

Resume of Dr. Alope Kumar Saha

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Academic Background:

Degree	Subject/Group	Division/ Class	Year	University/Board
Ph. D.	Computer Science & Engineering	Awarded	2019	Jahangirnagar University
M.Sc. (Thesis)	Computer Science	First	1993	University of Dhaka
B.Sc. (Honors)	Applied Physics & Electronics	First	1992	University of Dhaka
H.S.C	Science	First	1989	Dhaka Board
S.S.C	Science	First	1987	Dhaka Board

Professional Experience:

1. Proctor, University of Asia Pacific, Dhaka.
Period: 8th August 2025 - Present
2. Professor: Department of Computer Science & Engineering
University of Asia Pacific, Dhaka.
Period: 2nd July 2020 – Present
3. Director, Institutional Quality Assurance Cell (IQAC)
University of Asia Pacific, Dhaka.
Period: 1st April 2021 – 31st January 2024
4. Associate Professor: Department of Computer Science & Engineering
University of Asia Pacific, Dhaka.
Period: 11th April 2012 – 1st July 2020
5. Head & Associate Professor: Department of Computer Science & Engineering
University of Asia Pacific, Dhaka.
Period: 5th December, 2016 – 30th September, 2018
6. Head & Associate Professor: Department of Computer Science & Engineering
University of Asia Pacific, Dhaka.
Period: 11th April, 2012 – 30th May, 2016
7. Head & Assistant Professor: Department of Computer Science & Engineering
University of Asia Pacific, Dhaka.
Period: 6th June 2008 – 10th April 2012
8. Assistant Professor: Department of Computer Science & Engineering
University of Asia Pacific, Dhaka.
Period: 2nd August 2003 – 10th April 2012
9. Senior Lecturer: Department of Computer Science & Engineering
University of Asia Pacific, Dhaka.
Period: 6th June 2002 – 1st August 2003
10. Lecturer: Department of Computer Science & Engineering
University of Asia Pacific, Dhaka.
Period: 13th March 1999 – 5th June 2002
11. Lecturer: Department of Computer Science & Engineering
Queens University, Dhaka.
Period: 1st June 1997 – 12th March 1999

Professional Certification:

Reviewer, Journal, Decision Analytics Journal, Elsevier, ISSN: 2772-6622.

Reviewer, Journal, F1000Research, ISSN: [2046-1402](#)

Reviewer, Journal, VirusDisease (INJV), Spring Nature, ISSN: [2347-3517](#).

Reviewer, Journal, Computer Science Review, Elsevier, ISSN: 1574-0137.

Reviewer, Journal, AIUB Journal of Science and Engineering (AJSE), ISSN: 2520-4890.

Reviewer, 2022 IEEE World Conference on Applied Intelligence and Computing (AIC 2022), June, 2022.

TPC member, 2nd International Conference on Computing Advancements - ICCA 2022, March, 2022.

Reviewer, 2nd International Conference on Computing Advancements - ICCA 2022, March, 2022.

Reviewer, International Conference on Bangabandhu and Digital Bangladesh (ICBBDB 2021), December, 2021.

Reviewer, 5th International Conference on Electrical Engineering and Information & Communication Technology (ICEEICT), November, 2021.

Reviewer, International Conference on Electronics, Communications and Information Technology (ICECIT 2021), September, 2021.

Reviewer, [Joint 2021 5th International Conference on Imaging, Vision & Pattern Recognition \(IVPR\) and 10th International Conference on Informatics, Electronics & Vision \(ICIEV\)](#), August, 2021.

Reviewer, International Conference on Science & Contemporary Technologies(ICSCT-2021), August, 2021.

Session Chair, International Conference on Science & Contemporary Technologies(ICSCT-2021), August, 2021.

Reviewer, International Joint Conference on Advances in Computational Intelligence (IJCACI 2020), November, 2020.

TPC member, International Conference on Computing Advancements - ICCA 2020, January, 2020.

Reviewer, International Conference on Computing Advancements - ICCA 2020, January, 2020.

Chair, Organizing Committee, International Conference on Computer and Information Technology (ICCIT) 2017.

