Curriculum Vitae

Dr. Anirban Mukhopadhyay

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University of Kalyani	Mobile: +91 98740 43858
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Address of Residence	21 A/2, Satya Charan Sastri Street, P.O.-Rishra, Dist.-Hooghly PIN-712248, West Bengal, India
Nationality	Indian
Date of Birth	August 15, 1979
Gender	Male
Languages spoken	English, Bengali, Hindi

Academic Background

- Ph.D.(Engg.) in Computer Science, Jadavpur University, Kolkata, India, 2009. (**Thesis Title - Algorithms for Data Clustering: Application to Knowledge Discovery.**)
- Master of Engineering in *Computer Science and Engineering*, Jadavpur University, India, 2004 **(84.93%, 1st class, 1st rank)**.
- Bachelor of Engineering in *Computer Science and Engineering* from National Institute of Technology (Formerly Regional Engineering College), Durgapur India, 2002 **(80.0%, 1st class, Hons., 5th rank)**.
- Higher Secondary (10+2) Examination in *Science (Physics, Chemistry, Mathematics, Biology)*, Serampore Union Institution, Serampore, West Bengal, India, 1998 **(90.9%, 1st division, 12th rank in West Bengal out of approx 3,00,000 candidates)**.
- Secondary (10th Class) Examination, Mahesh Sri Ramkrishna Ashram Vidayalaya, Mahesh, West Bengal, India, 1996 **(90.15%, 1st division, 28th rank in West Bengal out of approx 5,00,000 candidates)**.

Research Interests

Soft and Evolutionary Computing, Multiobjective Optimization Computational Biology, Data Mining, Crowdsourcing, Computational Economics, Optical Networks

Work Experience

India

- Professor, Department of Computer Science and Engineering, University of Kalyani, Kalyani, India, since April 2015 till date.
- Associate Professor, Department of Computer Science and Engineering, University of Kalyani, Kalyani, India, since April 2012 to April 2015.

- Head, Department of Computer Science and Engineering, University of Kalyani, Kalyani, India, since September 2012 to September 2014.
- Assistant Professor, Department of Computer Science and Engineering, University of Kalyani, Kalyani, India, since August 2009 to April 2012.
- Lecturer, Department of Computer Science and Engineering, University of Kalyani, Kalyani, India, from October 2004 to August 2009.
- Lecturer, Department of Computer Science and Engineering, Meghnad Saha Institute of Technology, Kolkata, India, from July 2004 to October 2004.

Abroad

- Visiting Researcher (With Fulbright-Nehru fellowship), Computer Science Department, Colrado State University, Fort Collins, USA from November 2017 to February 2018.
- Visiting Scientist (with DAAD scholarship), Institute of Bioinformatics, University of Goettingen, Goettingen, Germany, from May 2013 to June 2013.
- Visiting Professor, I3S Laboratory, University of Nice Sophia-Antipolis, Nice, France, from April 2011 to May 2011.
- Post-doctoral Research Fellow, Department of Theoretical Bioinformatics, German Cancer Research Center (DKFZ), Heidelberg, Germany, from September 2009 to June 2010.

Courses Taught

Database Management System, Computer Architecture and Organization, Operating Systems, Data Structure, Artificial Intelligence, Soft Computing, Bioinformatics, Data Mining.

Awards/Fellowships

- Received Fulbright-Nehru Academic and Professional Excellence (FNAPE) fellowship 2017-18 for research visit to Colorado State University, USA (November 2017-February 2018).
- Received INAE Young Engineer Award 2014 by Indian National Academy of Engineering, India (December 2014).
- Received IEI Young Engineers Award 2013-14 in Computer Engineering Discipline by Institution of Engineers, India (January 2014).
- Awarded by University of Kalyani, India for contribution in academic and administrative cohesion (January 2014).
- Received DAAD scholarship for research visit at University of Goettingen, Germany (May-June 2013).
- Received second best paper award in the seventh International Conference on Bioinspired Computing: Theories and Applications (BIC-TA 2012) held in Gwalior, India (December 2012).
- Received special paper award in the category of "related fields" in the second IEEE International Conference on Parallel, Distributed and Grid Computing (PDGC 2012) held in Solan, India (December 2012).
- Elevated to IEEE Senior Member grade (2011).
- Post-doctoral fellowship at Heidelberg University and German Cancer Research Center, Germany, under Erasmus Mundus Mobility with Asia (EMMA) (2009).
- Biography has been included in the 2009 Edition of *Marquis Who is Who in the World*.
- Awarded by Jawaharlal Nehru Memorial Fund, New Delhi, for ranking 1st class 1st in M.C.S.E. from Jadavpur University (2004).

