

Job: Senior Project Research Scientist

Apply here: <https://forms.gle/mGfLGQ8NdEdJKyPu5>

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.

NDMC hosts the TB Modelling Secretariat at IIT Bombay in collaboration with CTD, MoHFW, Imperial College London, and other relevant stakeholders. The Secretariat coordinates TB modelling activities, supports capacity-building and mentorship programmes, and facilitates engagement among National TB Elimination Programme (NTEP), academic institutions, and modelling partners. It supports TB modelling for the NTEP and facilitates the dissemination of modelling evidence.

More information about the consortium can be found at www.ndmconsortium.com

Educational qualification required:

PhD in Engineering/Mathematics/Statistics/Sciences/Computational Biology + 2 years relevant experience

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).
- Experience with Bayesian calibration methods, MCMC, and inference.
- Advanced **programming skills** (R, Python, MATLAB, TreeAge etc.).
- Experience with **data visualization**, generalized linear models and statistical modelling.
- 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.