



Mr. Soumyajit Pal

M. Sc (CS), M. Tech (CSE)

soumyajitpal@sxccal.edu | [Google Scholar](#) | [IRINS](#) | [ORCID](#)

Designation and Affiliation

Assistant Professor, St. Xavier's College (Autonomous), Kolkata

Achievements

- Qualified Graduate Aptitude Test in Engineering (GATE), 2017 and 2019
- Qualified University Grants Commission National Eligibility Test (UGC NET) for Assistant Professor (July 2018, December 2019, June 2020)

Education

- a) Ph.D. (ongoing) in Computer Science and Engineering from Indian Institute of Information Technology (IIIT), Kalyani
- b) Diploma (2021) in Artificial Intelligence and Machine Learning from University of Hyderabad [1st class. Overall: 67.50 %]
- c) M. Tech (2019) in Computer Science & Engineering from University of Calcutta [1st class. Overall: 73.89 %]
- d) M. Sc (2016) in Computer Science from St. Xavier's College (Autonomous), Kolkata [1st class. Overall: 72.29 %]
- e) B.Sc. (Hons.) (2014) in Computer Science from Scottish Church College, Kolkata, University of Calcutta [1st class. Overall: 65.06 %]
- f) ISC (2011) from Don Bosco Park Circus [Overall: 84.86 %]
- g) ICSE (2009) from Don Bosco Park Circus [Overall: 85.28 %]

Areas of Research

Atmospheric Sciences, Computer Vision, IoT

Journal Publications:

1. **S. Pal**, U. Das and O. Bandyopadhyay, "SSN: A Novel CNN-Based Architecture for Classification of Tropical Cyclone Images From INSAT-3D," in IEEE Transactions on Geoscience and Remote Sensing, vol. 62, pp. 1-8, 2024, Art no. 4108208, doi: 10.1109/TGRS.2024.3441729 [**SCIE; IF: 7.5**]

Conference Proceedings:

1. **S. Pal**, O. Bandyopadhyay, U. Das, “A Hybrid Deep Learning model for reconstructing missing INSAT-3D satellite images”, IEEE Conference on EARTHSENSE 2025 (accepted) [**SCOPUS**]
2. **Pal, S.**, Das, U., Bandyopadhyay, O. (2023). Detecting Tropical Cyclones in INSAT-3D Satellite Images Using CNN-Based Model. In: Gupta, D., Bhurchandi, K., Murala, S., Raman, B., Kumar, S. (eds) Computer Vision and Image Processing. CVIP 2022. Communications in Computer and Information Science, vol 1776. Springer, Cham. https://doi.org/10.1007/978-3-031-31407-0_27 [**SCOPUS**]
3. Banerjee, A., Shivakumara, P., **Pal, S.**, Pal, U., Liu, CL. (2022). DCT-DWT-FFT Based Method for Text Detection in Underwater Images. In: Wallraven, C., Liu, Q., Nagahara, H. (eds) Pattern Recognition. ACPR 2021. Lecture Notes in Computer Science, vol 13189. Springer, Cham. https://doi.org/10.1007/978-3-031-02444-3_16 [**SCOPUS**]
4. Ghosh Dastidar, Jayati., Guha, Pritam., **Pal, Soumyajit.**, Ahmed, N. (2016). Intrusion Detection using SVM in a Video sequence and Signaling an Alarm through Arduino UNO. 10.1201/9781315375021-25

Book Chapters:

1. Basak, A. & **Pal, S.** (2025). Heatwave Prediction on Era5 Data Using Deep Learning Techniques. In B. Singh, C. Kaunert, S. Lal, M. Arora, & A. Raghav (Eds.), Developing Smart Sustainability With Artificial Intelligence (pp. 83-122). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3693-8684-2.ch005>
2. **Pal, S.**, De, J., & Datta, D. (2024). Smart Hydroponics: Revolutionizing Agriculture With IoT and Cloud. In B. Singh, C. Kaunert, K. Vig, & S. Dutta (Eds.), Maintaining a Sustainable World in the Nexus of Environmental Science and AI (pp. 81-108). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3693-6336-2.ch004>
3. Das, S. S., & **Pal, S.** (2023). Object Detection from Video Sequence and Its Analysis for Application in Wildlife. In System Design Using the Internet of Things with Deep Learning Applications (pp. 43-66). Apple Academic Press.

