Curriculum Vitae

Dr. Debasis Chakraborty

Professor and Head
Dept. of Computer Science and Engineering
Asansol Engineering College, WB
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Personal Details:

Address of Residence	: Flat No-204, KarunamayeeAbasan,Berhampore, Dist: Murshidabad, PIN-742101 , W.B.
Nationality	: Indian
Date of Birth	: 17-January, 1967
Gender	: Male
Proficiency in Languages	:Bengali, English, Hindi

Education:

- Ph.D. (Engg.) in Computer Science, Jadavpur University, Kolkata, 2015. (*Thesis Title-Some Studies on Machine Learning Algorithms for Pattern Classification*)
- Master of Engineering in *Computer Science & Engineering*, Bengal Engineering College (Deemed University), (currently Indian Institute of Engineering Science and Technology), Sibpur, India, 2003 (First class, 72.4%).
- Bachelor of Engineering in *Electronics and Telecommunication Engineering* from Bengal Engineering College (under Calcutta University), Sibpur, India, 1990 (First class, 66.7%)
- Higher Secondary (10+2) Examination in *Science*(*Physics, Chemistry, Mathematics, Biology*), Ramurhat J. L. Vidyabhawan, Rampurhat, Dist: Birbhum, West Bengal, India, 1984, (First division, 69.4%)
- Secondary (10^{th} Class) Examination, Rampurhat High School, Rampurhat, Dist: Birbhum, West Bengal, India, 1982, (First division, 64.5%)

Research Interests:

Pattern Recognition, Computational Biology, Machine Learning, Remote Sensing

Experience:

- **Professor**, 12- March, 2020 to till date, CSE, Asansol Engineering College, West Bengal, affiliated to Maulana Abul Kalam Azad University of Technology, (formerly West Bengal University of Technology), approved by All India Council of Technical Education.

- **Associate Professor,** since 01-July, 2010 to 11-March-2020 **& (Principal,Acting**), 27-Novber, 2015 to 28-February-2018), Murshidabad College of Engineering and Technology, Berhampore, Dist: Murshidabad, India, affiliated to Maulana AbulKalam Azad University of Technology, (formerly West Bengal University of Technology), approved by All India Council of Technical Education.
- **Assistant Professor**, since 01-January, 2006 to 30-June, 2010, Murshidabad College of Engineering and Technology, Berhampore, Dist: Murshidabad, India.

- **Senior Lecturer**, since 01-January,2005 to 31-December, 2005, Murshidabad College of Engineering and Technology, Berhampore, Dist: Murshidabad, India.

- **Lecturer**, since 06-December, 1999 to 31-December, 2004, ECE, Murshidabad College of Engineering and Technology, Berhampore, Dist: Murshidabad, India.

Courses Taught: Artificial Intelligence, Digital Electronics, Operating Systems, Programming Languages, Data Structure, Machine Learning, Pattern Recognition.

Positions in Industry andExperiences:

- **Senior Executive – Technical**, since 19-February, 1996 to 01-December, 1999;Easycall Communication (India) Pvt. Ltd., P-15, India Exchange Place Extension., Todi Mansion, 5th Floor, Kolakata-700073, India. **Responsibilities and experiences in:**overall operation and maintenance of radio paging services.

- **Engineer,**since 26-September, 1994 to 11-September,1995; Webel Electronic Communication Systems Ltd., Plot-53, Block-DN, Sector-V, Salt Lake City, Kolkata-700 091. **Responsibilities and experiences in:** microprocessor and PC-based real time system manufactured by this company for the **telecommunication switching environment**.

- **Assistant Engineer,** since 01-April, 1993 to 24-September, 1994, Digital Data Corporation, 26, Convent Road, Kolkata-700 014.**Responsibilities and experiences in:** microprocessor based data communication system, **actively associated with the installation and maintenance of 18 Ghz microwave link for Railway Traffic Control**

- **Graduate Engineer Trainee,** since 19-November, 1990 to 18-November, 1992, The National Small Industries Corporation Ltd., A Govt. of India Undertaking, P.O.:-Balitikuri, Dist: Howrah,

India. **Responsibilities and experiences in:**testing and calibration of electrical and electronic equipments, CNC Machine, motor winding, PVC extruder machine.

