

A Two-Day Online workshop
on
Applications of Computational Fluid Dynamics

30th & 31st August 2021

Call for Registration and Participation
Coordinator
Dr. Anjanna Matta



Organized by the
Department of Mathematics & English
IcfaiTech (Faculty of Science and Technology)
ICFAI Foundation for Higher Education (IFHE),
Hyderabad-501203

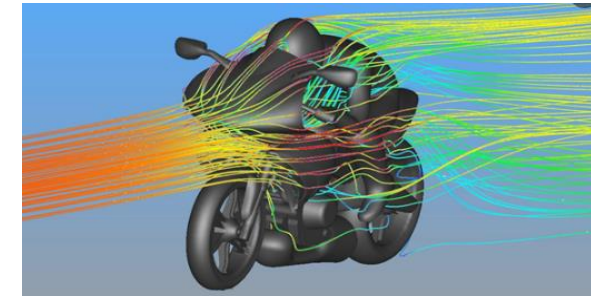
Overview: The objective of this short term workshop is to introduce the participants the basic physical aspects of fluid mechanics and applications to passive systems, e.g. flow past a rigid sphere, spherical drop, etc. and active systems, e.g. swimming of microorganisms and bacteria, turbulent flow in pipe etc., This course gives detailed insights into few theoretical, numerical techniques to understand and solve models such as forces on a body moving in a viscous fluid; simplification of the Navier-Stokes equations for slow motion; passive rigid spherical particle in a viscous fluid; swimming of microorganisms in a viscous fluid; turbulent flow fields, simple flow fields; hydrodynamic interactions; boundary conditions numerical techniques; model systems.

Theory of evolution of equations is one among the important mathematical disciplines. In order to understand the dynamics of nature, one needs to consider time evolution which often leads to evolution of equations. This course is intended to provide an introduction to some themes in evolution of equations and is designed to enhance as well as strengthen the basic knowledge of theoretical and computational concepts.

Objectives: A workshop is being planned to be organized at IcfaiTech, Department of Mathematics during August 30th & 31st, 2021. The aim of this workshop is to systematically expose the faculty/student of applied mathematics, physics and engineering in CFD. The topics will be discussed in detail and there will be hands on practice using MATLAB and ANSYS Fluent. The target audience for this workshop is expected to be senior under graduate students, graduate students, research scholars and faculties in science and engineering.

Further, they will be able to disseminate the knowledge among budding researchers, engineers, and practitioners to benefit of society. This workshop gives sufficient theoretical, numerical techniques to understand and solve such models.

Course Content: Analytical and numerical methods for evolution of equations, Initial and boundary value problems, Existence and regularity theory, Semigroup theory, Finite difference, Finite volume and Finite element discretization, Matlab programming, Ansys Fluent CFD software.



Registration is open to:

- Faculty Members
- Research Scholars and
- Personnel with basic knowledge in the core subjects.

Resource Persons: Faculty of the Department of Mathematics, IcfaiTech, Hyderabad.

Dr. Anjanna Matta, Assistant Professor,
Dr. G. Nagaraju, Assistant Professor
Dr. T. Divya, Assistant Professor.
Dr. K. Ramesh, Assistant Professor

Registration:

Registration to the workshop can be done by filling in the details using the link/QR code as appended below.

Link:

<https://forms.gle/qdgEPeDBuj38ixE86>

QR code:



The workshop will be offered in an online mode and is limited to 100 participants. A digital participation certificate will be provided to the participants after attending all the sessions. The link for attending the online sessions will be shared after completion of the registration

Last date for registration: 28-08-2021

Registration Fee: Nil

About ICFAI Group: ICFAI was established in 1984 as a not-for-profit society whose broad objective is to empower citizens through world-class quality education. ICFAI has established 11 Universities across India. The ICFAI Universities are located at Hyderabad [The ICFAI Foundation for Higher Education (IFHE), which is a Deemed University], and Dehradun, Himachal Pradesh (Baddi), Jaipur, Jharkhand, Meghalaya, Mizoram, Nagaland, Raipur, Sikkim, and Tripura are state established private Universities.

About IFHE Hyderabad: The ICFAI Foundation for Higher Education is a deemed University established under section 3 of the UGC Act, 1956. It has evolved a comprehensive student-centric learning approach consisting of several stages, designed to add significant values to the learner's understanding in an integrated manner, covering relevant knowledge, practical skills, and positive attitudes. The University is a member of the Association of Indian Universities (AIU) and Association of Commonwealth Universities (ACU). IFHE offers UG, PG, and Ph.D. programs in Science and Technology (IcfaiTech), Management (ICFAI Business School), Law (ICFAI Law School) and Architecture (ICFAI School of Architecture).

About IcfaiTech: IcfaiTech (Faculty of Science & Technology) is a constituent of The ICFAI Foundation for Higher Education (IFHE). IcfaiTech aims at nurturing graduates and researchers who are critical thinkers, creative, and have a holistic education experience. Students are given the flexibility to choose their academic courses from a wide range of electives offered to them at the first degree and higher degree levels. Innovative methods of teaching, cutting-edge curriculum, workshops, and internships further broaden our students' intellectual and global outlook.

About Department of Mathematics: The Department of Mathematics came into existence in 2002. The objective of this department is to nurture young minds towards learning the concepts of strong mathematical methods and techniques, apply these concepts in real world applications. The department is a part of IcfaiTech, IFHE. All the teaching fraternity have completed their Ph.D. from IIT, NIT, and other renowned universities with research publications in high impact factor Science. Ongoing research work deal with Number theory, Optimization techniques, Fixed point theory, Algebra, Stochastic modeling and Computational fluid dynamics.

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Department Coordinator

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Department of Mathematics & English

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Dr. T. Divya, Assistant Professor
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