

CURRICULUM VITAE

PERSONAL

Name : Dr. Abhijit Paul

Official Address : Department of Computer Science,
Swami Vivekananda University,
Barrackpore, West Bengal, India

Phone/Email : Call & WhatsApp: 9436363702
Email: a_paul84@rediffmail.com / abhijitpaul84@gmail.com

Major responsibility: Four years of experience as Head of the Department (HoD/PL) at Amity University, Kolkata



CAREER OBJECTIVE

To work in an organization where I can use my skill, knowledge & experience to achieve the organization objective and get conducive environment to learn and grow.

AREA OF RESEARCH INTEREST

- IoT Technology
- Sensor Network

TEACHING DOMAINS

- **Courses Taught**
 - Data Communication and Computer Networks
 - Wireless Ad Hoc and Sensor Networks (**NPTEL 1% topper**)
 - Mobile Computing
 - Cloud Computing
 - Fundamentals of Object Oriented Programming (**NPTEL 1% topper**)
 - Machine Learning (**NPTEL 5% topper**)
 - Operating System
 - Core Java
 - Programming in C
- **Lab and Experimental Work**
 - Cisco Packet Tracer
 - Eclipse IDE

PROFESSIONAL EXPERIENCE

- **Swami Vivekananda University**
 - Associate Professor at Department of Computer Science, Swami Vivekananda University, Barrackpore, West Bengal from 3rd August 2024 to Present.
- **Amity University**
 - Associate Professor at Amity Institute of Information Technology, Amity University, Kolkata from 1st July 2023 to 2nd August 2024.

- Assistant Professor at Amity Institute of Information Technology, Amity University, Kolkata from 16th August 2017 to 30th June 2023.
- **iNurture Education Solution Pvt. Ltd.**
 - Senior Faculty in the Department of Information Technology, iNurture Education Solution Pvt. Ltd. Associated with Assam Down Town University, Guwahati, Assam from 8th Jun, 2016 to 10th August, 2017.
- **Cachar College**
 - IT Faculty in the Department of Computer Application, Cachar College, Silchar, Assam, KK Handique State Open University from 1st March 2011 to 4th June 2016.
- **Ramkrishna Mahavidyalay**
 - Lecturer in the Department of Computer Application, Ramkrishna Mahavidyalay, Kailashahar, Tripura from 25th August 2009 to 1st February 2011.

INTERNSHIP EXPERIENCE

- Associate Trainee, 3g Bits Communications Pvt. Ltd., Marathahalli, Bangalore, India from January 2009 to May 2009.

EDUCATIONAL QUALIFICATIONS

- Ph.D. from Assam University, Silchar, October 2015
 - *Title of the thesis:* Studies of Wireless Sensor Networks to Mitigate Natural Disasters
- M.C.A. from Haldia Institute of Technology, West Bengal University of Technology (Now Maulana Abul Kalam Azad University of Technology) 2009
- B.Sc.(Honours) from Guru Charan College (Now Guru Charan University) Silchar, 2005
- H.S.(with PCM) from Fatikray Class XII School, Tripura Board of Secondary Education, 2002
- HSLC from Fatikray Class XII School, Tripura Board of Secondary Education, 2000

RESPONSIBILITIES

- HoD/Program Leader of (i) BCA-UG program, (ii) BCA+MCA(Dual) 5 years Integrated Program from January 2020 to July 2024 at Amity University, Kolkata, India.
- Program Coordinator of (i) BCA-UG program, (ii) MCA-PG program, (iii) BCA+MCA(Dual)-5 years Integrated Program from January 2018 to December 2019 at Amity University, Kolkata, India.
- Course Review Committee Member, NAAC from September 2023 to July 2024 at Amity University, Kolkata, India.
- Center Superintendent for End Term Examinations from November 2018 to January 2024 at Amity University, Kolkata, India.
- Member of the Board of Examiners in BCA appointed by Raiganj University, West Bengal, India during March 2024.

