

Job Opening

Principal Engineer: CFD development

Dept. of Applied Mechanics, IIT Delhi · pnair@am.iitd.ac.in · [Lab website](#)

We are looking for a CFD developer, with a research background in either HPC, turbulent flows (large eddy simulation), meshless methods or simulations involving complex geometry. The candidate will be reporting to [Dr. Prapanch Nair](#), [Prof. Amitabh Bhattacharya](#) and [Prof. Anupam Dewan](#) of IIT Delhi (click on their names for their respective websites).

This job contributes to the government's initiative for enabling transport through inland waterways.

Responsibilities

- In an in-house mesh-free solver, implementation/improvement of different physics such as rigid body coupling, LES and mesh imports.
- Comparative studies on effects of turbulence on partially submerged solids.
- Drag on complex shaped surfaces.
- Validation against experimental data at every stage.
- The project will be executed through scrum-like sprints. Hence, compliance to project management policy of the team is required.
- Educating stake-holders about usage of the software.
- Lead a team involving a senior project engineer and research fellows towards specific objectives of the project.

Qualifications

- PhD or Masters (followed by 3 years experience) in Mechanical/Chemical/Aerospace/Civil engineering or similar.
- Experience in CFD code development.
- Experience with either HPC, turbulent flows, meshless methods or simulations involving complex geometry.
- C++ (C is also acceptable) with knowledge in design patterns/software architecture.
- Experience with working in Linux based HPC environment.
- Excellent written and spoken communication skills in English .

Location, Duration and Pay

- Job location will be at IIT Delhi, New Delhi, India.
- Salary will be commensurate with IIT Delhi norms. For details see [this document](#).
- The initial appointment will be for 1 year which can be extended up to 3 years. Joining date can be as early as June, 2023.

Interested candidates may write to pnair@am.iitd.ac.in for more details and submitting the application.