



## Dr. Priya Roy Karmakar

Assistant Professor,  
CSE (AIML) Department,  
Netaji Subhash Engineering College



11<sup>th</sup> December, 1989



HL/4, Shanti Kunja Housing  
Complex, New Park,  
Garia Station Road,  
Kolkata-700084



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priyaroycse@gmail.com



**Vidwan Profile:** <https://vidwan.inflibnet.ac.in/profile/379029>

**Google Scholar:** <https://scholar.google.com/citations?user=imztYHoAAAAJ&hl=en>  
**Citation:** 432 (till 19.08.2025)  
**h-index:** 7  
**i10-index:** 5

**Scopus Profile:** <https://www.scopus.com/authid/detail.uri?authorId=57194760328>

**Orcid Id:** 0000-0001-8790-0017

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*Gender:* Female  
*Marital Status:* Married  
*Father:* Late Pratap Roy  
*Mother:* Anita Roy  
*Spouse:* Kamalesh Karmakar  
*Nationality:* Indian  
*Read/Write/Speak:* Bengali, English

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## CURRICULUM VITAE

### Career Aspirations

To get a challenging growth oriented position where my technical skills can be efficiently utilized and improved, eventually leading to contribution in growth and development of the organization.

### Academic Credentials

- 2022 **Ph.D. (Engineering)** from the Department of Computer Science and Engineering, Jadavpur University  
*Supervisor:* Prof. (Dr.) Chandreyee Chowdhury (Professor, Computer Science and Engineering Dept., Jadavpur University)  
*Title of Thesis:* **WiFi Based Indoor Localization using Machine Learning Techniques**  
*Date of Degree Awarded:* 26<sup>th</sup> July 2022
- 2013-2016 **B.Tech. in Computer Technology** (3 year course) from Computer Science and Engineering Dept., Jadavpur University  
**Marks 77%, 8.35(CGPA)**
- 2008-2012 **B.Tech. in Computer Science and Engineering** from Dream Institute of Technology under West Bengal University of Technology  
**Marks 76.80%, 8.43 (DGPA)**
- 2008 **Higher Secondary** from Barisha Girls' High School  
West Bengal Council of Higher Secondary Education  
**Marks 74.20%**
- 2006 **Madhyamik** from Barisha Girls' High School  
West Bengal Board of Secondary Education  
**Marks 79.87%**

### Teaching/Research/Industry Experience

- 2023-2025 Working as an **Assistant Professor** in the Department of Computer Science and Engineering (AIML) at **Netaji Subhash Engineering College**, Kolkata, India from 14<sup>th</sup> August, 2025
- 2023-2025 Worked as an **Assistant Professor** in the Department of Computer Science and Engineering (Data Science) at **Future Institute of Engineering and Management**, Kolkata, India from 13<sup>th</sup> February, 2023 to 13<sup>th</sup> August, 2025
- 2021-2023 Worked as an **Assistant Professor** in the Department of Computer Science and Engineering at **Sister Nivedita University** (Techno India Group), Kolkata, India from 16<sup>th</sup> December, 2021 to 10<sup>th</sup> February, 2023
- 2021 Worked as a **Junior Research Fellow** in the Department of Computer Science and Engineering at **Jadavpur University** from 8<sup>th</sup> February, 2021 to 14<sup>th</sup> December, 2021.  
*Scholarship funded by:* Ministry of Science and Technology, DST, NGP Division, Government of India
- 2018-2021 Worked as a **Senior Research Fellow** in the School of Mobile Computing and Communication at **Jadavpur University** from 9<sup>th</sup> July, 2018 to 5<sup>th</sup> February, 2021.  
*Scholarship funded by:* Government of West Bengal

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**Orcid Id:** 0000-0001-8790-0017

2018 Worked as a **Ph.D. Research Fellow** in the Department of Computer Science and Engineering at **Jadavpur University** from 1<sup>st</sup> February, 2018 to 30<sup>th</sup> June, 2018.  
*Scholarship funded by:* Government of West Bengal

2016-2018 Worked as a **Junior Research Fellow** in the Department of Computer Science and Engineering at **Jadavpur University** from 1<sup>st</sup> February, 2016 to 31<sup>st</sup> January, 2018.  
*Scholarship funded by:* DST, Government of India

2013 Worked as a **Junior Software Developer** at Experts Development & Services from 1<sup>st</sup> April, 2013 to 13<sup>th</sup> July, 2013.  
*Project:* A management software for diagnostic centre (EdsDiag)

### Area of Interest

Indoor Localization, Machine Learning, Deep Neural Network.