- Amitava Dey Memorial Gold Medal for ranking 1st class 1st in Master of Computer Science and Engineering from Jadavpur University (2004).
- University Gold Medal for ranking 1st class 1st in Master of Computer Science and Engineering from Jadavpur University (2004).
- National Fellowship during Master of Engineering on the basis of GATE–2002 (2002-2004).
- Merit scholarship by Regional Engineering College, Durgapur for good academic performance (2001-2002).
- Awarded by West Bengal Council of Higher Secondary Education, for ranking 12th in Higher Secondary Examination, 1998 in West Bengal.
- Awarded National Scholarship by D.P.I., West Bengal, for ranking 28th in Secondary Examination, 1996 in West Bengal.

Memberships in Professional Bodies

- Senior Member of Institute of Electrical and Electronic Engineers (IEEE), USA (**Membership No. 90467842**).
- Member of IEEE Computational Intelligence Society (**Membership No. 90467842**).
- Secretary of IEEE Computational Intelligence Society, Kolkata Chapter (2015-2016).
- Member of Association for Computing Machinery (ACM) (**Membership No. 8653987**).
- Member of International Association of Engineers (IAENG), Hong Kong (**Membership No. 101639**).

Editorial/Reviewing Activities

- Edited a thematic series on "Machine Learning and Graph Algorithms for Analysis and Prediction of Protein Structures, Functions and Interactions" to be published in *BMC Algorithms for Molecular Biology.*
- Edited the proceedings of the First International Conference on Computational Intelligence: Modeling, Techniques and Applications (CIMTA-2013) published in Procedia Technology, Vol. 10, Elsevier, 2013.
- Edited the proceedings of the Second International Conference on Information Systems Design and Intelligent Applications (INDIA-2015) published in AISC, Springer, Vol. 339 & 340, Springer, 2015.
- Organized Special sessions in IEEE WCCI 2016, Vancouver, Canada, IEEE SSCI 2018, Bengaluru, India and IEEE CEC 2019, Wellington, New Zealand.
- Acting as a reviewer of the following journals:
  - IEEE Transactions on Geoscience and Remote Sensing
  - IEEE Transactions on Evolutionary Computation
  - IEEE Transactions on Engineering Management
  - IEEE Transactions on Fuzzy Systems
  - IEEE Transactions on Systems, Man and Cybernetics
  - IEEE Transactions on Knowledge and Data Engineering
  - IEEE/ACM Transactions on Computational Biology and Bioinformatics
  - IEEE Transactions on Biomedical Engineering
  - IET Image Processing
  - Bioinformatics
  - BMC Bioinformatics
  - PLOS ONE
  - Algorithms for Molecular Biology
  - Molecular Biosystems

  - Information Sciences
  - Pattern Recognition Letters
  - Journal of Computers and Industrial Engineering
  - International Journal of Computer Mathematics
  - Applied Soft Computing
  - Computer Methods and Programs in Biomedicine
  - International Journal of Information Technology and Decision Making
  - Applied Mathematics Letters
  - Applied Mathematical Modelling
  - Transactions on Fuzzy Systems
  - Computers in Biology and Medicine
  - Neurocomputing
  - Molecular Biology Reports
  - Soft Computing

