



CURRICULUM VITAE

1. NAME: **DR. GOUTAM SARKER, Associate Professor,
Computer Science and Engineering Department, NIT
Durgapur, INDIA**
2. FATHER'S NAME: **Late Birendra Ch. Sarker.**
3. ORCID id: **0000 – 0002 – 9510 - 6777**
4. (a) MAILING ADDRESS: **Dr. Goutam Sarker,
Computer Sc. & Engineering Department
National Institute of Technology,
Durgapur - 713 209, INDIA.**
 - (b) e-mail: g_sarker@ieee.org
dr.sarkergoutam@gmail.com
gsarker.cse@nitdgp.ac.in
 - (c) Tel : +91 9474882769
 - (d) Website: <https://www.sites.google.com/view/gsarker-general-> (General)
<https://www.sites.google.com/view/gsarker-astronomy-> (Astronomy)
5. LANGUAGES KNOWN: **English, Bengali and Hindi**
6. NATIONALITY: **Indian.**
7. WHETHER SC/ST/OBC: **No.**
8. EXTRA CURRICULAR ACTIVITIES: **Astronomy, Meditation, Music.**

9. EDUCATIONAL QUALIFICATIONS:

EXAMINATIONS PASSED	YEAR OF PASSING	NAME OF UNIVERSITY /BOARD	CLASS /DIVISION
1. Higher Secondary (Science)	1976	West Bengal Board of Sec. Education	First Divn.
2. B.E.Tel.E.	1982	Jadavpur University	First Class Hons.
3. M.E.Tel.E. (Computer Sc. & Engg.) [GATE]	1986	Jadavpur University	First Class Hons.
4. Ph.D. (Engg.) (Artificial Intelligence) (J.U.)	1994	Computer Sc. & Engg. Dept. Jadavpur University	High Appreciation From Examiners.

10. SCHOLARSHIPS, AWARDS AND FELLOWSHIPS:

- *National Scholarship of W.B. Board of Sec. Education*
- *D.P.I. Scholarship of W.B. Board of Sec. Education*
- *Stood 9th in W.B. Joint Entrance Examination.*
- *Senior Research Fellowship in CSE Dept. of Jadavpur University*
- **Merit Certificate Award for Journal Research Paper in IE(I).**
- **Best Paper Award for Conference Paper in AITA**

11. TITLE OF THE THESISES

- **FOR Ph.D. (Engineering) DEGREE :**

Studies on a New Inductive and Discovery Based Learning System for Automated Knowledge Acquisition.

- **FOR M.E. DEGREE :**

A New Recursive Microprocessor Based Waveform Generator

- **FOR B.E. DEGREE :**

A Digital to Analog Converter

12. INDUSTRIAL EXPERIENCE:

One year three months Industrial Experience as Graduate Engineer Trainee in RADAR Section of Hindustan Aeronautics Limited, Electronics Division, Hyderabad after passing B.E.

13. CURRENT RESEARCH ACTIVITY:

- **Artificial Intelligence and Machine Learning**
- *Face Detection, Identification and Localization.*
- *Person Identification by Biometrics with or without using CNN*
- *Text and Image Categorization and Summarization.*
- *Pattern Recognition, Image Analysis and Computer Vision.*

14. SUBJECTS TAUGHT / TEACHING IN UNDERGRADUATE & POSTGRADUATE COURSES:

(a) UNDERGRADUATE:

- *Artificial Intelligence and Machine Learning*
- *Data Warehousing and Data Mining*
- *Compiler Design*
- *Pattern Recognition*
- *System Programming*
- *Operating Systems*
- *Programming and Data Structure*
- *Computer Architecture.*

(b) POSTGRADUATE:

- *Artificial Intelligence & Expert Systems*
- *Applied AI*
- *Pattern Recognition.*
- *Data Mining*
- *Image Processing and Computer Vision.*

15. BROAD AREAS OF GUIDANCE OF UNDERGRADUATE AND POSTGRADUATE RESEARCH PROJECTS AND FULL TIME RESEARCH SCHOLARS:

- **Face Detection, Identification and Localization**
- **Biometric Based Person Identification**
- **Speech to Text**
- **OCR and Machine Transcription**
- **Text and Image Categorization and Summarization**
- **Unsupervised Learning with Symbolic AI and ANN.**
- **Natural Clustering Algorithms**