4. **Pal, S.** (2023). Comparative Analysis of SVM and KNN in Breast Cancer Classification. In System Design Using the Internet of Things with Deep Learning Applications (pp. 237-246). Apple Academic Press.

Conference Presentations:

1. Presented a paper titled "Detection of Credit Card Fraud through Machine Learning Techniques" in the International Conference on Business, IT and Enterprise Architecture (ICBIT 2025) organized by Management Development Institute (MDI), Murshidabad, India.
2. Presented a paper titled "Understanding the Marketing Attribution Problem: A Machine Learning Approach" in the 1st Virtual National Conference on Progressive India: Corporates and the Pandemic, 2021 organized by St. Xavier's University, Kolkata, India.
3. Presented a paper titled "Sentiment Analysis and Classification of Online Customer Reviews using Bag of Words Approach" in the International Marketing Conference IMI-K MARCON, 2019, organized by International Management Institute, Kolkata, India.
4. Presented a paper titled "Intrusion Detection using SVM in a Video Sequence & Signalling an alarm through Arduino UNO" in the International Conference on Computational Science and Engineering, 2016, organized by RCC Institute of Information Technology, Kolkata, India.

Resource Person:

1. One-day Computer Training Program for Group-C Office Staff held on February 2025 organized by the Internal Quality Assurance Cell (IQAC), St. Xavier's College (Autonomous), Kolkata.
2. Computer Training Program for NCC Staff, February 2024.
3. One-day Computer Training Program for Group-C Office Staff held on February 2023 organized by the Internal Quality Assurance Cell (IQAC), St. Xavier's College (Autonomous), Kolkata.

Teaching Experience

1. Assistant Professor, St. Xavier's College (Autonomous), Kolkata, India [July 2022 - till date] (Subjects taught: Deep Learning, Machine Learning, Image Processing, Cloud Computing, IoT, Microcontroller, Computer Programming,

Computer Fundamentals, Digital Logic Design, Database Management System)

2. Faculty of Information Technology, St. Xavier's University, Kolkata, India [January 2021-June 2022] (Subjects taught: E-Commerce, Computer Applications in Business, Information Management System)
3. Guest Faculty, Sister Nivedita University, Kolkata, India [November 2019-December 2020] (Subjects taught: Computer Networking, Data Structures, Computer Programming, UNIX Shell Scripting)
4. Faculty of Computer Applications, Techno International New Town, Kolkata, India [April 2019-December 2020] (Subjects taught: Computer Networking, Computer Programming, Data Structures, UNIX Shell Scripting)

Faculty Development Programmes

1. National Programme on Technology Enhanced Learning (NPTEL) Online Certification for successfully completing the course Deep Learning organized by the Indian Institute of Technology Madras from January, 2024 to April, 2024 (12-week course) with a consolidated score of 73%
2. National Programme on Technology Enhanced Learning (NPTEL) Online Certification for successfully completing the course Computer Vision and Image Processing – Fundamentals and Applications organized by the Indian Institute of Technology Guwahati from January, 2022 to April, 2022 (12-week course) with a consolidated score of 49%
3. National Programme on Technology Enhanced Learning (NPTEL) Online Certification for successfully completing the course Introduction to Machine Learning organized by the Indian Institute of Technology Kharagpur from July, 2021 to September, 2021 (8-week course) with a consolidated score of 63%
4. National Programme on Technology Enhanced Learning (NPTEL) Online Certification for successfully completing the course Python for Data Science organized by the Indian Institute of Technology Madras from August, 2019 to September, 2019 (4-week course) with a consolidated score of 88%