DR. SUJIT KUMAR DAS

Google Scholar ◇ ResearchGate ◇ ORCID ◇ LinkedIn
Phone: (+91) 8486378025 ◇ Email: s.das@asu.ac.in/dassujit88@gmail.com

EDUCATION

National Institute of Technology Silchar (NIT Silchar) *Feb 2018 - Sept 2022*
Ph.D. in Computer Science and Engineering
Thesis Title: Automatic Identification of Diabetes and Diabetic Foot Ulcers using Predictive Modeling.
Supervisor: *Dr. Pinki Roy, Associate Professor, NIT Silchar*

Assam University, Silchar *Aug 2013 - July 2015*
M.Tech in Information Technology
CGPA: 7.46/10

Central Institute of Technology Kokrajhar (CIT Kokrajhar) *Aug 2009-July 2013*
B.Tech in Computer Science and Engineering
CGPA: 7.15/10

RESEARCH INTERESTS

Artificial Intelligence, Machine Learning, Deep Learning, Computer Vision, Medical Imaging.

TEACHING AND RESEARCH EXPERIENCE

Assistant Professor *April 2025 - Present*
Department of Information Technology, Assam Skill University, Mangaldai, Assam, India.

Assistant Professor (Senior Grade) *Nov 2022 - Apr 2025*
Department of CSE, ITER, Siksha 'O' Anusandhan University, Bhubaneswar, Odisha.

Assistant Professor *July 2022 - Nov 2022*
School of Computer Science Engineering and Technology, Bennett University, Greater Noida, UP.

Assistant Professor *Feb 2022 - July 2022*
Department of CSE, Alliance University, Bengaluru, Karnataka.

Guest Faculty *Jan 2017 - Feb 2018*
Department of CSE, TSSOT, Assam University, Silchar, Assam.

Research Assistant *Dec 2015- Sept 2016*
Department of History and Archaeology, NEHU (Tura Campus), Meghalaya.

JOURNAL PUBLICATIONS

1. **Sujit Kumar Das**, Nageswara Rao Moparth, Suyel Namasudra, Rubén González-Crespo, David Taniar,"A Smart Healthcare System Using Consumer Electronics and Federated Learning to Automatically Diagnose Diabetic Foot Ulcers" International Journal of Interactive Multimedia and Artificial Intelligence, 2024. (SCI, Q2), Impact Factor: 3.4 (In Press), 10.9781/ijimai.2024.10.04
2. **Sujit Kumar Das**, Suyel Namasudra, Arun Kumar Sangaiah, "HCNNet: hybrid convolution neural network for automatic identification of ischaemia in diabetic foot ulcer wound" Multimedia Systems, Springer, 2024. (SCI, Q1), Impact Factor: 3.9 (Published), 10.1007/s00530-023-01241-4
3. **Sujit Kumar Das**, Suyel Namasudra, Awnish Kumar, Nageswara Rao Moparthi, "AESPNet: Attention Enhanced Stacked Parallel Network to improve automatic Diabetic Foot Ulcer identification", Image and Vision Computing, Elsevier, 2023. (SCI, Q2), Impact Factor: 4.7 (Published), 10.1016/j.imavis.2023.104809

4. **Sujit Kumar Das**, P. Roy, and A. K. Mishra, "Recognition of ischaemia and infection in diabetic foot ulcer: A deep convolutional neural network based approach", International Journal of Imaging Systems and Technology, Wiley Online Library, 2021. (SCIE, Q2), Impact Factor: 3.3 (Published), 10.1002/ima.22598.

5. **Sujit Kumar Das**, P. Roy, and A. K. Mishra, "DFU_SPNet: A stacked parallel convolution layers based CNN to improve Diabetic Foot Ulcer classification", ICT Express, Elsevier, 2022. (SCIE, Q1), Impact Factor: 5.4 (Published), 10.1016/j.icte.2021.08.022.

6. **Sujit Kumar Das**, Pinki Roy, and Arnab Kumar Mishra, "Fusion of Handcrafted and Deep CNN Features for Effective Identification of Diabetic Foot Ulcer", Concurrency and Computation Practice and Experience, Wiley Online Library, 2021. (SCIE, Q2), Impact Factor: 2.0 (Published), 10.1002/cpe.6690.

7. **Sujit Kumar Das**, Pinki Roy, and Arnab Kumar Mishra, "Oversample-Select-Tune: A Machine Learning Pipeline for Improving Diabetes Identification", Concurrency and Computation Practice and Experience, Wiley Online Library, 2022. (SCIE, Q2), Impact Factor: 2.0 (Published), 10.1002/cpe.6741.

