

ORGANIZING COMMITTEE

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Vice-Chancellor, VSSUT

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Dean, CDCE

Prof. Prasant Nanda
Prof. T&P Cell

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Prof. Prasanta Kumar Pradhan
HOD, Mechanical Engineering

COORDINATORS:

Dr. Aurovinda Mohanty
Dr. Hrushikesh Barik

Dr. Pandaba Patro
Dr. Prabir Kumar Jena

ABOUT THE COURSE

This programme provides comprehensive training in the fundamental steps of Computational Fluid Dynamics (CFD) simulation, including geometry preparation and meshing, with a strong emphasis on generating high-quality meshes to enhance solution accuracy. It also covers an overview of turbulence modelling and develops practical insight into selecting appropriate models for real-world applications. Participants will gain hands-on experience in simulating a range of engineering problems, including flow over an airfoil, transient vortex shedding, venturi meter flow, indoor airflow and HVAC applications, as well as fluid-structure interaction (FSI), using ANSYS Fluent. The programme is ideally suited for faculty members, researchers, and industry professionals engaged in CFD, HVAC systems, and fluid-structure interaction applications.

SPEAKERS

The expert talks shall be delivered by the speakers invited from NITs, IITs, other premier institutions of India, and reputed industries.

VEER SURENDRA SAI UNIVERSITY OF TECHNOLOGY

Veer Surendra Sai University of Technology (VSSUT), Odisha (formerly known as University College of Engineering (UCE), Burla) was formed by Odisha Act- 9 of 2009 by upgrading to a Unitary State University, which came into force from 1st day of July 2009. VSSUT is located at the foothill of famous Hirakud Dam – longest in Asia. Burla is known as Intellectual Capital of Odisha with VSSUT, VSS Institute of Medical Science and Research, Sambalpur University, MCL, WESCO and IIM, Sambalpur. The University offers B. Tech, B. Arch, M. Tech, Dual Degree, M. Sc, Int. M. Sc., MCA and Ph.Ds. The university is surrounded by a large number of Government, public and private industrial sectors such as OHPC, HINDALCO, NALCO, NTPC, OPTCL, Vedanta Aluminum Ltd. and Bhusan Steel Plant. The institute has an excellent placement record with a number of top ranking companies visiting the campus every year.

ABOUT THE DEPARTMENT

The Department of Mechanical Engineering is the first department of its kind in the state of Odisha and was established in 1956 with a vision to develop new ideas in the field of Mechanical Engineering. This department is accredited by AICTE. During last 5 decades, this branch produced high standard self motivated professionals (around 3500) to serve the humanity both nationally and internationally at par excellence.

The department of Mechanical Engineering is well known for its excellence in teaching and research. The faculty members of the department are engaged in state of the art research as well as guiding the Ph.D., M.Tech., and B.Tech. students.

Platinum Jubilee 2026

**Veer Surendra Sai University of
Technology, Burla
(Estd. 1956)**

**[Celebrating 70 Years of Glorious Legacy,
Powering Innovation]**

A FIVE-DAY SKILL/FACULTY DEVELOPMENT PROGRAM

on

“Hands-on Training: Fundamentals and Applications of CFD”

**APRIL 6 - 10, 2026
(ONLINE/HYBRID MODE)**



Organized by:

Department of Mechanical Engineering
in association with
Training and Placement Cell and
Centre for Distance and Continuing Education
Veer Surendra Sai University of Technology
Burla, Odisha, 768018, India.
www.vssut.ac.in

COURSE CONTENT & TRAINING

The course will cover the following major topics:

- **Geometry Preparation & Meshing:** Creation and cleanup of CFD geometry; importance of meshing, mesh types, and their impact on solution accuracy.
- **Physical Modelling Fundamentals:** Overview of turbulence models and development of intuition for selecting appropriate models in real-life applications.
- **Boundary Conditions & Solver Setup:** Specification of boundary conditions, solver settings, and techniques for accurate result interpretation.
- **Aerodynamics & External Flow Analysis:** Simulation of airfoil performance (lift and drag), visualization of pressure and velocity distributions, and transient simulations of vortex shedding.
- **Internal Flow Simulations:** Analysis of venturi meter flow; understanding pressure drop and velocity variation; validation of CFD results with theoretical concepts.
- **Applied CFD & Multiphysics:** Indoor airflow and HVAC applications, along with an introduction to fluid-structure interaction (FSI), coupling concepts, and real-world use cases.

Hands-on training sessions on CFD will be delivered by experts from **ARK Infosolutions Pvt. Ltd.**

EXPERT TALKS

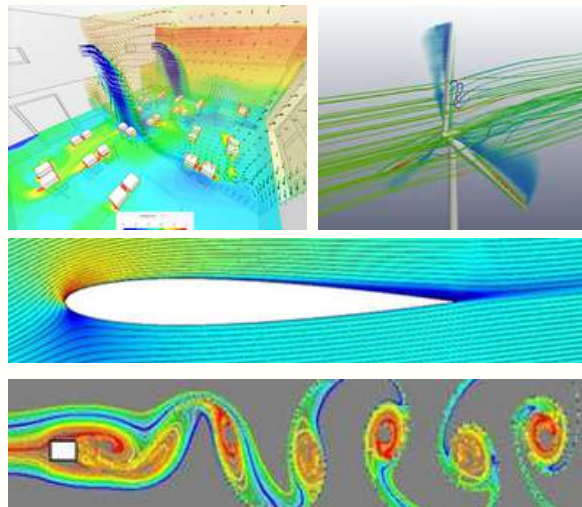
- 1) MR. BIPIN BIHARI MISHRA
- 2) PROF. JNANA RANJAN SENAPATI
- 2) PROF. SATYABRATA SAHOO
- 3) DR. SAURYA RAY
- 4) PROF. SANTANU DEY

SELECTION CRITERIA

The maximum number of participants is limited to 200 on a first-come, first-served basis, and the confirmed candidate will be notified by at the latest. The E-certificates shall be issued to all the active participants.

IMPORATANT DATE

the last date of registration is :
5th April 2026



ELIGIBILITY

The programme is open to all members of AICTE/UGC affiliated institutes/universities, i.e., faculty members, industry persons, research scholars, and students.

REGISTRATION

COURSE FEE(in INR)

- STUDENT 200/-
- ACADEMIC FACULTIES 400/-
- Registration is free for VSSUT participants.

REGISTRATION FORM

For registration use the following link:
<https://forms.gle/rNHXkZ6XVh9b5CXC9>

MODE OF PAYMENT (ONLINE ONLY):

Please transfer the fee amount to the following bank account (details given below). Attach the payment receipt along with the google form for registration (link mentioned above).

Bank Name: Canara Bank
VSS University of Technology, Burla, 768017

A/C NO: 80622200006637
IFSC Code: CNRB0018062

Online certificates will be given to the participants who attend all sessions of the course.

Contact for further information:

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