

Mrs. Poonam Chakraborty



Profile Summary: An accomplished academician with over 25 years of teaching experience in the field of Electronics and Telecommunication Engineering. Holding a Master's degree in the same domain and currently pursuing Ph.D., which reflects commitment to academic excellence and lifelong learning. Areas of interest include Optical Communication, Fiber Optics, Wireless Networks, and MANET Security. Have actively contributed to curriculum development, laboratory setup, and initiatives aimed at enhancing academic quality. Research work has been published in reputed journals and conferences. Strongly believe in a student-centric and industry-oriented approach to teaching. Focus has always been on fostering conceptual clarity and hands-on practical understanding among students. Over the years, have also taken up various roles that required organizational and leadership skills, contributing to departmental and institutional growth.

Designation: Assistant Professor, EXTC Dept

IDs

- **Google Scholar Link:** <https://scholar.google.com/citations?hl=en&user=oHMHkXkAAAAJ>
- **LinkedIn URL:** <https://www.linkedin.com/in/poonam-sanjay-chakraborty-501109180/>
- **VIDWAN ID:** 457523
- **Orcid ID:** <https://orcid.org/0000-0001-8196-057X>

Educational Details:

Sr. No.	Degree	Board / Institution / University	Year
1	PhD EXTC (pursuing)	Somaiya College of Engineering, SVU	2023 onwards
2	ME EXTC	VESIT, Mumbai University	2012
3	BE EC	SCET, South Gujarat University, Surat	1999
4	HSCE	Bhavan's Fertilizer School, Bharuch, Gujarat Higher Secondary Board	1995
5	SSC	Holy Angel's Convent High School, Bharuch, Gujarat Higher Secondary Board	1993

Date of Joining DBIT: 14/08/2006

Area of Specialization:

- Wireless Communication and Networking
- Fiber Optics Communication and Networking
- MANET Security

Teaching Experience in DBIT:

Sr. No.	Position Held	Dates
1	Lecturer (Adhoc)	14/08/2006 to 14/04/2013
2	Assistant Professor	15/04/2013 to till date

Total Teaching Experience:

Sr. No.	Institution	Dates	Designation
1	FRCIT, Vashi	13/06/2006 to 13/08/2006	Lecturer
2	C. K. Pithawala Coll. Of Engg. And Tech	30/07/2001 to 14/06/2005	Lecturer
3	Sarvajanik Coll. Of Engg. And Tech.	16/08/2000 to 30/06/2001	Lecturer
4	Sarvajanik Coll. Of Engg. And Tech.	07/02/2000 to 30/06/2000	Lecturer

Industrial Experience: NA

Peer Reviewed Journal Papers:

- Shikha Tripathi, Vincent D'souza, Isha Kubal, Poonam Chakraborty presented a paper titled "Underwater Ultrasonic Communication" at the *52nd Mid-Term Symposium (MTS-2021)* on *Emerging Technologies in ICT and Electronics*, held on April 30, and published in *IJRAR*, Volume 8, Issue 2, June 2021.
https://ijrar.org/viewfull.php?&p_id=IJRAR1CCP026
- A. Sequeira, N. Koul, A. Kumar, E. Wessely, G. George, P. Chakraborty, presented a paper titled "Fuel Level Detector" at the *2019 IEEE International Conference on System, Computation, Automation and Networking (ICSCAN)*, Pondicherry, India, pp. 1–5, DOI: 10.1109/ICSCAN.2019.8878782, 2019.
<https://ieeexplore.ieee.org/document/8878782>