- Member of Program Committee of the following National and International Conferences:
  - International Conference on Advances in Recent Technologies in Communication and Computing (ARTCOM-2009), Kerala, India.
  - International Conference on Control, Communication and Power Engineering (CCPE-2010), Chennai, India, July 2010.
  - Second International Conference on Advances in Computing, Control, and Telecommunication Technologies (ACT-2010), Jakarta, Indonesia, December 2010.
  - Second International Conference on Control, Communication and Power Engineering (CCPE-2011), Pune, India, November 2011.
  - International Joint Journal Conferences in Computer, Electronics and Electrical (CEE-2011), 2011.
  - International Conference on Recent Trends in Information Systems (RETIS-2011), Kolkata, India.
  - National Conference on Computing and Communication Systems (NCCCS-2012), Durgapur, India, November 2012.
  - 24th International Conference on Computational Linguistics (COLING-2012), Mumbai, India, December 2012.
  - International Conference on Intelligent Infrastructure (CSI-2012), Kolkata, India, December 2012.
  - International Conference on Computational Intelligence: Modeling, Techniques and Applications (CIMTA-2013), Kalyani, India, September 2013 (as Program Co-chair).
  - International Conference on Information Systems Design and Intelligent Applications (INDIA-2015), Kalyani, India, January 2015.
  - International Conference on Recent Trends in Information Systems (RETIS-2015), July 2015, Kolkata, India.
  - Computational Mathematics and Applications Conference (CMA-2016), January 2016, Bangkok, Thailand.
  - IEEE Tensymp-2019, June 2019, Kolkata, India.

- Reviewed research project proposals for following funding agencies:
  - University Grants Commission (UGC), North East Regional Office (NERO), India.
  - Department of Science & Technlogy (DST), Govt. of India.
  - Austrian Science Fund (FWF), Austria.
  - Swiss National Science Foundation, Switzerland.

Academic/Administrative Activities

- Acted as the Head of the Department, Department of Computer Science and Engineering, University of Kalyani, Kalyani, India during September 2012 - September 2014.
- Acted as a member of the Executive Council, University of Kalyani, West Bengal, India during March 2014 - September 2014.
- Acted as a member of the Court, University of Kalyani, West Bengal, India during September 2012 - September 2014.
- Acted as a member of the Faculty Councils, Faculty of Engineering, Technology and Management during September 2012 - September 2014 and during April 2015 till date.
- Acted as the Chairman of Departmental Research Committee, Department of Computer Science and Engineering, University of Kalyani, Kalyani, India during September 2012 - September 2014.
- Acted as the Chairman of the post graduate board of studies in Computer Science and Engineering, University of Kalyani, Kalyani, India during September 2012 - September 2014.
- Member of undergraduate board of studies in Computer Science, University of Kalyani, Kalyani, India during January 2005 till date.
- Acting as the Coordinator, Kalyani University Research Wing during August 2018 till date.
- Member of the working committee of Bioinformatics Infrastructure Facility (BIF) Center, University of Kalyani, Kalyani, India in 2006.
- Acted as paper setter, moderator and examiner in different examinations in other universities such as Jadavpur University, Kolkata; University of Calcutta, Kolkata; Visbha-Bharati University, Shantiniketan, W.B.; Vidyasagar University, W.B.; The University of Burdwan, W.B., University of Gour Banga, W.B., Maulana Abul Kalam Azad University of Technology, Kolkata.
- Acted as expert for interview of project-linked personnel in Jadavpur University, Indian Statistical Institute, Kolkata, and National Institute of Biomedical Genomics, Kalyani.
- Acted as paper setter of Higher Secondary Examinations, West Bengal and Public Service Commission, West Bengal.
- Acted as examiner in West Bengal School Service Examinations.
- Acted as subject expert in West Bengal College Service Commission Interviews in 2019.

Invited Lectures

India

1. "*Data Models*", Workshop on Database Management Systems, Department of Biotechnology, National Institute of Technology, Durgapur, India, July 2007.
2. "*Genetic Algorithm based Clustering: Application to Microarray Gene Expression Data*", One day state level seminar on Aspects of Computational Intelligence, RCC Institute of Information Technology, Kolkata, India, November 2008.
3. "*Multiobjective Optimization: Application to Clustering and Biclustering of Microarray Data*", Winter school on Data Mining, Department of Computer Science and Engineering, National Institute of Technology, Durgapur, India, January 2009.
4. "*Fundamentals of Genetic Algorithms and Multiobjective Optimization: Applications in Bioinformatics*", Tripura Institute of Technology, Agartala, Tripura, July 2011.
5. "*Multiobjective Interactive Fuzzy Clustering of Gene Expression Data*", Indian Statistical Institute, Kolkata, India, September 2011.

