

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
- **PHONE NUMBERS** : +91-9836357184 (Mobile), +91-033-26624524 (Residence)
- **WEBSITE** : <http://aribesu.wixsite.com/scientist-site>



EDUCATIONAL QUALIFICATIONS:

1. Obtained **PhD (Tech.)** degree on 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 on 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 on 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: 8 YEARS 1 MONTH):

1. Presently working as **Assistant Professor** in **Electronics and Communication Engineering** Department of **Cooch Behar Government Engineering College, Cooch Behar, West Bengal, India**, since 21st May 2016.
2. 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**).

3. Worked as **Guest Lecturer** in **Biomedical Instrumentation** of **Applied Physics Department** in **University College of Science and Technology, University of Calcutta, 92, APC Road, Kolkata 700009, India**, since August 2010 to December 2010 (**Total: 7 Months**).

FACULTY DEVELOPMENT PROGRAMS:

1. Successfully completed the 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%)**]
2. Successfully completed the Short Term Training Programme through 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 Week**)
3. Successfully completed the 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 Week**)

SCHOLARSHIPS AND AWARDS:

1. Obtained **GATE Scholarship** during August 2008 to July 2010 (Rs. 8,000/- per month).
2. Obtained **DRDO Scholarship** (onetime contingency of Rs. 2,000/-) for the final year M. Tech. project work, 2010.
3. 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.

RESEARCH AREAS:

1. Millimeter-wave and Terahertz Semiconductor Devices and Their Optical Control.
2. Solid-State UV Sensors: Design and Simulation of Wide Bandgap Semiconductor Based APDs.
3. Quantum mechanical behavior of graphene nanoribbon based devices and single, 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.

PROFESSIONAL ACTIVITIES:

- 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.

PUBLICATIONS:

NATURE OF PUBLICATIONS	JOURNALS (58)		CONFERENCES (54)		BOOKS AUTHORED (6)/ EDITED (1)	TOTAL†
	INTERNATIONAL	NATIONAL	INTERNATIONAL	NATIONAL		
NUMBER OF PULICATIONS	59	15	41	17	7	139

†A list of publications is attached at the end.

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], “**IETE Journal of Education**”, **India** [Print ISSN: 0970-1664, Online ISSN: 0974-7338], “**Modern Applied Science**”, **Canada** [Print ISSN: 1913-1844, Online ISSN: 1913-1852], “**International Research Journal of Engineering Science, Technology and Innovation**”, **International Research Journals**, etc.

DOCTORAL GUIDANCE: (PRESENT NUMBER OF SCHOLARS: 4):

Sl. No.	Name of the Scholar	Title of the Thesis	Working Since	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	2015	Joint-Supervisor	Department of ECE, NIT, Durgapur	Degree Awarded
2	Partha Banerjee	Effects of Magnetic Field on the RF and Noise Performance of Millimeter-Wave IMPATT Sources	2015	Joint-Supervisor	Department of ECE, NIT, Durgapur	Registered
3	Monisha Ghosh	Multiple Quantum Well IMPATT Diodes for the Generation of Millimeter-Wave and Terahertz Frequencies	2016	Supervisor	---	Yet to be Enrolled
4	Somrita Ghosh	Multiple Quantum Barrier Nano-Avalanche Photodiodes	2016	Supervisor	---	Yet to be Enrolled

BIOGRAPHICAL CITATIONS:

1. The Biographical Profile of **Mr. 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 **Mr. 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**.

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. Obtained **highest marks** in Chemistry in Higher Secondary Examination [191 out of 200 (95.50%)] in the year 2003.
4. Obtained **highest marks** in Science Group [568 out of 600 (94.67%)] within Hooghly District in Higher Secondary Examination in the year 2003.
5. Secured **Rank-45** in **BSNL JTO Examination 2007** [Did not joined for pursuing M.Tech.].
6. Joined **Hindustan Aeronautics Limited [HAL], Bangalore** as a **Management Trainee in 2008**. But resigned from the job due to lack of job satisfaction.

SUBJECTS OF INTEREST:

Solid-State Electronic Devices, 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, Circuit Theory and Networks, Control Systems, Microprocessors, etc.

PROJECT WORKS COMPLETED:

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].

SIGNIFICANT PROJECTS GUIDED:

1. "**Design and Realization of a Hardware Set-up of Smart Energy Meter for Energy Consumption Monitoring from Remote through 433 MHz Point to Point RF Link**", M.Tech. Level Experimental Project.

2. **“Wireless Power Transmission”**, B.Tech. Level Experimental Project.
3. **“Research on the 50 Hz Cascaded Twin-Tee Notch Filter for Removal of Power Line Interference from Human Electrocardiogram”**, B.Tech. Level Experimental Project.
4. **“Analytical modeling of impact ionization phenomena in wide bandgap semiconductors”**, B.Tech. Level Theoretical Project.
5. **“Graphene Nano Ribbon (GNR) based multi-quantum well structures”**, B.Tech. Level Theoretical Project.
6. **“Semiconductor Nanoscale Quantum Well p - n Junctions”**, B.Tech. Level Theoretical Project.
7. **“4H-SiC and Wz-GaN Based Avalanche Photodiodes as UV Sensors”**, B.Tech. Level Theoretical Project.
8. **“Millimeter-Wave and Terahertz Semiconductor Devices”**, B.Tech. Level Theoretical Project.
9. **“Active and Passive Component Sizing in Mixed-signal VLSI Chips via Geometric Programming”**, B.Tech. Level Theoretical Project.
10. **“Effect of Hall-Field on Current-Voltage Characteristics of n -Channel Enhancement-type MOSFETs”**, B.Tech. Level Experimental Project.

