



Module PMRF-ISSS017/2023

Fluid Mechanics: A Visual and Physical Perspective

Name of the PMRF student

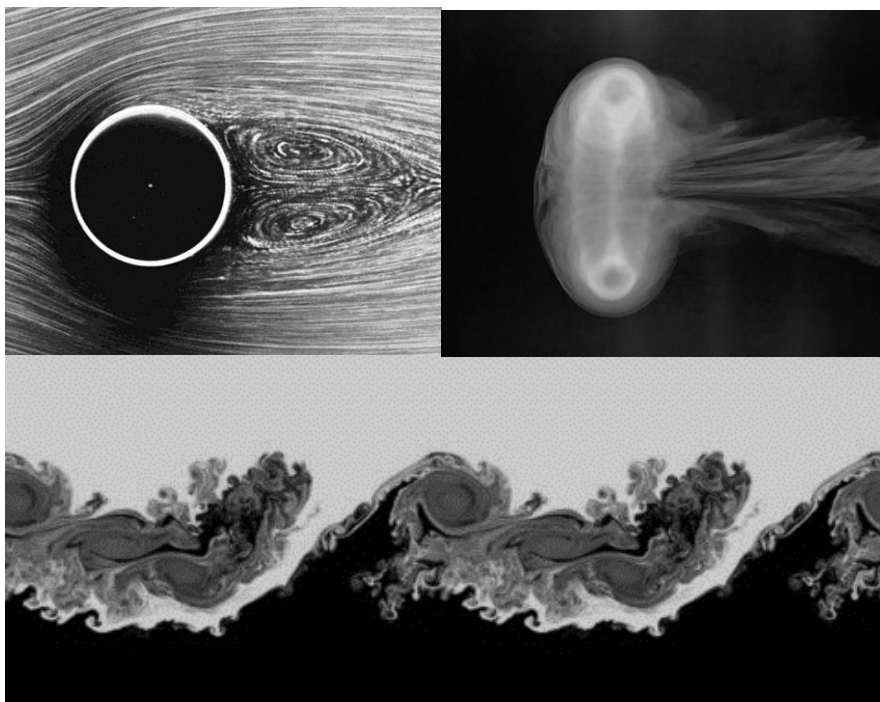
Saini Jatin Rao, IISc Bangalore

Required background of the students taught

Any learner with UG level background in Fluid Mechanics and Engineering Mathematics.

Online session coordinator

Will be chosen from the list of registrants



Details of the content of the module

This course is an introduction to the language of fluid mechanics, which primarily involves beautiful visualizations and mathematics. Through the lectures, learners will develop a physical intuition by exploring fascinating examples of visual features in fluid mechanics, such as

- Waves • Explosions • Vortex Rings • Droplets •

Using these examples, the following key concepts will be covered:

- Basics of Fluid Mechanics
- Experiments and Visualization techniques
- Scaling Analysis
- Potential Flows
- Hydrodynamic stability

There will be periodic review of essential concepts throughout the course.

Schedule of the module

Registration Deadline 10th August 2023

Course starts on 17th August 2023

Course ends on 16th November 2023 (tentative)

Lectures uploaded every Thursday – 7:00PM

Learning efforts required: 3-5 hrs per week

Meeting link : Will be shared later

Contact email ID: issf.forum@gmail.com

Registration link:

<https://forms.gle/K3MfScQH3dSBmjJE9>