6. "*Multiobjective Optimization and its Applications Data Mining and Bioinformatics*", RCC Institute of Information Technology, Kolkata, India, November 2011.

7. "*Genetic Algorithms and Applications*", The University of Burdwan, Burdwan, India, March 2013.

8. "*Bioinformatics: An Overview*", The University of Burdwan, Burdwan, India, September 2013.

9. "*Data Clustering: Methods and Applications*", Siliguri Institute of Technology, Siliguri, India, September, 2013.

10. "*Soft Computing for Data Mining*", Murshidabad College of Engineering and Technology, TEQUIP-II sponsored two-day seminar on Image Processing & Soft Computing, Berhampore, West Bengal, India November 2013.

11. "*An Introduction to Data Clustering*", The University of Burdwan, Burdwan, West Bengal, India, December 2014.

12. "*Algorithms for Mining Protein-Protein Interaction Networks*", Indian National Academy of Engineering (INAE) Annual Convention 2014 (INAE Young Engineer Award Talk), Jaipur, India, December 2014.

13. "*Bioinformatics: Concepts and Applications*", National Conference on Emerging Technologies and Applied Sciences (NCETAS-2015), Modern Institute of Engineering and Technology, West Bengal, India, February 2015.

14. "*Some Applications of Multiobjective Optimization in Bioinformatics*", National Institute of Biomedical Genomics, Kalyani, West Bengal, India, May 2015.

15. "*Mining Large-Scale Biological Networks*", Indo-Chinese Young Engineering Leaders' Conclave, IIT Gandhinagar, Gandhinagar, India, October 2015.

16. "*Multiobjective Genetic Algorithms and Applications*", RCC Institute of Information Technology, Kolkata, West Bengal, India, January 2016.

17. "*An Introduction to Genetic Algorithms: Method and Implementation*", Calcutta Business School, Kolkata, India, March 2016.

18. "*Fundamentals of Genetic Algorithms and Multiobjective Genetic Algorithms*", Calcutta Business School, Kolkata, India, March 2016.

19. "*An Introduction to Clustering Algorithms*", Murshidabad College of Engineering and Technology, Baharampore, West Bengal, India, April 2016.

20. "*Principles of Genetic Algorithms and Applications*", RCC Institute of Information Technology, Kolkata, West Bengal, India, RICCE-2016, July 2016.

21. "*An Introduction to LaTeX*", Jadavpur University (Saltlake Campus), Kolkata, West Bengal, India, PMDL-2016, July 2016.

22. "*Technical Document Writing using LaTeX*", MCKV Institute of Information Technology, Liluah, Howrah, West Bengal, India, September 2016.

23. "*Use of ICT in Teaching and Learning*", Kalyani Mahavidayalaya, Kalyani, West Bengal, India, January 2017.

24. "*Fundamentals of Genetic Algorithms*", One-day National Symposium, University of Gour Banga, Maldah, West Bengal, India, June 2017.

25. "*Genetic Algorithms and Applications*", Refresher Course, Burdwan University, Burdwan, West Bengal, India, July 2017.

26. "*Multiobjective Evolutionary Optimization: Concepts and Applications*", Techno India University, Kolkata, West Bengal, India, July 2017.

27. "*Multiobjective Genetic Algorithms for Data Clustering*", RCC Institute of Information Technology, Kolkata, West Bengal, India, July 2017.

28. "*Machine Learning in Bioinformatics: Tasks, Issues and Challenges*", Department of Information Technology, Jadavpur University, Kolkata, India, May 2018.

