

Curriculum Vitae

Dr. Abhirup Bhawal

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[Linkedin Profile](#)



Objective

Seeking a challenging and rewarding opportunity in an organization which is in line with my academic background and which effectively utilizes my analytical and technical skills in the field of Electronics and Computer Engineering.

Educational Qualification

Name of the Examination	Class/Division	Board/University	Name of Institution	Passing Year
Ph.D.		Tripura University (A Central University)	Tripura University (A Central University)	2022
M.Tech in Electronics and Communication Engineering	First	West Bengal University of Technology	Netaji Subhash Engineering College	2014
B.Tech in Electronics & Communication Engineering	First	West Bengal University of Technology	Birbhum Institute of Engineering and Technology	2011
Higher Secondary Examination	First	W.B.C.H.S.E.	Springdale High School (H.S.)	2007
Madhyamik Pariksha	First	W.B.B.S.E.	Springdale High School	2005

Ph.D. Thesis Title: Study on Vivaldi Antenna Systems with Improved Radiation Characteristics for Wireless Communication Applications.

Professional Experience

● **Assistant Professor (Senior Scale)** in Electronics and Communication Engineering Department of **Presidency University (a NAAC Grade A institution), Bengaluru, Karnataka** (November, 2022-July, 2025)

● **NAAC Criteria 5 Coordinator** at University Level, Course Instructor- in-charge, Class Coordinator Mentorship, Class Committee-Meeting Coordinator at Department Level.

● **Assistant Professor** in Electronics and Communication Engineering Department of **Techno India, Ramgarh** affiliated to **Vinoba Bhave University, Jharkhand** (February, 2015-May, 2018).

Subjects Taught

At UG (B.Tech) Level:

Core Subjects	Electives
I)Antenna Theory (Course Instructor-in-charge)	VII)Machine Learning with Python
II)Communication Systems	VIII)Microwave Engineering
III)Digital Communication	IX) Deep Learning
IV) Analog Electronics	X) Wireless communication
V)EM Theory	XI)Artificial Neural Networks
VI)Transmission Lines and Waveguides	XII)Data Communication & Networking

Fields of Research Interest

- Machine Learning Assisted Antenna Design
- Microwave Communication and Planar Antennas
- AI for Real-life Applications

List of Publications

Journal papers

- **A. Bhawal**, A. Bhattacharjee, A. Karmakar, A. Saha, and D. Bhattacharya, “Vivaldi antennas: a historical review and current state of art,” *International Journal of Microwave and Wireless Technologies*, vol. 13, no. 8, pp. 833–850, 2021.
- **A. Bhawal**, A. Bhattacharjee, A. Karmakar, and A. Saha, “Design of an antipodal Vivaldi antenna with fractal-shaped dielectric slab for enhanced radiation characteristics,” *Microwave and Optical Technology Letters*, vol. 62, no. 5, pp. 2066–2074, 2020.
- **A. Bhawal**, A. Karmakar, A. Bhattacharjee, A. Saha, “Design of a fractal inspired antipodal Vivaldi antenna with enhanced radiation characteristics for wideband applications,” *IET Microwaves, Antennas & Propagation*, vol. 13, no. 7, pp. 892–897, 2019.

List of Conferences

- **A. Bhawal**, A. Karmakar, A. Saha, A. Bhattacharjee, “Design of a Fractal Based Wideband Antipodal Vivaldi Antenna with Improved Radiation Characteristics for Biomedical Applications,” *2018 Fourth*

International Conference on Research in Computational Intelligence and Communication Networks (ICRCICN), pp. 38–42, 2018.

- **A. Bhawal**, A. Karmakar, A. Bhattacharjee, and A. Saha, “A Wideband Vivaldi Antenna with Fractal Dielectric Lens for Imaging Applications,” *2018 4th Int. Conf. Conver. Technol. I2CT 2018*, vol. 1, no. 1, pp. 93–97, 2018.
- A. Bhattacharjee, **A. Bhawal**, A. Karmakar, and A. Saha, “Design of a Wideband Antipodal Vivaldi Antenna with Dielectric Fractal Lens for Biomedical Imaging Applications,” *Proceedings of the 2nd International Conference on Information Systems & Management Science (ISMS) 2019*, 2019.
- **A. Bhawal**, A. Karmakar, and A. Saha, “Vivaldi Antennas for Wideband Communication Systems: A Review,” *9th International Conference on Computing, Communication & Sensor Network 2020*, 2020.
- **A. Bhawal**, N. Patil and T. Agrawal, "Unmanned Aerial Vehicle-aided Auditory Intrusion Detection Systems: An Experimental Exploration," *2023 International Conference on Advances in Computation, Communication and Information Technology (ICAICCIT)*, Faridabad, India, 2023, pp. 802-807, doi: 10.1109/ICAICCIT60255.2023.10465908.
- **A. Bhawal**, M. K. Ranganathaswamy and T. Agrawal, "Advanced Aerial Network Nodes for Next-Generation Wireless Infrastructure," *2023 International Conference on Advances in Computation, Communication and Information Technology (ICAICCIT)*, Faridabad, India, 2023, pp. 797-801, doi: 10.1109/ICAICCIT60255.2023.10465955.
- Chethana P., I. Ghosh, **A. Bhawal** and S. Ganguly, “Development of an FPGA based Smart Antenna System for Target Localization,” *URSI-RCRS 2024, ARIES/GEHU, Bhimtal, India, 22 - 25 October, 2024*, DOI: 10.46620/URSI_RSRC24/0188HPI1443.