16. ADMINISTRATIVE EXPERIENCE:

- **HEAD OF COMPUTER SCIENCE AND ENGINEERING DEPARTMENT, NIT Durgapur – 713 209, INDIA**
- **Head Examiner of CSE Dept. NIT Durgapur & Burdwan University in odd semester '2003 & even semester '2006, even semester 2008.**

17. WORK EXPERIENCE :

Institution / Organization	Post held	Date of Joining	Date of Leaving
1. NIT Durgapur	Associate Professor	27.12.2009	Continuing 26.12.2009
	Assistant Professor	27.12.2006	
	Lecturer / Sr. Lecture	13.07.1998	
2. ISM Dhanbad	-do-	18.02.1998	11.07.1998
3. Dept. of Technical Education, Govt. of West Bengal	-do-	01.08.1997	14.02.1998
4. HIT Haldia	-do-	05.05.1997	31.07.1997
5. IIT Kharagpur	-do-	18.05.1994	05.05.1997
6. Jadavpur University	Project / Research Fellow	08.08.1986	09.05.1991

7.HAL Hyderabad (Electronics Division)	Graduate Engineer Trainee	03.08.1982	16.11.1983
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18. BOOKS AND BOOK CHAPTERS: Two Books; Total Nine Book Chapters

19. PUBLICATION LIST:

BOOK & BOOK CHAPTERS

1. A Treatise on Artificial Intelligence - G. Sarker, ISBN 978-93-5321-793-8, Copyright ©2018 from Registrar of Copyrights, Gov. of India, by Dr. Goutam Sarker.
2. Fundamentals of Data Mining – A Comprehensive and Exhaustive Treatise – G. Sarker, ISBN 978-93-5987-919-2, Copyright ©2018 from Registrar of Copyrights, Gov. of India, by Dr. Goutam Sarker.
3. An Efficient Multiple Classifier Based on Fast RBFN for Biometric Identification’ - Smart Innovation, Systems and Technologies 27 Volume – 1 (Springer), June 2014, pp. 473-482.
4. A Modified SOM Based RBFN for Rotation Invariant Clear and Occluded Fingerprint Recognition’ -Advances in Intelligent Systems and Computing 343 (Springer), December 2014, pp 11-18.
5. A Programming Based Boosting in Super-classifier for Fingerprint Recognition’ - Advances in Intelligent Systems and Computing 509 (Springer), December 2015, pp 319-329.
6. A Super Classifier with Programming Based Boosting using Biometrics for Person Authentication’. - Advances in Intelligent Systems and Computing 509 (Springer), December 2015, pp 331-341.
7. A Person Identification System with Biometrics using Modified RBFN based Multiple Classifiers’ - Advances in Intelligent Systems and Computing 458 (Springer), February 2016, pp 415-424.
8. A New Learning-Based Boosting in Multiple Classifiers for Color Facial Expression Identification. Advances in Computational Intelligence Advances in Intelligent Systems and Computing, 2017, vol 509 pp 267-277, Springer, Singapore

9. An Unsupervised OCA-based RBFN for Clear and Occluded Face Identification. *Intelligent Computing and Applications Advances in Intelligent Systems and Computing*, 2017, vol 343, pp. 19-25 Springer, New Delhi
10. Biometric Based Unimodal and Multimodal Person Identification with CNN using Optimal Filter Set, Sarker G., Ghosh S. (2020) - In: Mandal J., Mukhopadhyay S. (eds) *Proceedings of the Global AI Congress 2019. Advances in Intelligent Systems and Computing*, vol, 1112, Springer Singapore DOI https://doi.org/10.1007/978-981-15-2188-1_2, pp - 17-31.
11. A New Method of Galaxy Classification Using Optimal Convolution Neural Network, Sarker G., Book Title *Artificial Intelligence, 2022, First International Symposium, ISAI 2022, Haldia, India, February 17–22, Revised Selected Papers*, pp. 284-293, Springer Nature.