29. "*Single-objective and Multi-objective Genetic Algorithms*", Special lecture, University of Gour Banga, Maldah, West Bengal, India, July 2018.
30. "*Multiobjective Genetic Algorithms with Applications in Bioinformatics and Computational Biology*", International Workshop on Modeling Simulation and Soft Computing, National Institute of Technology, Silchar, Assam, India, August 2018.
31. "*A Graph-Theoretic Study of Hepatitis-C Infection Pathways in Humans using Protein-Protein Interaction Networks*", Annual Meeting of Indian Society of Human Genetics (ISHG-2019), University of Kalyani, India, January 2019.
32. "*Revised Process of NAAC Assessment and Accreditation*", One-day Workshop on Preparation of NAAC 3rd Cycle, Sudhiranjan Lahiri Mahavidyalaya, Majhdia, Nadia, West Bengal, March 2019.

Abroad

1. "*Multiobjective Fuzzy Clustering: Application to Microarray Gene Expression Data*", German Cancer Research Center, Heidelberg, Germany, September 2009.
2. "*Evolutionary Multiobjective Fuzzy Clustering and Applications*", I3S Laboratory, University of Nice Sophia-Antipolis, Nice, France, May 2011.
3. "*Predicting Annotated HIV-1–Human Protein Interactions: A Biclustering-based Association Rule Mining Approach*", University of Goettingen, Goettingen, Germany, June 2013.
4. "*Incorporating GO Information in Detecting Protein Complexes from PPI Networks: A Multi-Objective Evolutionary Algorithm-based Approach*", University of Goettingen, Goettingen, Germany, June 2013.
5. "*Multiobjective Genetic Algorithms for Data Clustering*", Keynote lecture in International Conference on Computer and Information Engineering (ICCIE-2015) in Rajshahi University of Engineering and Technology (RUET), Rajshahi, Bangladesh during November 26-27, 2015.
6. "*Multiobjective Genetic Algorithms for Clustering: Method and Applications*", Invited lecture in 3rd Computational Mathematics and Applications Conference (CMA-2016) in Bangkok, Thailand, during January 14-16, 2016.

Conference Presentations

India

1. "*Distributed Approaches for Dynamic Traffic Grooming in WDM Optical Networks*", International Conference on Computers and Devices for Communication (CODEC 2004), Kolkata, India, January 2004.
2. "*Improved Distributed Approaches for Dynamic Traffic Grooming in WDM Optical Networks*", National Conference on Distributed Processing and Networking (DPN 2004), IIT Kharagpur, India, June 2004.
3. "*Distributed Routing and Wavelength Assignment Algorithms for Dynamic WDM All-optical Networks*", 7th International Conference PHOTONICS 2004, Cochin, India, December 2004.
4. "*A Genetic Algorithm for Traffic Grooming in Unidirectional SONET/WDM Rings*", IEEE INDICON 2004, IIT Kharagpur, India, December 2004.
5. "*Multiobjective Fuzzy Clustering: An Evolutionary Approach*", National Conference on Recent Trends in Intelligent Computing (NCRTIC 2006), Kalyani, India, November 2006.
6. "*Efficient Two-stage Fuzzy Clustering of Microarray Gene Expression Data*", 9th International Conference on Information Technology (ICIT 2006), Bhubaneswar, India, December 2006.
7. "*Multiobjective Genetic Fuzzy Clustering of Categorical Attributes*", 10th International Conference on Information Technology (ICIT 2007), Rourkela, India, December 2007.
8. "*Improving Multi-objective Clustering through Support Vector Machine: Application to Gene Expression Data*", IEEE TENCON 2008, Hyderabad, India, November 2008.