8. **Sujit Kumar Das**, Pinki Roy, Prabhishek Singh, Manoj Diwakar, Vijendra Singh, Ankur Maurya, Sandeep Kumar, Seifedine Kadry, Jungeun Kim, "Diabetic Foot Ulcer Identification: A Review", Diagnostics, MDPI, 2023. (SCIE, Q2), Impact Factor: 3.6 (Published), 10.3390/diagnostics13121998.

9. P. Bhuyan, P.K. Singh, **Sujit Kumar Das**, A. Kalla, "SE_SPNet: Rice Leaf Disease Prediction using Stacked Parallel Convolutional Neural Network with Squeeze-and- Excitation", Expert Systems, p.e13304, Wiley, 2023. (SCIE, Q2), Impact Factor: 3.3 (Published), 10.1111/exsy.13304.

10. P. Bhuyan, P.K. Singh, **Sujit Kumar Das**, "Res4net-CBAM: a deep cnn with convolution block attention module for tea leaf disease diagnosis" Multimedia Tools and Application, Springer (2023), (SCIE, Q1), Impact Factor: 3.6(Published), 10.1007/s11042-023-17472-6.

11. Arnab Kumar Mishra*, **Sujit Kumar Das***, Pinki Roy, Sivaji Bandyopadhyay, "Identifying COVID-19 From Chest CT Images: A Deep Convolutional Neural Networks Based Approach", Journal of Healthcare Engineering, Volume, 2020. Hindawi. (SCOPUS), *Authors have equal contributions to this work,(Published), 10.1155/2020/8843664.

12. A.K. Mishra, P. Roy, S. Bandyopadhyay, and **Sujit Kumar Das**, "Breast ultrasound tumour classification: A Machine Learning—Radiomics based approach", Expert Systems, p.e12713, Wiley, 2021. (SCIE, Q2), Impact Factor: 3.3 (Published), 10.1111/exsy.12713.

13. Arnab Kumar Mishra, Pinki Roy, Sivaji Bandyopadhyay, and **Sujit Kumar Das**, "CR-SSL: A Closely Related Self Supervised Learning Based Approach for Improving Breast Ultrasound Tumor Segmentation". International Journal of Imaging Systems and Technology, Wiley Online Library. (SCIE, Q2), Impact Factor: 3.3 (Published), doi.org/10.1002/ima.22693.

14. Arnab Kumar Mishra, Pinki Roy, Sivaji Bandyopadhyay, and **Sujit Kumar Das**, "Achieving Highly Efficient Breast Ultrasound Tumor Classification with Deep Convolutional Neural Networks". International Journal of Information Technology Springer, 2022. (Scopus) (Published), 10.1007/s41870-022-00901-4.

15. A.K. Mishra, P. Roy, S. Bandyopadhyay, and **Sujit Kumar Das**, "A Multi-Task Learning Based Approach for Efficient Breast Cancer Detection and Classification", Expert Systems, p.e12713, Wiley, 2021. (SCIE, Q2), Impact Factor: 3.3 (Published), 10.1111/exsy.13047.

16. A.K. Mishra, P. Roy, S. Bandyopadhyay, and **Sujit Kumar Das**, "Feature fusion based machine learning pipeline to improve breast cancer prediction". Multimedia Tools and Application, Springer (2022), (SCIE, Q1), Impact Factor: 3.6 (Published), 10.1007/s11042-022-13498-4.

17. Anindya Halder, Amit Kumar Upadhyay, **Sujit Kumar Das**, "Numismatic Image Segmentation: An Empirical Study", International Journal of Computer Applications (0975 – 8887) Volume 160

– No 4, February 2017. (Published).