### Subjects of Expertise

Machine Learning, Data Structure, Data Mining, Operating System, Database Management System.

### Developed Application

- An Android Application for Location Tracking in Indoor Environment.

### Technical Knowledge

- *Languages:* C, C++, Java, Python
- *Databases:* Oracle, MySQL, MongoDB
- *Mobile App Development:* Android

### Published Journals

- 2024 **Priya Roy**, Chandreyee Chowdhury, "A Region-wise Indoor Localization System based on Unsupervised Learning and Ant Colony Optimization Technique", in *Applied Soft Computing*, 2024, vol. 157, pp. 111509, Elsevier, DOI: 10.1016/j.asoc.2024.111509, Print ISSN 1568-4946. [SCIE indexed, Impact factor (2022): 8.7]
- 2024 Tanusree Chatterjee, **Priya Roy**, Kamallesh Karmakar, Shiladitya Munshi, Sanjib Roy, "Deep Learning Model for Detection and Severity Analysis of Car Accidents", in *Foundations of Computing and Decision Sciences*, 2024, ISSN: 0867-6356 [SCOPUS indexed, Impact factor (2022): 1.8]
- 2023 Satyam Parsuramka, Ayan Kumar Panja, **Priya Roy**, Sarmistha Neogy, Chandreyee Chowdhury, "FABEL: feature association based ensemble learning for positioning in indoor environment", in *Multimedia Tools and Applications*, 2023, vol. 82, issue 5, pp. 7247-7266, Springer, DOI: 10.1007/s11042-022-13651-z, Print ISSN 1380-7501. [SCIE indexed, Impact factor (2022): 3.6]
- 2022 **Priya Roy**, Chandreyee Chowdhury, "A Survey on Ubiquitous WiFi-based Indoor Localization System for Smartphone Users from Implementation Perspectives" in *CCF Transactions on Pervasive Computing and Interaction*, 2022, vol. 4, issue 3, pp. 298-318, Springer, DOI: 10.1007/s42486-022-00089-3, Print ISSN 2524-521X. [SCOPUS indexed, Impact factor (2022): 2.1]

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- 2021 **Priya Roy**, Chandreyee Chowdhury, "A Survey of Machine Learning Techniques for Indoor Localization and Navigation Systems", in *Journal of Intelligent and Robotic Systems*, 2021, vol. 101, issue 3, pp. 63, Springer, DOI: 10.1007/s10846-021-01327-z, Print ISSN 0921-0296. [SCIE indexed, Impact factor (2022): 3.3]
- 2021 **Priya Roy**, Chandreyee Chowdhury, "Designing an Ensemble of Classifiers for Smartphone-based Indoor Localization Irrespective of Device Configuration", in *Multimedia Tools and Applications*, 2021, vol. 80, issue 13, pp. 20501-20525, Springer, DOI: 10.1007/s11042-020-10456-w, Print ISSN 1380-7501. [SCIE indexed, Impact factor (2022): 3.6]
- 2020 **Priya Roy**, Chandreyee Chowdhury, Mausam Kundu, Dip Ghosh, Sanghamitra Bandyopadhyay, "Novel Weighted Ensemble classifier for Smartphone based Indoor Localization" in *Expert Systems with Applications*, 2020, vol. 164, pp. 113758, Elsevier, DOI: 10.1016/j.eswa.2020.113758, Print ISSN 0957-4174. [SCIE indexed, Impact factor (2022): 8.5]
- 2019 **Priya Roy**, Chandreyee Chowdhury, Dip Ghosh, Sanghamitra Bandyopadhyay, "JUIndoorLoc: A Ubiquitous Framework for Smartphone-Based Indoor Localization Subject to Context and Device Heterogeneity" in *Wireless Personal Communications*, 2019, vol. 106, issue 2, pp. 739-762, Springer, DOI: 10.1007/s11277-019-06188-2, Print ISSN 0929-6212. [SCIE indexed, Impact factor (2022): 2.2]

## Communicated Journal

- 2025 Kamalesh Karmakar, Tanusree Chatterjee, Shiladitya Munshi, **Priya Roy**, "An ACO-based Multi-Objective Optimization Technique For Ride Sharing Among Private Car Owners", in *Transportation Research Part A, Elsevier*, [SCIE indexed, Impact factor (2022): 6.3]

