machine Learning and AI for Biologists

Aim: The workshop aims to empower biologists with foundational knowledge and basic practical skills in utilizing Machine Learning (ML) and Artificial Intelligence (AI) techniques to enhance their research and analysis capabilities.

**Duration: 2 Days** 

Location: Online

#### **Target Participants**

This workshop is aimed at faculty, post-doctoral fellows, researchers, students and technicians who wish to employ AI/ML methods in their work. Ph.D. students/Post-Doctoral Fellows/JRFs/SRFs/faculty involved in relevant research are eligible to apply.

### Important Dates & Time

Workshop Date: January 20-21, 2024

Time: 10:00 am - 10:45 am (15 minutes

break) 11:00 am - 12:00 pm

Registration Ends: January 18, 2024 At Indian Standard Time 6:00pm

Duration: 1 hour 45 minutes/day, with the possibility of a slight extension if required

#### Registration:

Interested participants may visit www.negenome.com or click on this registration link:

****	30.000			~	
	нe		æ₽.	8 Pro-1	(Marie
	88. W	1900	100 ×460	192	888

Student (INR: 450/-)

Ph.D. Scholar / Researcher (INR: 550/-)

Academician / Faculty (INR: 650/-)

Industry Professional (INR: 900/-)

10% Discount if you register before 08 January, 2024. Hurry up!!





#### Workshop Outline:

# Day 1: Introduction to ML and AI in Biology

Session 1: Understanding the Basics

- Overview of AI, ML and Computational Methods
- Relevance of ML and AI in Biology
- Basic concepts: algorithms, models, and datasets

## Session 2: Applications in Biological Research

- Brief about case studies showcasing successful applications
- Identifying research problems suitable for ML/AI
- Group discussion on potential applications

# Day 2: Hands-on Implementation and Advanced Topics

Session 3: Practical Implementation

- Introduction to AI/ML for biologists (using various tools)
- Demonstrating comparative genome analysis methods.
- Using Image processing and computational methods.

## Session 4: Advanced Topics and Tools

- Using Image Processing and ML for Animal Identification
- Using Image Processing for meiofaunal morphometry
- Overview of popular ML/AI approaches for biologists

Teaching Methodology: Lectures, hands-on exercises, group discussions, Q&A sessions

#### Requirements for Participants:

- Basic understanding of biology concepts
- A laptop or computer with a stable internet connection
- Installation of required software (instructions will be provided in advance)

#### Outcome:

By the end of the workshop, participants should be able to:

- ✓ Understand the fundamentals of Machine Learning and Artificial Intelligence
- ✓ Recognize opportunities for applying ML/AI in their biological research



# NEGENOME Bio Solutions Pvt Ltd

- ✓ Implement basic ML models and analyze results
- ✓ Navigate ethical considerations and challenges in the application of ML/AI in biology

#### **Deliverables:**

- E-certificates will be issued to all participants within 5 working days of the workshop's conclusion.
- Access to recorded sessions for future reference and review.

If you have any questions or need further information, please don't hesitate to contact us at contact@negenome.com/negenome@gmail.com.

We look forward to having you at the Workshop on Integrating Machine Learning and AI for Biologists. Let's dive into the fascinating world of data analysis together!

**Team NEGenome** 

www.negenome.com