CONFERENCE PUBLICATIONS

1. **Sujit Kumar Das**, Parag Bhuyan, Pranav Kumar Singh "A Machine Learning Based Approach for Automatic Crop Recommendation System", 2nd International Intelligent Computing and Technology Conference (ICTCon 2024), Central Institute of Technology, Kokrajhar, India (Dec 02-03, 2024), (Presented).
2. **Sujit Kumar Das**, Sudhir Panda "Brain Tumor Detection Using Deep Learning Techniques: A Comparative Analysis", National Conference on Applications of Artificial Intelligence in Multidisciplinary Contexts (NCAAIMC-2024), Birangana Sati Sadhani Rajyik Vishwavidyalaya, Golaghat, India (Nov 28-29, 2024), (Presented).
3. Parag Bhuyan, Pranav Kumar Singh, **Sujit Kumar Das**, "MaizeViT: Detection and Classification of Maize Leaf Diseases Using Convolutional Networks and Vision Transformers", 4th International Conference on Modeling, Simulation and Optimization (CoMSO-2024) National Institute of Technology Silchar, India (Nov 16-18, 2024), (Presented).
4. **Sujit Kumar Das**, Pinki Roy, and Arnab Kumar Mishra, "Analysis of Synthetic Data Generation Techniques in Diabetes Prediction", 2nd International Conference on Big Data, Machine Learning and Applications, National Institute of Technology, Silchar, India (Dec 19-20, 2021). (Published).
5. **Sujit Kumar Das**, Pinki Roy, and Arnab Kumar Mishra, "Pre-Trained EfficientNet-B0 with adjusted Optimizer, Learning rate and Image size to Improve Diabetic Foot Ulcers Diagnosis", International Conference on Emerging Electronics and Automation, National Institute of Technology, Silchar, India (Dec 17-19, 2021), (Published).
6. **Sujit Kumar Das**, A. Mishra, and Pinki Roy, "Automatic Diabetes Prediction Using Tree Based Ensemble Learners." Proceedings of International Conference on Computational Intelligence and IoT (ICCIIoT), National Institute of Technology, Agartala, 2018, (Published).
7. **Sujit Kumar Das**, Dhar Sourish, "Entity Recognition in the Bengali Language", International Symposium Advanced Computing and Communication ISSAC (IEEE), Silchar, Assam. Pages:157-160, ISBN:978-1-4673-6707-3, 2015, (Published).
8. Priya Bhowmick, K Revanth, Parlapalli Lakshmi, **Sujit Kumar Das**, Tina Babu, "Attention Based CNN to Improve Identification of Ischaemia and Infection in DFU", 2023 International Conference on New Frontiers in Communication, Automation, Management and Security (ICCAMS), Bangaluru, India, 2023, (Published).
9. Deepali Jain, Arnab Kumar Mishra, and **Sujit Kumar Das**, "Machine Learning-Based Automatic Prediction of Parkinson's Disease Using Speech Features", Proceedings of International Conference on Artificial Intelligence and Applications. Springer, Singapore, 2021, (Published).
10. Arnab Kumar Mishra, Pinki Roy, Sivaji Bandyopadhyay, and **Sujit Kumar Das**, "ADASemSeg: An Active Learning Based Data Adaptation Strategy for Improving Cross Dataset Breast Tumor Segmentation", 3rd International Conference on Machine Learning, Image Processing, Network Security and Data Sciences, National Institute of Technology, Raipur, India, (Dec 11-12, 2021), (Published).
11. Abhishek Kumar, Pinki Roy, Arnab Kumar Mishra, and **Sujit Kumar Das**, "Artificial Intelligence in Radiological Covid19 Detection: A State of the Art Review", 2nd International Conference on Big Data, Machine Learning and Applications, National Institute of Technology, Silchar, India (Dec 19-20, 2021). (Published).
12. Sourish Dhar, Sudipta Roy, and **Sujit Kumar Das**, "A Critical Survey of Mathematical Search Engines", International Conference on Computational Intelligence, Communications, and Business Analytics. Springer, Singapore, 2018, (Published).

BOOK CHAPTER PUBLICATIONS

1. **Sujit Kumar Das**, Pinki Roy, and Arnab Kumar Mishra. "Deep Learning Techniques Dealing with Diabetes Mellitus: A Comprehensive Study", Health Informatics: A Computational Perspective in Healthcare. Springer, Singapore, 295-323, 2021.
2. Parag Bhuyan, Pranav Kumar Singh, **Sujit Kumar Das**, "Crop Health Monitoring through AI-based Crop Leaf Disease Detection Systems", Computer Vision Techniques for Agricultural Advancements, IGI Global, (Accepted), 2024.

PATENT GRANTS

1. "A Novel Stacked Parallel Convolution Layers System with an Attention Module for classifying the Diabetic Foot Ulcer and Normal Skin images" DEUTSCHLAND Patent Registration No. 20 2022 102 752, Date: 07-06-2022.
2. "A Multi-Task Learning Based System For Breast Cancer Detection and Classification and a Method Thereof" DEUTSCHLAND Patent, Registration No. 202303302, Dated: 30-08-2023.