9. "*Evolving Coherent and Non-trivial Biclusters from Gene Expression Data: An Evolutionary Approach*", IEEE TENCON 2008, Hyderabad, India, November 2008.
10. "*Unsupervised Satellite Image Segmentation by Combining SA based Fuzzy Clustering with Support Vector Machine*", International Conference on Advances in Pattern Recognition (ICAPR 2009), Kolkata, India, February 2009.
11. "*Multi-objective Genetic Clustering with Ensemble Among Pareto Front Solutions: Application to MRI Brain Image Segmentation*", International Conference on Advances in Pattern Recognition (ICAPR 2009), Kolkata, India, February 2009.
12. "*GOGA: GO-driven Genetic Algorithm-based Fuzzy Clustering of Gene Expression Data*", International Conference on Systems in Medicine and Biology (ICSMB 2010), I.I.T. Kharagpur, India, December 2010.
13. "*Mining Association Rules from HIV-Human Protein Interactions*", International Conference on Systems in Medicine and Biology (ICSMB 2010), I.I.T. Kharagpur, India, December 2010.
14. "*CLUSTER: A Matlab GUI Package for Data Clustering*", International Conference on Matlab Applications in Engineering & Technology (ICMAET 2012), Bangalore, India, January 2012.
15. "*Predicting Annotated HIV-1Human PPIs using a Biclustering Approach to Association Rule Mining*", Emerging Applications of Information Technology (EAIT 2012), ISI, Kolkata, India, November-December 2012.
16. "*A Hybrid Multiobjective Particle Swarm Optimization Approach for Non-redundant Gene Marker Selection*", Seventh International Conference on Bio-Inspired Computing: Theories and Application (BIC-TA 2012), IIITM, Gwalior, India, December 2012.
17. "*Interactive Approach to Multiobjective Genetic Fuzzy Clustering for Satellite Image Segmentation*",IEEE UPCON 2016, IIT-BHU, India, December 2016.

Abroad

1. "*Discovering Coherent Biclusters from Microarray Gene Expression Data*", International Conference on Artificial Intelligence and Applications (AIA 2010), Innsbruck, Austria, February 2010.
2. "*Discovery of MicroRNA Markers: An SVM-based Multiobjective Feature Selection Approach*", Eighth International Symposium on Computational Intelligence in Bioinformatics and Computational Biology (CIBCB-2011) (Part of IEEE Sysmposium Series on Computational Intelligence, SSCI-2011), Paris, France, April 2011.

Conferences/Workshops Organized

1. Organizing Chair, Workshop on Computational Methodologies and Applications (CMA-2013), Department of Computer Science and Engineering, University of Kalyani, India, April 22-23, 2013.
2. Program Chair, First International Conference on Computational Intelligence: Modeling, Techniques and Applications (CIMTA 2013), Department of Computer Science and Engineering, University of Kalyani, India, September 27-28, 2013.
3. Organizing Chair, Workshop on Computational Methodologies and Applications (CMA-2014), Department of Computer Science and Engineering, University of Kalyani, India, March 20, 2014.
4. Program Co-chair, 2nd International Conference on Information Systems Design and Intelligent Applications (INDIA-2015), University of Kalyani, India, January 8-9, 2015.
5. Website Development Chair and Program Co-chair, First International Conference on Intelligent Computing and Communication (ICIC2-2016), University of Kalyani, India, January 18-19, 2016.
6. Organizing Secretary, Workshop on Recent Advances on Computational Intelligence and IEEE CIS Distinguished Lecture Programme, Indian Statistical Institute, Kolkata, India, November 22, 2016.
7. Co-chair, Computational Intelligence track, IEEE Tensymp-2019, Kolkata, India, June 7-9, 2019.

Other Conferences/Seminars/Workshops Attended

1. Workshop on Engineering Design Optimization, Jadavpur University, Kolkata, India, 10th September, 2005.
2. One day program on retraining of College Teachers on Operating Systems, Jadavpur University, Kolkata, India, 7th December, 2006.
3. Machine Learning and Pattern Evolution Methods in Chemo and Bioinformatics, C-DAC and NCL, University of Pune, Pune, India, 26-29 June, 2007.
4. Refresher course on Computer Applications, Department of Computer Science and Engineering, University of Kalyani, Kalyani, India, 8-28 January, 2008.
5. 4th Workshop on Nanocomputing and Biochips (Nano-Bio 2011), Indian Statistical Institute, Kolkata, India, 1-2 March, 2011.
6. International Conference on Emerging Applications of Information Technology (EAIT 2012), ISI, Kolkata, India, November-December 2012.
7. International Conference on Advances in Pattern Recognition (ICAPR-2015), Kolkata, India, January 2015.
8. International Conference on Advancement of Computer Communication and Electrical Technology (ACCET-2016), Baharampore, West Bengal, India, October 2016.
9. International Conference of IEEE UP Section (IEEE UPCON-2016), Benaras Hindu University, Varanasi, India, December 2016.
10. Academic Leadership Programme, National Institute of Educational Planning and Administration, January 2019.