Contest Director, The 2016 ACM-ICPC Bangladesh National Collegiate Programming Contest

Training Experiences:

1. "Concept & Development of OBE and OBE Curriculum", arranged by University Grants Commission (UGC) of Bangladesh.
2. "Implementation & Assessment of OBE Curriculum", arranged by University Grants Commission (UGC) of Bangladesh.
3. "Implementation of Outcome-based Education in the Engineering Programs to Meet the Requirements of the Washington Accord", jointly arranged by AUST (Bangladesh), UKM (Malaysia), IIUM (Malaysia), and UniKL (Malaysia).
4. "Motivational Workshop on Quality Assurance & Accreditation in Higher Education", arranged by Bangladesh Accreditation Council (BAC).
5. "Bangladesh National Qualifications Framework (BNQF) and Accreditation Standards & Criteria", arranged by Bangladesh Accreditation Council (BAC).
6. "How can we assess our online students?", arranged by Institute for the Development of Online Learning.
7. "Are your online students engaged?", arranged by Institute for the Development of Online Learning.

8. “Managing Covid-19 Pandemic: Best Practice, Experience and Challenges”, arranged by Association of Universities of Asia and the Pacific (AUAP).

9. “Improving Learning and Teaching System”, arranged by University of Asia Pacific (UAP).

Other Experiences:

Member of Academic Council of University of Asia Pacific (UAP).

Member of Finance Committee of UAP Foundation.

Chairman of Examination Committee of CSE department.

Contest Director of National Collegiate Programming Contest, NCPC, 2016

Chair, Organizing Committee of 20th International Conference on Computer and Information Technology, ICCIT, 2017.

Chief of Organizing Committee of International Journal of Computer and Information Technology (IJCIT), published by department of CSE, UAP.

Convener of Programming contest club, department of CSE, UAP.

Convener of seating arrangement committee of the convocation of UAP.

Member of different committees of the convocation of UAP and other committees ordered by the Vice-Chancellor of UAP.

Advisor of Research & Publication unit, Programming Contest club, Hardware & Software Club, Sports Club and Cultural & Debating Club of the department of CSE, UAP.

Convener of Departmental Quality Assurance Unit (DQAU) of the department of CSE, UAP.

List of Publications:

1. _____ Diba, B.S., Tasnim, N., Hossain, M., **Saha, A.K.**, Kibriya, M.G., Tonmoy, M.R. (2026). Enhancing Gall Bladder Cancer Detection by Privacy-Preserving Federated Learning: A Comprehensive CSV-Based Classification Approach. In: Mridha, M.F., Dey, N. (eds) Federated Learning in Health Care Technology. Studies in Computational Intelligence, vol 1216, pp. 169-193, November 2025. Springer, Singapore. https://doi.org/10.1007/978-981-96-8353-6_9
2. _____ Mahi, A.B.S., Eshita, F.S., Maisha, M.T., **Saha, A.K.**, Al Masud, S.M.R. (2025). Green Driving: Harnessing Machine Learning to Predict Vehicle Carbon Footprints and Interpreting Results with Explainable AI. In: Abedin, M.Z., Yong, W. (eds) Machine Learning Technologies on Energy Economics and Finance. International Series in Operations Research & Management Science, vol 368, pp. 1-26, August 2025. Springer, Cham. https://doi.org/10.1007/978-3-031-95099-5_1
3. _____ Mahi, A.B.S., Eshita, F.S., Mowla, T.J., **Saha, A.K.**, Al Masud, S.M.R. (2025). Predicting Solar Radiation: A Fusion Approach with CatBoost and Random Forest Ensemble Enhance by Explainable AI. In: Abedin, M.Z., Yong, W. (eds) Machine Learning Technologies on Energy Economics and Finance. International Series in Operations Research & Management Science, vol 368, pp. 155-180, August 2025. Springer, Cham. https://doi.org/10.1007/978-3-031-95099-5_7
4. Mahi, A.B.S., Mowla, T.J., **Saha, A.K.**, Al Masud, S.M.R. (2025). Modeling Nuclear Fusion Reaction Occurrence with Advanced Deep Learning Techniques: Insights from LIME and SMOTE. In: Abedin, M.Z., Yong, W. (eds) Machine Learning Technologies on Energy Economics and Finance. International Series in Operations Research & Management Science, vol 368, pp. 181-202, August 2025. Springer, Cham. https://doi.org/10.1007/978-3-031-95099-5_8
5. Mahi, A.B.S., Eshita, F.S., Tasnim, N., **Saha, A.K.**, Al Masud, S.M.R. (2025). Exploring Feature Selection Techniques in Predicting Indian Household Electricity Consumption. In: Abedin, M.Z., Yong, W. (eds) Machine Learning Technologies on Energy Economics and Finance. International Series in Operations Research & Management Science, vol 368, pp. 219-241, August 2025. Springer, Cham. https://doi.org/10.1007/978-3-031-95099-5_10
6. Nakiba Nuren Rahman, Abu Bakar Siddique Mahi, Durjoy Mistry, Shah Murtaza Rashid Al Masud, **Aloke Kumar Saha**, Rashik Rahman, Md. Rajibul Islam, FallVision: A benchmark video dataset for fall detection, Data in Brief, Volume 59, April 2025, 111440, ISSN 2352-3409, <https://doi.org/10.1016/j.dib.2025.111440>. (<https://www.sciencedirect.com/science/article/pii/S2352340925001726>)
7. _____ M. R. Tonmoy, M. A. Adnan, **A. K. Saha**, M. F. Mridha and N. Dey, "Descriptor: Multilingual Visual Font Recognition Dataset", in *IEEE Data Descriptions*, vol. 1, pp.