## Published International Conferences

- 2020 Ayan Kumar Panja, Chandreyee Chowdhury, **Priya Roy**, Sakil Mallick, Sukanto Mondal, Soumik Paul, and Sarmistha Neogy, "Designing a Framework for Realtime WiFi-based Indoor Positioning", in International Conference on Opto-Electronics and Applied Optics (OPTRONIX), Kolkata, India, 2020, vol. 165, pp. 71, Springer Conference Proceeding, DOI: 10.1007/978-981-15-9433-5\_8, Electronic ISBN: 978-981-15-9433-5, Print ISBN: 978-981-15-9432-8.
- 2019 **Priya Roy**, Mausam Kundu, Chandreyee Chowdhury, "Indoor Localization using Stable Set of Wireless Access Points Subject to Varying Granularity Levels", in 4<sup>th</sup> International Conference on Wireless Communications, Signal Processing and Networking (WiSPNET), Chennai, India, 2019, pp. 491-496, IEEE, DOI: 10.1109/WiSPNET4.5539.2019.9032859, Electronic ISBN: 978-1-5386-9279-0, Print ISBN: 978-1-5386-9280-6. (Presented by me)

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- 2019 Souvik Paul, Tanmoy Mukherjee, Varsha Roy, Anchala Das, **Priya Roy**, Kamalesh Karmakar, "An Efficient Algorithm for Parking Lot Allocation", in 10<sup>th</sup> International Conference on Computing Communication and Networking Technologies (ICCCNT), Kanpur, India, 2019, pp. 1-6, DOI: 10.1109/ICCCNT45670.2019.8944640, Electronic ISBN: 978-1-5386-5906-9, Print ISBN: 978-1-5386-5907-6.
- 2018 **Priya Roy**, Chandreyee Chowdhury, "Indoor Localization for Smart-handhelds with Stable Set of Wireless Access Points", in 5<sup>th</sup> International Conference on Emerging Applications of Information Technology (EAIT), Kolkata, India, 2018, pp. 1-4, IEEE, DOI: 10.1109/EAIT.2018.8470401, Electronic ISBN: 978-1-5386-3719-7, Print ISBN: 978-1-5386-3720-3. (*Presented by me*)
- 2018 **Priya Roy**, Chandreyee Chowdhury, "Smartphone Based Indoor Localization Using Stable Access Points", in Proceedings of the Workshop Program of the 19<sup>th</sup> International Conference on Distributed Computing and Networking (ICDCN), Varanasi, India, 2018, pp. 17:1-17:6, ACM, DOI: 10.1145/3170521.3170538, Electronic ISBN: 978-1-4503-6397-6. (*Presented by me*)
- 2018 Jayita Saha, Chandreyee Chowdhury, Ishan Roy Chowdhury, **Priya Roy**, "Fine Grained Activity Recognition Using Smart Handheld", in Proceedings of the Workshop Program of the 19<sup>th</sup> International Conference on Distributed Computing and Networking (ICDCN), Varanasi, India, 2018, pp.19:1-19:2, ACM, DOI: 10.1145/3170521.3170540, Electronic ISBN: 978-1-4503-6397-6. (*Presented by me*)
- 2016 Dip Ghosh, **Priya Roy**, Chandreyee Chowdhury, Sanghamitra Bandyopadhyay, "An Ensemble of Condition based Classifiers for Indoor Localization", in IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS), Bangalore, India, 2016, pp. 1-6, IEEE, DOI: 10.1109/ANTS.2016.7947872, Electronic ISBN: 978-1-5090-2193-2, Print ISBN: 978-1-5090-2194-9.

### Book Chapter

- 2022 Sohail Saif, **Priya Roy**, Chandreyee Chowdhury, Suparna Biswas, Ujjwal Maulik, "Smart e-agriculture monitoring systems", in the book entitled "AI, Edge and IoT-based Smart Agriculture", 2022, pp. 183-203, Elsevier, DOI: 10.1016/B978-0-12-823694-9.00002-5, ISBN 978-0-12-823694-9.

### Communicated Book Chapter

- 2025 **Priya Roy**, Kamalesh Karmakar, "Case Studies and Real-world Applications of AI in E-commerce Demand Forecasting", in the book entitled "AI in Demand Forecasting for E-commerce Application", CRC Press (Taylor & Francis Group).