Awards:

- Awarded by Bengal Engineering College, a scholarship (KunjoKusum scholarship) for the good **rank in WBJEE in 1986**.
- **National Fellowship** during Master of Engineering on the basis of GATE-2001 (2001-2003)

Training Courses Attended:

- Attended training on Calibration System Management and ISO-9000 in 1995 at Centre for Electronics Test Engineering, A Govt. of India Undertaking, SDF Bldg., Salt Lake City.
- Participated in the Induction Training Program during January 10-24, 2004, under the scheme of Staff Development Program sponsored by AICTE.
- Participated in Project Review Workshop of TEQIP-II Institutions on 23-24 September, 2013.
- **Participated in the NBA Seminar held in New Delhi, March, 2014**.
- **Participated in the Professional Development Program on Mobile Application Development using Android**, 01-04 Febryary-2016 at Lonavla, India, organized by Engineering Staff College of India, An Autonomous Organ of the Institute of Engineers, ISO 9001 : 2008 Certified Institution.
- **Attended in Residential Training Programme on Effective Office Administration and Financial Managemen**t at Leh, Ladakh, 06-10 June, organized by National Productivity Council, Economic Services Group, New Delhi.
- Participated in the Awareness Webinar on Outcome Based Education and Accreditation for the Engineering Colleges in West Bengal, 15th December, 2020.
- Participated in AICTE sponsored STTP on Recent Advances and Trends in Machine Learning: Theory and Applications (Phase 3) Organized by Asansol Engineering College, February 8-13, 2021.

Citations and Impact Factors:

- Total publications – 24 (International Journals -12, International Conferences-12)
- Total citations-941 (Google Scholar)
- Top citations- 120 (*IEEE Geoscience and Remote Sensing Magazine*), 92 (*Pattern Recognition*), 76 (*Expert Systems with Applications*)
- Total impact factor : 54.767
- **Top impact factors- 13 (*IEEE GRSS*) 7.319** (*ISPRS journal of Photogrammetry and Remote Sensing*), 7.196 (*Pattern Recognition*), 5.452 (*Expert Systems with Applications*), 4.424 (*IEEE TBME*), *2.771*(IEEE TNB).

Reviewer of the following journals:

- IEEE Transactions on Geoscience and Remote Sensing Letters
- IEEE Journal of Translational Engineering in Health and Medicine
- IEEE Transactions on Cybernetics
- IEEE Transactions on Systems, Man, and Cybernetics, Part A
- Journal of Intelligent and Fuzzy Systems
- International Journal of Machine Learning and Cybernetics
- ISPRS journal of Photogrammetry and Remote Sensing
- Journal of Selected Topics in Applied Earth Observations and Remote Sensing
- Information Sciences
- Artificial Intelligence Review
- International Journal of Remote Sensing

Conference Presentations:

1. ``A selective pseudo iterative deletion discretization algorithm for machine learning, uncertain reasoning and pattern recognition,"*International Conference on Cognitive Systems* (*ICCS 2004*), NIIT, New Delhi, India, 14-15 December, 2004.
2. ``An expert cognitive system using Ada-Boost algorithm," *International Conference on Cognitive Systems* (*ICCS 2005*), NIIT, New Delhi, India, 14-15 December, 2005.
3. ``Improvement of prediction accuracy of naive Bayesian classifier,"*In the Proceedings of First International Conference On Emerging Applications of IT* (*EAIT 2006*), Kolkata, India, 10-11 February, pp: 291-293, 2006.
4. ``Semisupervised pixel classification of remote sensing imagery using transductive SVM,"*International Conference on Recent Trends in Information Systems* (*ReTIS 2011*), Kolkata, India, 21-23 December, pp. 30-35, 2011.
5. ``Cancer classification through feature selection and transductive SVM using gene microarray data,"*Third International Conference on Emerging Applications of Information Technology* (*EAIT-2012*), Nov. 29-Dec.01, pp. 77-80, 2012.

Conference Chair:

First International Conference on Advancement of Computer Communication and Electrical Technology, (ACCET-2016), 21-22 October-2016.