International Journals

1. Sarker, G.(1993),EXCCE- An Expert System for Automated Knowledge Acquisition Based on Conceptual Clustering of Examples, *Journal of the Institution of Engineers (India), Computer Engg. Divn.*,Vol. 73, 33-36 .
2. Sarker, G.(1995),A New Medical Expert System Using Concept Theory Based Rule Induction ,*Journal of the Institution of Engineers (India) Computer Engg. Divn.*,Vol. 76, 41-46.
3. Sarker, G.(1996),A New Expert System on Homoeopathy Using Concept Theory Based Rule Induction, *IETE Technical Review*,13(1), 17-20. DOI: 10.1080/02564602.1996.11416570.
4. Sarker, G.(1997),A Method of Induction of the Law of Inheritance and Transitivity using Concept Theory ,*Journal of the Institution of Engineers (India)Computer Engineering Divn.*,Vol. 77, 31-38.
5. Sarker, G. (1999),An automatic rule induction technique for learning expert systems, *International Journal of Computer Mathematics*, 1999 OPA Taylor & Francis, Vol. 70, pp – 393 -401
6. Sarker, G.(1999),Unsupervised Learning Technique for Theorem Proving, *Journal of the Institution of Engineers (India),Computer Engineering Divn.*, Vol 80, 19-23.
7. Sarker, G.(1999),Automatic Conceptual Clustering Technique with Uncertainty Management, *Journal of The Institution of Engineers (I), Computer Engineering Division.*,Vol 80, 25-30.

8. Sarker, G.(1999),Automatic Rule Induction Technique for Learning Expert System, Journal of The Institution of Engineers (I), Computer Engineering Division.,Vol 80, 31- 33.
9. Sarker, G.(1999),A New Concept Learning System for Image Recognition with Generalization Control, International Journal of the Foundations of Computing and Decision Science, vol. 24 / 3 .153 – 167.
10. Sarker, G.(2000),A New Method of Inference for Non-monotonic Knowledge Bases, Institution of Engineers (I), Computer Engineering Division.,Vol. 81, 16-18.
11. Sarker, G.(2000),A Learning Expert System for Image Recognition, Journal of The Institution of Engineers (I), Computer Engineering Division.,Vol. 81, 6-15.
12. Sarker, G.(2002),SELECTWIN – A New K-WTA Optimal Learning Technique for Pattern Classification and Recognition, Journal of The Institution of Engineers(I), Computer Engineering Division.,Vol. 83, 16 – 21.
13. Sarker, G. (2007),A Heuristic Based Hybrid Clustering for Natural Classification, International Journal of Computer, Information Technology and Engineering (IJCITAE),1(2), 79-86.
14. Sarker, G.(2008), An Unsupervised Natural Clustering with Optimal Conceptual Affinity, International Journal of Computer Information Technology and Engineering (IJCITAE)..2(1), 45-52.
15. Sarker, G.(2008),A Heuristic Based Hybrid Clustering, Institution of Engineers (I), Computer Engineering Division, Vol. 89, 7- 10.
16. Sarker, G.(2010),A Probabilistic Framework of Face Detection , International Journal of Computer, Information Technology and Engineering (IJCITAE),4(1), 19-25.
17. Sarker, G.(2010),An Unsupervised Natural Clustering with Optimal Conceptual Affinity, Journal of Intelligent Systems,19(3), 289-300. DOI: 10.1515/JISYS.2010.19.3.289
18. Sarker, G.(2011),A Multilayer Network for Face Detection and Localization, International Journal of Computer, Information Technology and Engineering (IJCITAE), 5(2), 35-39.
19. Sarker, G.(2012),A Back Propagation Network for Face Identification and Localization ,International Journal of Computer, Information Technology and Engineering (IJCITAE),6(1), 1-7.
20. Sarker, G.(2012),An Unsupervised Learning Network for Face Identification and Localization ,International Journal of Computer, Information Technology and Engineering (IJCITAE),6(2), 83-89.