Ph.D. Theses Supervision

1. **Papun Biswas** (At University of Kalyani, India) on "*Soft Computing Approaches to Multiobjective Decision making in Uncertain Environment: Applications to Power System and Other Real-life Problems*" **(Awarded in 2016)**. (Jointly supervised with Prof. Bijay Baran Pal, Dept. of Mathematics, KU).
2. **Monalisa Mandal** (At University of Kalyani, India) on "*In Silico Approaches to Cancer Biomarker Discovery*" **(Awarded in 2016)**.
3. **Bandana Barman** (At University of Kalyani, India) on "*Computational Inference of Metabolic Pathways of a Disease through Construction of Gene Regulatory Network from Time Series Gene Expression Data: Methods and Applications*" **(Awarded in 2017)**.
4. **Sumanta Ray** (At Jadavpur University, India) on "*Development of New Computational Methods for Predicting Modules in Large Networks*" **(Awarded in 2017)**. (Jointly supervised with Prof. Ujjwal Maulik, Dept. of Computer Sc. & Engg., JU and Prof. Sanghamitra Bandyopadhyay, Director, ISI Kolkata).
5. **Saurav Mallik** (At Jadavpur University, India) on "*Computational and Statistical Approaches in Data Mining and Bioinformatics*" **(Awarded in 2017)**. (Jointly supervised with Prof. Ujjwal Maulik, Dept. of Computer Sc. & Engg., JU and Prof. Sanghamitra Bandyopadhyay, Director, ISI Kolkata).
6. **Sujoy Chatterjee** (At University of Kalyani, India) on "*Judgment Analysis based on Crowdsourced Opinions*" **(Awarded in 2018)**. (Jointly supervised with Dr. Malay Bhattacharyya, Dept. of IT, IIEST, Shibpur).
7. **Ranjan Barman** (At Jadavpur University, India) on "*Machine Learning Approaches for Mining Protein-Protein Interactions and Virulence Gene Sequences*" **(Registered)**. (Jointly supervised by Prof. Ujjwal Maulik, Dept. of Computer Sc. & Engg., JU and Dr. Santasabuj Das, NICED, Kolkata).
8. **Paramita Biswas** (At University of Kalyani, India) on "*Algorithms for Mining Disease Related Biological Networks*" **(Registered)**.
9. **Lopamudra De** (At University of Kalyani, India) on "*Developing Computational Tools and Databases for Prediction and Analysis of Disease-Associated Protein Interactions*" **(Registered)**.

10. **Sk Md Mosaddek Hossain** (At University of Kalyani, India) on "*Computational Studies for Understanding Topological Structures of Complex Biological Networks*" **(Registered)**. (Jointly supervised with Dr. Sumanta Ray, Dept. of Computer Sc. & Engg., Aliah University).
11. **Lutfunnesa Khatun** (At University of Kalyani, India) on "*Knowledge-based Multi-omics Approaches for Exploring Temporal Dynamics in Biological Networks*" **(Registered)**. (Jointly supervised with Dr. Sumanta Ray, Dept. of Computer Sc. & Engg., Aliah University).

Publication Summary

- Total publications - **163**
  - Books - **1**
  - Book chapters - **7**
  - Journals - **70**
  - Conferences - **85**
- Number of SCI-indexed journal publications - **50**.
- Total citations - **2837** (Google Scholar), **1743** (Scopus).
- H-index - **27** (Google Scholar), **21** (Scopus).
- Top citations
  - **256** (IEEE TGARS-07)
  - **233** (IEEE TEVC-14)
  - **200** (Bioinformatics-07)
  - **158** (IEEE TEVC-14)
  - **136** (Springer Book-11)
- Total Impact Factor - **164.402**
- Average Impact Factor $\approx$ **3.044** (Excluding the journals yet to have any impact factor).
- Top impact factors
  - **8.124** (IEEE TEVC)
  - **6.302** (Briefings in Bioinfo.)
  - **5.55** (ACM Comp. Survey)
  - **5.481** (Bioinformatics)
  - **4.662** (IEEE TGARS).

