

Schedule

Day 1 (11.11.2025)

Timing	Title	Speaker
09:00 AM - 09:30 AM	Registration	
09:30 AM - 10:00 AM	Workshop Inauguration by Director ICGEB	Dr. Ramesh V. Sonti, ICGEB, New Delhi
	Welcome Speech by the Organizer	Dr. Dinesh Gupta, ICGEB, New Delhi
10:00 AM - 10:30 AM	Fundamentals and Applications of AI	Dr. Dinesh Gupta, ICGEB, New Delhi
10:30 AM - 11:00 AM	Tea Break	
11:00 AM - 11:45 AM	Hands-on: Basic Exercises	Dr. Dinesh Gupta, ICGEB, New Delhi
11:45 AM - 12:30 PM	Data Science in Translational Bioinformatics: Foundations and Applications	Dr. Nidhi Malhotra, Shiv Nadar University, Greater Noida, UP
12:30 PM - 01:00 PM	Hands-on: Data Science in Translational Bioinformatics: Foundations and Applications	
01:00 PM - 02:00 PM	Lunch Break	
02:00 PM - 03:00 PM	Introduction to CNN and Transformers	Mr. Aashish Thakur, Dr. Ankit Singhal, ICGEB, New Delhi
03:00 PM – 03:30 PM	Predicting gene expression level from promoter DNA sequences using neural networks	Dr. Divya Tej Sowpati, CCMB, Hyderabad, Telangana
03:30 PM – 04:00 PM	Hands-on: Predicting gene expression level from promoter DNA sequences using neural networks	
04:00 PM - 04:30 PM	Tea Break	

04:30 PM - 05:30 PM	Hands-on: Predicting gene expression level from promoter DNA sequences using neural networks	Dr. Divya Tej Sowpati, CCMB, Hyderabad, Telangana
Day 2 (12.11.2025)		
Timing	Title	Speaker
09:30 AM - 10:30 AM	MATTER: Metrics and Assessment Tools for Trustworthy, Transparent, Explainable, and Reliable AI	Dr. Priyanka Narad, ICMR, New Delhi
10:30 AM - 11:00 AM	Tea break	
11:00 AM - 11:30 AM	Data-driven approaches to correlate female reproductive microbiota with pregnancy complications	Dr. Abhishek Sengupta, Amity University, Noida, UP
11:30 AM - 01:00 PM	Hands-on: From Data to Decision using AI/ML in reproductive Health	
01:00 PM - 02:00 PM	Lunch Break	
02:00 PM - 03:00 PM	Development of LLM based chatbots for plant genomics research	Dr. Shailesh Kumar, NIPGR, New Delhi
03:00 PM - 03:30 PM	Local Tools for AI: Running Models, Chat & Non-Chat Agents, and AI-Assisted Coding	Dr. Silvano Piazza, ICGEB, Italy
03:30 PM – 04:00 PM	Tea break	
04:00 PM - 05:30 PM	Hands-on: Local Tools for AI: Running Models, Chat & Non-Chat Agents, and AI-Assisted Coding	Dr. Silvano Piazza, ICGEB, Italy
Day 3 (13.11.2025)		
Timing	Title	Speaker
09:30 AM - 10:00 AM	Artificial Intelligence for Single-Cell Genomics Sequencing Data Analysis	Dr. Stefano Cacciatore, ICGEB, SA