21. Sarker, G., Roy, K. (2013) ,A Modified RBF Network With Optimal Clustering For Face Identification and Localization ,International Journal of Advanced Computational Engineering and Networking, ISSN: 2320-2106.,1(3), 30 -35.
22. Sarker, G., Roy, K.(2013),An RBF Network with Optimal Clustering for Face Identification ,Engineering Science International Research Journal (ISSN) – 2300 – 4338 ,1(1), ISBB: 978-93-81583-90-6, 70-74.
23. Sarker, G.(2013),An Optimal Back Propagation Network for Face Identification and Localization ,International Journal of Computers and Applications (IJCA),ACTA Press, Canada.,35(2).,DOI 10.2316 / Journal .202.2013.2.202 – 3388.
24. Kundu, S., Sarker, G.(2013),A Modified Radial Basis Function Network For Occluded Fingerprint Identification and Localization ,IJCITAE, Serial Publications,7(2), 103-109.
25. Kundu, S., Sarker, G.(2014),An Efficient Multiple Classifier Based on Fast RBFN for Biometric Identification, Advanced Computing, Networking and Informatics Smart Innovations, Systems and Technologies 27, Springer International Publishing Switzerland 2014.,– Vol. 1, DOI: 10.1007 / 978 – 3 – 319 – 07353 – 8 – 55, 473-482.
26. Sarker, G.,Bhakta, D.(2014),An Incremental Learning Based Boosting for Multiple Classifier Face Identification with Modified RBFN" ,International Journal of Computer Information Technology and Engineering (IJCITAE), Serials Publications ,Dec. 2014.
27. Sarker, G.(2014),A Heuristic Based RBFN for Location and Rotation Invariant Clear and Occluded Face Identification ,International Journal of Computer Information Technology and Engineering (IJCITAE), Serials Publications ,8(2), 109-118.
28. Sarker, G.(2014),A Competitive Learning Network for Face Detection and Localization, International Journal of Computer Information Technology and Engineering (IJCITAE), Serials Publications, 8(2), 119-123.
29. Bhakta, D., Sarker, G., (2014),A Multiple Classifier System with Learning based Boosting for Clear and Occluded Color Face Identification ,American Journal of Advanced Computing, 1(2), 54 -59. ISSN : 2368-1209
30. Sarker, G.,Bhakta, D.(2015),An Unsupervised OCA based RBFN for Clear and Occluded Face Identification, Intelligent Computing and Applications, Advances in Intelligent Systems and Computing 343,DOI 10.1007/978-81-322-2268-2_3.19-25.
31. Kundu, S., Sarker, G. (2015), A Modified SOM Based RBFN for Rotation Invariant Clear and Occluded Fingerprint Recognition, Intelligent Computing and

- Applications, *Advances in Intelligent Systems and Computing* 343, DOI 10.1007/978-81-322-2268-2_2, 11-18.
32. Kundu, S., Sarker, G. (2016), An Efficient Integrator Based on Template Matching Technique for Person Authentication using Different Biometrics”, *Indian Journal of Science and Technology*, Vol 9(42), DOI: 10.17485/ijst/2016/v9i42/93805, Nov. 2016, ISSN (Print) : 0974-6846 (SCOPUS indexed).
 33. Kundu, S., Sarker, G. (2016), A Multi-level Integrator with Programming Based Boosting for Person Authentication using Different Biometrics, *Journal of Information Processing Systems*, Volume 14, Issue 5, pp 1114- 1135 (SCOPUS & ESCI indexed)
 34. Kundu, S., Sarker, G. (2017), A Person Authentication System using a Biometric Based Efficient Multi-Level Integrator, *International Journal of Control Theory and Applications (IJCTA)*, 9(40), 2016, pp. 471-479, International Science Press (SCOPUS indexed)
 35. Sarker, G. , Das, S., Pal, A. (2017), A New Method of Text Categorization and Summarization with Fuzzy Confusion Matrix – *Int. Journal of Engineering Trends and Technology (IJETT)*, Volume 49 Number 2 July 2017, ISSN: 2231-5381
 36. Sarker, G. , Das, S., Pal, A. (2017), A Modified Optimal Clustering Technique for Image Categorization and Summarization – *Int. Journal of Engineering Trends and Technology (IJETT)*, Volume 49 Number 2 July 2017, ISSN: 2231-5381.
 37. Sarker, G. Bhakta, D. A Mega Super Classifier with Fuzzy Categorization in Face and Facial Expression Identification - *Int. Journal of Engineering Trends and Technology (IJETT)*, Volume 51 Number 1 September 2017, ISSN: 2231-5381.
 38. Sarker, G. Some Studies on Convolution Neural Network - *International Journal of Comuter Applications (IJCA) Foundations of Computer Science*, New York, Vol. 182 - No. 21, DOI 10.5120/ijca201891, pp 13-22, Oct. 2018.
 39. Sarker, G. Ghosh S. A Convolution Neural Network for Optical Character Recognition and Subsequent Machine Translation - *International Journal of Computer Applications (IJCA) Foundations of Computer Science*, New York, Vol. 182 - No. 30, DOI 10.5120/ijca2018918203, pp 23-27, Dec. 2018.
 40. Sarker, G. Ghosh S. A Set of Convolution Neural Networks for Person Identification with Different Biometrics - *International Journal of Advanced Computational Engineering and Networking*, Volume - 7, Issue 6, pp 41-47, IRAJ DOI No. - IJACEN-IRAJ-DOI-15631 June - 2019.
 41. Sarker, G. On the Change in Entropy Due to Accretion and Collision of Black Holes - *International Journal of Applied Physics (IJAP)*, Volume 8 Issue 2, 5-15, May-Aug, 2021, a, doi:10.14445/23500301/ IJAP-V8I2P102

