

## Ashish Anand

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CONTACT INFORMATION	H 008 Department of Computer Sc and Engg Indian Institute of Technology Guwahati Guwahati Assam 781039, India	<i>Phone:</i> +91-361-258 2374 <i>Fax:</i> +91-361-269 0762 <i>E-mail:</i> anand.ashish@iitg.ac.in <i>url:</i> www.iitg.ernet.in/~anand.ashish
RESEARCH INTERESTS	Computational Systems Biology, Clinical Data Mining, Natural Language Processing, Machine Learning, Evolutionary Algorithms	
EDUCATION	<b>Nanyang Technological University, Singapore</b> Ph.D., Department of Electrical and Electronics Engg, March 2009 <ul style="list-style-type: none"><li>• Dissertation Topic: “Computational Intelligence Approach for Classification and Temporal Clustering in Bioinformatics”</li><li>• Advisor: P N Suganthan</li></ul> <b>Indian Institute of Technology Kanpur, India</b> <i>Department of Mathematics and Statistics</i> M.Sc.(Int-5Yrs), Mathematics and Sc Computing, May 2002 <ul style="list-style-type: none"><li>• Thesis: “Representation and learning of inexact information using Rough Set Theory”</li><li>• Advisor: Mohua Banerjee</li></ul>	
HONORS AND AWARDS	NTU Reseach Scholarship, Jan, 2006 - Feb, 2009 Student Travel Support Award, Third Int Conference on PRIB, Melbourne 2008	
PROFESSIONAL EXPERIENCE	<b>Indian Institute of Technology Guwahati, India</b> , Department of Computer Science and Engg <i>Assistant Professor</i> <b>February, 2011 - present</b>  <b>Institut Pasteur, Paris, France</b> , Systems Biology Lab <i>Post Doctoral Fellow</i> <b>Sep, 2009 - Dec, 2010</b>  <b>Nanyang Technological University, Singapore</b> , School of EEE <i>Research Associate</i> <b>Feb, 2009 - Aug, 2009</b>  <b>Indian Institute of Technology Kanpur, India</b> , Dept of Biological Sciences and Bioengineering <i>Project Associate</i> <b>Aug, 2004 - Dec, 2005</b>  <b>Biomedicum, University of Helsinki, Finland</b> , Androgen Receptor Lab <i>Visiting Research Student</i> <b>Oct, 2002 - July, 2004</b>	
H-INDEX	7 [August, 2015]	
PUBLICATIONS	<b>Journal</b> <ul style="list-style-type: none"><li>• M Paul, R Anand, A Anand. 2015. Detection of Highly Overlapping Communities in Complex Networks, <i>Journal of Medical Imaging and Health Informatics</i>, American Scientific Pub 5:1099-1103.</li><li>• A Anand, G Pugalenthi, G B Fogel, and P N Suganthan. 2010. An approach for classification of highly imbalanced biological data using weighting and undersampling. <i>Amino Acids</i> 39(5): 1385-1391</li></ul>	

- A Anand, G Pugalenthi, G B Fogel, and P N Suganthan. 2010. Identification and analysis of transcription factor family-specific features derived from DNA and protein information. *Pattern Recognition Letters* 31: 2097-2102
- A Anand and P N Suganthan. 2009. Multiclass cancer classification by support vector machines with class-wise optimized genes and probability estimates. *Journal of Theoretical Biology* 259(3): 533-540
- A Anand, G Pugalenthi, and P N Suganthan. 2008. Predicting protein structural class by SVM with class-wise optimized features and decision probabilities. *Journal of Theoretical Biology* 253: 375-80
- H Santti, L Mikkonen, A Anand, S Hirvonen-Santti, J Toppari, M Panhuysen, F Vauti, M Perera, G Corte, W Wurst, O A Janne, J J Palvimo. 2005. Disruption of the murine PIASx gene results in reduced testis weight. *Journal of Molecular Endocrinology* 34(3): 645-54
- K Deb, A Anand, D Joshi. 2002. A computationally efficient evolutionary algorithm for real-parameter optimization. *Evolutionary Computation*, MIT Press 10(4): 371-395