INVITED EXPERT AND SPEAKER

- As an invited speaker, addressed PG students during Orientation Program 2024 on “How to prepare for higher studies and an academic career” on 22nd August 2024 at NSHM College of Management & Technology, Kolkata, India.

INTERNATIONAL JOURNAL/CONFERENCE PAPER REVIEWED

- ***International Conference on Smart Computing, Communication and Automation ICSCCA 2025 (CRC Press)***- Reviewed during August 2025
- ***International Conference on Frontiers in Computing and Systems COMSYS 2023 (Springer)***- Reviewed during October 2023
- ***Multimedia tools and applications (Springer)***- Reviewed during June 2021.
- ***IEEE Internet of Things Journal***- Reviewed during March 2019, May 2019.

VISITED ABROAD

- Bangladesh, ICAEE 19-21 December 2011.

Ph.D. STUDENT GUIDANCE

- Suchandan Ganguly
 - Topic: Optimization technique on Multitier framework for Load balancing in Cloud Services
- Bidyut Roy
 - Topic: Dynamic Task Scheduling for Cloud Computing Environment using Hybrid Systems
- Subrata Mapa
 - Topic: Generative AI for enhancing Crop productivity through Precision farming
- Sandip Roy
 - Topic: CATs Eye: An Internet of Things based Home Security Model

PUBLICATIONS

(A) JOURNAL

1. **Paul, Abhijit**, Bikash Debnath, Arjun Mitra, Jadav Das, and Surojit Mondal. "*Ultrasonic-Based Distance Measurement with Dual-Stage Error Correction for Smart Parking System*" Journal of Integrated Circuits and Systems 21, no. 1 (2026): 1-10. **(Scopus indexed)**
DOI: <https://doi.org/10.29292/jics.v21i1.1141>
2. **Paul, Abhijit**; Pipalwa, Rishabh; and Mondal, Sabyasachi (2026). "*(SI16-11) Seasonal and Temporal Optimization of Solar Energy Harvesting in Smart IoT Lighting Infrastructure*", Applications and Applied Mathematics: An International Journal (AAM), Vol. 21, Iss. 3, Article 3. **(ESCI indexed)**
Available at: <https://digitalcommons.pvamu.edu/aam/vol21/iss3/3>
3. Suchandan Ganguly, ***Abhijit Paul** and Ranjan Kumar Mondal, "A Survey on Load Balancing Algorithms in Cloud Computing Systems", Journal of Emerging Trends in Computer Science and Applications (JETCSA), Volume 1 (Issue 3: September-November, 2025)
URL: <https://www.swamivivekanandauniversity.ac.in/jetcse/view-all-issues.php>