8-12, November 2024, ISSN 2995-4274, <https://doi.org/10.1109/IEEEDATA.2024.3460768>

8. M. T. Rahman, A. S. M. Bakibillah and **A. K. Saha**, "Modeling of 5G-Enabled Hybrid Visible Light Communication Systems for Autonomous Vehicles", *2024 2nd International Conference on Information and Communication Technology (ICICT)*, Dhaka, Bangladesh, October, 2024, pp. 56-60, [doi: 10.1109/ICICT64387.2024.10839738](https://doi.org/10.1109/ICICT64387.2024.10839738)

9. Sultana Eshita, F., Bakar Siddique Mahi, **A., Kumar Saha**, A., Murtaza Rashid Al Masud, S. (2024). Advancing Cancer Diagnosis with LungColonGuard: A Deep Learning Framework For Lung and Colon Cancer Detection From Histopathological Image. In: Mylonas, P., Kardaras, D., Caro, J. (eds) *Novel and Intelligent Digital Systems: Proceedings of the 4th International Conference (NiDS 2024)*. NiDS 2024. Lecture Notes in Networks and Systems, vol 1170, October 2024. Springer, Cham. https://doi.org/10.1007/978-3-031-73344-4_28

10. Siddique Mahi, A.B., Sultana Eshita, F., Jahin Mowla, T., **Saha, A.K.**, Rashid Al Masud, S.M. (2024). QBNet: A Lightweight Quantized Model for Dynamic Banana Disease Recognition. In: Mylonas, P., Kardaras, D., Caro, J. (eds) *Novel and Intelligent Digital Systems: Proceedings of the 4th International Conference (NiDS 2024)*. NiDS 2024. Lecture Notes in Networks and Systems, vol 1170, October 2024. Springer, Cham. https://doi.org/10.1007/978-3-031-73344-4_44

11. Abdus Sattar, Md. Asif Mahmud Ridoy, **Aloke Kumar Saha**, Hafiz Md. Hasan Babu, Mohammad Nurul Huda, "A comprehensive approach to detecting chemical adulteration in fruits using computer vision, deep learning, and chemical sensors", *Intelligent Systems with Applications (Q1 Journal)*, Vol. 23, September 2024, ISSN 2667-3053, <https://doi.org/10.1016/j.iswa.2024.200402>

12. Bidita Sarkar Diba, Jayonto Dutta Plabon, M.D. Mahmudur Rahman, Durjoy Mistry, **Aloke Kumar Saha**, M.F. Mridha, "Explainable federated learning for privacy-preserving bangla sign language detection", *Engineering Applications of Artificial Intelligence (Q1 Journal)*, Volume 134, August 2024, ISSN 0952-1976, <https://doi.org/10.1016/j.engappai.2024.108657>

