



EDUCATION

Program	Institution	CGPA / %	Year of Completion
M.Tech Thermal Engineering	Indian Institute of Technology, Madras	9.17	2024
BE (Mechanical Engineering)	Jadavpur University, Kolkata	8.81/10	2021
Higher Secondary	D.A.V Model School, Durgapur	88%	2017

PROJECTS

- **Comparison of flow parameters between flow of rarefied gas and high-density fluid through a circular channel - BE Major Project:**
 - Compared flow parameters at pipe wall and discontinuities in velocity along with temperature were observed at pipe wall for rarefied gas flow.
 - Showed the variation of velocity profile with Knudsen number in the slip flow regime.
 - Flow Simulations were carried out in **ANSYS** and data analysis was done in **TECPLOT** and **EXCEL**.
- **Hyperloop Tube Design**
 - Optimized tube thickness with detailed cost analysis which resulted in **60% cost reduction** compared to major Hyperloop teams.
 - Performed **Non-Linear** and **Eigen Value Buckling** Simulation to quantify Factor of Safety.

CONFERENCE & PUBLICATION

- **“Unsteady Wake Dynamics past a triangular cylinder at incidence with a downstream semi-circular cylinder at Reynolds No. 100”.** (February'20)

Presented this work at International Conference on Innovations in Thermo-Fluid Engineering and Science (ICITFES) held at NIT Rourkela.

Description:

- Found the angle of incidence for which the heat transfer rate in maximum for the designed problem.
- Drag, Lift, Nusselt No., Strouhal No. were computed and validated with available literature.
- Numerical Simulation was carried out on **ANSYS Fluent** and data were analysed in **TECPLOT**, **EXCEL**.

POSITION OF RESPONSIBILITY

- **Team Lead** of Infrastructure subsystem in *Avishkar Hyperloop*, IIT Madras.
- **Deputy Placement Co-ordinator** for Department of Mechanical Engineering at IIT Madras.

RELEVANT COURSES

- Computational Heat and Fluid Flow
- Advanced Heat and Mass Transfer
- Measurements in Thermal Engineering
- Numerical Methods in Thermal Engineering
- Dispersed Multiphase Flow
- Microfluidics

TRAININGS

- **Industrial Vocational training at Mejia Thermal Power Station, DVC** (January'20)
 - Got a general overview of how a Thermal Power Station works.
 - Learned about working principle of various components of a Power Plant like Boiler System, ESP, Steam Turbine, Cooling Tower, Water Treatment Plant, etc.

➤ **Training Program on Vehicle Dynamics and Design**

(Dec'18-Jan'19)

Description:

- Learned design and simulation software SOLIDWORKS and ANSYS.
- Made some basic mechanical design on SOLIDWORKS and did structural and fluent simulation of it on ANSYS.

SKILLS

ANSYS, FUSION 360, SOLIDWORKS, CADLAB, MATLAB, C++

SCHOLASTIC ACHIEVEMENT

- GATE 2022 Mechanical Engineering: AIR-203, Score - 816/1000
- Secured Class Rank 3 in first semester of M.Tech at IIT Madras.