PEER REVIEWER

1. Transactions on Intelligent Transportation Systems, IEEE, ISSN: 1524-9050.
2. Computers in Biology and Medicine, Elsevier, ISSN: 0010-4825.
3. Computers and Electrical Engineering, Elsevier, ISSN: 0045-7906.
4. Neural Processing Letters, Springer, ISSN: 1370-4621.
5. Expert Systems, John Wiley & Sons Ltd, ISSN: 1468-0394.

INVITED LECTURES/ TALKS

1. 2 days Hands-On workshop on "Machine Learning Workshop", Jointly organized by Coding Club, Assam Engineering College, Guwahati & FOSS-Assam on 15-16 October 2017.
2. Five-day Online FDP on "Application of AI, Machine learning and Deep Learning in Engineering Fields", organized by Vellore Institute Technology, Chennai campus, & on 14-18 Oct, 2024.

SUBJECTS TAUGHT

1. Database Management Systems (UG), Jan-May, 2024, Department of CSE, Siksha 'O' Anusandhan University, Bhubaneswar, Odisha, India.
2. Data Structures (UG), Aug-Dec, 2023, Department of CSE, Siksha 'O' Anusandhan University, Bhubaneswar, Odisha, India.
3. Full Stack Web Development (UG), Jan-May, 2023, Department of CSE, Siksha 'O' Anusandhan University, Bhubaneswar, Odisha, India.
4. Operating Systems (UG), Nov 2022 -Jan 2023, Department of CSE, Siksha 'O' Anusandhan University, Bhubaneswar, Odisha, India.
5. Information Retrieval (UG), Jan-May, 2017, Department of CSE, Assam University, Silchar.
6. Database Management Systems (UG), Aug-Dec, 2017, Department of CSE, Assam University, Silchar, Assam.

AWARDS AND HONORS

1. 3rd Ranked in the DFUC2021 challenge organized by MICCAI with Manchester Metropolitan University, UK.
2. Young Researcher Award 2022, Institute of Scholars, India.

OTHER CREDENTIALS

1. UGC NET (Assistant Professor), 2019 in Computer Science and Applications.
2. GATE (CS & IT), 2013.
3. Poster presentation in Anveshan 1.0 (2019) and Anveshan 2.0 (2020), a research conclave organized by National Institute of Technology Silchar.

FDP/ WORKSHOPS/ SHORT-TERM COURSE PARTICIPATION

1. Attended Short-Term Course on "Fundamentals of Quantum Computing" conducted by Department of CSE, NIT, Rourkela, January 15-19, 2024.
2. Participated in a One-week AICTE sponsored Faculty Development Programme on "Recent Advances in NLP using Deep Learning(NLP-DL-2021)", organized by the department of CSE, NIT Silchar, March 8- March 12, 2021.
3. Participated in One week International Faculty Development Programme on "Machine Learning and Computer Vision: Applications, Research Challenges (MLCV 2020)", jointly organized by the Department of CSE, NIT Silchar, and GUIST Guwahati at NIT Silchar, Aug 24 - Aug 28, 2020.
4. Participated and Volunteered in a five-day workshop on "Deep Learning Techniques & Tools: An Academic & Industrial Approach" organized by the Department of Computer Science and Engineering, NIT Silchar-2019.
5. Participated in a five-day Workshop on "Recent Research Trends and Future Perspective of Machine Learning in Academics & Industry", organized at the Department of CSE, NIT Silchar, Oct 1 - Oct 5, 2018.
6. Participated in a Five days workshop on "Soft Computing Paradigm and Machine Intelligence Techniques" organized by Machine Intelligence Unit(MIU), ISI, Kolkata, and Department of CSE & IT, School of Technology, Assam Don Bosco University, Guwahati, 2017.

SKILLS/HOBBIES

Programming Languages	Python, Java, C/C++
Machine Learning Tools	Pytorch, Tensorflow, Sklearn, Pandas, Numpy
Hobbies	Cooking and Learning

PERSONAL INFORMATION

Address: House No. 64, Barlechiagaon, Bijni, Chirang, 783390, Assam.

REFERENCES

- **Dr. Pinki Roy**, (Associate Professor, Department of Computer Science and Engineering, NIT Silchar, Assam.) *Phone: +91-9101671744, email: pinki@cse.nits.ac.in*
- **Dr. D.M. Thounaojam**, (Assistant Professor, Department of Computer Science and Engineering, NIT Silchar, Assam.) *Phone: +91-9863263777, email: dalton@cse.nits.ac.in*
- **Dr. Pranav Kumar Singh**, (Associate Professor, Department of Computer Science and Engineering, CIT Kokrajhar, Assam.) *Phone: +91 7896792511, email: p.singh@cit.ac.in*