



**SCHOOL OF LIFE SCIENCE & TECHNOLOGY
IS ORGANISING**

TWO DAY FACULTY TRAINING WORKSHOP

**UNDER THE MoU SIGNED BETWEEN
IIMT UNIVERSITY, MEERUT, UP, INDIA.**

&

PINE BIOTECH, New Orleans, Los Angeles, USA

The two-day Workshop aims towards conduction of training sessions for application of traditional and modern research approaches, Challenges met during Research, Integration of Life Sciences with Big Data and IoT, etc.

Target Audience- Faculties of Life Sciences, Basic Sciences, Computer Science Applications and Computer Science Engineering.

PATRON

Dr. Deepa Sharma
Vice-Chancellor
IIMT University, Meerut

Event Coordinator

Dr. Vatsala Tomar
Assistant Professor
Department of Botany

Convener

Dr. Navneet Sharma
Dean
School of Life Science & Technology

Date:- 30th & 31st January 2023, Time:- 2:30-04:30 pm

Registration Link



Day 1
Training Session Link



Meeting ID: 865 4362 9359
Passcode: 998437

Day 2
Training Session Link



MeetingID: 865 4362 9359
Passcode: 998437



Faculty Development Workshop | 30 & 31 JAN 2023 | 2:30 PM IST

Training materials, data analysis tools, curated project datasets and interactive sessions for project-based learning for biomedical data science in collaboration with IIMT University, Meerut, Pine Biotech USA and OmicsLogic India



Mr. Elia Brodsky,
Co-founder and CEO
Pine Biotech, USA



Dr. Mohit Mazumder,
Partnerships and Project Mentor
Pine Biotech, USA



Prof. (Dr.) Deepa Sharma
Vice Chancellor,
IIMT University,
Meerut, India



Dr. Vatsala Tomar,
Assistant Professor,
School of Life Science and Technology
IIMT University, Meerut



**INDUSTRY ACADEMIA
PARTNERSHIP**



BIG DATA ANALYSIS



STUDENT CAPACITY



**GRANTS &
PUBLICATIONS**

Big Data | **Genomics** | Transcriptomics | **Metagenomics** | Epigenomics | Precision **Medicine** | **Infectious** Diseases | **Health** Informatics | **Cheminformatics** | Data Science | **Machine Learning & AI for Biology** | **R & Python** for Biomedical Data Analysis and Data Management & Analysis

IIMT University Faculty Workshop

Online Coursework

The **Omics Logic curriculum** follows a project-based, student-centred learning model. Introductory courses are divided into modules based on beginner, intermediate and advanced levels. Application of analytical methods is illustrated in projects that can be adapted for personalized, inquiry-based research experiences. The logic of analysis is contextualized by embedding analytical concepts into biological projects (Data Analysis, Management, Visualization).

DATE : 30 JAN & 31 JAN



IIMT University Faculty Workshop

Big **DATA** in Biology:
Bioinformatics & Data Science:
Machine Learning & Deep Learning

- * BIG DATA Analysis
- * Data Science
- * Precision Medicine
- * Infectious Diseases
- * NeuroScience
- * Space OMICS
- * Agrobiology
- * AI & Drug Discovery

Omics Logic Project Based Training

DATE : 30 JAN & 31 JAN





OMICSLAGIC | COLLABORATION

Bioinformatics and Data Science Training | Research Ecosystem for Pine Biotech University partners

Training materials, data analysis tools, curated project datasets and interactive sessions for project-based learning for biomedical data science in collaboration with IIMT University, Meerut

This journey begins with identifying an interesting biological research question that can be answered with data, continues with the collection and organization of data, and concludes with students interpreting and drawing conclusions about the data. Projects included in the Omics Logic curriculum can be divided into major applications of bioinformatics: **Oncology, Infectious Diseases, Neuroscience and Agriculture.**

<p>Single Cell RNA-Seq scRNA-Seq Analysis</p>	<p>SARS-COV-2 Genomics Origins and Pathogenesis</p>	<p>Potato Drought Resistance Gene Expression of Drought Stress</p>	<p>Enterovirus EV-D68 Outbreaks of Child Myelitis</p>	<p>Attenuation of Antiviral Immune Response under Simulated Microgravity Based on "Attenuation of Antiviral Immune Response Caused by Perturbation of TRIM25-Mediated RIG-I Activation under Simulated Microgravity" Lyjun Zhu, Li Nie, Siu Xie, ... Er Meng, Dongyi Zhang, Lingyun Zhu</p>
<p>TCGA: Liver Cancer Risk The Cancer Genome Atlas</p>	<p>Modeling Cancer Precision Medicine Genomic Mutations</p>	<p>Ebola Virus Epidemic Genomic Mutations</p>	<p>Cancer Macrophages Cancer Immunology</p>	<p>Data Science & AI in Healthcare</p>
<p>SF9 cells: Biologics Cell Line Viral Contamination</p>	<p>Malaria Infection Host Response Transcriptomics</p>	<p>PDX Tumor Microenvironment Mice: Patient Derived Xenograft</p>	<p>BioML (Logic) Statistical analysis & Machine Learning</p>	<p>New Projects!</p>





OMICSLOGIC

Bioinformatics and Data Science Training

COLLABORATION

Research Ecosystem for Pine Biotech University partners

Faculty Development Program

Session 1: Introduction and Inauguration of the Faculty Development Program

Session 2: Hands-on activity to apply traditional and modern research approaches

Session 3: Challenges in Handling Human Diseases with a Novel Approach using Genomics approach - Human Health & Disease

Session 4: Application of RNA Seq Transcriptomics Data for Human Health and Wellbeing

Session 5: Application of Metagenomics & Microbiome Data for Human Health and Wellbeing

Session 6: Specialization Tracks & Research in Computational biology Leveraging Public repository and Omics Logic Tools and Resources for Faculty

Session 7: Health Informatics and Cheminformatics for AI-Guided Drug Discovery

Session 8: Faculty-Driven Research Projects - Research Fellowship