- Aparna Telgote, Poonam Chakraborty presented a paper titled “Hardware Implementation of Routing Algorithm for WSN Monitoring Intrusion Detection using Zigbee Technology” at the *IETE International Conference on Recent Trends in Sustainable Technologies*, held on July 14–15, Mumbai. Published in *International Journal of Applied Science and Computations*, Volume 5, Issue 10, pp. 726–729, DOI: 16. 10089.JASC. 2018.V5I10.453459.14900, 2018.
<https://app.box.com/s/m6r7e3b2h6sbusbzefcn1lf8x9mx37yq>
- Nishi Parameshwara, Jhukirtha Marhi, Poonam Chakraborty presented a paper titled “Hardware Prototype Design for Real-Time Collision Detection and Prevention Application of VANET” in *International Journal of Scientific & Engineering Research*, Volume 9, Issue 7, pp. 530–535, July 2018.
<https://www.ijser.org/researchpaper/Hardware-Prototype-Design-for-Real-Time-Collision-Detection-and-Prevention-Application-of-VANET.pdf>
- Poonam Chakraborty, Agzeliya Alexander, Leorious Varghese presented a paper titled “Design of Passive Optical Network for Hospital Management” at the 3rd IEEE International Conference for Convergence in Technology (I2CT), Pune, India, April 6–8. Published in *Asian Journal of Convergence in Technology*, Volume IV, Issue I, ISSN 2350-1146, Impact Factor 5.1, 2018.
<https://www.asianssr.org/index.php/ajct/article/view/471>
- Sneha Jadhav, Suchit Shinde, M.K. Vishnu, Yogita Kore, Poonam Chakraborty presented a paper titled “Design and Implementation of Li-Fi System” in *International Journal of Scientific Engineering Research*, Volume 9, Issue 3, March 2018.
<https://www.ijser.org/researchpaper/Design-and-Implementation-of-Li-Fi-System.pdf>
 - Poonam Chakraborty, Aparna Telgote presented a paper titled “Performance Analysis of LAN, MAN, WAN and WLAN Topologies for VoIP Services using OPNET Modeler” at the International Conference on Computing, Communication and Signal Processing (ICCASP-2018), held on January 26–27 at Lonere, Raigad, India. Published in *Springer ICCASP-2018 Proceedings*, pp. 185–196, Part of the *Advances in Intelligent Systems and Computing* book series (AISC, Volume 810), 2018.
https://www.academia.edu/96151992/Performance_analysis_of_VoIP_under_the_effect_of_interference_and_during_conference_call_in_WLAN_network_using_OPNET_modeller

Books/Chapters Published:

- Chakraborty P., Telgote, A.M. (2019). Performance Analysis of LAN, MAN, WAN, and WLAN Topologies for VoIP Services Using OPNET Modeler. In: Iyer, B., Nalbalwar, S., Pathak, N. (eds) *Computing, Communication and Signal Processing . Advances in Intelligent Systems and Computing*, vol 810. Springer, Singapore.
https://doi.org/10.1007/978-981-13-1513-8_20

Peer Reviewed Conference Papers:

- Poonam Chakraborty, Namita Agrawal, Madhavi Pednekar presented a paper titled “Breaking the Glass Ceiling – A New Way”, accepted for publication in the proceedings of the *National Conference on Gender Bias in Technology, Auro University, Surat*, held on March 8–9, 2021.
- Poonam Chakraborty presented a paper titled “Fuel Level Detector” at the *2nd IEEE International Conference on System, Computation, Automation and Networking (ICSCAN)*, Pondicherry, India, held on March 29–30, 2019.
- Poonam Chakraborty presented a paper on “A Survey on Black Hole Attack” at *MULTICON-2014, International Conference and Workshop on Emerging Trends in Technology (ICWET-2014)*, ISBN: 978-0-9884925-4-7, 2014.
- Chris Thomas, Joel Thomas, Preema Pais, Poonam Chakraborty presented a paper titled “Implementation of Security in Mobile Ad-hoc Networks” at *INTERFACE 2013, an International Conference on Network Infrastructure Management Systems*, held at VJTI, June 28–29, 2013.
- Poonam Chakraborty, Shobha Krishnan presented a paper titled “MANET Routing Protocol Based on Cryptography” at *INTERFACE 2011, International Conference on Network Infrastructure Management Systems*, conducted by the Dept. of Computer Technology, VJTI, held on December 16–17, pp. 138–142, 2011.
- Poonam Chakraborty, Shobha Krishnan presented a paper titled “Secured Multiple Node Disjoint Path Routing Protocol for MANET” at the *International Conference on Recent Trends in Information Technology and Computer Science (ICRTITCS-2011)*, Thakur College of Science and Commerce, held on December 9–10, pp. 90, 2011.
- Poonam Chakraborty, Shobha Krishnan presented a paper titled “Securing Data Transmission via Multipath Routing” at the *National Conference on Communication Technology (NCCT-2011)*, D. J. Sanghvi College of Engineering, held on October 14–15, pp. 59–63, 2011.
- Poonam Chakraborty, Shobha Krishnan presented a paper titled “Cryptography-Based Protocols” at the *National Conference on Emerging Trends in Electronics & Telecommunication Engineering (ETETE-2011)*, Watumull Institute of Electronics Engineering and Computer Technology, held on September 16–17, pp. 132–136, 2011.
- Poonam Chakraborty, Priya Hankare presented a paper titled “Shut Down Your PC from Anywhere” at the *National Conference on Emerging Technologies in Electronics, Mechanical, and Computer Engineering*, Indore Institute of Science and Technology, held on April 17–18, 2010.

STTPs/FDPs/Workshops Attended:

- Presented a poster titled “*Review of MANET Routing Protocols*” at the Doctoral Program Colloquium, K. J. Somaiya College of Engineering, Somaiya Vidyavihar University, Mumbai, on 12th July 2024.
- Completed a five-day Online FDP on “*RPA (Robotics Process Automation) Technology*,” conducted by the Department of Computer Engineering, Rizvi College of Engineering in association with the Computer Society of India, from 12th to 16th June 2023.
- Attended Phase II of the AICTE-sponsored Online STTP on “*Telecommunication Networks*,” conducted by Vidyalkar Institute of Technology, from 5th to 10th July 2021.
- Attended an AICTE-sponsored Online STTP on “*Telecommunication Networks*,” conducted by Vidyalkar Institute of Technology, from 3rd to 8th May 2021.
- Attended a webinar on “*5G – Communication of the Next Generation*”, organized by ISTE VIT Student Chapter in association with the Department of Electronics and Telecommunication, Vidyalkar Institute of Technology, on 14th May 2020.
- Attended a one-week STTP on “*The New Generation 4G and 5G Innovations: Research, Scope, and Limitations*”, organized by K. J. Somaiya Institute of Engineering and Information Technology, Sion, from 17th to 21st November 2015.
- Attended the IEEE Authorship Workshop titled “*How to Publish a Technical Paper with IEEE*,” organized by IEEE India and hosted by IEEE DBIT, on 18th August 2015.
- Attended a two-week STTP on “*Opportunities and Trends in Information Systems Security*,” conducted at DBIT, Mumbai, 20th Nov to 1st December 2006.
- Attended a one-week ISTE-approved STTP on “*Software Simulations*,” conducted at K. C. College of Engineering, Thane, from 12th to 16th January 2009.
- Attended a two-week Workshop on “*RF and Microwave Design*,” organized by DBIT, Mumbai, from 30th June to 11th July 2008.
- Attended a two-week STTP on “*Recent Trends in Digital Image Processing*,” organized by DBIT, Mumbai, from 31st December 2007 to 11th January 2008.
- Attended a two-day Workshop on “*Embedded System and DSP-Based Analysis and Design – AAGOMANI*,” organized by IIT Bombay, on 23rd and 24th October 2004.
- Attended a two-week STTP on “*MATLAB for Analysis and Simulation of Electronics and Control Systems*,” organized by Nirma Institute of Technology, Ahmedabad, from 25th to 30th November 2002.

