

# **Project Title:**

Development of a Reduced-Order-Model from Synthetic CFD Data using Convolutional Neural Network

## **Weekly Progress Report**

**Week 4: (Mar 3 - Mar 9, 2025)**

### **Tasks Completed:**

- Computed summary statistics for each parameter (Temperature, Velocity, and Pressure).
- Prepared parameter-wise datasets for training.
- Reviewed initial dataset structure for model training.

### **Challenges Faced:**

- Ensuring balanced dataset representation across different parameters.
- Deciding on normalization techniques for data pre-processing.

### **Tasks Planned for Next Week:**

- Begin development of CNN-based Reduced-Order Model (ROM).
- Define model architecture and hyper parameters.