

**In-House Internship Program (IIP)**  
**On**  
**Computational Fluid Dynamic Simulation using ANSYS**  
June 19-30, 2023

**Schedule of IIP**

Day/Date	3.00 - 5:00 PM
Day-1 19/06/23	<b>Inaugural Session</b> Introduction of IIP: Objective and contents of Program
	<b>Dr. Kamlesh Sharma</b>
Day-2 20/06/23	<b>Session-1</b> Introduction to CFD: Computational approach to Fluid Dynamics and its comparison with experimental and analytical methods
	<b>Dr. Mangal Singh Lodhi</b>
Day-3 21/06/23	<b>Session-2</b> Governing differential and boundary condition
	<b>Dr. Mangal Singh Lodhi</b>
Day-4 22/06/23	<b>Session-3</b> Solution Metrology: Domain discretization with FDM, FVM and FEM, Stability, Convergence and Accuracy
	<b>Dr. Neetesh Singh Raghuwanshi</b>
Day-5 23/06/23	<b>Session-4</b> Finite Volume Method: Domain discretization, Pressure velocity coupling, SIMPLE method.
	<b>Dr. Neetesh Singh Raghuwanshi</b>
Day-6 26/06/23	<b>Session-5</b> Introduction CFD software: Geometry, grid generation, solver, post processing
	<b>Dr. Mangal Singh Lodhi</b>
Day-7 27/06/23	<b>Session-6</b> Lab session on Simulation of Microchannel Heat Exchanger
	<b>Dr. Mangal Singh Lodhi</b>
Day-8 28/06/23	<b>Session-7</b> Lab session on Simulation of Natural Circulation Loop
	<b>Dr. Neetesh Singh Raghuwanshi</b>
Day-9 29/06/23	<b>Session-8</b> Lab session on Simulation of Vapour Compression Refrigeration System
	<b>Dr. Kamlesh Sharma</b>
Day-10 30/06/23	<b>Valedictory Session</b> Feedback, Test and Certificate Distribution