10:00 AM - 10:20 AM	Tea break	
10:20 AM - 12.00 PM	Hands-on KODAMA: Unsupervised Learning for Single-Cell Data Analysis	Dr. Stefano Cacciatore, ICGEB, SA
12:00 PM - 01:15 PM	Introduction to Cloud computing and AI for accelerating Bio-Medical Research with AWS	Mainak Chakraborty AWS Healthcare and Life Sciences
01.15 PM - 02:15 PM	Lunch Break	
02:15 PM - 02:45 PM	Introduction to Machine learning for tabular data	Dr. Ishaan Gupta, IIT Delhi
02:45 PM – 04:15 PM	Hands-on: Introduction to Machine learning for tabular data	
04:15 PM - 04:30 PM	Tea break	
04:30 PM – 05:00 PM	A Case for Neuro-Symbolic AI : 2 Instances of Image Generation (Vision) & Learning to Build Complex Structures (Robotics)	Dr. Parag Singla, IIT Delhi
05:00 PM – 06:00 PM	Hands-on: Neuro-Symbolic AI	
Day 4 (14.11.2025)		
Timing	Title	Speaker
09:30 AM -10:00 AM	Functional insights into the Indian human microbiomes revealed through multiomics approaches	Dr. Vineet K. Sharma, IISER Bhopal, MP
10:00 AM - 10:30 AM	Tea break	
10:30 AM - 12:00 PM	Hands-on: Functional insights into the Indian human microbiomes revealed through multiomics approaches	Dr. Vineet K. Sharma, IISER Bhopal, MP
12:00 PM - 12:30 PM	A Ping-Pong Match in Plasma: How an AI-Guided Inertrope Reads the Game to Diagnose Cancer	Dr. Gaurav Ahuja, IIIT Delhi
12:30 PM – 01:00 PM	Hands-on: Customized tailoring of Biology-informed Drugs using Generative AI	

01:00 PM - 02:00 PM	Lunch Break	
02:00 PM - 03:00 PM	Hands-on: Customized tailoring of Biology-informed Drugs using Generative AI	Dr. Gaurav Ahuja, IIIT Delhi
03:00 PM – 04:00 PM	Graph Neural Networks: Applications in Bioinformatics	Mr. Sumit Kumar, ICGEB, New Delhi
04:00 PM - 04:30 PM	Tea break	
04:30 PM – 05:00 PM	Power BI: Turning Data into Actionable Insights	Dr. Shahzaib Ahamad, ICGEB, New Delhi
05:00 PM – 06:00 PM	AI-Driven Translational Innovation in Healthcare Imaging: TBG Lab	Dr. Dinesh Gupta, Dr. Shweta Birla, ICGEB, New Delhi
07:00 PM onwards	Gala Dinner	
Day 5 (15.11.2025)		
Timing	Title	Speaker
09:30 AM - 10:00 AM (Venue: Seminar Hall, Ground Floor)	Concepts and Applications of Convolutional Neural Networks (CNN) for Radiology Image Analysis	Dr. Tanmay Basu, IISER Bhopal, MP
10:00 AM - 10:30 AM (Venue: Seminar Hall, Ground Floor)	Hands-on: Concepts and Applications of Convolutional Neural Networks (CNN) for Radiology Image Analysis	
10:30 AM – 10:45 am	Tea break	
10:45 AM - 01:00 PM (Venue: Seminar Hall, Ground Floor)	Hands-on: Concepts and Applications of Convolutional Neural Networks (CNN) for Radiology Image Analysis	Dr. Tanmay Basu, IISER Bhopal, MP
01:00 PM - 02:00 pm	Lunch Break	
02:00 PM - 03:00 pm	Closing Session	Dr. Dinesh Gupta, ICGEB, New Delhi

Organizer:	Organizing Committee:	Volunteers:
Dr. Dinesh Gupta	Dr. Jatin Shrinet	Mr. Sumit Kumar
	Dr. Shweta Birla Dhakonia	Ms. Prachi Priyam
	Ms. Minakshi Sharma	Mr. Aashish Thakur
	Mr. Abhishek Khatri	Dr. Sonu Kumar
	Dr. Ankit Singhal	Dr. Vikram
	Dr. Rakesh	Dr. Shruti Gupta
		Dr. Shahzaib Ahamad
		Ms. Gurupriya Takkar
		Ms. Tamseel Fatma
		Ms. Yashika Gupta