4. Subrata Mapa, **Abhijit Paul**, Apratim Mitra, "The Role of Generative AI in Precision Agriculture: A Literature Review on Advancements and Challenges", *Computer Research and Development*, Vol. 25 Issue 7, pp. 626-630 (2025)
DOI: <https://doi.org/10.5281/zenodo.20747192>, URL: <https://journalcrd.org/volume-25-issue-7-2025/>
5. Guha, Priyadarshi, Sukanya Kool, Rishabh Pipalwa, Aakash Acharjee, and ***Abhijit Paul**. "A prototype model of an unmanned automated railway level crossing traffic control system using ultrasonic and infrared sensors." *International Journal of Wireless and Mobile Computing* 26, no. 4 (2024): 342-353. (2024) (**Scopus indexed**)
DOI: <https://doi.org/10.1504/IJWMC.2023.10062691>
6. Acharjee, Aakash, Sabyasachi Mondal, Rishabh Pipalwa, Arjun Mitra, and ***Abhijit Paul**. "Exploring the evolving landscape of security threats in IoT: Challenges and Countermeasures." *American Journal of Advanced Computing*, Vol. 2, Issue: 2, pp: 1-4 (2024).
DOI: <https://doi.org/10.15864/ajac.22013>
7. Chakma, Samar Bijoy, Rishabh Pipalwa, Sabyasachi Mondal, Abhijit Pandit, and ***Abhijit Paul**. "Optimizing Dynamic Ride Sharing with Multiple Objectives." *SN Computer Science* 4, no. 6 (2023): 814. (**Scopus indexed**)
DOI: <https://doi.org/10.1007/s42979-023-02230-0>
8. Guha, Priyadarshi, Sukanya Kool, and ***Abhijit Paul**. "An automatic accident detection system for trains using onboard monitoring system." *International Journal of Wireless and Mobile Computing* 25.2 (2023): 171-182. (**Scopus indexed**)
DOI: <https://doi.org/10.1504/IJWMC.2023.133067>
9. Rishabh Pipalwa, ***Abhijit Paul**, *Tamoghna Mukherjee, "Prediction of Heart Disease Using Modified Hybrid Classifier", *Informatica*, vol. 47, no. 1, 2023. (**Scopus indexed**)
DOI: <https://doi.org/10.31449/inf.v47i1.3629>
10. ***Abhijit Paul**, Prodipto Das, "Comparative performance analysis of IEEE 802.15.4 in WSN using NS2", *Int. Jour. of App. Sc. and Eng. (IJASE)*, pp. 13-20, vol. 3, no. 1, 2015.
DOI: <https://doi.org/10.5958/2322-0465.2015.00003.9>
11. ***Abhijit Paul**, Prodipto Das, "Flood Prediction Model using Artificial Neural Network", *International Journal of Computer Applications Technology and Research*, pp. 473 - 478, vol. 3, Issue 7, 2014.
12. ***Abhijit Paul**, Prodipto Das, "Energy Efficient Routing Strategy for Wireless Sensor Networks", *International Journal of Engineering Research & Technology (IJERT)*, pp. 2530-2535, vol. 2, Issue 12, 2013.
13. *P Das, **A Paul**, "Design of Flood Monitoring System in Assam using Wireless Sensor Network", *AU Journal of Science and Technology*, pp. 44-52, vol. 10, no. II, 2012.

(B) CONFERENCE PROCEEDINGS:

1. **Abhijit Paul**, Bikash Debnath, Jadav Chandra Das & Bhaskar Roy, "Smart India Initiative for Railway Safety: Real-Time Track Condition Analysis using IoT, Computer Vision, and Machine Learning", *Conference Proceedings 40th Indian Engineering Congress*, ISBN: 978-81-993673-4-0, 2025.
2. **Paul, Abhijit**, Arjun Mitra, Prachi Bansal, Mudit Saraff, Bikash Debnath, and Jadav Chandra Das. "Enhancing Ultrasonic-Based Distance Measurement Accuracy Through Error Correction Mechanism." In 2024 IEEE International Conference of Electron

Devices Society Kolkata Chapter (EDKCON), pp. 1-6. IEEE, February 13 2025. (**Scopus indexed**)

<https://doi.org/10.1109/EDKCON62339.2024.10870780>

3. **Paul, A.**, Pipalwa, R., & Gupta, M. *Water Distribution Network Using IoT Sensors for Residential Areas from Household Rainwater*. In International Conference on Emerging Applications of Information Technology (pp. 375-388). Singapore: Springer Nature Singapore, January 3 2025.

https://doi.org/10.1007/978-981-97-7532-3_27

4. **Paul, A.**, Bhalla, K., Pal, S., Bansal, P., Mitra, A., Naaz, Z. (2024). *Optimizing Wireless Data Transfer with Neural Network-Based Dynamic Channel Allocation*. In: Mondal, S., Piuri, V., Tavares, J.M.R.S. (eds) Intelligent Electrical Systems and Industrial Automation. IESIA 2024. Studies in Autonomic, Data-driven and Industrial Computing. Springer, Singapore.