13. Md. Ariful Islam, Jahir Ibna Rafiq, **Aloke Kumar Saha**, Muhammad Firoz Mridha, "Three-dimensional User Authentication Comprising Graphical Pattern, Iris Recognition, and One-time Password for ATM Transactions", in *Emerging Trends for Securing Cyber Physical Systems and the Internet of Things (1st ed.)*, Chapter 6, CRC Press, May 2024, <https://doi.org/10.1201/9781003474111>

14. M. M. Fuad, A. Faiyaz, N. M. K. Arnob, M. F. Mridha, **Aloke Kumar Saha** and Z. Aung, "Okkhor-Diffusion: Class Guided Generation of Bangla Isolated Handwritten Characters Using Denoising Diffusion Probabilistic Model (DDPM)", in *IEEE Access*, Vol. 12, pp. 37521-37539, February 2024, [doi:10.1109/ACCESS.2024.3370674](https://doi.org/10.1109/ACCESS.2024.3370674)

15. Sattar, Abdus, Md Asif Mahmud Ridoy, **Aloke Kumar Saha**, Hafiz Md Hasan Babu, and Mohammad Nurul Huda, "Computer vision based deep learning approach for toxic and harmful substances detection in fruits", *Heliyon (Q1 Journal)*, Vol. 10, No. 3, January 2024. <https://doi.org/10.1016/j.heliyon.2024.e25371>
16. **Aloke Kumar Saha**, Noor Mairukh Khan Arnob, Nakiba Nuren Rahman, Maria Haque, Shah Murtaza Rashid Al Masud and Rashik Rahman, "Mukh-Oboyob: Stable Diffusion and BanglaBERT enhanced Bangla Text-to-Face Synthesis", *International Journal of Advanced Computer Science and Applications (IJACSA)*, (SCOPUS Indexed International Journal), Vol. 14, No. 11, pp. 1392-1400, November 2023. <http://dx.doi.org/10.14569/IJACSA.2023.01411142>
17. Shah Murtaza Rashid Al Masud, Homaira Adiba, Tamzid Hossain, **Aloke Kumar Saha** and Rashik Rahman, "Development of Interactive Data Visualization System in Three-Dimensional Immersive Space", *International Journal of Advanced Computer Science and Applications (IJACSA)*, (SCOPUS Indexed International Journal), Vol. 14, No. 10, pp. 1027-1033, October 2023. <http://dx.doi.org/10.14569/IJACSA.2023.01410108>
18. Sk. Yeasin Kabir Joy, Md. Nafees Imtiaz Ahsan, Nuzhat Tabassum Progga, **Aloke Kumar Saha**, Mohammad Shahriar Rahman, and Abdullah Al Omar, "An Anti-Counterfeiting Architecture Ensuring Authenticity and Traceability for Expensive Medicines Using QR Codes", in *Blockchain Technology for IoE: Security and Privacy Perspectives (1st ed.)*, Chapter 10, CRC Press, September 2023, <https://doi.org/10.1201/9781003366010>
19. D. Mistry, M. F. Mridha, M. Safran, S. Alfarhood, **A. K. Saha** and D. Che, "Privacy-Preserving On-Screen Activity Tracking and Classification in E-Learning Using Federated Learning," in *IEEE Access*, Vol. 11, pp. 79315-79329, July 2023, doi: 10.1109/ACCESS.2023.3299331
20. Noor Mairukh Khan Arnob, Nakiba Nuren Rahman, Saiyara Mahmud, Md. Nahiyen Uddin, Rashik Rahman*, **Aloke Kumar Saha***, "Facial Image Generation from Bangla Textual Description using DCGAN and Bangla FastText", *International Journal of Advanced Computer Science and Applications (IJACSA)*, (SCOPUS Indexed International Journal), Vol. 14, No. 6, pp. 1261-1271, June 2023. <http://dx.doi.org/10.14569/IJACSA.2023.01406134>
21. Sabbir Hosen, Jannatul Ferdous Eva, Ayman Hasib, **Aloke Kumar Saha**, M.F. Mridha and Anwar Hussien Wadud, "HQA-Data: A historical question answer generation dataset from previous multi perspective conversation", *Data in Brief*, Volume 48, May 2023, 109245, ISSN 2352-3409, <https://doi.org/10.1016/j.dib.2023.109245>.
22. Md. Rajibul Islam, Md. Asif Mahmud Tusher Siddique, Md Amiruzzaman, M. Abdullah-Al-Wadud, Shah Murtaza Rashid Al Masud and **Aloke Kumar Saha**, "An Efficient Technique for Recognizing Tomato Leaf Disease Based on the Most Effective

