FOSSEE, IIT Bombay
OpenFOAM Case Study
Project12 April, 2024

Synopsis

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April 2024

"Effect of Air Conditioner on the Ventilation of Nuclear Lab, IIT Bombay"

This case study investigates the impact of air conditioning systems on ventilation within a nuclear laboratory environment, specifically at the Indian Institute of Technology Bombay (IIT Bombay). The study aims to assess how air conditioning affects the ventilation rates, air residence time within the laboratory. By examining the existing ventilation systems and introducing air conditioning, the study seeks to provide insights into optimizing environmental conditions for nuclear research while maintaining safety standards, particularly focusing on reducing air residence time.

References:

[1] Wilcox, D. C. (1998). Turbulence modeling for CFD. La Canada, Calif: DCW Industries.
[2] Nguyen, V.-B., Do, Q.-V., & Pham, V.-S. (2020). An Open-FOAM solver for multiphase and turbulent flow. In Physics of Fluids (Vol. 32, Issue 4, p. 043303). AIP Publishing.
[3] Ventilation Analysis of Nuclear Lab, IIT Bombay for Open-Foam Documentation.