

CURRICULUM VITAE

PERSONAL DETAILS:

➤ NAME	:	DR. ARITRA ACHARYYA
➤ FATHER'S NAME	:	PROFESSOR (DR.) PARIMAL ACHARYYA
➤ MOTHER'S NAME	:	MRS. ILA ACHARYYA
➤ DATE OF BIRTH	:	21.04.1986
➤ ADDRESS	:	118, Nehru Nagar, Mahesh, Hooghly, West Bengal, PIN: 712202, India
➤ PERSONAL E-MAIL ID	:	ari_besu@yahoo.co.in
➤ CONTACT NUMBER	:	+91-9836357184



EDUCATIONAL QUALIFICATIONS:

1. Obtained **PhD (Tech.)** degree in the year 2016 from **Institute of Radio Physics and Electronics, University of Calcutta** (2010 – 2016) [Title of the Thesis: "*Studies on Millimeter-Wave and Terahertz Properties of DDR IMPATTs and Their Optical Control*", Name of the Supervisor: Professor (Dr.) J. P. Bandyopadhyay, Emeritus Fellow (UGC), INRAPHEL, CU].
2. Obtained **M.Tech.** degree in the year 2010 in **Radio Physics and Electronics** from **Institute of Radio Physics and Electronics, University of Calcutta** (2008 – 2010) [CGPA – 9.09, 1st Class 1st Rank in the University of Calcutta].
3. **GATE 2009:** Score: 519, Percentile Score: 96.90%, **GATE 2008:** Score: 337, Percentile Score: 89.20%.
4. Obtained **B.E.** degree in the year 2007 in **Electronics and Telecommunication** from **Bengal Engineering and Science University, Shibpur, Howrah, W. B.** (2003 – 2007) with 81.83% of marks [Rank in the Department: 6th].
5. Rank in **Joint Entrance Examination** [W. B.] 2003: 271.
6. Passed **Higher Secondary Examination** from **Chatra Nandalal Institution, Serampore, Hooghly, W. B.** in the year 2003 with 92.4% of marks.
7. Passed **Madhyamik Pariksha** (Secondary Examination) from **Sri Ramkrishna Ashram Vidyalaya, Rishra, Hooghly, W. B.** in the year 2001 with 90.88 % of marks.

TEACHING EXPERIENCES (TOTAL EXPERIENCE: 16 YEARS 5 MONTHS):

1. Presently working as **Assistant Professor** in **Electronics and Communication Engineering** Department of **Kalyani Government Engineering College, Kalyani, West Bengal, India**, since 18th July, 2024.
2. Worked as **Assistant Professor** in **Electronics and Communication Engineering** Department of **Cooch Behar Government Engineering College, Cooch Behar, West Bengal, India**, since 21st May 2016 to 16th July, 2024.
3. Worked as **Assistant Professor** in **Electronics and Communication Engineering** Department of **Supreme Knowledge Foundation Group of Institutions, 1, Khan Road, Mankundu, W. B. - 712139, India**, since 7th January 2011 to 16th May 2016 (Total: 5 Years 4 Months).
4. Worked as **Guest Lecturer** of **Biomedical Instrumentation, Applied Physics Department, University College of Science and Technology, University of Calcutta, 92, APC Road, Kolkata 700009, India**, since August 2010 to December 2010 (Total: 7 Months).

AWARDS AND SCHOLARSHIPS:

1. Received **IETE Journal of Education Award - 2025** from the Institution of Electronics and Telecommunication Engineers (IETE), India for the best paper selected, titled "Cost-Effective Aluminium-Coated Hot Melt Adhesive Based Parabolic Reflector for Enhanced Long-Range Sound Capture" published in IETE Journal of Education, Vol 65, No. 2, pp 75-83, Jul Dec 2024.
2. Visited Research Institute of Electronics, Shizuoka University, Hamamatsu Campus, Japan as **DST-JSPS Invitation Fellow** during 21st December, 2022 – 28th December, 2022 (Host: Professor (Dr.) Hiroshi Inokawa, Research Institute of Electronics, Shizuoka University, Hamamatsu Campus).
3. Received **IETE-Student's Journal Award - 2022** from the Institution of Electronics and Telecommunication Engineers (IETE), India for the best paper selected, titled "A 360° Video Surveillance Module for Forest Railway Tracks" published in IETE Journal of Education, July-December – 2021 issue.
4. Received **IETE-Student's Journal Award - 2020** from the Institution of Electronics and Telecommunication Engineers (IETE), India for the best paper selected, titled "60 GHz Source for WLAN Applications Based on IEEE 802.11ad Protocol Standards" published in IETE Journal of Education, July-December – 2019 issue.
5. Obtained **GATE Scholarship** during August 2008 to July 2010 (Rs. 8,000/- per month).
6. Obtained **DRDO Scholarship** (onetime contingency of Rs. 2,000/-) for the final year M. Tech. project work, 2009 – 2010.
7. Obtained **Pareshlal Dhar Bhowmik Book Award** for the year 2010 for securing highest marks in M. Tech. (Radio Physics and Electronics) Examination 2010 of the University of Calcutta.