Deep CNN Hyperparameters”, Annals of Emerging Technologies in Computing (AETiC), (SCOPUS Indexed International Journal), Vol. 7, No. 1, January 2023.

23. Fahima Khanam, Farha Akhter Munmun, Nadia Afrin Ritu, Alope Kumar Saha, and Muhammad Firoz Mridha, "Text to Speech Synthesis: A Systematic Review, Deep Learning Based Architecture and Future Research Direction", Journal of Advances in Information Technology (JAIT), (SCOPUS Indexed International Journal), Vol. 13, No. 5, pp. 398-412, October 2022.

24. Rashik Rahman, Hasan Murad, Nakiba Nuren Rahman, **Alope Kumar Saha**, Shah Murtaza Rashid Al Masud and A S Zaforullah Momtaz, “CapNet: An Encoder-Decoder based Neural Network Model for Automatic Bangla Image Caption Generation”, International Journal of Advanced Computer Science and Applications (IJACSA), (SCOPUS Indexed International Journal), Vol. 13, No. 8, pp. 752-759, August 2022. <http://dx.doi.org/10.14569/IJACSA.2022.0130886>

25. Md. Anwar Hussen Wadud, M. F. Mridha, Jungpil Shin, Kamruddin Nur, **Alope Kumar Saha**, “Deep-BERT: Transfer Learning for Classifying Multilingual Offensive Texts on Social Media”, Computer Systems Science and Engineering (CSSE), (SCOPUS Indexed International Journal), Vol. 44, No. 2, ISSN: 0267-6192, pp. 1775–1791, June 2022. <https://www.techscience.com/csse/v44n2/48287>

26. **Alope Kumar Saha**, Shah Murtaza Rashid Al Masud, Md. Rajibul Islam, Md. Akhtaruzzaman Adnan, "A Data Collision Avoidance and Delay-Energy Efficient Mac Protocol for Wireless Body Area Network", Journal of Theoretical and Applied Information Technology (JATIT), (SCOPUS Indexed International Journal), Vol. 100, No. 8, ISSN: 1992-8645, pp. 2480-2496, April, 2022. <http://www.jatit.org/volumes/Vol100No8/10Vol100No8.pdf>

27. Shah Murtaza Rashid Al Masud and **Alope Kumar Saha**, “A Delay-tolerant MAC Protocol for Emergency Care in WBAN Considering Preemptive and Non-preemptive Methods” International Journal of Advanced Computer Science and Applications (IJACSA), (SCOPUS Indexed International Journal), Vol. 12, No. 11, pp. 463-473, November 2021. <http://dx.doi.org/10.14569/IJACSA.2021.0121152>

28. Md. Abdullah Al Noman Majumder, Eimon Hossain Taief, Md. Nurul Amin Bhuiyan, **Alope Kumar Saha** and M. F. Mridha, “Eliminating racial bias at the time of detection Melanoma using Convolution Neural Network (CNN)”, 5th International Joint Conference on Advances in Computational Intelligence (IJCACI 2021), October 2021.

29. M. M. Kabir, P. Mehera, **Alope Kumar Saha**, M. F. Mridha, M. A. Hamid and M. M. Monowar, "CNN-NSVM Architecture for Skin Lesion Classification Using Non-Dermoscopic Digital Image", 2021 Joint 10th International Conference on Informatics, Electronics & Vision (ICIEV) and 2021 5th International Conference on

Imaging, Vision & Pattern Recognition (icIVPR), pp. 1-7, Japan, August 2021. doi: 10.1109/ICIEVicIVPR52578.2021.9564195.

