



Department of Biotechnology

INDIAN INSTITUTE OF TECHNOLOGY MADRAS

Sardar Patel Road, Adyar, Chennai – 600 036.

List of PhD project vacancies for January 2026 session

| Biological Engineering | | |
|------------------------|-------------------|--|
| 1 | Athi N Naganathan | Molecular Mechanisms Underlying Biofilm Formation in Bacteria |
| 2 | M Hamsa Priya | Exploring the mechanism of peptide self-made assembly through MD simulations |
| 3 | Richa Karmakar | Lab-on-chip technology for biomaterial applications |

| Biological Sciences | | |
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| 1 | Rayala Suresh Kumar | Exploring tumor micro environment (TME) for therapeutic targeting in cancer |
| 2 | Nathiya Mythalagu | Neuroendocrine plasticity in cancer progression and metastasis |
| 3 | Michael Gromiha | Investigating functionally important residues and disease hotspots in protein |
| 4 | Nitish Mahapatra | Molecular mechanisms of cardiometabolic diseases |
| 5 | Mamta Bangera | Implications of microtubule curling in neurons |
| 6 | Vani J | Understanding novel receptors at neuro-immuno interface in context of respiratory infections |

| Computational Biology | | |
|-----------------------|--------------------------|---|
| 1 | V Srinivasa Chakravarthy | Modeling the whole brain as a system of Reinforcement Learning agents |
| 2 | Michael Gromiha | Development of AI based methods for drug-target interactions |
| 3 | M. Hamsa Priya | Exploring the mechanism of peptide self-assembly through MD simulations |
| 4 | Richa Karmakar | Computational Modeling of Collective Chemotaxis Dynamics |
| 5 | Vani J | Virus infections and autoimmune responses |



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List of MS project vacancies for January 2026 session

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| Biological Engineering |
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| Biological Sciences | | |
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| 1 | Santhosh Sethiramanujam | Investigating the neuronal mechanisms driving the optokinetic reflex in mice |
| 2 | Vani J | Understanding immunology of respiratory infections |

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| Computational Biology | | |
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| 1 | M. Hamsa Priya | ML aided MD simulations for glycan conformational sampling |
| 2 | Richa Karmakar | Computational analysis of cell-cell interaction during chemotaxis |
| 3 | Mamata Bangera | Role of tubulin isoforms in determining microtubule architecture |
| 4 | Vani J | Virus infections and autoimmunity |