Training on
High Performance Computing (HPC) Technologies

Venue: SN Bose Kolkata   **Duration:** 3 days, 9th-11th Dec. 2024

DAY 1

Time (Hrs.)	Lecture / Lab Session
09:30 – 09:45	Welcome Address and Overview of Training
09:45 – 10:45	**Session:** Introduction to HPC and Computer Architecture
10:45 – 11:00	**Tea Break**
11:00 – 12:00	**Session:** Introduction to HPC and Computer Architecture *(contd..)*
12:00 – 13:00	**Session:** System Organization and Administration
	🍴 **Lunch Break - 1 hour**
14:00 – 15:45	**Lab Session:** Basic Linux commands
15:45 – 16:00	**Tea Break**
16:00 – 17:30	**Session:** HPC Software Stack and Management Tools

DAY 2

Time (Hrs.)	Lecture / Lab Session
09:30 – 11:00	**Session:** Introduction to SLURM & Application Installation and Management using SPACK
11:00 – 11:15	**Tea Break**
11:15 – 12:00	**Session:** HPC Application demonstration
12:00 – 13:00	**Session:** Profiling tools demonstration
	🍴 **Lunch Break - 1 hour**
14:00 – 15:45	**Session:** Shared Memory Parallelism with OpenMP
15:45 – 16:00	**Tea Break**
16:00 – 17:30	**Lab Session:** Shared Memory Parallelism with OpenMP

DAY 3

Time (Hrs.)	Lecture / Lab Session
09:30 – 11:00	**Session:** Distributed Memory Parallelism with MPI
11:00 – 11:15	**Tea Break**
11:15 – 13:00	**Lab Session:** Distributed Memory Parallelism with MPI
	🍴 **Lunch Break - 1 hour**
14:00 – 15:45	**Lab Session:** Introduction to compiler flags for optimization and Python environment setup with Miniconda
15:45 – 16:00	**Tea Break**
16:00 – 17:30	**Lab Session:** Introduction to GPU Architecture & Basics of Accelerated Programming