PROFESSIONAL ACTIVITIES:

- Working as the Officer-in-Charge of Maulana Abul Kalam Azad University of Technology (MAKAUT) Examinations at Cooch Behar Government Engineering College, Cooch Behar, West Bengal, since August, 2021 to June, 2024.
- Worked as the Centre-in-Charge of the ANM(R) & GNM – 2022 conducted by West Bengal Joint Entrance Examination Board (WBJEEB), at Cooch Behar Government Engineering College, Cooch Behar (Centre Code: 1504).
- Worked as the Centre-in-Charge of the JENPAS (UG) – 2022 conducted by West Bengal Joint Entrance Examination Board (WBJEEB), at Cooch Behar Government Engineering College, Cooch Behar (Centre Code: 1502).
- Worked as the Centre-in-Charge of the WBJEE – 2022 conducted by West Bengal Joint Entrance Examination Board (WBJEEB), at Cooch Behar Government Engineering College, Cooch Behar (Centre Code: 1502).
- Worked as the Centre-in-Charge of the ANM(R) & GNM – 2021 conducted by West Bengal Joint Entrance Examination Board (WBJEEB), at Cooch Behar Government Engineering College, Cooch Behar (Centre Code: 1505).
- Worked as the Centre-in-Charge of the WBJEE – 2021 (West Bengal Joint Entrance Examination – 2021) conducted by West Bengal Joint Entrance Examination Board (WBJEEB), at Cooch Behar Government Engineering College, Cooch Behar (Centre Code: 1502).
- Working as In-Charge of Business Incubator (BI) Center, Ministry of Micro, Small and Medium Enterprises (MSME), Government of India under the Host Institution (HI) named Cooch Behar Government Engineering College, Cooch Behar, WB, since January 2020.
- Worked as the Centre-in-Charge of the WBJEE – 2020 (West Bengal Joint Entrance Examination – 2020) conducted by West Bengal Joint Entrance Examination Board (WBJEEB), at Cooch Behar Government Engineering College, Cooch Behar (Centre Code: 72102).

- Working as Convenor of Research and Development Cell (R&D Cell) of Cooch Behar Government Engineering College, Cooch Behar, WB, since July 2018.
- Working as an Adviser of Cooch Behar Government Engineering College Students' Chapter (Electronics and Communication Engineering) since February 2019.
- Worked as the Centre-in-Charge of the WBJEE – 2019 (West Bengal Joint Entrance Examination – 2019) conducted by West Bengal Joint Entrance Examination Board (WBJEEB), at Cooch Behar Government Engineering College, Cooch Behar (Centre Code: 72102).
- Worked as an External Examiner in PUBDET – 2018 (Presidency University Admission Examination – 2018) conducted by West Bengal Joint Entrance Examination Board (WBJEEB).
- Worked as Counselor of Supreme Knowledge Foundation Group of Institutions Student Branch, IEEE, Region 10, Kolkata Section (Branch Code: STB16041, School Code: 60098632) since July 2014 to May 2016.
- Worked as External Examiner for practical examination sessions for B. Tech. course in Adamas Institute of Technology, Barasat, W. B., India under WBUT on 25.11.2010 and 26.11.2010.

SUBJECTS OF INTEREST:

- Internet-of-Things,
- Solid-State Electronic Devices,
- Nano Electronics,
- Electromagnetic Theory & Transmission Lines,
- Antenna and Propagation Theory,
- Microwave Engineering,
- Optoelectronics and Fiber Optics,
- Digital Signal Processing,
- Digital Image Processing,
- Analog and Digital Communication,
- Power Electronics,
- Telecommunication Systems,
- Analog Electronics,
- Digital Electronics,
- Control Systems,
- Microprocessors, etc.

PROFESSIONAL COURSES AND TRAINING PROGRAMMES:

1. Successfully completed the two (2) week **Faculty Development Program (FDP)/Short Term Training Programme (STTP)** on “**Induction Training**” organised by National Institute of Technical Teachers' Training and Research (NITTTR), Kolkata under Ministry of Education, Government of India, during 23rd June, 2025 to 4th July, 2025. **(Equivalent FDP Duration: 2.0 Weeks)**
2. Successfully completed the one (1) week **Faculty Development Program (FDP)/Short Term Training Programme (STTP)** on “**Fundamentals of Image Processing**” organised by National Institute of Technical Teachers' Training and Research (NITTTR), Kolkata under Ministry of Education, Government of India, during 26th May, 2025 to 30th May, 2025. **(Equivalent FDP Duration: 1.0 Week)**
3. Successfully completed the two (2) weeks **Industrial Training** on “**Recent R&D Trends in AI-ML, Speech, Image and Video Processing**” organised by Centre for Development of Advanced Computing (C-DAC), Kolkata under Under the Ministry of Electronics and Information Technology, Government of India, during 8th March, 2024 to 21st March, 2024.
4. Successfully completed the two (2) weeks **Faculty Development Program (FDP)** on “**Advanced Pedagogy**” organised by National Institute of Technical Teachers' Training and Research (NITTTR),

