

Job: Postdoctoral Associate

Apply here: <https://forms.gle/3aUGS7TrbpoKXYVP7>

About the project: IIT Bombay is the lead institution of the National Disease Modelling Consortium (NDMC). The consortium partners with various institutions across the country for disease modelling research. The consortium aims to develop India-specific disease models to address policy and programmatic questions, to improve disease control and intervention strategies in the country. More information about the consortium can be found at www.ndmconsortium.com

Educational qualification required:

PhD in Engineering/Mathematics/Statistics/Sciences/Computational Biology

Job Profile:

The selected candidate will contribute to one or more the following areas:

- Develop and apply mathematical and statistical models (for example, differential equations, stochastic processes, and agent-based models) to address core research questions towards infectious disease dynamics.
- Analyze disease surveillance data to inform prevention and control strategies
- Collaborate with interdisciplinary teams to design and evaluate public health interventions.
- Support evidence-based decision-making through analysis of epidemiological and demographic data.
- Contribute to the development and maintenance of open-source tools for disease modeling.
- Publish findings in peer-reviewed journals and present at national and international conferences.
- Perform additional duties as assigned.

Desirable Skills

- Strong foundation in **infectious disease modeling** (compartmental, agent-based or network models), **women and child health** or **environmental surveillance**
- Advanced **programming skills** (R, Python, MATLAB, TreeAge etc.).
- Experience with **data visualization**, generalized linear models and Bayesian inference.
- Knowledge of **machine learning** for disease modeling.
- Familiarity with public health data sources (WHO, IHME, CDC).
- Experience in collaborating with policymakers or public health agencies will be a plus.