Academic/Administrative Activities:

- Acted as a paper setter and examiner for B.Tech. Examination under Kalyani University, WBUT
- Performed as an expert in different interviews for faculty recruitment drive.
- Offered services as Principal-Acting for more than two years and. successfully implemented TEQIP Phase-II Project

Ph.D. Theses Supervision:

Shemim Begum, Assistant Professor, Government College of Engineering & Textile Technology, Thesis title: Some Studies on Feature Selection Approaches for Classification of Microarray Data, at Jadavpur University (Completed).

Summary of Skills

- Ability to function as Institutional Dean / Professor in Engineering College / University level effectively.
- Capable to supervise PhD Scholars / post graduate /undergraduate students efficiently in research activities in Engineering College / University Level
- Overall, hard working, motivating and challenging to achieve the desired goal.

References:

Dr. Ujjwal Maulik,
Professor, Computer Science and Engineering,Jadavpur University,Email: umaulik@cse.jdvu.ac.in,
Mobile: 9477158220

Dr. Sanghamitra Bandyopadhyay
Director, Indian Statistical Institute.Professor, Machine Intelligence Unit. Member, West Bengal Education Commission, Email: sanghami@isical.ac.in, Tel: 91 33 2575 3114 (office)

Dr. Anirban Mukhopadhyay, Professor & Former Head,
Department of Computer Science and Engineering,University of Kalyani,
Email: anirban@klyuniv.ac.in, Mobile:9874043858

DECLARATION:

I do hereby declare that the information furnished above is true to the best of my knowledge and intend to work anywhere in India.

Date:10/02/2022
Place: Asansol, India (Dr.Debasis Chakraborty)

Dr. Debasis Chakraborty
List of Publications (Published/Accepted)

Papers in Referred Journals:

1. U. Maulik and **D. Chakraborty**, ``A robust multiple classifier system for pixel classification of remote sensing images,"*Fundamenta Informaticae*, vol. 101, no. 4, pp. 286-304, 2010. (*Impact Factor: 1.298*)
2. U. Maulik and **D. Chakraborty**, ``A self-trained ensemble with semisupervised SVM: an application to pixel classification of remote sensing imagery,"*Pattern Recognition*, vol. 44, no. 3, pp. 615-623, 2011, . (*Impact Factor: 7.196*)
3. U. Maulik, and **D. Chakraborty**, ``A novel semisupervised SVM for pixel classification of remote sensing imagery,"*International. Journal of Machine Learning and Cybernetics*, vol. 3, no. 3, pp. 247-258, 2012, (*Impact Factor: 3.753).*
4. U. Maulik and **D. Chakraborty**, ``Learning with transductive SVM for semisupervised pixel classification of remote sensing imagery,"*ISPRS journal of Photogrammetry and Remote Sensing*, vol. 77, pp. 66-78, 2013. (*Impact Factor: 7.319).*
5. U. Maulik, A. Mukhopadhyay and **D. Chakraborty**, ``Gene-expression based cancer subtypes prediction through feature selection and transductive SVM,"*IEEE Transactions on Biomedical Engineering*, vol. 60, no. 4, pp. 1111-1117, 2013 (*Impact Factor: 4.424)*
6. U. Maulik and **D. Chakraborty**, ``Fuzzy preference based feature selection and semisupervised SVM for cancer classification," *IEEE Transactions on NanoBioscience*, vol. 13, no. 2, pp. 152-160, 2014, (*Impact Factor: 2.771)*
7. **D. Chakraborty** and U. Maulik, ``Identifying cancer biomarkers from microarray data using feature selection and semisupervised learning,"*IEEE Journal of Translational Engineering in Health and Medicine*, vol. 2, 2014,*(Impact Factor: 2.54*).
8. **D. Chakraborty**, A. Sarkar and U Maulik, ``A new isotropic locality improved kernel for pattern classification in remote sensing imagery," *Spatial Statistics*, vol. 17, pp. 71-82, 2016, (*Impact Factor: 1.656*).
9. U. Maulik and **D. Chakraborty** ``Remote sensing image classification: A survey of support-vector-machine-based advanced techniques," *IEEE Geoscience and Remote Sensing Magazine*, vol. 5, no. 1, pp. 33-52, 20 March, 2017, (*Impact Factor: 8.225*).
10. M. Ghosh, S. Begum, R. Sarkar, D. Chakraborty and U. Maulik, "Recursive memetic algorithm for gene selection in microarray data,"*Expert Systems with Applications*",vol 116, pp. 172- 185, 2019,(Impact Factor: 6.954).
11. Shemim Begum, Ram Sarkar, Debasis Chakraborty, and Ujjwal Maulik, "Identification of Biomarker on Biological and Gene Expression data using Fuzzy Preference Based Rough Set," *Journal of Intelligent Systems,* vol. 30, issue 1, pp. 131-141, 2020.