- Kolkata under Ministry of Education, Government of India, during 15th January, 2024 to 26th January, 2024. **(Equivalent FDP Duration: 2.0 Weeks)**
5. Successfully completed the eight (8) weeks online course “**Module-7: Creative Problem Solving, Innovation and Meaningful R & D**” of National Initiative for Technical Teachers Training under AICTE-NITTT during April, 2023 to May, 2023. **(Equivalent FDP Duration: 1.0 Week)**
 6. Successfully completed the **Faculty Development Programme (FDP)** entitled “**Recent Advances in Electronics and Communication (RAEC – 2023)**” organized by Department of Electronics and Communication Engineering, Abacus Institute of Engineering and Management, Hooghly, West Bengal, technically sponsored by IEEE ComSoc, Kolkata Chapter in association with ISTE West Bengal Section and IEI, during 22nd August, 2023 – 26th August, 2023. **(Equivalent FDP Duration: 1.0 Week)**
 7. Successfully completed the eight (8) weeks online course “**Module-8: Institutional Management and Administrative Procedures**” of National Initiative for Technical Teachers Training under AICTE-NITTT during September, 2022 to October, 2022. **(Equivalent FDP Duration: 1.0 Week)**
 8. Successfully completed the eight (8) weeks online course “**Module-6: Student Assessment and Evaluation**” of National Initiative for Technical Teachers Training under AICTE-NITTT during September, 2022 to October, 2022. **(Equivalent FDP Duration: 1.0 Week)**
 9. Successfully completed the eight (8) weeks online course “**Module-5: Technology Enabled Learning and Life-Long Self Learning**” of National Initiative for Technical Teachers Training under AICTE-NITTT during April, 2022 to May, 2022. **(Equivalent FDP Duration: 1.0 Week)**
 10. Successfully completed the eight (8) weeks online course “**Module-3: Communication Skills, Modes and Knowledge Dissemination**” of National Initiative for Technical Teachers Training under AICTE-NITTT during April, 2022 to May, 2022. **(Equivalent FDP Duration: 1.0 Week)**
 11. Successfully completed the **Faculty Development Programme (FDP)** entitled “**Recent Advancement and Research Opportunities in Electrical Engineering**” organized by Department of Electrical Engineering, Gargi Memorial Institute of Technology, Kolkata, technically sponsored by IEEE SPS and IEEE PES, Kolkata Section during 11th July, 2022 – 15th July, 2022. **(Equivalent FDP Duration: 1.0 Week)**
 12. Successfully completed the UGC Sponsored **Refresher Course (RC) on ‘Renewable Energy & Its Digital Translation’** organized by UGC-HRDC Jadavpur University (JU), Kolkata, West Bengal, during 2nd March, 2022 – 15th March, 2022. **(Equivalent RC Duration: 2.0 Weeks)**
 13. Successfully completed the UGC Sponsored **Refresher Course (RC) on Biomedical** organized by UGC-HRDC North East Hill University (NEHU), Shilong, Meghalaya, during 16th February, 2022 – 1st March, 2022. **(Equivalent RC Duration: 2.0 Weeks)**
 14. Successfully completed the eight (8) weeks online course “**Module-1: Orientation towards Technical Education and Curriculum Aspects**” of National Initiative for Technical Teachers Training under AICTE-NITTT during March, 2021 to April, 2021. **(Equivalent FDP Duration: 1.0 Week)**
 15. Successfully completed the UGC Sponsored **Faculty Induction Programme (Guru Dakshita)** organized by UGC-HRDC Jadavpur University, Kolkata during 1st September, 2021 – 7th October, 2021. **(Equivalent FIP Duration: 1 Month/4 Weeks/30 Days)**
 16. Successfully completed the Faculty Development Programme on “**FDP Python Programming**” jointly organized by Electronics and ICT Academies during 26th July, 2021 – 6th August, 2021 under the “Scheme of financial assistance for setting up Electronics and ICT Academies” of the Ministry of Electronics and Information Technology (MeitY), Government of India; the programme is recognized by AICTE/UGC. **(Equivalent FDP Duration: 2.0 Weeks)**
 17. Successfully completed the One Week Short Term Training Programme on “**IoT and It’s Application in Industry**” organized by Sikkim Manipal Institute of Technology (SMIT), Sikkim, India (Short Term Training Program – All India Council for Technical Education (STTP – AICTE)), during 19th – 24th July, 2021. **(Equivalent FDP Duration: 1.0 Week)**

18. Successfully completed the One Week Faculty Development Programme on **“Inculcating Universal Human Values in Technical Education”** organized by the All India Council for Technical Education (AICTE), during 18th – 22th January, 2021. **(Equivalent FDP Duration: 1.0 Week)**
19. Successfully completed the eight (8) weeks online course **“Module-2: Professional Ethics and Sustainability”** of National Initiative for Technical Teachers Training under AICTE-NITTT during September, 2020 to October, 2020. **(Equivalent FDP Duration: 1.0 Week)**
20. Successfully completed the eight (8) weeks online course **“Module-4: Instructional Planning and Delivery”** of National Initiative for Technical Teachers Training under AICTE-NITTT during September, 2020 to October, 2020. **(Equivalent FDP Duration: 1.0 Week)**
21. Successfully completed the One Week Faculty Development Programme on **“Recent Trends in Communication Systems & Devices”** organized by the Department of Electronics and Communication Engineering, B. P. Poddar Institute of Management and Technology, during 21st – 25th July, 2020. **(Equivalent FDP Duration: 1.0 Week)**
22. Successfully completed the One Week International Faculty Development Programme on **“Emerging Trends in Sensors, Security and Smart Automation Systems (ETSSAS 2020)”** organized by the Department of Electrical Engineering, B. P. Poddar Institute of Management and Technology, during 8th – 12th July, 2020. **(Equivalent FDP Duration: 1.0 Week)**
23. Successfully completed the two (2) days webinar on **“Emerging Trends in Electronics and Communication Engineering”** organized by Department of Electronics and Communication Engineering, Jalpaiguri Government Engineering College, Jalpaiguri, West Bengal, India during 29.06.2020 – 30.06.2020. **(Equivalent FDP Duration: 2 Days)**
24. Successfully completed the four (4) weeks AICTE-NPTEL online Faculty Development Programme on the course entitled **“Fundamentals of Electronic Device Fabrication”** from 28.07.2019 to 25.10.2019. **(Equivalent FDP Duration: 0.5 Weeks) [Secured Consolidated Score of 98% (Elite Gold) and Stood Topper (Top 1%)]**
25. Successfully completed the twelve (12) weeks AICTE-NPTEL online Faculty Development Programme on the course entitled **“Non-Conventional Energy Resources”** from 30.07.2018 to 19.10.2018. **(Equivalent FDP Duration: 1.5 Weeks) [Secured Consolidated Score of 98% (Elite Gold) and Stood Topper (Top 1%)]**
26. Successfully completed One Week Short Term Training Programme (STTP) through Information and Communication Technology (ICT) Mode on **“Arc Welding Processes & Physics of Welding”** organized by National Institute of Technical Teachers’ Training and Research (NITTTR), Kolkata from 06.08.2018 to 10.08.2018. **(Duration: 1.0 Week)**
27. Successfully completed One Week In-house Training Programme on **“Advancement of Jointing of Material: Welding and Allied Technologies”** organized by National Institute of Technical Teachers’ Training and Research (NITTTR), Kolkata from 12.03.2018 to 16.03.2018. **(Duration: 1.0 Week)**