Participation in SWAYAM MOOCs/NPTEL/Certification Courses Attended

- Completed Innovation Ambassador (IA) Training – Foundation Level, comprising 15 sessions (30 contact hours), conducted in online mode by MoE’s Innovation Cell and AICTE during the IIC Calendar Year 2021–22.
- Completed Innovation Ambassador (IA) Training – Advanced Level, comprising 15 sessions (30 contact hours), conducted in online mode by MoE’s Innovation Cell and AICTE during the IIC Calendar Year 2021–22.
- Successfully completed a 4-week NPTEL–AICTE Faculty Development Program on “*Body Language: Key to Professional Success*” with 80% marks, Silver Medal, conducted from July to August 2019.

Trainings Undergone in Industry/ Joint Research Publications:

- Completed a three-week internship at Pictor Diagnostics Pvt. Ltd., Thane, from 30th May to 17th June 2022, gaining practical exposure to biomedical diagnostic systems. Contributed to survey design and data collection using Python, supporting the analysis of diagnostic workflows and data management processes.
- Undertook a three-week internship at Fiber Optika Technologies Pvt. Ltd., Sanpada, Navi Mumbai, from 2nd December to 20th December 2019, focusing on optical communication technologies and system integration.
- Received a research grant of ₹20,000 from the University of Mumbai for the project titled “*Design and Implementation of Visible Light Communication (VLC) System Testbed*”, under Research Project No. 448.

Professional Body Memberships:

- Life time Member of INDIAN SOCIETY OF TECHNICAL EDUCATION (ISTE)
- Life time Member of Institution of Electronics and Telecommunication Engineering (IETE)

Invited Talks/Resource Person in STTPs / FDPs:

- Was a resource person for conducting an online expert lecture on the subject of “Passive Optical Network” for the BE EXTC students on 2nd September 2021 at Xavier Institute of Engineering, Mahim, Dept of EXTC.
- Had Organized a one-day Resonance on Wireless Networking on March 11th 2013 for the EXTC Students at DBIT, Mumbai
- Had Organized the valedictory ceremony of Oscillation 2019 a Flagship event of IETE student chapter in collaboration with IETE Mumbai on 8th April, 2019 at DBIT, Mumbai
- Was the speaker for half day session in the STTP on "Open-Source Technologies for Communication Engineering", DBIT EXTC Dept which was scheduled from July 1, 2018-July 7, 2018 on the topic NS2.
- Was the resource person for conducting and organizing two days’ workshop on Network Simulator 2 (NS2) on 2nd and 5th of October 2013 at DBIT, Mumbai.
- Was the resource person for conducting and organizing two days’ workshop on Network Simulator 2 (NS2) on 8th and 9th of September 2012 at DBIT, Mumbai.

Interactions with Professional Institutions:

- Judged the Debate Competition held during Colosseum on 5th March 2025, organized by LitSoc.
- Appointed as a reviewer for a research paper at the *International Conference on Science, Technology, Engineering, and Mathematics for Sustainable Development (ICSTEMSD 2024 – 2nd Edition)*, organized by Atharva College of Engineering, held on 15th and 16th February 2024.
- Participated in the 24th edition of the Kala Ghoda Arts Festival, held from 20th to 28th January 2024.
- Served as a paper setter for the various subjects of Mumbai University and other Autonomous colleges affiliated to Mumbai University for UG, PG and Honors courses.
- Attended a Faculty Knowledge Sharing Program on *Information Technology in Education* on August 2nd, 2024, conducted by ICFAI Business School, Mumbai.
- Member of the syllabus drafting committee for the subject *Network Management in Telecommunication (ECCDLO 2015)*, for Semester VIII EXTC, under the *R2019 C Scheme* of Mumbai University.
- Served as judge for the *Sayari and Hindi Recitation Competition* at Hysteria 2024, held at DBCL, Kurla.