42. Sarker, G. A Treatise on Astronomy and Space Science – International Journal of Applied Physics (IJAP), Volume 8 Issue 2, 47-58, May-Aug, 2021 b, doi:10.14445/23500301/IJAP-V8I2P107
43. Sarker, G. Some Studies on the Validation of Second Law of Black Hole Thermodynamics – International Journal of Applied Physics (IJAP), Volume 9 Issue 1, 1-8, Jan-April, 2022 a, doi:10.14445/23500301/IJAP-V9I1P101.
44. G. Sarker, V. Kumar One LSTM with CTC base Machine Transcription System for Speech Recognition - - Journal of Biological Engineering Research and Review, 2021; 8(2): 01-425 ISSN: 2349-3232

International Conferences

- 1 Sarker, G.,Nasipuri, M., Basu, D., K.,(1992),A New Machine Learning System Using Concept Theory Based Rule Induction ,1992 IEEE Region 10 International Conference, TENCON '92, ,76 – 80. DOI: 10.1109/TENCON.1992.271980.
- 2 Sarker, G.,Nasipuri, M., Basu, D., K.,(1990),An Inductive Learning Strategy for Automated Knowledge Acquisition based on Concept Rule ,IEEE Region 10 International Conference on Computer and Communication, TENCON'90, ,750 – 754. DOI: 10.1109/TENCON.1990.152711.
- 3 Sarker, G.,Nasipuri, M., Basu, D., K.,(1992),Knowledge Acquisition for Expert Systems Using Concept Theory Based Rule Induction ,18th Annual Convention and Exhibition (ACE '92), IEEE India Council, Calcutta.,196 – 199.
- 4 Sarker, G.,Nasipuri, M., Basu, D., K.,(1991),An Automated Learning Strategy for Medical Expert System. 7th National Convention of Electronics and Telecommunication Engineers organized by The Institution of Engineers (India).
- 5 Sarker, G.(1998),An Automated Rule Induction Technique for Learning Expert System.,Computer Society of India (CSI) Seminar Cum Exhibition TECH – EXPO '98 Organized by CSI Chapter, Dhanbad ,
- 6 Sarker, G.(2000),Fixed Input Output 1-WTA Learning System Shell for Intelligent Pattern Recognition ,Proceedings of the All India Seminar on Information Technology : Opportunities & Challenges in the Millennium on 10th & 11th March, 2000, Organized by the Institution of Engineers(India), W.B. State Centre, 64-67.
- 7 Sarker, G.(2001),A Review on Artificial Intelligence , (Invited Paper) 16th National Convention of Computer Engineers on Impact of Information Technology on Quality of Life – Future Strategy, held at Patna on December 15-16, 2001, organized by the Institution of Engineers(India), Bihar State Centre, pp. 29-36.