COURSES COORDINATED:

- Coordinated the online course on **“Satellite based Navigation A journey from GPS to Mobile Phone Platform”** conducted by Indian Institute of Remote Sensing (IIRS), Indian Space Research Organization (ISRO), Department of Space, Government of India, during March 01, 2021 to March 12, 2021.
- Coordinated the online course on **“Overview of Geoprocessing using Python”** conducted by Indian Institute of Remote Sensing (IIRS), Indian Space Research Organization (ISRO), Department of Space, Government of India, during January 18, 2021 to January 29, 2021.
- Coordinated the online workshop on **“Space Technology and its Applications”** conducted by Indian Institute of Remote Sensing (IIRS), Indian Space Research Organization (ISRO), Department of Space, Government of India, on January 11, 2021.

- Coordinated the online course on “Advances in SAR-Polarimetry & Interferometry” conducted by Indian Institute of Remote Sensing (IIRS), Indian Space Research Organization (ISRO), Department of Space, Government of India, during December 14, 2020 to December 18, 2020.
- Coordinated the online course on “Remote Sensing of Land Degradation” conducted by Indian Institute of Remote Sensing (IIRS), Indian Space Research Organization (ISRO), Department of Space, Government of India, during December 02, 2020 to December 07, 2020.
- Coordinated the online course on “RS & GIS Applications” conducted by Indian Institute of Remote Sensing (IIRS), Indian Space Research Organization (ISRO), Department of Space, Government of India, during November 02, 2020 to November 20, 2020.
- Coordinated the online course on “Basics of Remote Sensing Geographical Information System and Global Navigation Satellite System” conducted by Indian Institute of Remote Sensing (IIRS), Indian Space Research Organization (ISRO), Department of Space, Government of India, during August 17, 2020 to November 20, 2020.
- Coordinated the online course on “Geographical Information System” conducted by Indian Institute of Remote Sensing (IIRS), Indian Space Research Organization (ISRO), Department of Space, Government of India, during September 28, 2020 to October 15, 2020.
- Coordinated the online course on “Understanding of Coastal Ocean Processing using Remote Sensing and Numerical Modelling” conducted by Indian Institute of Remote Sensing (IIRS), Indian Space Research Organization (ISRO), Department of Space, Government of India, during September 21, 2020 to September 25, 2020.
- Coordinated the online course on “Global Navigation Satellite System” conducted by Indian Institute of Remote Sensing (IIRS), Indian Space Research Organization (ISRO), Department of Space, Government of India, during September 14, 2020 to September 25, 2020.
- Coordinated the online course on “Remote Sensing and Digital Image Analysis” conducted by Indian Institute of Remote Sensing (IIRS), Indian Space Research Organization (ISRO), Department of Space, Government of India, during August 17, 2020 to September 11, 2020.
- Coordinated the online course on “Remote Sensing Applications in Agricultural Water Management” conducted by Indian Institute of Remote Sensing (IIRS), Indian Space Research Organization (ISRO), Department of Space, Government of India, during August 03, 2020 to August 07, 2020.
- Coordinated the online course on “Ceospatial Inputs for Enabling Master Plan Formulation” conducted by Indian Institute of Remote Sensing (IIRS), Indian Space Research Organization (ISRO), Department of Space, Government of India, during July 27, 2020 to July 31, 2020.
- Coordinated the online course on “Application of Geoinformatics in Ecological Studies” conducted by Indian Institute of Remote Sensing (IIRS), Indian Space Research Organization (ISRO), Department of Space, Government of India, during July 13, 2020 to July 24, 2020.

RESEARCH AREAS:

1. Flexible Sensors,
2. Voltage-Controlled Resistors, and Capacitors,
3. Internet of Things (IoT),
4. Millimeter-wave Semiconductor Devices and Their Optical Control,
5. Terahertz Semiconductor Devices,
6. Solid-State UV Sensors and Detectors,
7. Transport Phenomena,
8. Quantum mechanical behavior of graphene nanoribbon (GNR) based devices,
9. GNR based terahertz sources,
10. Single and multi-quantum well semiconductor heterostructures.

PROFESSIONAL MEMBERSHIP:

- Associate Member of Institute of Engineers (India). Membership Number: AM1817518.
- Member of IEEE (Professional) Electron Devices (ED) Society, Microwave Theory and Techniques (MTT) Society, Communication Society, Signal Processing Society. Membership Number: 92500543.

