

## Narmada Sambaturu

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New Biological Sciences Building,  
Indian Institute of Science,  
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**Research Interests** Computational Biology, Systems Biology, Immunology, Cancer Genomics, Cancer Immunotherapy, Host-Pathogen Interactions, Epidemiology, Network Approaches to Systems Biology.

**Education** **Doctor of Philosophy, Mathematical Biology Program,** 2015 - ongoing  
National Mathematics Initiative,  
Indian Institute of Science, Bengaluru, India.  
Supervisors: Prof. Nagasuma Chandra, Prof. N. Srinivasan.

**Master of Science, School of Computing,** 2012 - 2015  
National University of Singapore, Singapore.  
Supervisor: Prof. Wing-Kin Sung.

**Bachelor of Engineering, Computer Science and Engineering,** 2005 - 2009  
M.S.Ramaiah Institute of Technology, Bengaluru, India.  
affiliated to Visvesvaraya Technological University.

**Research Experience**

- **PhD student,** 2015 - ongoing  
Mathematical Biology Program, National Mathematics Initiative,  
Indian Institute of Science, Bengaluru, India.  
Supervisors: Prof. Nagasuma Chandra, Prof. N. Srinivasan.
- **Visitor,** Oct 2016 - Dec 2016  
Department of Applied Mathematics,  
School of Mathematics,  
University of Leeds, Leeds, UK  
Research advisors: Prof. Carmen Molina-París, Prof. Grant Lythe.
- **Junior Research Fellow,** Mar 2015 - Jul 2015  
Indian Institute of Science, Bengaluru, India.  
Research advisor: Prof. Nagasuma Chandra.
- **Intern,** Aug 2006  
Bioinformatics Centre,  
Indian Institute of Science, Bengaluru, India.  
Research advisor: Prof. K. Sekar.

**Work Experience** **Developer, Tata Consultancy Services** 2009 - 2011  
Technology Excellence Group,  
Bengaluru, India.

**Teaching Experience** **Learning Enabler, Tata Consultancy Services** Jan 2010 - Feb 2010  
Common Initial Learning Program,  
Bidadi, Karnataka, India.

<b>Publications</b>	<ol style="list-style-type: none"> <li>1. <b>Sambaturu, Narmada</b>, Madhulika Mishra, and Nagasuma Chandra. <i>EpiTracer - An Algorithm for Identifying Epicenters in Condition-specific Biological Networks</i>. BMC genomics 17.4 (2016): 543.</li> <li>2. <b>Sambaturu, Narmada</b>, Madhulika Mishra, and Nagasuma Chandra. <i>EpiTracer - An Algorithm for Identifying Epicenters in Condition-specific Biological Networks</i>. Proceedings of the 2015 IEEE International Conference on Bioinformatics and Biomedicine (BIBM). IEEE Computer Society, 2015. (Best Student Paper)</li> <li>3. <b>Sambaturu, Narmada</b> <i>Towards Handling Repeats in Genome Assembly</i>. MSc dissertation, 2014.</li> <li>4. Sridhar, Jayavel, <b>Sambaturu, Narmada</b>, Radhakrishnan Sabarinathan, Hong-Yu Ou, Zixin Deng, Kanagaraj Sekar, Ziauddin Ahamed Rafi, and Kumar Rajakumar. <i>sRNAscanner: A Computational Tool for Intergenic Small RNA Detection in Bacterial Genomes</i>. PLOS ONE 5, no. 8 (2010): e11970</li> <li>5. Patil, Annapurna P, <b>Sambaturu, Narmada</b>, Chunhaviriyakul, Krittaya. <i>Convergence Time Evaluation of Algorithms in MANETs</i> International Journal of Computer Science and Information Security, IJCSIS 2009, Vol. 5, No. 1, pp. 144-149, September 2009</li> </ol>
<b>Workshop and conference presentations</b>	<ul style="list-style-type: none"> <li>• <b>Sambaturu, Narmada</b>, Sridhar Hannehalli, Nagasuma Chandra. Poster. <i>Cutting through the complexity of genomic data: A general method to identify candidate genes</i>. RECOMB/ISCB Conference on Regulatory and Systems Genomics with DREAM Challenges, New York, NY, Nov 19 - 21 2017.</li> <li>• <b>Sambaturu, Narmada</b>, Sumanta Mukherjee, Martín López-García, Carmen Molina-París, Gautam I. Menon, Nagasuma Chandra. <i>Role of genetic heterogeneity in determining the epidemiological severity of H1N1 influenza</i>. Discussion meeting on Mathematical Models of Infection, Immunity and Inflammation, Indian Institute of Science, Bengaluru. In association with the EPSRC-DST Indo-UK Initiative in Applied Mathematics and the EU-FP7 supported Indo-European Research Network in Mathematics for Health and Disease. April 2017.</li> </ul>
<b>Graduate Coursework</b>	<p>MSc (NUS): Advanced Combinatorial Methods in Bioinformatics, Advanced Algorithms, Knowledge Discovery and Data Mining, Modeling and Analysis Techniques in Systems Biology, Advanced Topics in Data Mining.</p> <p>PhD (IISc): Current Trends in Drug Discovery, Special Topics in Theoretical Biology.</p>
<b>Computer Skills</b>	<p>Languages: Python, R, MATLAB, C, C++, Java, Perl, HTML.</p> <p>Bioinformatics tools: Cytoscape, BLAST, CLUSTALW, IEDB tools, SAMtools, BWA.</p>
<b>Awards</b>	<ul style="list-style-type: none"> <li>• Best Student Paper Award, 2015 IEEE International Conference on Bioinformatics and Biomedicine (BIBM).</li> <li>• One of 50 students selected from all over India for participation in a summer camp in Biotechnology at M.S.Swaminathan Research Foundation, Chennai, India (April 2013).</li> <li>• All India Rank 25 in Secondary School Certificate (Std X) (2003).</li> </ul>