### Books in Press

- 2025 **Priya Roy**, Kamalesh Karmakar, "Object Oriented Programming with JAVA", Discipline Specific Course (DSE-CS-4) for B.Sc. Pass Course - Computer Science, Publisher: Netaji Subhas Open University.

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2025 **Priya Roy**, Kamalesh Karmakar, "Object Oriented Programming with JAVA", Discipline Specific Course (DSC-4) for B.Sc. Honours - Computer Science, Publisher: Netaji Subhas Open University.

2025 Kamalesh Karmakar, **Priya Roy**, "Web Technology", Skill Enhancement Course (SEC)-3 for B.A./B.Sc. Honours - Computer Science, Publisher: Netaji Subhas Open University.

## Indian Copyright

2024 Copyright on "AcciAssist - An IoT-based Smartphone Application for Post-Accident Assistance using Machine Learning Algorithm" published on September, 2024. Registration No. SW-19480/2024

## Program Committee Member and Reviewer

- Reviewer of International Conference, "INDICON" 2024 organized by IIT Kharagpur. Publisher: IEEE.
- Reviewer of the "CALCON" 2024 organized by IEEE Kolkata Section. Publisher: IEEE.
- Reviewer of the "Computational Intelligence and Networks (CINE)" 2024 organized by Kalinga Institute of Industrial Technology (KIIT), Bhubaneswar, India. Publisher: IEEE.
- Program Committee Member and Reviewer of the "International Conference on Data Science and Applications (ICDSA)" 2022 organized by Jadavpur University, Kolkata, India. Publisher: Springer.
- Reviewer of the "International Conference on Data Science and Applications (ICDSA)" 2021 organized by Jadavpur University, Kolkata, India. Publisher: Springer.
- Reviewer of International Conference, "INDICON" 2021 organized by IIT Guwahati. Publisher: IEEE.
- Program Committee Member of the "IoT based Smart Healthcare Conference (ITSH)" 2020 organized by Kalinga Institute of Industrial Technology (KIIT), Bhubaneswar, India. Publisher: Springer.
- Reviewer of the edited book volume entitled "IoT Enabled Computer-Aided Systems for Smart Buildings (IoT&CASSB 2022)", Publisher: Springer.
- Reviewer of the Journal entitled "Expert Systems with Applications", publisher: Elsevier.
- Reviewer of the Journal entitled "IEEE Access", publisher: IEEE.
- Reviewer of the Journal entitled "Journal of Supercomputing", publisher: Springer.
- Reviewer of the Journal entitled "Computers and Electrical Engineering", publisher: Elsevier.
- Reviewer of the Journal entitled "Internet of Things", publisher: Elsevier.
- Reviewer of the Journal entitled "Peer-to-Peer Networking and Applications", publisher: Springer.
- Reviewer of the Journal entitled "SN Computer Science", publisher: Springer.

## Organized FDP/Workshop

- As a convener, organized an 2-day workshop on "AI and Deep Learning with Innovative Design and Decision Making" in the Department of CSE (Data Science), Future Institute of Engineering and Management on 6th and 7th March 2025.



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- As a convener, organized a five-day Faculty Development Program on "Advancements in AI and ML: A Hands-On Approach" Organized By Departments of IT and CSE (Data Science), Future Institute of Engineering and Management in Collaboration with the Institution's Innovation Council and International 'Centre of Excellence' for Data Science, AI and Futuristic Technologies, Dept. of Higher Education, Govt. of West Bengal on 3rd-5th and 8th-9th January 2024.
- As a convener, organized an one-day workshop on "BIG DATA AND HADOOP MAP-REDUCE" in the Department of CSE (Data Science), Future Institute of Engineering and Management in collaboration with Department of CSE, Jadavpur University on 12th April 2023 at Jadavpur University.

## Professional Society Membership

- Professional Member of ACM (Association for Computing Machinery) from 2024 (Member Number: 5788944)

## Special Interest

- Developing Computer Science and Information Technology based Tutorials for <https://www.bunksallowed.com/>

## Disclaimer

I, hereby, solemnly declare that all the information made above are true and correct to the best of my knowledge and belief.

.....  
Priya Roy Karmakar  
Date: August 19, 2025  
Place: Kolkata  
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## Referees

Prof. (Dr.) Chandreyee Chowdhury	Prof. (Dr.) Nandini Mukherjee
Professor	Professor
Computer Science and Engineering,	Computer Science and Engineering,
Jadavpur University	Jadavpur University
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