- 8 Sarker, G.(2002),A Semantic Concept Model Approach for Pattern Classification and recognition ,28th Annual Convention and Exhibition IEEE – ACE 2002., December 20-21 2002 , Science City ,Kolkata, 271 – 274.
- 9 Sarker, G.(2004),A New Winners Take All Algorithm for Pattern Classification and Recognition, Proceedings of International Conference on Communication, Device and Intelligent Systems (CODIS 2004) 8-10 January, 2004; Kolkata, INDIA, pp. 721-724.
- 10 Sarker, G.(2005),A Survey on Machine Intelligence and Machine Learning ,Indian Engineering Congress, organized by The Institution of Engineers (India), paper no. 47.
- 11 Sarker, G.(2005),A Heuristic Based Hybrid Clustering for Natural Classification in Data Mining , 20th Indian Engineering Congress, organized by The Institution of Engineers (India), December 15-18, 2005, Kolkata, INDIA, paper no. 4.
- 12 Sarker, G.(2006),A Heuristic Based Hybrid Clustering for Natural Classification, International Conference of Computer and Devices for Communication, CODEC – 06 held on Dec. 18 – 20, 2006, Kolkata Organized by Institute of Radio physics & Electronics, University of Calcutta.
- 13 Sarker, G.(2010),A Method of Face Detection with Bayesian Probability ,International Conference on Modeling, Optimization and Computing ICMOC 2010, International Conference on Modeling, Optimization and Computing ICMOC 2010, October 28-30, 2010, Organized by National Institute of Technology Durgapur.
- 14 Sarker, G.(2011),A Back propagation Network for Face Identification and Localization ,2011 International Conference on Recent Trends in Information Systems (ReTIS–2011) held in Dec. 21-23, Kolkata, DOI: 10.1109/ReTIS.2011.6146834, pp 24-29.
- 15 Sarker, G.(2012),An Unsupervised Learning Network for Face Identification and Localization ,2012 International Conference on Communications, Devices and Intelligent Systems (CODIS) Dec. 28 and 29, 2012, Kolkata, DOI: 10.1109/CODIS.2012.6422282, pp 652-655.
- 16 Sarker, G., Roy, K.(2013),An RBF Network with Optimal Clustering for Face Identification, International Conference on Information & Engineering Science – 2013(ICIES -2013), Feb. 21-23 2013, organized by IMRF, Vijayawada, Andhra Pradesh, pp – 70-74.
- 17 Sarker, G., Roy, K.(2013),A Modified RBF Network with Optimal Clustering for Face Identification and Localization, International Conference on Information & Engineering Science – 2013(ICIES -2013), Feb. 21-23 2013, organized by IMRF, Vijayawada, Andhra Pradesh pp 32-37.
- 18 Sarker, G. Kundu, S., (2013),A Modified Radial Basis Function Network for Fingerprint Identification and Localization ,International Conference on Advanced Engineering and Technology held at Kolkata on 15th Feb. 2013, pp. 26-31.

- 19 Bhakta, D., Sarker, G.(2013),A Radial Basis Function Network for Face Identification and Subsequent Localization International Conference on Computer Science & Information Technology (ICCSIT), pp.1-6, 10th March 2013, ISBN 978-93-82208-70-9.
- 20 K. Roy, Sarker G. (2013),A Location Invariant Face Identification and Localization with Modified RBF Network , International Conference on Computer and Systems ICCS-2013, 21-22 September, 2013, pp – 23-28, Bardhaman.
- 21 Bhakta, D., Sarker, G.(2013),A Rotation and Location Invariant Face Identification and Localization with or without Occlusion using modified RBFN , Proceedings of the 2013 IEEE Second International Conference on Image Information Processing (ICIIP – 2013), DOI: 10.1109/ICIIP.2013.6707649, pp – 533-538.
- 22 Sarker, G., Sharma, S. (2014),A Heuristic Based RBFN for Location and Rotation Invariant Clear and Occluded Face Identification ,International Conference on Advances in Computer Engineering and Applications, ICACEA – 2014, with IJCA), pp – 30-36.
- 23 Kundu, S., Sarker, G.(2014),A Modified RBFN Based on Heuristic Based Clustering for Location Invariant Fingerprint Recognition and Localization with and without Occlusion ,International Conference for Convergence of Technology – 2014, DOI: 10.1109/I2CT.2014.7092281, IEEE, pp 1-6.
- 24 Kundu, S., Sarker, G.(2014),A Modified BP Network using Malsburg Learning for Rotation and Location Invariant Fingerprint Recognition and Localization with and without Occlusion ,2014 Seventh International Conference on Contemporary Computing (IC3), DOI: 10.1109/IC3.2014.6897244, 617-623.
- 25 Bhakta, D., Sarker, G.(2014), A Boosting Based Multiple Classifier System with Modified RBFN for Clear and Occluded Face Identification, Proceedings of 1st International Science & Technology Congress 2014; ISBN 9789351072485, Elsevier Publications 2014,IEMCON – 2014, 28-30 August, 2014, Kolkata, pp. 527-534.
- 26 Sarker, G., Dhua, S., Besra, M. (2015),A Learning Based Handwritten Text Categorization, 2015 International Conference on Advances in Computer Engineering and Applications, (ICACEA – 2015). ISSN: 978-1-4673-6910-7/15/\$31.00 © 2015 IEEE.
- 27 Sarker, G., Besra, M., Dhua, S.(2015),A Programming Based Handwritten Text Identification. 2015 International Conference on Advances in Computer Engineering and Applications (ICACEA – 2015) ISSN: 978-1-4673-6910-7/15/\$31.00 © 2015 IEEE.
- 28 Sarker, G., Besra, M., Dhua, S.(2015),A Malsburg Learning BP Network Combination for Handwritten Alpha Numeral Recognition,2015 International Conference on Advances in Computer Engineering and Applications, (ICACEA – 2015). ISSN: 978-1-4673-6911-4/15/\$31.00 © 2015 IEEE.
- 29 Bhakta, D., Sarker, G.(2014), A Method of Learning Based Boosting in Multiple Classifier for Facial Expression Identification, 2015 IEEE 2nd International Conference on Recent Trends in Information Systems (ReTIS – 2015) held at Jadavpur University