https://doi.org/10.1007/978-981-97-6806-6_18

5. Pipalwa, R., **Paul, A.**, Mukherjee, T., & Jain, A. (2023). *Efficient Heart Disease Prediction Using Modified Hybrid Classifier*. In Frontiers of ICT in Healthcare: Proceedings of EAIT 2022 (pp. 151-164). Singapore: Springer Nature Singapore. (**Scopus indexed**)

https://doi.org/10.1007/978-981-19-5191-6_13

6. ***Paul A.**, Guha P. (2022) *Internet of Things-Based Animal Health Monitoring and Management*. In: Mandal J.K., Buyya R., De D. (eds) Proceedings of International Conference on Advanced Computing Applications. Advances in Intelligent Systems and Computing, vol 1406. Springer, Singapore.

https://doi.org/10.1007/978-981-16-5207-3_1

(C) BOOK AND BOOK CHAPTER

1. **Paul, Abhijit**. "Opportunities and Challenges for Next-Generation Connectivity: A Survey." Swami Vivekananda University Press (2026): 60-64.

DOI: <https://doi.org/10.65525/SVUP.9788199565432.2026.60-64>

2. **Paul, Abhijit**. "Enhancing Performance and Security in Modern Communication Systems: A Survey." Swami Vivekananda University Press (2026): 55-59.

DOI: <https://doi.org/10.65525/SVUP.9788199565432.2026.55-59>

3. Edited book title "**Intelligent Systems and Simulation Mathematical and Environmental Modeling**", ISBN 9781032799810 by CRC Press, June 27, 2025. DOI: <https://doi.org/10.1201/9781003638414> (**Scopus indexed**)

4. Published book chapter title: **Book Recommender System Using Collaborative Filtering** in Intelligent Systems and Simulation Mathematical and Environmental Modeling, ISBN 9781032799810 by CRC Press, June 27, 2025. (**Scopus indexed**) DOI: <https://doi.org/10.1201/9781003638414-19> (**Scopus indexed**)

5. Published book chapter title: "**IoT: Unravelling the Digital Realm - A Comprehensive Guide to the Laws of IoT in India**" in Innovations Across Disciplines: Advancements in Engineering, Technology, and Sustainability, ISBN 9788197442759 by Inspira, Jaipur, May 2025.

DOI: <https://doi.org/10.62823/Inspira/2025/9788197442759>

6. Published book chapter title: "**Water Quality Prediction Using Machine Learning: A Smart Approach for Real-Time Monitoring**" in Advanced Paradigms in

Transdisciplinary Research, ISBN 9789349468955 by MGM publishing house, January 2025.

DOI: <https://doi.org/10.62823/MGM/2025/9789349468955>

7. Published book chapter title: “**Blockchain-Enabled Secure Communication Protocols for Internet of Things Networks: A Survey**” in Digital Design and Engineering in the Age of AI, ISBN 978-93-6233-668-2 by Bright Sky Publications, 2025.
DOI: <https://doi.org/10.62906/bs.book.404>
8. Published book chapter title: “**Optimizing Data Transmission in 5G Networks: A Comprehensive Study on Spectrum Efficiency and Latency Reduction**” in Technology Foresight and Transformation, ISBN 978-81-989217-7-2 by Ideal Publication, 2025.
DOI: <https://doi.org/10.71431/978-81-989217-7-2>
9. Published book chapter title: “**Smart Residential Water Leakage and Overuse Detection System using Machine Learning**” in Multidisciplinary Insights in Modern Engineering, ISBN 978-93-6135-956-9 by AkiNik Publications, 2025.
DOI: <https://doi.org/10.22271/ed.book.3064>
10. Published book chapter title: “**IoT security enhancement through blockchain solutions**” in Hybrid Information Systems: Non-Linear Optimization Strategies with Artificial Intelligence, ISBN 9783111329796 by Walter de Gruyter GmbH & Co KG, July 22, 2024.
DOI: <https://doi.org/10.1515/9783111331133-009>
11. Published book chapter title: “**IoT Networks For Healthcare**”, in Medical Internet of Things Techniques, Practices and Applications (1st Edition), ISBN: 9780367331238, by Chapman and Hall/CRC, October 29, 2021. (**Scopus indexed**)
DOI: 10.1201/9780429318078-7

PATENT

1. Published patent titled “ARTIFICIAL INTELLIGENCE-BASED SAGITTAL KINEMATIC OBSERVATIONAL GAITANALYSIS TOOL FOR EVALUATION AND MANAGEMENT OF LOW BACK PAIN” (Application No.202331052599 A) on 13 October 2023.