30. Md. Shahidul Islam, Fariha Mamud, Rakib Ul Haque, Ahmed Y. Saber and **Aloke Kumar Saha**, "Automatic formulation and optimization of linear problems from a structured paragraph," 2021 International Conference on Science & Contemporary Technologies (ICSCT), August 2021, pp. 1-6, doi: 10.1109/ICSCT53883.2021.9642516. (IEEE Xplore)

31. A. S. Z. Momtaz, A. U. Shaha, Nahida Sultana Chowdhury, **Aloke Kumar Saha**, "BLU: An Interactive Loving Pet Robot", 6th IEEE International Women in Engineering (WIE) Conference on Electrical and Computer Engineering 2020 (IEEE WIECON-ECE 2020), pp. 316-319, Bhubaneswar, India, December 2020. doi: 10.1109/WIECON-ECE52138.2020.9397964. (IEEE Xplore)

32. **Aloke Kumar Saha**, Jugal Krishna Das, "Identification of Extreme Guilt and Grave Fault in Bengali Language using Machine Learning", International Journal of Recent Technology and Engineering (IJRTE), (SCOPUS Indexed International Journal), Vol. 8, No. 6, ISSN: 2277-3878, pp. 1359-1365, March 2020.

33. Rakib Ul Haque, M. F. Mridha, **Aloke Kumar Saha**, Md. Abdul Hamid, Kamruddin Nur "Identification of Extreme Guilt and Grave Fault in Bengali Language", International Conference on Computing Advancements (ICCA 2020), ACM, Dhaka, Bangladesh (ACM Digital Library), January 2020. <https://doi.org/10.1145/3377049.3377098>

34. Md. Tariqulhasan Fazle Rabbi, S. M. Tanjilur Rahman, Prokash Biswash, Jinsul Kim, Alamin Sheikh, **Aloke Kumar Saha**, M. Shorif Uddin, "Handwritten Signature Verification Using CNN with Data Augmentation," Journal of Contents Computing (Digital Contents Society), Vol. 1, No. 1, pp. 25-37, December 2019. <https://dx.doi.org/10.9728/jcc.2019.12.1.1.25>

35. Nusrat Jahan, Rakib Ul Haque, **Aloke Kumar Saha**, M. F. Mridha, Md. Abdul Hamid, "Identification of Expectancy, Proximity, and Compatibility of the Bengali Language", 2019 IEEE International Conference on Computational Science and Engineering (CSE) and IEEE International Conference on Embedded and Ubiquitous Computing (EUC), pp. 349-354, New York, USA, August 2019.

36. **Aloke Kumar Saha**, M.F. Mridha, Jahir Ibna Rafiq, Jugal K Das, "Information Extraction from Natural Language Using Universal Networking Language", International Conference on Computer, Communications and Computational Studies (IC4S), Thailand, October 2018.

37. Md. Atiqur Rahman, Jungpil Shin, **Aloke Kumar Saha**, Md. Rashedul Islam, “A Novel Lossless Coding Technique for Image Compression”, 2018 Joint 7th International Conference on Informatics, Electronics & Vision (ICIEV) and 2018 2nd International Conference on Imaging, Vision & Pattern Recognition (icIVPR), Japan, June 2018. (IEEE Xplore)
38. **Aloke Kumar Saha**, M. F. Mridha, Jahir Ibna Rafiq and Jugal Krishna Das, “Data Extraction from Natural Language Using Universal Networking Language”, International Conference on Current Trends in Computer, Electrical, Electronics and Communication (ICCTCEEC), Karnataka, India, September 2017. (IEEE Xplore)
39. M. F. Mridha, Hanif Bhuiyan, Shammi Akhtar and **Aloke Kumar Saha**, “A Bangla Semantic Parser Using Context-Free-Grammar”, International Conference on Current Trends in Computer, Electrical, Electronics and Communication (ICCTCEEC), Karnataka, India, September 2017. (IEEE Xplore)
40. **Aloke Kumar Saha**, M. F. Mridha, Jugal Krishna Das, “Creating a Bangla Enconversion Module for Generating UNL Expression from Bangla Bagdhara (Phrase and Idoms)”, 1292-JEAS, Journal Teknologi, April 2017.
41. M. M. F. Mridha, Kamruddin Nur, **Aloke Kumar Saha**, Md. Akhtaruzzaman Adnan, “A New Approach to Enhance Internet Banking Security”, International Journal of Computer Applications (0975 – 8887), Vol. 160, No. 8, pp. 35-39, February 2017.
42. M. F. Mridha, **Aloke Kumar Saha**, Md. Akhtaruzzaman Adnan, Molla Rashied Hussein and Jugal Krishna Das, “Design And Implementation Of An Efficient Enconverter For Bangla Language” ARPN Journal of Engineering and Applied Sciences, Vol. 10, No. 15, ISSN 1819-6608, pp. 6543-6548, August 2015.
43. **Aloke Kumar Saha**, Md. Firoz Mridha, Molla Rashied Hussein and Jugal Krishna Das, “Design and Implementation of an efficient DeConverter for generating Bangla sentences from UNL Expression”, 4th International Conference on Informatics, Electronics & Vision (ICIEV), June 2015.
44. Muhammad F. Mridha, **Aloke Kumar Saha** and Jugal Krishna Das, “New Approach of Solving Semantic Ambiguity Problem of Bangla Root Words Using Universal Networking Language (UNL)”, 3rd International Conference on Informatics, Electronics & Vision (ICIEV), May 2014.
45. A S Zafourullah Momtaz, Nahida Sultana Chowdhury, **Aloke Kumar Saha**, “Hanoi: An Embedded System for Tower of Hanoi Puzzle”, Journal of Emerging Trends in Engineering and Applied Science (JETEAS), Vol. 5, No. 2, April 2014.