PROJECTS:

Sl. No.	Title of the Project	Scheme and Funding Authority (Sanction Order/Grant/Project Number)	Grant Amount (INR)	Duration	Designation	Current Status
1	Study on Biomedical Terahertz Imaging Based on Wide-Bandgap Semiconductor IMPATT Source – Phase VI	Research Institute of Electronics, Shizuoka University, 3-5-1 Johoku, Naka-ku, Hamamatsu, 432-8011, Japan (Grant Number: 2070)	1,60,000	April, 2025 – March, 2026 (1 year)	Co-Principal Investigator (Co-PI)	Ongoing
2	Study on Biomedical Terahertz Imaging Based on Wide-Bandgap Semiconductor IMPATT Source – Phase V	Research Institute of Electronics, Shizuoka University, 3-5-1 Johoku, Naka-ku, Hamamatsu, 432-8011, Japan (Grant Number: 2069)	1,46,000	January, 2024 – December, 2025 (1 year)	Co-Principal Investigator (Co-PI)	Completed
3	Study on Biomedical Terahertz Imaging Based on Wide-Bandgap Semiconductor IMPATT Source – Phase IV	Research Institute of Electronics, Shizuoka University, 3-5-1 Johoku, Naka-ku, Hamamatsu, 432-8011, Japan (Grant Number: 2055)	1,59,729	January, 2023 – December, 2024 (1 year)	Co-Principal Investigator (Co-PI)	Completed
4	Design and Implementation of Real-Time Object Detection Based System for Eliminating Injury and Death of Elephants due to Forest Railway Track Accidents	R&D Projects under the Scheme গবেষণায় বাংলা (2019-20) funded by Department of Science & Technology and Biotechnology (DSTBT), Government of West Bengal (Sanction Order No.: 1690(Sanc.)/ST/P/S&T/6G-5/2019, Dated: 06.02.2020)	11,99,800	April, 2020 – March, 2023 (3 years)	Principal Investigator (PI)	Completed
5	Design and Fabrication of GaN Based THz Solid-State Source	India-Japan Cooperative Science Programme funded by Department of Science & Technology (DST), Ministry of Science & Technology, Government of India and Japan Society for the Promotion of Science (JPSP), Japan (Project Number: DST/INT/JPSP/P-310/2020)	9,82,000	April, 2020 – March, 2022 (2 years)	Co-Principal Investigator (Co-PI)	Completed
6	Study on Biomedical Terahertz Imaging Based on Wide-Bandgap Semiconductor IMPATT Source – Phase III	Research Institute of Electronics, Shizuoka University, 3-5-1 Johoku, Naka-ku, Hamamatsu, 432-8011, Japan (Grant Number: 2027)	1,73,000	June, 2022 – March, 2023 (1 year)	Co-Principal Investigator (Co-PI)	Completed
7	Study on Biomedical Terahertz Imaging Based on Wide-Bandgap Semiconductor IMPATT Source – Phase II	Research Institute of Electronics, Shizuoka University, 3-5-1 Johoku, Naka-ku, Hamamatsu, 432-8011, Japan (Grant Number: 2051)	1,04,000	June, 2020 – March, 2021 (1 year)	Co-Principal Investigator (Co-PI)	Completed

8	Study on Biomedical Terahertz Imaging Based on Wide-Bandgap Semiconductor IMPATT Source – Phase I	Research Institute of Electronics, Shizuoka University, 3-5-1 Johoku, Nakaku, Hamamatsu, 432-8011, Japan (Grant Number: 2065)	1,04,000	May, 2019 – March, 2020 (1 year)	Co-Principal Investigator (Co-PI)	Completed
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DOCTORAL GUIDANCE:

Sl. No.	Name of the Scholar	Title of the Thesis	Guidance Type	University/ Institution	Present Status
1	Prasit Kumar Bandyopadhyay	Studies on Large-Signal and Noise Properties of DDR IMPATT Diodes: Effect of Reduced Ionization Rate of Charge Carriers Due to Carrier-Carrier Interactions	Co-Supervisor	Department of ECE, NIT, Durgapur, West Bengal, India	Degree Awarded in the Year 2019
2	Monisha Ghosh	Studies on Multi-Quantum Well Avalanche Transit Time Sources for Different Industrial Applications in Millimetre-Wave and Terahertz Frequency Regimes	Joint-Supervisor	Department of Mining Engineering, Kazi Najrul University, Asansol, West Bengal, India	Degree Awarded in the Year 2025
3	Somrita Ghosh	Multiple Quantum Barrier Nano-Avalanche Photodiodes: Potential Wideband Detectors for Industrial Applications	Joint-Supervisor	Department of Mining Engineering, Kazi Najrul University, Asansol, West Bengal, India	Degree Awarded in the Year 2025
4	Partha Banerjee	Effects of Magnetic Field on the RF and Noise Performance of Millimeter-Wave IMPATT Sources	Joint-Supervisor	Department of Mining Engineering, Kazi Najrul University, Asansol, West Bengal, India	Enrolled in the Year 2025

SESSION CHAIR IN INTERNATIONAL/NATIONAL CONFERENCES:

1. Chaired a Technical Session (Session Number: 11) entitled “Deep Learning and Machine Learning” in the International Conference on “Advances in Data Science and Computing Technologies (ADSC) – 2022 (during June 23-24, 2022)” organized by Department of Computer Science and Technology, Kazi Nazrul University, West Bengal, India, on 24th June, 2022.

