

MALYADEEP BHATTACHARYA

 [Malyadeep Bhattacharya](#) |  +91-8250126169 |  malyadeep1999@gmail.com

Education

- **Sudhir Memorial Institute, Madhyamgram**
AISSE (Class – XII) – 93.3% | Year - 2018
- **National Institute of Technology, Durgapur**
Bachelor of Technology | Department of Mechanical Engineering | 2018 – 2022 (tentative)
CGPA – 9.07 (After completion of 7th Semester)
Departmental rank 6th out of 149 students.

Skills

- **Programming Languages:** C, C++, Python, LaTeX, PyDMD, MPI.
- **Tools:** OpenFOAM, CATIA, MATLAB, ANSYS, SU2, Paraview, Tecplot, Microsoft Office, Adobe Photoshop, Adobe Premiere Pro.

Research Interests

Computational Fluid Dynamics and Heat Transfer, Multiphase flows, Lattice Boltzmann Modelling, Data-driven modelling, High Performance Computing.

Projects

- “**Dynamics of a bottle emptying process**” (Ongoing)
Project Guide: Prof. R. Lakkaraju, IIT Kharagpur.
 - Investigating the complex flow structures, macroscopic characteristics and bubble formation involved in a bottle emptying process through OpenFOAM simulations.
 - Meshed the 3D CAD geometry in ICEM-CFD and converted it to OpenFOAM compatible file to run large scale simulations in High Performance Computing clusters.
- “**Lattice Boltzmann simulation of Forced Convection in a Laminar Wall jet flow**” (Accepted – ISHMT-IHMTC 2021)
Project Guide: Prof. Shantanu Pramanik, NIT Durgapur and Prof. T. Mondal, MNNIT Allahabad.
 - Studying the fluid flow and heat transfer characteristics in a laminar wall jet flow with embedded heaters using a Thermal Lattice Boltzmann Model and investigated the thermal similarity and rate of cooling by studying the variation in Nusselt number for different flow conditions.

Relevant Coursework and Certifications

- “*Simulation and Modelling of Natural Processes*” online course from University of Geneva through Coursera.Org.
- “*Introduction to Numerical Analysis*” online course from HSE University, Moscow through Coursera.Org.

Experience

- Summer trainee at Central Tool Room and Training Centre(CTTC), Bhubaneswar, (May 2019)
 - Fundamentals of CAD and CAM with CATIA and submission of a design report.
- Winter trainee at Calcutta Electric Supply Corporation(CESC) Ltd., (December 2019)
 - Hands on experience of monitoring and maintenance of different units in a Thermal Power Plant.
- Indian Academy of Sciences’ Summer Research Fellow at IIT Madras, (June 2021) (Remote)
 - Worked on the validation of an in-house Navier-Stokes solver for compressible flows and did a comparative study of different flux-reconstruction schemes followed by the submission of a final report.

Extra-Curricular Activities and Achievements

- Treasurer of Enteract, official dramatics club of NIT Durgapur.
- Won 2nd prize in Inter-college street play and Monoacting competition at IIT Kharagpur.
- Won 1st prize in inter-college street play and stage play competition at IIT-ISM Dhanbad.

Positions of Responsibility

- Class Representative (2020 – present).
- Treasurer, Enteract Club, NIT Durgapur.