46. **Aloke Kumar Saha**, Muhammad F. Mridha and Jugal Krishna Das, “Analysis of Bangla Root words for Universal Networking Language (UNL)”, International Journal of Computer Applications (0975 – 8887) Vol. 89, March 2014.
47. Muhammad F. Mridha, **Aloke Kumar Saha** and Jugal Krishna Das, “Solving Semantic Problem of Phrases in NLP Using Universal Networking Language (UNL)”, International Journal of Advanced Computer Science and Applications (IJACSA), Special Issue on Natural Language Processing (NLP), 2014.
48. Shammi Akhtar, **Aloke Kumar Saha**, “Cloud Computing Services for IT and Business”, International Journal of Artificial Intelligence and Agent Technology (IJAIAT), ISBN: 2012-1-1-107, Vol. 1, No. 1, 2013.
49. **Aloke Kumar Saha**, Khandker Tafiqul Islam, Sheikh Muhammad Sarwar, Bindu Rani Das, Md Ashrafujjaman Mondal, Sofura Akhter, “A Novel and Efficient Data Structure to Facilitate Dictionary Search using Wildcards”, Second Intl. Conference on Advances in Information Technology - AIT 2013, ISBN: 978-981-07-5939-1, 2013.
50. **Aloke Kumar Saha**, Muhammad F. Mridha, Shammi Akhtar and Jugal Krishna Das, “Attribute Analysis for Bangla Words for Universal Networking Language (UNL)”, International Journal of Advanced Computer Science and Applications (IJACSA), Vol. 4, No.1, 2013.
51. **Aloke Kumar Saha**, Muhammad F. Mridha and Jugal Krishna Das, “Semantic Analysis of Bangla Language for Developing A UNL Deconverter”, International Journal of Advanced Research in Computer Science and Software Engineering (IJARCSSE), ISSN: 2277 128X, Vol. 2, No. 12, December 2012.
52. **Aloke Kumar Saha**, Muhammad F. Mridha, Kamal Kanti Biswas, and Jugal Krishna Das, “A New Approach of Developing a Deconverting rules for Bangla Language”, International Journal of Computer Engineering Science (IJCES), ISSN: 2250:3439, Vol. 2, No. 12, December 2012.
53. **Aloke Kumar Saha**, Muhammad F. Mridha, Manoj Banik, and Jugal Krishna Das, “Specification of UNL Deconverter for Bangla Language”, International Journal of Scientific & Engineering Research (IJSER), ISSN: 2229-5518, Vol. 3, No. 9, September 2012.
54. Md. Rashedul Islam, **Aloke Kumar Saha** and Md. Rofiqul Islam, “Experimental Evaluation of parallelism in real time execution”, Research Notes in Information Science(ISSN: 2093-1956), Seoul, Korea, April 2012.
55. A. S. Zaforullah Momtaz, Md. Fayyaz Khan, **Aloke Kumar Saha**, and Kazi Shamsul Arefin, "A Practical Solution for Robotic Arm of the Towers of Hanoi Problem", International Journal of Computer and Electrical Engineering (IJCEE), Manuscript Code: JE446, Vol. 3, No. 4, pp. 583-586, Singapore, August 2011.