### Conferences

- Muneeb TH, S K Sahu, A Anand. 2015. Evaluating distributed word representations for capturing semantics of biomedical concepts. *Inproceedings of the ACL-BioNLP 2015 workshop*, Beijing China.
- M Paul, R Anand, A Anand. 2014. Detection of Highly Overlapping Communities in Complex Networks, 5th International Conference on Computational Systems-Biology and Bioinformatics 2014, Singapore.
- G Priyadarshini, A Anand. 2014. Inferring Disease Correlation from Healthcare Data, National Conference on Medical Informatics 2014, AIIMS, New Delhi
- A Anand, Nikhil R Pal and P N Suganthan. 2010. Integration of Functional Information of Genes in Fuzzy Clustering of Short Time Series Gene Expression Data In *Proceedings of IEEE Congress on Evolutionary Computation*, 2010, Barcelona.
- A Anand, G B Fogel, G Pugalenthi, P N Suganthan. 2008. Prediction of Transcription factor families using DNA sequence features M Chetty, A. Ngom and S. Ahmad (Eds.): *Third International Conference on Pattern Recognition in Bioinformatics*, LNBI 5265, pp. 154-164, 2008
- A Anand, P N Suganthan, K Deb A novel fuzzy and multiobjective evolutionary algorithm based gene assignment for clustering short time series expression data In *Proceedings of IEEE Congress on Evolutionary Computation*, Singapore, 2007
- A Anand, G Fogel, E K Tang, P N Suganthan. 2006. Feature selection approach for quantitative prediction of transcriptional activities In *Proceedings of the 2006 IEEE Symposium on Computational Intelligence in Bioinformatics and Computational Biology*, pp. 57-62, 2006
- K Deb, D Joshi, A Anand. 2002. Real-coded evolutionary algorithms with parent-centric recombination In *Proceedings of the IEEE Congress on Evolutionary Computation*, pp. 61-66, 2002

### Book Chapters

- M Banerjee, S Mitra, and A Anand. 2006. Feature selection using Rough Set. *Multiobjective machine learning*. Springer Series on Computational Intelligence. Yaochu Jin(Eds), pp. 3-20.

### Posters

- Pranav Gupta, A Anand. 2013. Multi-label classification with label clustering. *1st Indian workshop on Machine Learning*, IIT Kanpur India.
- Ruegheimer F, Anand A, Schwikowski B. 2011. A software architecture for de Novo induction of regulatory network from expression data. *Proceedings of JOBIM 2011*, Paris, France
- A Anand, S Drulhe, F Gwinner, F Ruegheimer, P Bochet, B Schwikowski. 2010. Inferring a latent regulation network for *Bacillus subtilis* using a kernel matrix completion approach. *11th International Conference on Systems Biology, ICSB, 2010*, Edinburgh.

PROFESSIONAL  
SERVICES

*Reviewer (Journals):* Pattern Recognition, IEEE Trans. on Evolutionary Computation, Biosystems.

INVITED TALKS

Workshop on GA for Engineering Optimization, 2014, IIT Guwahati

NNMCB-Recent Advances in Mathematical and Computational Biology Research, 2014 Tezpur University

DBT Workshop on Analysis of Biological Networks, 2012, IIT Guwahati

Computational challenges in analyzing biological networks. 2011, Assam Engineering College, Guwahati

Clustering and classification algorithms. Affymetrix users group meeting 2005 (Asia-Pacific Region) Singapore

ADMINISTRATIVE  
SERVICES

Convener, Post Graduate Admissions Committee 2014

Member, Post Graduate Admissions Committee 2013

Faculty Advisor, Undergraduate Batch 2012-16

Member, Department Undergraduate Programme Committee July 2015 onwards