## About the Course

Fluid flow, heat and mass transfer occurs in all the industrial devices. Most problems that involve these phenomena are too complex to be solved by direct calculation. In such cases, they must be solved by numerical methods through computer simulations. Computational Fluid Dynamics (CFD) provides a numerical prediction of fluid flow, heat and mass transfer for a wide variety of problems. These problems range from blood flow in capillaries to flow around gigantic airships, thus encompassing all fields of Science and Engineering. Hence, it is imperative that students, scientists, and researchers familiar with fluid mechanics, heat and mass transfer concepts, learn the basic principles of CFD & computer programming. In this course, a basic introduction to Finite Volume Method, computer programming, and post-processing and CFD applications would be given.

About IIT Indore

IIT Indore is one of the premier institutions set up by the Ministry of Human Resource Development, Government of India in 2009. The nearest airport is Devi Ahilya Bai Holkar Airport, Indore. Indore Junction is the nearest railway station. Participants from other states travelling by train may alight at Bhopal Junction and take the Volvo Bus (frequency 30) from Bhopal to Indore. For any queries, please feel free to contact the course coordinator
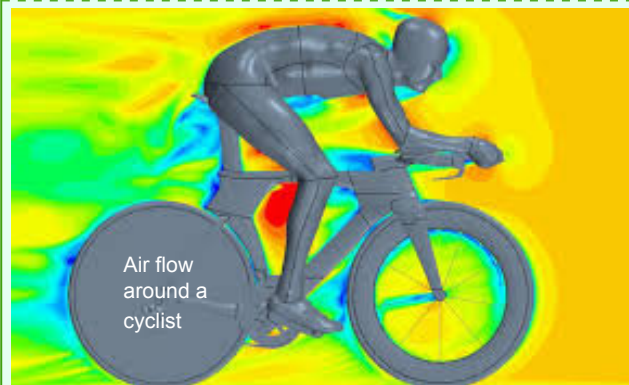
Some of the applications of CFD
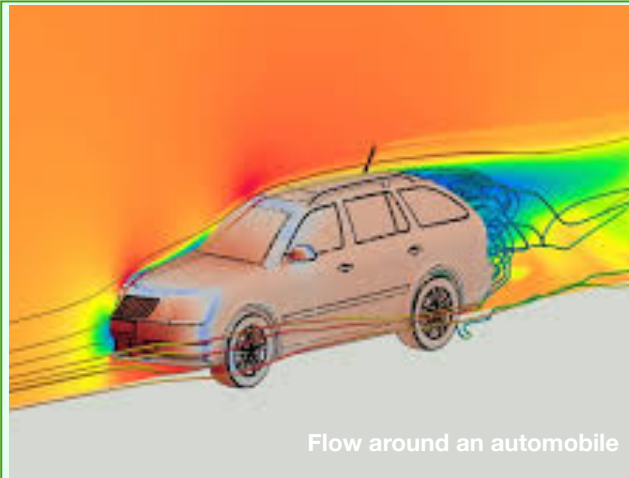
Flow around an automobile
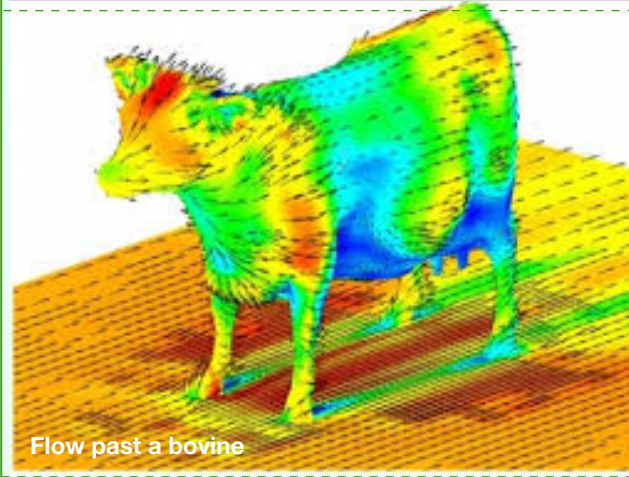
Flow past a bovine

Air flow around a cyclist

AICTE QIP

Short Term Course on

Introduction to Computational Fluid Dynamics

March 23-27, 2020

Coordinator
Dr. Shanmugam Dhinakaran

Organised by

The Centre for Fluid Dynamics

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Indian Institute of Technology Indore
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Course Website: http://people.iiti.ac.in/~sdhina

Sponsored by

All India Council for Technical Education

Teaching Faculty & experts

Lectures, tutorials and demonstration will be given by the Course Coordinator. Some of the lectures would be offered by experts in CFD from IITs and other institutions. Experts from CFD related industry (Ansys) would also be giving lectures and demonstration/tutorials.

Who can attend?

- ❋ The course is open to faculty members (with background in Mechanical, Chemical, Aerospace, Biosciences and Biomedical Engineering, Civil and other related branches of Science and Engineering) from AICTE approved Institutions. No fee is charged for such participants.

- ❋ Participants from other institutions/ industry will have to pay Rs. 10,000 as registration fee.

- ❋ Candidates from AICTE approved Institutions are eligible for reimbursement of to and fro AC 3-tier railway fare (shortest route), if they attend the course till its completion.

- ❋ For any queries regarding eligibility, please contact the course coordinator.

Bring your own device

Participants must bring their own device (laptop)†

Important Dates

Course date:
March 23-27, 2020 (Monday - Friday)

Last date for submitting application:
March 10, 2020*

*Please contact the course coordinator in case you see this brochure after the last date.

Application Procedure

1. Write to the Course Coordinator and wait for the confirmation.

2. Fill the relevant application form sent by the course coordinator and submit the same along with the authorisation form issued by your HoD/Principal/ Director/Competent authority.

3. Wait for the final confirmation.

Course/Lecture Duration

Course duration:
March 23-27, 2020 (5 days)

Total no. of Lectures & Tutorials/demo:
Lecture (A)   : 2-3 hours per day
Tutorial/Demo(B): 2 hours per day
Total (A+B)   : 20-25 hours

Venue

IIT Indore, Indore

Board and Lodging

Boarding and lodging facilities will be provided for selected candidates from AICTE approved institutions in the hostel or Guest House, depending on availability at IIT Indore free of charge. Depending on availability, accommodation for participants from other institutions/industry may also be provided on payment basis.

Contact details

†It is strongly advised that the participants get all their queries clarified before submission of application.

Course Coordinator
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For more details