56. A. S. Zaforullah Momtaz, Md. Fayyaz Khan, Muhammad Sajjad Hossain, **Aloke Kumar Saha** and Kazi Shamsul Arefin, "Design and Implementation of an Efficient Natural Algorithm to Solve Towers of Hanoi Puzzle having Multiple Towers & Disks", International Journal of Engineering and Technology, Manuscript Code: 248, Vol. 3, No. 4, pp. 334-337, Singapore, August 2011.
57. Kazi Shamsul Arefin, Md. Majharul Islam, and **Aloke Kumar Saha**, "Applying Data Mining to Predict New Subscriber Activation in Telecom Companies", International Journal of Data Warehouse and Mining, July 2011.
58. Md. Haris Uddin Sharif, **Aloke Kumar Saha**, Kazi Shamsul Arefin, and Md. Haidar Sharif, "Event Detection from Video Streams", International Journal of Computer and Information Technology (IJCIT), ISSN: 2078-5828 (Print), 2218-5224 (Online), Manuscript code: IJCIT-110759, Vol. 2, No. 1, July 2011.
59. Kazi Shamsul Arefin, **Aloke Kumar Saha**, "An Artificial Tongue for Taste sensor Based on Neural Network", International Journal of Computer and Information Technology (IJCIT), ISSN: 2078-5828 (Print), 2218-5224 (Online), Manuscript code: IJCIT-110712, Vol. 2, No. 01, July 2011.
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Thesis Supervised:

1. Convergence of Federated Learning and Explainable AI for Privacy-Preserving Bangla Sign Language Detection.
2. Okkhor-Diffusion: Synthetic class specific Bangla Handwritten Character Generation using Denoising Diffusion Probabilistic Models (DDPM).
3. Blockchain Based Effective Distributed Attendance Monitoring System using Face Recognition.
4. MukhLekha: An End-to-End System for Generating Face Image from Bangla Text
5. Real-time Chat Analysis and Find the Answer from the Previous Chat Using Deep Learning
6. A Proposed Framework for University Smart Office Implementation
7. An Anti-Counterfeiting Architecture for Authenticity and Traceability for Expensive Drugs Using QR Codes
8. Bangla Hate Speech Classification Using BERT

9. Blockchain based KYC Verification Banking System
10. Automatic Formulation and Optimization of Linear Problems
11. Neutrosophic Support Vector Machine (Neutrosophic-SVM) for skin lesion classification from non-dermoscopic digital image
12. Eliminating Racial Bias at the Time of Detection Melanoma using Convolution Neural Network (CNN) to Improve Trust in AI
13. Attitude Analysis on Hate Speech Filtration Based on Bengali Context Using Deep Learning
14. BLU: An Interactive Loving Pet Robot
15. Handwritten Signature Verification Using CNN with Data Augmentation
16. Energy Data Analysis
17. Inventory Control System
18. Design and Implementation of Algorithm (AI based)
19. Study on Various Scan Conversion Methods and Design and Implementation of Efficient Scan Conversion Algorithm
20. Inventory Control System and Repairing Management System of BASIC Bank
21. Design and Implementation of Bi-directional Heuristic Search Algorithm
22. Banking Database System and Development
23. Networked Database System Design and Development– A Case Study for BARI
24. Inventory Control and Repairing Management System of BASIC Bank & a Final Report of IT Division of BASIC Bank
25. Normal Events Detection from Video Streams
26. Study on Various Scan Conversion Methods and Design and Implementation of an Efficient Scan Conversion Algorithm
27. Design and Implementation of Bi-Directional Heuristic Search Algorithm- a New Approach.

Research Interest:

Artificial Intelligence (AI); Natural Language Processing (NLP); Machine Learning; Deep Learning.

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