INDIAN INSTITUTE OF TECHNOLOGY BOMBAY
POWAI, MUMBAI 400076.

Advertisement No.: IRCC/EXT379/2023

Job Title
Project Research Associate

Job Reference Number
50513019

Application End Date
08.11.2023

Type of Employment
Proj. Staff Contract

No. of Position(s)
 1

IITB Project Recruitment:

Project title: Real-time assessment of ventilation using commercial CO2 sensors in high-occupancy spaces

About the project: This project aims to use Computational Fluid Dynamics (CFD) to determine the air flow circulation in indoor spaces and identify recirculation zones that trap infectious particles. By predicting the air residence time and time scale of evacuation of pollutants using CFD, this project will feed CFD data and pathogen information into a Reactor Model framework to provide the infection probability and safe exposure time in a room. The location and size of recirculating zones in a room will be determined, which will be important in the placement of sensors that detect IAQ and optimizing the number of sensors required. The project has potential applications in controlling the spread of infectious diseases in indoor settings and optimizing ventilation systems while reducing energy consumption.

Essential Qualifications & Experience:
MTech/ME/MDes or equivalent degree
OR
BTech/BE/MA/MSc/MCA/ MBA or equivalent degree with 2 years relevant experience

Job Profile:
The primary responsibility of the candidate will be to:
i) deploy and collect data from low costs sensors, and
ii) develop and analyse CFD simulations to track tracer gas flows in classrooms under various settings and interventions,
iii) Support with grant management and communication with a larger team of researchers,
iv) Support with development of reports, presentations and research publications as directed by the PIs.
The candidate is expected to have good technical communication skills and work with a team of interdisciplinary researchers.

 Prior work experience in developing or deploying LCS for air quality applications desirable.

Pay Details:
Level PR-O1: Salary range from Rs.33600 to Rs.67200 + Rs.6250.00/- Out Of Campus Allowance (if

applicable) p.m.

General information:

The position is temporary for a period of 1 year and tenable only for the duration of the project. The appointment is for time bound project and the candidate is required to work mainly for the successful completion of the project. The selection committee may offer lower or higher designation and lower or higher salary depending upon the experience and performance of the candidate in the interview.

Candidates called for interview will be required to attend at his/ her own expenses.

For any queries/clarification please contact: recruit@ircc.iitb.ac.in