12. M. Ghosh, S. Begum, R. Sarkar, **D. Chakraborty** and U. Maulik, "Application of active learning in DNA microarray data for cancerous gene identification, *"Expert Systems with Applications*," Vol. 177,2021 ,(Impact Factor: 6.954)

Papers in Conference Proceedings:

1. S. Pal, H. Biswas, **D. Chakraborty** and A. M. Ghosh, ``A selective pseudo iterative deletion discretization algorithm for machine learning, uncertain reasoning and pattern recognition,"*Inthe Proceedings of International Conference on Cognitive Systems* (*ICCS 2004*), NIIT, New Delhi, India, 14-15 December, 2004.
2. **D. Chakraborty**, ``An expert cognitive system using Ada-Boost algorithm,"*In the Proceedings of International Conference on Cognitive Systems* (*ICCS 2005*), NIIT, New Delhi, India, 14-15 December, 2005.
3. **D. Chakraborty** and A. Ekbal, ``Improvement of prediction accuracy of naive Bayesian classifier,"*In the Proceedings of First International Conference On Emerging Applications of IT* (*EAIT 2006*), Kolkata, India, 10-11 February, pp: 291-293, 2006.
4. **D. Chakraborty** and A. Ekbal, ``On the optimal accuracy of Ada-Boost algorithm,"*In the Proceedings of the 3rd International Conference on Artificial Intelligence in Engineering and Technology(ICAIET 2006*), Sabah, Malaysia, 22-24 November, pp: 501-506, 2006.
5. **D. Chakraborty** and U. Maulik, ``Semisupervised pixel classification of remote sensing imagery using transductive SVM,"*International Conference on Recent Trends in Information Systems* (*ReTIS 2011*), Kolkata, India, 21-23 December, pp. 30-35, 2011.
6. **D. Chakraborty** and S. Das, ``Cancer classification through feature selection and transductive SVM using gene microarray data,"*Third International Conference on Emerging Applications of Information Technology* (*EAIT-2012*), Nov. 29-Dec.01, pp. 77-80, 2012.
7. S. Begum, **D. Chakraborty** and R. Sarkar, ``Cancer classification from gene expression based microarray data using SVM Ensemble," *CATCON-2015(10-12 December) IEEE 2nd International Conference*, 2015.
8. S. Begum, **D. Chakraborty** and R. Sarkar, `` Identifying cancer biomarkers from leukemia data using feature selection and supervised learning," *IEEE First International Conference Control, Measurement and Instrumentation (CMI-2016),* 8-10 January, 2016, pp. 249-253, 2016.
9. S. Begum, **D. Chakraborty** and R. Sarkar, ``Data classification using feature selection and k-NN machine learning approach," *2015 International Conference on Computational Intelligence and Communication Networks (CICN)*, December-2015,DOI: 10.1109/CICN.2015.165.
10. S. Begum, **D. Chakraborty**, R. Sarkar and S. P. Bera, ``Breast cancer detection using feature selection and active learning," 2016 First International Conference on Advancement of Computer Communication and Electrical Technology (ACCET-2016), 21-22 October, 2016.
11. S. Begum, S. Chakraborty, A. Banerjee, S. Das, R. Sarkar and **D. Chakraborty**, "Gene selection for diagnosis of cancer in microarray data using memetic algorithm, *"Intelligent Engineering Informatics"* pp. 441-449, 2018.
12. S. Hazra, S. Ghosh, S. Bala, **D. Chakraborty**, "An SVM approach for pixel identification of multispectral remote sensing data," *2021 2nd International Conference for Emerging Technology (INCET)*, Belgaun, India, May 21-23, 2021.

Date: 10/02/2022
Place: Asansol, India (Dr.Debasis Chakraborty)