**Job : Project Research Scientist III**

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**Project title**: **NDMC Phase II: Developing Models to Estimate and Project Disease Burden to Inform Control and/or Elimination Strategies for Priority Diseases in India**

**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

**Essential Qualifications & Experience:**

**PhD in Engineering** / **MTech/ME/MDes** or equivalent degree **with minimum 3 years** relevant experience/ **BTech/BE/BDes** or equivalent engineering degree with **minimum 5 years** of experience

OR

**PhD in Sciences/Economics/Biostatistics/Demography/Public Health/Pharmaceutical Science** with **minimum 2 years** relevant experience / **MSc** with **5 years** experience

**Job Profile:**

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

- Analyze disease surveillance data to inform prevention and control strategies
- Estimate disease burden and its contributing factors using advanced statistical techniques and large-scale datasets.
- Develop and apply mathematical and statistical models to understand infectious disease dynamics.
- 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 and burden estimation.
- Analyze cost data from varied sources, including but not limited to administrative, existing literature, and clinical trials
- Model healthcare costs and expenditures using econometric and statistical models
- Decision modelling involving the construction and analysis of decision trees, and designing Markov models
- 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).
- Advanced **programming skills** (R, Python, MATLAB, TreeAge etc.).
- Experience with **data visualization,** generalized linear models and Bayesian inference.
- Familiarity with **disease burden metrics** (e.g., DALYs, YLLs, YLDs).
- Experience in **geospatial analysis** and mapping disease burden.
- Knowledge of **machine learnin**g for disease modeling.
- Experience with conducting or knowledge of decision modelling for **health economic evaluations** and econometric analysis
- Familiarity with public health data sources (WHO, IHME, CDC).
- Experience in collaborating with policymakers or public health agencies will be a plus.

**Pay Details:** Consolidated salary 78,000+HRA (if applicable) p.m