Kolkata INDIA 9-11 July, 2015, ISSN: 978-1-4799-8349-0/15/\$31.00 ©2015 IEEE. pp. 319-324.

30 Sarker, G., Dhua, S., Besra, M. (2015), An Optimal Clustering for Fuzzy Categorization of Cursive Handwritten Text with Weight Learning in Textual Attributes, 2015 IEEE 2nd International Conference on Recent Trends in Information Systems (ReTIS – 2015) held at Jadavpur University Kolkata INDIA 9-11 July, 2015, ISSN: 978-1-4799-8349-0/15/\$31.00 ©2015 IEEE, pp. 6-11.

31 Bhakta, D., Sarker, G.(2015),A New Learning Based Boosting in Multiple Classifier for Colour Facial Expression Identification – International conference ICCI – 2015, held at BIT Mesra, Ranchi, Dec. 10-11, 2015, © Springer Science + Business Media Singapore, Advances in Intelligent Systems and Computing 509, DOI 10.1007/ 978-981-10-2525-9_26, pp. 267-277.

32 Kundu, S., Sarker, G.(2015), A Programming Based Boosting in Super Classifier for Fingerprint Recognition - - - International conference ICCI – 2015, held at BIT Mesra, Ranchi, Dec. 10-11, 2015, © Springer Science + Business Media Singapore, Advances in Intelligent Systems and Computing 509, DOI 10.1007/ 978-981-10-2525-9_31, pp. 319-329.

33 Kundu, S., Sarker, G.(2015), A Super Classifier with Programming Based Boosting using Biometrics for person Authentication ----- International conference ICCI – 2015, held at BIT Mesra Ranchi, Dec. 10-11, 2015, © Springer Science + Business Media Singapore, Advances in Intelligent Systems and Computing 509, DOI 10.1007/ 978-981-10-2525-9_32, pp. 331-341.

34 Sarker, G., A Weight Learning Technique for Cursive Handwritten Text Categorization with Fuzzy Confusion Matrix – 2016 International Conference on Control, Instrumentation, Energy & Communication (CIEC), held at Kolkata, 978-1-5090-0035-7/16/\$31.00 © 2016 IEEE, Jan. 20-30, 2016, pp 188-192.

35 Kundu S., Sarker G. A Person Identification System with Biometrics using Modified RBFN based Multiple Classifier – 2016 International Conference on Control, Instrumentation, Energy & Communication (CIEC), held at Kolkata, 978-1-5090-0035-7/16/\$31.00 © 2016 IEEE, Jan. 20-30, 2016, pp 125-129.

