

Final Programme Schedule

Event: Experimental and Computational Fluid Mechanics for Engineering and Basic Sciences (ECFMEBS-2016)

Venue: Virtual Class Room, D – 2, Second Floor, Main Building, NIT Raipur.

SN	Lecture No & Venue	Topic covered	Duration	Teaching Faculty
DAY 1 - Monday 07-11-2016				
1	Inaugural function [9:30 am to 10:30 am] Date: 07-11-2016 Virtual Class Room, D – 2, Second Floor, Main Building, NIT Raipur.			
2	Lecture 1	Physical laws of fluid mechanics	1.5 hrs	Dr. S. L. Sinha
3	Lecture 2	Application of physical laws in flow measurement techniques, Conservation equations	2 hrs	Dr. S. L. Sinha
4	Lab 1	Basic experimental fluid flow lab	2.5 hrs	Dr. S. L. Sinha & Dr. S. K. Dewangan
DAY 2 – Tuesday 08-11-2016				
5	Lecture 3	Basic & advanced experimental techniques	2 hrs	Dr. S. L. Sinha
6	Lab 2	Rheology lab (Rheometer & Marsh funnel experiments)	2 hrs	Dr. S. L. Sinha & Dr. S. K. Dewangan
7	Lab 3	Basic experimental fluid flow lab	2.5 hrs	Dr. S. L. Sinha & Dr. S. K. Dewangan
DAY 3 – Wednesday 09-11-2016				
8	Lecture 4	Design of experiments , uncertainty and error analysis of experiments, tutorial session	2 hrs	Dr. S. L. Sinha
9	Lecture 5	Introduction computational methods for fluid dynamics problems, discretization techniques, classification of conservation equations	1 hr	Dr. S. L. Sinha
10	Lecture 6	Computational solution of laminar flow problems	2 hrs	Dr. S. L. Sinha
11	Lab 4	CFD Lab session / tutorial of mathematical modeling for some cases	1.5 hrs	Dr. S. L. Sinha & Dr. S. K. Dewangan
DAY 4 – Thursday 10-11-2016				
12	Lecture 7	Turbulence modeling, application of computational techniques for	2 hrs	Dr. P. K. Gupta

		turbulent flow, practice tutorial sheet		
13	Lecture 8	Design of computational techniques, uncertainty and error analysis, practice tutorial session	2 hrs	Dr. S. L. Sinha
14	<i>Lab 5</i>	<i>CFD lab session</i>	<i>2.5 hrs</i>	<i>Dr. S. L. Sinha & Dr. S. K. Dewangan</i>
DAY 5 – Friday 11-11-2016				
15	Lecture 9	Computer applications on chemical reaction modeling, fire modeling	1 hr	Dr. S. L. Sinha
16	Lecture 10	Computer application on biological fluid flow	1 hr	Dr. S. L. Sinha
17	<i>Lab 6</i>	<i>CFD lab session</i>	<i>2 hrs</i>	<i>Dr. S. L. Sinha & Dr. S. K. Dewangan</i>
18	Lecture 11	Computer applications on physical flow cases e.g. environmental flow, pollution modeling, geophysical flows cases etc. [modeling aspects of spacer of nuclear fuel bundle]	1.5 hrs	Dr. S. L. Sinha / Dr. D. K. Chandraker Bhabha Atomic Research Centre
19	Valedictory function [4:00 pm to 5:00 pm] Date: 11-11-2016 Virtual Class Room, D – 2, Second Floor, Main Building, NIT Raipur.			