INVITED TALKS:

1. Delivered an invited talk on “Flexible Optical Twist-Angle Measuring Sensor for Bio-Mechanical Data Acquisition” in the One-Day Seminar on “Intelligent Device and System Analysis for making Smart Society in 21st Century” Organized by Department of Information Technology, Bengal College of Engineering and Technology, Durgapur, India, as an Outreach Program, IEEE Electron Devices Society, Kolkata Chapter on 21.05.2026.
2. Delivered an invited talk on “Industry Grade Flexible Optical Twist Angle Measuring Sensor Based on TiO₂ ~Silicone Rubber Nanocomposite” in the One-Day Seminar and Workshop on “Emerging Trends in Future-Ready Industry 5.0 Technologies” Organized by Department of Electronics and Communication Engineering, NSHM Institute of Engineering & Technology, Durgapur, India, as an Outreach Program, IEEE Electron Devices Society, Kolkata Chapter on 07.04.2026.
3. Delivered an invited talk on “Fabrication, and Testing of Flexible Optical Intensity-Modulated Sensors for Bio-Medical Applications” in the Two-Day Seminar and Workshop on “Designing Intelligent Systems: Sensor Fabrication, Front-End Electronics, ML, 3D Prototyping in Robotics and AI-Driven Products” Organized by Cooch Behar Government Engineering College, Cooch Behar, West Bengal, India, Sponsored by Department of Science, and Technology, and Biotechnology, Government of West Bengal, during 30.03.2026 – 31.03.2026.
4. Delivered an invited talk on “Flexible Optical Polarization-Based Twist-Sensor using TiO₂~Silicone Rubber Nanocomposite-Based Waveguide” in the One-Day Seminar on “Pathways in Engineering: Technology Trends and the IEEE Advantage” Organized by Sikkim Manipal Institute of Technology

(SMIT), Sikkim, India, as an Outreach Program, IEEE Electron Devices Society, Kolkata Chapter on 21.02.2026.

5. Delivered an invited talk on “Electrical Power Transmission through Free-Space Optics: Real-Time Measurement and Monitoring Through IoT” in the One-Day Seminar on “Pathways in Engineering: Technology Trends and the IEEE Advantage” Organized by Chaibasa Engineering College, Chaibasa, Jharkhand, India, as an Outreach Program, IEEE Electron Devices Society, Kolkata Chapter on 17.01.2026.
6. Delivered an invited talk on “Voltage-Controlled Resistors and Their Applications” in the One-Day Seminar Organized by Techno Polytechnic Durgapur, Kaksa, Panagarh, West Bengal, India, as an Outreach Program, IEEE Electron Devices Society, Kolkata Chapter on 12.12.2025.
7. Delivered an invited talk on “Possibilities of Terahertz-Wave Generation from Wide-Bandgap Semiconductor Based Charge-Plasma Avalanche Transit Time Source” in the Three-Day Workshop on “Advances in Terahertz Technology & Applications” Jointly Organized by Department of Electronics and Communication Engineering, Matrusri Engineering College, Hyderabad, Telangana, India, IEEE AP-S/EMC-S/MTT-Society, Hyderabad Chapter, and IEEE MECS MTT-SB 17791, on 17.11.2023.
8. Delivered an invited talk on “Introduction to Internet of Things and Demonstration of Some Applications” in the Webinar conducted by Department of Electronics and Telecommunication Engineering, Technique Polytechnic Institute, Panchrokh, Sugandhya, Hooghly, West Bengal, India, on 01.02.2022.

REVIEWER:

Presently working as a guest reviewer in “**Electronics Letters**”, **IET, UK** [Print ISSN: 0013-5194, Online ISSN: 1350-911X], “**AIP Advances**”, **AIP, USA** [ISSN: 2158-3226], “**International Journal of Electronics**”, **Taylor & Francis, UK** [Print ISSN: 0020-7217, Online ISSN: 1362-3060], “**Journal of Infrared, Millimeter, and Terahertz Waves**”, **Springer** [Print ISSN: 1866-6892, Online ISSN: 1866-6906], “**International Journal of Microwave and Wireless Technologies**”, **Cambridge University Press** [ISSN: 1759-0787], “**Circuits and Systems (CS)**”, **Scientific Research Publishing, USA** [Print ISSN: 2153-1285, Online ISSN: 2153-1293], etc.

NUMBER OF PUBLICATIONS:

NATURE OF PUBLICATIONS	JOURNALS (110)		CONFERENCES (81)		BOOKS (16)		BOOK CHAPTERS (26)	TOTAL [†]
	INTERNATIONAL	NATIONAL	INTERNATIONAL	NATIONAL	AUTHORED	EDITED		
NUMBER OF PUBLICATIONS	85	25	54	27	7	9	26	233

[†]A list of publications is attached at the end.

OTHER ACHIEVEMENTS AND SUCCESSES:

1. Secured **1st Class 1st Rank** in University of Calcutta in M.Tech. [Radio Physics and Electronics Department].
2. Secured **6th Rank** in Electronics and Telecommunication Department in B.E. from Bengal Engineering and Science University, Shibpur.
3. Secured **All India Rank-45** in **BSNL JTO Examination 2007** [Did not joined for pursuing M.Tech.].
4. Joined **Hindustan Aeronautics Limited [HAL], Bangalore** as a **Management Trainee in 2008**. But resigned from the job due to lack of job satisfaction.
5. Obtained **highest marks** in Chemistry in Higher Secondary Examination [191 out of 200 (95.50%)] in the year 2003.
6. Obtained **highest marks** in Science Group [568 out of 600 (94.67%)] within Hooghly District in Higher Secondary Examination in the year 2003.