36 Sarker G., A New Technique For Extraction Based Text Summarization – 31st Indian Engineering Congress, 15-18 December, Kolkata 2016, The Institution of Engineers (India), pp 99-104

37 Kundu S., Sarker G. A Person Authentication System Using a Biometric Based Efficient Multilevel Integrator, 2nd International Conference on Sustainable Computing Technique in Engineering, Science and Management (SCESM – 2017), 27-28 Jan. 2017, Belagavi, India pp – 261-268

38. Sarker G., Ghosh S. A Set of Convolutional Neural Networks for Person Identification with Different Biometrics - Proceedings of WRFER International Conference, 17th March, 2019, Hyderabad, India
39. Sarker G., Ghosh S. Biometric Based Unimodal and Multimodal Person Identification with CNN using Optimal Filter Set - International Conference on Artificial Intelligence, Global AI Congress 2019, 12-14 Sept. 2019.
40. Sarker G., A Survey on Convolution Neural Networks - TENCON 2020 IEEE Region 10 International Conference, pp 923-928 16-19 Nov. 2020, Osaka, Japan
41. Sarker G., Kumar V, One LSTM with CTC based Machine Transcription System for Speech Recognition - G. Sarker, V. Kumar, (Best Paper) International Conference on Artificial Intelligence: Theory & Applications - (AITA 2021), 23 - 24 December 2021
42. Sarker G, A New Method of Galaxy Classification using Optimal Convolution Neural Network – International Symposium of Artificial Intelligence (ISAI-2022), Feb. 2022.

20. Patents: Three Patents Published

21. Copyrights: Two Copyrights for the books “A Treatise on Artificial Intelligence” and Fundamentals of Data Mining – A Comprehensive and Exhaustive Treatise.

22. Ph.D. Thesis Guidance at NIT Durgapur: Guided Two Ph. D. Thesis of Two Full Time Scholars:

(a) A Hierarchical Set of Super Classifiers for Fast Individual Facial Expression Identification – Ph.D. Thesis, 2016

(b) As Set of Super Classifier Combination for Efficient Biometric Identification – Ph.D. Thesis, 2018

23. Ph.D. Thesis of other University/Institute Examined: Six Ph.D. Thesis Examined and a Ph.D. Thesis Viva Conducted.

(a) Color Image Watermarking based on Curvelets and Ridgelets - Ph.D. Thesis, 2014, Jawaharlal Nehru Technological University, Hyderabad,

(b) Lossy Still Image Compression – Some New Techniques – Ph.D. Thesis, 2014, Anna University, Chennai.

(c) Applying Data Mining Techniques for Anomaly Detection from Data Streams – Ph.D. Thesis, 2015, Indian Institute of Technology Roorkee.

(d) Design and Implementation of Improved Content Based Image Retrieval System in Trademark Registration – Ph.D. Thesis, 2019, Chhattisgarh Swami Vivekananda Technical University, Bhilai.

(e) Fast Content Based Indexing and Retrieval Methods for Lecture Videos using Machine Learning Techniques – Ph.D. Thesis, 2021, Jawaharlal Nehru Technological University, A.P.

(f) Study and Design of Improved Lie Detection System Using Artificial Neural Networks – Ph.D. Thesis, 2022, Chhattisgarh Swami Vivekananda Technical University, Bhilai.

24. Review of Research Papers: Reviewed approximately 60 International Journal and Conference Research Papers

25. Invited Lectures:

i) Lectures on Astronomy (Preliminaries of Astronomy and Black Hole) for the M.Sc. Students of the School of Mathematical Science (Physics, Mathematics and Computer Science Departments) of Ramkrishna Mission Vivekananda Educational and Research Institute (Deemed University) Belur, Howrah on 07th and 8th Aug. 2023.

ii) Technical Talk (Machine Learning, Convolution Neural Network and Deep Learning) to the Students of M.Sc. Big Data Analytics in Computer Science and Engineering Department, Ramkrishna Mission Vivekananda Educational and Research Institute (Deemed University) Belur, Howrah on 01.August, 2019.

26. MEMBERSHIP OF PROFESSIONAL BODIES:

1. Senior Member of The Institution of Electrical and Electronic Engineers, IEEE (USA).
2. Life Fellow of The Institution of Engineers (India).
3. Life Fellow of The Institution of Electronics & Telecomm. Engineers (India).
4. Chartered Engineer of The Institution of Engineers (India).
5. Life Member of Computer Society of India