CONFERENCE/WORKSHOP/FDP

1. Presented paper on “**A Survey on Unmanned Aerial Vehicle Applications in Agriculture**” in the 3rd International Conference on Integrative Science and Engineering (ICISE 2026) organized by Swami Vivekananda University, Kolkata, West Bengal held at Swami Vivekananda University, Kolkata, West Bengal during 21th January - 22nd January 2026.
2. Attended and awarded distinction in the 6-month FDP organized by **IUCEE International Educator Certification Program** Spring 2025.
3. Presented paper on “**Enhancing Ultrasonic-Based Distance Measurement Accuracy Through Error Correction Mechanism**” in the International Conference on 2024 IEEE Electron Device Kolkata Conference organized by IEEE EDS Kolkata Chapter held at Kolkata, India during 30 November -1st December 2024.
4. Presented paper on “**An optimized MARL-based strategy for green corridor patterns of emergency vehicles**” at the Second International Conference on Advanced Computing,

Machine Learning, Robotics and Internet Technologies (AMRIT-2024) organised by the Department of Computer Science & Engineering and Department of Electrical Engineering, National Institute of Technology Agartala, Tripura, jointly organised by the Department of Computer Science, Assam University, Silchar, Assam, during November 8-9, 2024.

5. Attended FDP on “**Technological Breakthrough for Future Encounters**” at Amity University, Kolkata, India during 13-17 May 2024.
6. Presented paper on “**An RFID-based student monitoring and attendance tracking system**” in 14th Inter University Engineering, Science & Technology Academic Meet 2024 & Innovative Model Competition for a Sustainable Society organized by Forum of Scientists, Engineers & Technologists (FOSET) in association with MAKAUT, Indian Society for Technical Education, Association of Engineers, JIS College of Engineering on 12 May 2024.
7. Presented paper on “**Optimizing Wireless Data Transfer with Neural Network-Based Dynamic Channel Allocation**” in International Conference on Intelligent Electrical Systems & Industrial Automation (IESIA 2024) organized by the Department of Electrical Engineering and Electrical & Electronics Engineering of the Institute of Engineering & Management, Kolkata, West Bengal, India during 5-7 April 2024.
8. Co-author of the presented paper on “**Predictive Modelling for Diabetes Using LazyClassifier: A Machine Learning Approach**” in two-day Analytics Global Conference (AGC2024) organized by Analytics Society of India during 6 Mar-7 Mar 2024.
9. Attended FDP on “**Applications of Blockchain Technology**” at Institute of Engineering & Management, Kolkata during 29 Jan-2 Feb 2024.
10. Presented paper on “**Water Distribution Network using IoT sensors for residential areas from household rainwater**” in 8th International Conference on Emerging Applications of Information Technology (EAIT2024), organized by Computer Society of India, Kolkata Chapter and Electronics and Communication Department, Techno Main, Salt Lake during 11-13 January 2024.
11. Attended Online FDP on “**Application of Robotics in enhancing learning contents**” at National Institute of Technology Agartala under AICTE Training And Learning (ATAL) Academy during 5-9 July 2021.
12. Attended Online FDP on “**Internet of Things (IoT)**” at Mizoram University under AICTE Training And Learning (ATAL) Academy during 1-5 February 2021.
13. Presented paper online on “**Nav4Peds: A Design to Navigate Pedestrian Movement in Railway Station in Observance Social Distance Criteria**” at International web conference on recent trends and developments in applied research and industrial practices at Amity University Kolkata on 20-21 November 2020.
14. Attended workshop on “**Internet of Things**” at Indian Statistical Institute, Kolkata on 22-25 July 2019.
15. Attended FDP on “**Media Educators-Industry Interface**” organised by Amity School of Communication at Amity University Kolkata on 11-12 July 2019.
16. Presented paper on “**Faster data transfer using wireless network**” at Micro-2019: 6th International Conference on Microelectronics, Circuits & Systems at Amity University Kolkata on 6-7 July 2019.
17. Published paper on “**Signage recognition for visually impaired persons**” accepted in Young Scientists’ Conference in India International Science Festival in the theme Frontier areas in Science in Indira Gandhi Pratishthan in Lucknow, India on 5-8 October 2018.