NUMBER OF PROJECTS GUIDED:

Undergraduate Level (B.E./B.Tech)	Post Graduate (M.E./M.Tech.)
40	6

BIOGRAPHICAL CITATIONS:

1. The Biographical Profile of **Dr. Aritra Acharyya** has been published in the **2000 Outstanding Intellectuals of the 21st Century, 8th Edition**, published by **International Biographical Centre, Cambridge, Great Britain**.
2. The Biographical Profile of **Dr. Aritra Acharyya** has been published in the **Who's Who in the World 2014, 31st Edition** and **Who's Who in the World 2015, 32nd Edition** published by **Marquis Who'sWho® Publications, USA**.

PROJECTS WORKS COMPLETED DURING B.E. AND M.TECH:

1. "*Studies on Series Resistance of Millimeter Wave Si-IMPATT Diodes Incorporating Different Physical Effects*" under **Professor (Dr.) J. P. Bandyopadhyay, Institute of Radio Physics & Electronics, University of Calcutta** [M. Tech. final year (3rd and 4th Semester): 2009-2010].
2. "*Design of Bias Filter for Waveguide Structure of IMPATT Diode Oscillator at 94 GHz [W-Band]*" under **Professor (Dr.) J. P. Bandyopadhyay, Institute of Radio Physics & Electronics, University of Calcutta** [M. Tech. (2nd Semester): 2009].
3. "*Adaptive Successive Interference Cancellation in DS-CDMA using Neural Network*" under **Professor (Dr.) S. P. Maity, Department of Information Technology, Bengal Engineering and Science University, Shibpur, Howrah, W. B.** [B. E. final year (7th and 8th Semester): 2006-2007].

COMPUTER PROFICIENCIES:

1. **Scientific Softwares:** MATLAB, P-SPICE,
2. **Computer Programming:** "C"-Language, Java, Python,
3. **Operating Systems:** Linux, Windows XP, Windows 7, 8 and 10.

VOCATIONAL TRAINING:

- Successfully completed Vocational training at BSNL (DTTC, SALT LAKE) on June 2006. (**Duration: 2 Weeks**)

LANGUAGES KNOWN:

SERIAL NUMBER	LANGUAGES	MOTHER TONGUE	SPEAK	READ	WRITE
1	Bengali	Yes	Yes	Yes	Yes
2	English	No	Yes	Yes	Yes
3	Hindi	No	Yes	Yes	No

I hereby declare that the above details stated are absolutely sound and true to the best of my knowledge.

PLACE: Kalyani, WB, India.
DATE: 03.06.2026

Aritra Acharyya
DR. ARITRA ACHARYYA

LIST OF PUBLICATIONS

JOURNAL PAPERS: (Total Impact Factor: 116.657 (2024))

- [1] **Aritra Acharyya**, and Angsuman Sarkar, "Vector Bend-Sensor Based on Flexible Optical Waveguide with Dual-Antisymmetric-Cores," *IEEE Sensors Journal*, vol. 26, issue 10, pp. 15334 - 15341, 2026, DOI: 10.1109/JSEN.2026.3680538. **(Impact Factor: 4.500 (2024))**
- [2] S. Ray, **A. Acharyya**, and R. Das, "Experimental Realization of Programmable Optically Variable Potentiometer," *Journal of Circuits, Systems and Computers*, World Scientific Publishing, Published Online, 2026, DOI: 10.1142/S0218126626502075. **(Impact Factor: 1.000 (2024))**
- [3] Tanushree Saha, Sneha Ray, Rohit Biswas, Soutik Mondal, Sourav Sarkar, Debarghya Paul, Kanta Bhattacheryya, Palash Das, Anshuman Sarkar, and **Aritra Acharyya**, "Matrix-Coupled LED-CdS Photoresistor Arrays: Fabrication, Optical-Electronic Coupling Modelling, and Wide-Range Programmable Resistance Characteristics," *Journal of Electronic Materials*, Springer [USA], vol. 55, pp. 4658-4672, 2026. **(Impact Factor: 2.500 (2024))**
- [4] Pallab Kumar Pramanik, Rohit Biswas, Soutik Mondal, Sourav Sarkar, Debarghya Paul, Sneha Ray, Soumya Kanti Raj, Palash Das, Sukhendu Shekhar Mondal, Sandip Nandi, Angsuman Sarkar, and **Aritra Acharyya**, "Flexible Optical Bend-Sensor Based on TiO₂-Gel-Wax Nanocomposite Core and Silicone-Rubber Cladding," *Micro and Nanostructures*, Elsevier, vol. 209, pp. 208437-1-23, 2026. **(Impact Factor: 3.000 (2024))**
- [5] Kanta Bhattacheryya, Sneha Ray, Tanushree Saha, Palash Das, and **Aritra Acharyya**, "TiO₂-epoxy nanocomposite-based wide-range planar programmable optically variable resistors," *Micro and Nanostructures*, Elsevier, vol. 209, pp. 208433-1-22, 2026, DOI: 10.1016/j.micrna.2025.208433. **(Impact Factor: 3.000 (2024))**
- [6] Sneha Ray, Tanushree Saha, Kanta Bhattacheryya, Palash Das, Prasenjit Dey, and **Aritra Acharyya**, "Ultra-Wide Range Programmable Optically Variable Resistors: Wide-Spectrum Source Control," *Journal of Electronic Materials*, Springer [USA], vol. 55, pp. 1205-1221, 2026, DOI: 10.1007/s11664-025-12556-5. **(Impact Factor: 2.500 (2024))**
- [7] Sneha Ray, Soumya Kanti Raj, Sandip Nandi, Angsuman Sarkar, Palash Das, Soumyadeep Paty, **Aritra Acharyya**, Arindam Biswas, Naim Ahmad, Salman Arafath Mohammed, and Saurav Mallik, "Silicone Rubber-based Flexible Optical Sensor for Precise Twist Angle Measurement," *IEEE Access*, vol. 13, pp. 167614 - 167631, 2025, DOI: 10.1109/ACCESS.2025.3610486. **(Impact Factor: 3.600 (2024))**
- [8] Sneha Ray, Abhigyan Das, Tanushree Saha, Kanta Bhattacheryya, Angsuman Sarkar, Palash Das, and **Aritra Acharyya**, "Programmable Optically Variable Resistors: Long-Range, Compact and Scalable Voltage Controlled Resistors," *Journal of Active and Passive Electronic Devices* [USA], Old City Publishing, vol. 19, no. 3, pp. 217-238, 2025.
- [9] Rajib Das, **Aritra Acharyya**, and Shubhankar Majumdar, "Influences of Human Presence on the Indoor Air Quality of Educational Institutions: Concurrent Multi-Pollutant Sensing Approach," *IEEE Open Journal of Instrumentation and Measurement*, vol. 4, pp. 9500508-1-8, 2025, DOI: 10.1109/OJIM.2025.3583294. **(Impact Factor: 1.500 (2024))**
- [10] Prerona Sanyal, Sneha Ray, **Aritra Acharyya**, Arindam Biswas, and Rudra Sankar Dhar, "Application of Machine Learning for Predicting the Millimetre-Wave and Sub-Millimetre-Wave Characteristics of Avalanche Transit Time Sources," *Journal of Computational Electronics*, vol. 24, pp. 137-1-20, 2025. **(Impact Factor: 2.500 (2024))**