Projects Submitted

- Low Frequency Compact Ultra-wideband Planar Artificial Magnetic Conductor (AMC) as **Principal Investigator** under **ISRO Respond Basket 2023 (RES-SAC-2023-002)**.
- Design and Development of a Complete Smart Antenna System for Target Localization and Intercept Mission of Trapped Human Lives as **Co-PI** under **Karnataka Fund for Infrastructure Strengthening in Science & Technology (K-FIST L 1) 2024**.

Projects Conducted

- “A wideband complimentary stacked patch antenna with Minkowski fractal shape defect”.
- “On the design of Parasitic fractal Patch Microstrip Antenna for Multiband Application”.

Conferences/Workshops Attended

- Triennial National Conference on “Electrical, Electronics and Computer Engineering”, IEEE Kolkata Section, Kolkata, 7-8 November 2014.
- Presented a paper at the 2nd URSI-Regional Conference on Radio Science, Indian National Science Academy, Jawaharlal Nehru University, New Delhi, 16th-19th November, 2015.
- Two-week ISTE STTP on CMOS, Mixed Signal and Radio frequency VLSI Design conducted by Indian Institute of Technology Kharagpur from 30th January to 4th February, 2017.
- Attended IEEE Workshop on “Microwaves, trends and applications”, organized by IEEE AP/MTT Kolkata Chapter at SAMEER Kolkata centre, in November 2017.

- Attended a National Conference and Seminar on “Recent Advances in Antenna Design and Applications in RF and Microwave Communication Systems” organised in January 2019 by Tripura University, Tripura, India.
- Attended the one week online short-term course on “Antenna and Microwave Fundamentals, Theory, Modelling, Test and Applications for Space, Air and Ground Systems” held from 26th to 30th September 2020 organised by the Department of Electrical Engineering, National Institute of Technology, Rourkela, Orissa in association with IEEE AP/MTT Kolkata Chapter.
- Attended as an author and presenter in the “9th International Conference on Computing, Communication & Sensor Network”, organized by Applied Computer Technology, in association with the Indian Association of Science, Technology and Management, held in October 2020 in Kolkata.
- Participated and completed Six Weeks Online Summer Internship Program on “Recent Trends of RF Technology (Simulation and Fabrication)” during June 21- July 30, 2021, organized by the Department of Electronics and Communication Engineering at Sant Longowal Institute of Engineering & Technology (Deemed to be University, Under Govt. of India), Sangrur, Punjab, India.
- Acted as a **Co-Chair and Reviewer of Optical Communication Networks & RF/Microwave Devices Track** at the **2024 IEEE International Conference On Recent Innovation In Smart And Sustainable Technology**, March 15-16, 2024 held at Presidency University, Bengaluru, Karnataka, India.

Technical Skills

- **Computer aided design/engineering:** CST Microwave Studio, Origin, HFSS
- **Programming languages:** Python, Matlab, C
- **ML:** Linear/Logistic Regression, Decision Trees, SVM, Random Forests, K-Means, PCA
- **Deep Learning:** CNNs, RNNs, Transformers, GANs
- **Tools:** Git, Pandas, NumPy, Matplotlib
- **Other:** Windows OS, Linux (Ubuntu), Mac OS, MS Office, Excel

Achievements

- Won 2nd best paper award for presenting the paper titled “Vivaldi Antennas for Wideband Communication Systems: A Review” at the 9th International Conference on Computing, Communication and Sensor Network, 2020.
- 2nd position in Mind Sport Quiz contest “Quizzotica”.
- Won various certificates and awards in art from Sastriya Sangeet Kala Parishad.

Certifications

- [Hands-on approach to AI for real-world applications by IIT Kharagpur AI4ICPS I Hub Foundation](#)
- 2 Weeks Vocational Training in Telecom from N.S.C.B.T.T.C. under BSNL, Kolkata.

Membership

Institute of Electrical and Electronics Engineers (IEEE) AP/ MTT Kolkata Chapter.

Referees

- Dr. Anirban Karmakar,
Assistant Professor, Dept. of Electronics and Communication Engg.
Tripura University, A Central University, Tripura
Mobile: (+91) 9038017206, 9231997302
Email: anirban.ece@gmail.com

- Prof. Dipak Ranjan Poddar
Emeritus Professor & Former HOD, ETCE Department,
Jadavpur University, Kolkata, West Bengal
Phone: (+91) 9432595910
Email: drp_ju@yahoo.com

Additional Information

- **Hobbies:** Reading, Painting, Listening to music, Watching movies
- **Extra-Curricular Activity:** Guitarist, Quizzer, Sports enthusiast

Personal Details

Date of Birth: 27.12.1988

Languages Known: English, Bengali, Hindi

Spouse: Anindita Nath

I hereby declare that the above-mentioned information is correct to the best of my knowledge and belief.

Date: 14.09.2026

Abhirup Bhawal

Place: Kolkata