- Appointed as a Session Chair at the *52nd Mid Term Symposium (MTS-2021)* on *Emerging Technologies in ICT and Electronics*, held on April 30, 2021, conducted by IETE in association with IETE Mumbai Section.
- Appointed as a Reviewer for the *IETE Mid Term Symposium (MTS-2021)* on *Emerging Trends in ICT & Electronics*, held on April 30, 2021.
- Served as a Reviewer for the *4th Biennial International Conference on Nascent Technologies in Engineering (ICNTE 2021)*, organized by Fr. C. Rodrigues Institute of Technology, Vashi, Navi Mumbai, in association with IEEE and IAS, held on January 15–16, 2021.
- Participated in the eScripts Review System for the publication *IoT Applications for Healthcare Systems*, conducted by the Publication Department – European Alliance for Innovation (EAI).
- Selected as an Executive Committee Member of the IETE Mumbai Chapter for a two-year term (2020–2022).

Other Achievements & Responsibilities:

- Served as an Executive Committee (EC) Member of the IETE Student Chapter, Mumbai Head Office, from 2020 to 2022.
- Appointed as the IETE Branch Counselor for the EXTC Department at DBIT, from January 2020 to January 2023. During this tenure, led and coordinated numerous activities at the department and institute levels, including collaborations with academic and industry experts, alumni engagement initiatives, peer learning activities, and the organization of industrial visits.
- Served as the Institution’s Innovation Council (IIC) Convenor for the academic year 2023–2024.
- Currently a Faculty Representative on the College Development Committee (CDC), serving since its inception.
- Honored with the Best ISF Award 2021–2022 by the IETE Mumbai Centre during the valedictory ceremony of *Oscillation 2022*.
- Contributed to collaborative projects under the MoU with Qdnet Technologies, including:
 - *Fuel Level Sensor* (2018–2019)
 - *Water Level Sensor* (2021–2022)
 - *Smart Water Management using LoRaWAN* (2022–2023)

Institute Development/Department Responsibilities Handled:

- B.E. Major Project Coordinator for the academic year 2024–2025. Successfully handled Innovex 2025, a B.E. Project Exhibition and Competition held on 4th April 2025.
- Participated in the interview and election process for the DBIT Student Council for academic years 2023–2024 and 2024–2025.
- Cultural Coordinator at the institute and department level. Organized festivals of national and cultural significance throughout the year in coordination with the Student Council and departmental teams.
- DBIT Faculty Coordinator for Hysteria 2024, a DBCL event, overseeing Pool A cultural segments: Literary Arts, Fine Arts, and Performing Arts.
- Faculty Coordinator of the Academic Monitoring Committee at the department level. Conducted Moodle audits at regular intervals.
- Faculty Coordinator of the Institute Innovation Council (IIC) at the department level. Conducted regular IIC activities and submitted reports quarterly.
- TPC Department Faculty Coordinator from January 2020 to July 2023.
- IETE Branch Counselor of the EXTC Department, DBIT from January 2020 to January 2023. Conducted several departmental and institutional activities with academic/industry experts, alumni, and student teams, including Industrial Visits.
- Served as Class Teacher multiple times. Member of various institutional committees including the College Discipline Committee, Internal Complaints Committee (Convenor), and Staff Welfare Committee.
- Organized hospitality and refreshments as part of the team for the STTP on "Open-Source Technologies for Communication Engineering", held from 1st to 7th July 2018 at EXTC, DBIT.
- Part of the organizing team responsible for food and refreshments for delegates at the International Conference on Technologies for Sustainable Development (ICTSD 2015) held at DBIT from 4th to 6th February 2015.
- NAAC Criteria 2 In-Charge at the department level since 2014, overseeing activities related to the Teaching-Learning Process.
- B.E. Major Project Coordinator during the Even Semester of 2013.

- Coordinator of DBIT's Technical Event – Colosseum in the years 2009, 2013, and 2014.

Contact Details:

Email: poonam@dbit.in, poonamchakraborty.pc@gmail.com

Mobile: 9820168071

Personal Webpage Link: <https://sites.google.com/view/poonam-chakraborty/home>