- [11] Santu Mondal, Sneha Ray, **Aritra Acharyya**, Rudra Sankar Dhar, Arindam Biswas, Hiroaki Satoh, Gurudas Mandal, Vitaliy Maksimenko, and Victor Krishtop, "Accelerated Prediction of Terahertz Performance Metrics in GaN IMPATT Sources via Artificial Neural Networks," *IEEE Access*, vol. 13, pp. 84284-84302, 2025, DOI: 10.1109/ACCESS.2025.3567410. **(Impact Factor: 3.600 (2024))**
- [12] Sneha Ray, Tanushree Saha, Angsuman Sarkar, Palash Das, and **Aritra Acharyya**, "TiO₂~Epoxy Nanocomposite-Based Lossy Optical Fiber Core-Structures for Realizing Wide-Range Programmable Optically Variable Resistors," *Journal of Electronic Materials*, Springer [USA], vol. 54, pp. 4726-4742, 2025, DOI: 10.1007/s11664-025-11909-4. **(Impact Factor: 2.500 (2024))**
- [13] Santu Mondal, Sneha Ray, Biru Rajak, **Aritra Acharyya**, Gurudas Mandal, Arindam Biswas, and Rudra Sankar Dhar, "Design Optimization of GaN-Based Terahertz IMPATT Sources by Using Artificial Neural Networks," *Journal of The Institution of Engineers (India): Series D*, Springer, 2025, DOI: 10.1007/s40033-025-00894-x.
- [14] Partha Banerjee, Rajib Das, **Aritra Acharyya**, Dwaipayan Ghosh, Arindam Biswas, Hiroshi Inokawa, Hiroaki Satoh, and A. K. Bhattacharjee, "Edge Terminated GaN Reverse Double-Drift IMPATT Structure for Efficient Millimeter-Wave Radiation," *IETE Journal of Research*, Taylor and Francis [India], vol. 71, no. 6, pp. 2070-2086, 2025. **(Impact Factor: 1.300 (2024))**
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- [16] Partha Banerjee, **Aritra Acharyya**, Rajib Das, Arindam Biswas, A. K. Bhattacharjee, Saurav Mallik, Haya Mesfer Alshahrani, E Elshiekh, Mohamed Abbas, Ben Othman Soufiene, "Mutually Injection Locked Multi-Element Terahertz Oscillator Based on AlGaIn/GaN High Electron Mobility Avalanche Transit Time Devices," *IEEE Access*, vol. 12, pp. 123656 - 123677, 2024. **(Impact Factor: 3.600 (2024))**
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- [21] Papai Shee, and **Aritra Acharyya**, "Design and Realization of a Low-Cost Smart Walking Aid for Visually Impaired and Blind People," *Qeios*, pp. 1-11, 2023, DOI:10.32388/L9CUEW.
- [22] Prajukta Mukherjee, **Aritra Acharyya**, and Sandipan Mallik, "Bovine Serum Albumin Based Thin-Film Capacitors for Flexible Electronic Applications," *IETE Journal of Research [India]*, Taylor & Francis, vol. 69, no. 12, pp. 9120-9127, 2022. **(Impact Factor: 1.300 (2024))**

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- [29] **Aritra Acharyya**, Prasenjit Dey, Abir Dutta, and Sukanya Bose, "Analytical Modelling of Video Surveillance System Along Forest Railway Tracks," *IETE Journal of Education* [India], Taylor & Francis, vol. 61, issue 2, pp. 55-63, 2020, DOI: 10.1080/09747338.2020.1798821.
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