

A two-days workshop on “High Performance Computing methods for complex and moving geometries”

(December 1-2, 2023)

Jointly Organized by IIT Kanpur and Nodal Centre for Training in HPC and AI (IIT Kharagpur) Under the aegis of National Supercomputing Mission

Venue: Seminar Room, Department of Mechanical Engineering, Jadavpur University, Kolkata 700032

Workshop Schedule

Day	Date	Time	Topic	Faculty/Speaker
1 (Fri)	01-12-2023	09:30 - 10:00	Registration	Prof. Sandip Sarkar
		10:00 - 10:15	Inauguration/Purpose/Guidelines for Conduct of workshop	Prof. Sandip Sarkar/Prof. Somnath Roy
		10:15 -11:00	Introduction to HPC	Prof. Somnath Roy/ Prof. Ashoke De
		11:00-11:30	Break (High Tea)	
		11:30-12:15	Finite Difference Method (FDM)	Prof. Sandip Sarkar
		12:15-12:30	Break	
		12:30-13:30	FVM in incompressible flow equations	Prof. Arnab Kr. De
		13:30-14:30	Lunch	
		14:30-15:30	Immersed boundary method for moving geometries	Prof. Arnab Kr. De
		15:30-15:45	Break	
		15:45-16:45	Unstructured FVM in Incompressible flow equations	Prof. Ashoke De
		16:45-17:00	Break	
		17:00-18:00	Lab Session on Incompressible Flows (OpenFoam)	Prof. Ashoke De
		19:00-21:00	Dinner	
2 (Sat)	02-12-2023	10:00 – 10:45	Parallel Programming for fluid flow problems	Prof. Arnab Kr. De
		10:45 – 11:00	Break	

		11:00 - 12:00	FVM in compressible flow equations - density based	Prof. Ashoke De
		12:00 – 12:15	Break	
		12:15 – 13:15	Lab Session on Compressible Flows (OpenFoam)	Prof. Ashoke De
		13:15-14:30	Lunch	
		14:30-16:00	Parallel programming for CFD Applications	Prof. Somnath Roy
		16:00-16:15	Break	
		16:15-17:30	Lab Session on Parallel Programming in CFD	Prof. Somnath Roy
		17:30-17:45	Break	
		17:45-18:30	Discussion and Concluding Remarks/Feedback	Sandip/Arnab/Somnath/Ashoke
		18:30 – 19:00	High Tea	