List of Publications

Authored Book

1. U. Maulik, S. Bandyopadhyay and **A. Mukhopadhyay**, "*Multiobjective Genetic Algorithms for Clustering: Applications in Data Mining and Bioinformatics*", Springer, Heidelberg-Berlin (ISBN 978-3-642-16614-3), 2011.

Book Chapter

1. **A. Mukhopadhyay**, U. Biswas, M. K. Naskar, U. Maulik, and S. Bandyopadhyay, "*Minimization of Number of SADMs for Traffic Grooming in SONET/WDM Rings using Genetic Algorithm*", Handbook of Bioinspired Algorithms and Applications, Chapter 14, pp. 209-218, Chapman and Hall/CRC, 2006.

2. **A. Mukhopadhyay** and U. Maulik and S. Bandyopadhyay, "*Multiobjective Evolutionary Approach to Fuzzy Clustering of Microarray Data*", Analysis of Biological Data: A Soft Computing Approach, Vol. 3, Chapter 13, pp. 303-326, World Scientific, 2007.

3. **A. Mukhopadhyay** and U. Maulik and S. Bandyopadhyay, "*Identifying Potential Gene Markers using SVM Classifier Ensemble*", Computational Intelligence and Pattern Analysis in Biological Informatics, Chapter 12, pp. 277-291, Wiley, 2010.

4. K. C. Mondal, **A. Mukhopadhyay**, U. Maulik, S. Bandhyapadhyay and N. Pasquier, "*MOSCFRA: A Multi-objective Genetic Approach for Simultaneous Clustering and Gene Ranking*", Computational Intelligence Methods for Bioinformatics and Biostatistics, LNCS, Vol. 6685, pp. 174-187, Springer-Verlag, 2011.

5. **A. Mukhopadhyay** and S. Poddar, "*A Matlab GUI Package for Comparing Data Clustering Algorithms*", Soft Computing Techniques in Engineering Applications, Studies in Computational Intelligence, Vol. 543, pp. 33-48, Springer-Verlag, 2014.

6. **A. Mukhopadhyay**, "*MRI Brain Image Segmentation Using Interactive Multiobjective Evolutionary Approach*", Handbook of Research on Natural Computing for Optimization Problems, Chapter 2, pp. 10-29, IGI Global, 2016.

7. **A. Mukhopadhyay**, "*Incorporating Gene Ontology Information in Gene Expression Data Clustering Using Multiobjective Evolutionary Optimization: Application in Yeast Cell Cycle Data*", Multiobjective Optimization, Springer, Singapore, 2018 (Accepted).

Journal

1. U. Biswas, M. K. Naskar, **A. Mukhopadhyay** and U. Maulik, "*A Heuristic Algorithm for Static Wavelength Assignment in WDM Optical Networks*", IETE Technical Review, Vol. 22, No. 3, pp. 199-204, May-June 2004. [**Impact Factor: 1.339**]

2. U. Maulik, **A. Mukhopadhyay** and S. Bandyopadhyay, "*Efficient Clustering with Multi-class Point Identification*", Journal of Three Dimensional Images, Vol. 20, No. 1, pp. 35-40, Japan, 2006.

3. S. Bandyopadhyay, U. Maulik and **A. Mukhopadhyay**, "*Multiobjective Genetic Clustering for Pixel Classification in Remote Sensing Imagery*", IEEE Transactions on Geoscience and Remote Sensing, Vol. 45, No. 5, pp. 1506-1511, 2007. [**Impact Factor: 4.662**]

4. S. Bandyopadhyay, **A. Mukhopadhyay** and U. Maulik, "*An Improved Algorithm for Clustering Gene Expression Data*", Bioinformatics, Vol. 23, No. 21, pp. 2859-2865, 2007. [**Impact Factor: 5.481**]

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