18. Attended workshop on “**Internet of Things Knowledge Workshop**” organised by the Department of Information Technology & Electronics, Government of West Bengal at Biswa Bangla Convention Centre, New Town, Kolkata on July 2018.
19. Attended workshop on “**Embedded Technology Knowledge Workshop**” organised by the Department of Information Technology & Electronics, Government of West Bengal at Biswa Bangla Convention Centre, New Town, Kolkata on June 2018.
20. Attended Workshop on “**Microwave: Basics and Applications**” organized by Department of Physics, Assam University, Silchar, India on July 2014.
21. Presented a paper on “**Energy Conservation Strategy in Wireless Sensor Networks**” in National Seminar on Energy Science and Engineering NSESE-2013, organized by Tripura Institute of Technology, Agartala, Tripura in Nov, 2013.
22. Published paper on “**Energy Efficient Routing Strategy for Wireless Sensor Networks for Rural Areas**” accepted in Second International Conference on Computing and Systems-2013, organized by Dept. of Computer Science, The University of Burdwan, West Bengal on 21-22 September 2013.
23. Published paper on “**Efficient Multimedia File Transfer in Wireless Local Area Network using AODV**”, in International Conference on Communications, Devices and Intelligent System (CODIS 2012), organized by Dept. of Electronics & Telecommunication Engg., Jadavpur University (JU) Main Campus, Kolkata, India on 28-29 December 2012.
24. Attended Workshop on “**Information Security Education & Awareness**” organized by Dept. of Business Administration, Assam University, Silchar, India on April 2012.
25. Presented a paper on “**Flood Monitoring System in Barak River using Wireless Sensor Network**” in workshop on “Analog & Mixed Signal Design”, under TEQIP-II, organized by Dept. of ECE, NIT Silchar, Assam on Jan 2012.
26. Presented a paper on “**Estimation of Rain Attenuation over DTH Antenna in India using DAH Model**” in International Conference on Advances in Electrical Engineering (ICAEE)-2011 in Dhaka, Bangladesh on 19-20 December 2011.

REFERENCES

1. Dr. Prodipto Das
Associate Professor, Department of Computer Science, Assam University, Silchar, India.
Mobile: 9435372034, Email: prodiptodas@gmail.com
2. Dr. Sabyasachi Mondal
Associate Professor, Department of Mathematics, North Eastern Hill University, Shillong, India.
Mob: 9932020872, Email: sabya.mondal.2007@gmail.com
3. Dr. Dhrubasish Sarkar
Professor at NSHM Knowledge Campus, Kolkata.
Previously served as Principal at Supreme Knowledge Foundation, Hooghly, West Bengal, India.
Mob: 9830571808, Email: dhrubasish@inbox.com

PERSONAL PROFILE

Date of Birth: 24 December 1984

Sex: Male

Marital Status: Married

Languages Known: English, Bengali and Hindi

Nationality: Indian

FAMILYDETAILS

Father: Shri Gojendra Chandra Paul, Retired Headmaster, Govt. of Tripura

Mother: Smt. Anjali Pal, Retired School Teacher, Govt. of Tripura

Wife: Smt. Sonali Deb, Beautician

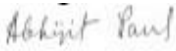
Son: Master Soham Paul, Studying in class-V (CBSE Board)

DECLARATION

I hereby declare that the above-mentioned information is true to the best of my knowledge, and I will be able to provide the necessary documents whenever required.

Date: 14/09/2026

Place: Kolkata


Signature