ABOUT THE INTERNSHIP

Overview: This internship provides a comprehensive introduction to **Computational Fluid Dynamics (CFD)** with practical training using **ANSYS Fluent and CFX.** It is designed to build theoretical understanding and hands-on simulation skills, enabling participants to solve real-world fluid flow and heat transfer problems.

Objectives:

- Understand the fundamentals of CFD.
- Learn to simulate fluid flow and heat transfer using ANSYS software.
- Apply CFD techniques to solve practical engineering problems.
- Gain exposure to industry-relevant case studies.

Key Learning Modules:

Introduction to CFD: Governing Equations: Navier-Stokes, Continuity, Energy, CFD vs. Experimental Methods.
Meshing Techniques: Structured vs. Unstructured Mesh, Mesh Quality & Independence Study.
Using ANSYS Workbench: Geometry Creation (Space Claim/ Design Modeler), Mesh Generation, Boundary Conditions Setup.
Solver Settings & Post-Processing: Turbulence Models (k-ε, k-ω, SST), Residual Convergence, Result Interpretation: Velocity, Pressure, and Temperature Plots.
Case Studies: Internal Flow in a Pipe, External Flow over an Airfoil, Heat Transfer in a Heat Exchanger, Mixing in a T-junction.

Internship Highlights

- Hands-on Training with ANSYS Fluent.
- Mini Projects and Industry-based Case Studies.
- Certificate of Completion.
- Suitable for Mechanical, Aerospace, Chemical & Civil Engineering Students.

Eligibility: B.Tech/ M.Tech students in relevant branch.

DURATION & COURSE FEE PER PARTICIPANT

Schedule: 1st June to 11th July 2026

Course fee: Rs. 1000/- payable to 'student fund'
A/C No. 10635508860, IFSC: SBIN0011812

To register go to the link given below:

https://forms.gle/1XCVA4dahTDkszNB7

ORGANIZING COMMITTEE

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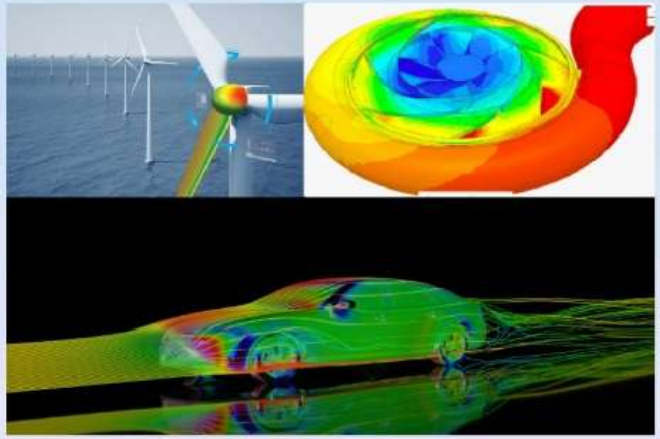
DEPARTMENT OF MECHANICAL ENGINEERING
BIT SINDRI, DHANBAD

'To Nurture Innovation and to Meet Industrial Demand'



Offers

SUMMER INTERNSHIP 6 Weeks

On

Computational Fluid Dynamics (CFD) Applications through ANSYS Software

1st June to 11th July 2026

AT
DEPARTMENT OF MECHANICAL ENGINEERING
BIT SINDRI, DHANBAD
JHARKHAND