COMPUTER PROFICIENCIES:

1. **Scientific Softwares:** MATLAB, P-SPICE.
2. **Computer Programming:** “C”-Language, Java.
3. **Operating Systems:** 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: Mahesh, Hooghly, WB, India.

DATE: 10.07.2019

DR. ARITRA ACHARYYA

LIST OF PUBLICATIONS

JOURNAL PAPERS: (Total Impact Factor: 42.637 (2018))

- [1] **Aritra Acharyya**, "Three-Terminal Graphene Nanoribbon Tunable Avalanche Transit Time Sources for Terahertz Power Generation," *physica status solidi (a)* [Germany], Wiley, vol. 00, issue 0, pp. 00-00, 2019. **(Impact Factor: 1.606 (2018))**
- [2] Somrita Ghosh, Arindam Biswas and **Aritra Acharyya**, "Optical Properties of Multiple Quantum Barrier Nano-Scale Avalanche Photo Diodes," *International Journal of Nanoparticles*, Inderscience Publishers, Accepted, 2019.
- [3] Parth Banerjee, **Aritra Acharyya**, Arindam Biswas and A. K. Bhattacharjee, "Modulation of Millimeter-Wave and THz Properties of IMPATT Sources via External Magnetic Field," *International Journal of Nanoparticles*, Inderscience Publishers, Accepted, 2019.
- [4] **Aritra Acharyya**, "1.0 – 10.0 THz Radiation from Graphene Nanoribbon based Avalanche Transit Time Sources," *physica status solidi (a)* [Germany], Wiley, vol. 00, issue 0, pp. 00-00, 2019. **(Impact Factor: 1.606 (2018))**
- [5] Sonali Banerjee, Prajukta Mukherjee, Swarup Kumar Mitra and **Aritra Acharyya**, "A High Performance Piano Note Recognition Scheme," *IETE Journal of Education* [India], Taylor & Francis, vol. 59, issue 2, pp. 93-100, 2018.
- [6] Somrita Ghosh and **Aritra Acharyya**, "Multiple Quantum Barrier Nano-Avalanche Photodiodes – Part I: Spectral Response", *Nanoscience & Nanotechnology-Asia*, vol. 9, issue 1, pp. 172-184, 2019.
- [7] Somrita Ghosh and **Aritra Acharyya**, "Multiple Quantum Barrier Nano-Avalanche Photodiodes – Part II: Excess Noise Characteristics", *Nanoscience & Nanotechnology-Asia*, vol. 9, issue 1, pp. 185-191, 2019.
- [8] Somrita Ghosh and **Aritra Acharyya**, "Multiple Quantum Barrier Nano-Avalanche Photodiodes – Part III: Time and Frequency Responses", *Nanoscience & Nanotechnology-Asia*, vol. 9, issue 1, pp. 192-197, 2019.
- [9] Arindam Biswas, Sayantan Sinha, **Aritra Acharyya**, Amit Banerjee, Srikanta Pal, Hiroaki Satoh and Hiroshi Inokawa, "1.0 THz GaN IMPATT Source: Effect of Parasitic Series Resistance," *Journal of Infrared, Millimeter and Terahertz Waves* [USA], Springer, vol. 39, issue 10, pp. 954-974, 2018. **(Impact Factor: 1.762 (2018))**
- [10] Partha Banerjee, **Aritra Acharyya**, Arindam Biswas, A. K. Bhattacharjee and Hiroshi Inokawa, "Noise Performance of Magnetic Field Tunable Avalanche Transit Time Source," *International Journal of Electronics and Communication Engineering*, World Academy of Science, Engineering and Technology [France], vol. 12, no. 10, pp. 718-728, 2018.
- [11] **Aritra Acharyya**, "Hot Electron Transport in Wurtzite-GaN: Effects of Temperature and Doping Concentration," *Journal of Semiconductors* [China], IOP Science, vol. 39, issue 7, pp. 072002-1-6, 2018.
- [12] Prasit Kumar Bandyopadhyay, Arindam Biswas, A.K. Bhattacharjee and **Aritra Acharyya**, "Influence of carrier-carrier interactions on the noise performance of millimeter-wave IMPATTs," *IETE Journal of Research* [India], Taylor & Francis, Published Online, pp. 1-6, 2018, DOI: 10.1080/03772063.2018.1433078. **(Impact Factor: 0.793 (2018))**

- [13] Prasit Kumar Bandyopadhyay, Arindam Biswas, A.K. Bhattacharjee and **Aritra Acharyya**, "Millimeter-Wave and Terahertz IMPATT Sources: Influence of Inter-Carrier Interactions," International Journal of Nanoparticles, Inderscience Publishers, vol. 10, nos. 1/2, pp. 124-140, 2018.
- [14] **Aritra Acharyya**, "Gallium Phosphide IMPATT Sources for Millimeter-Wave Applications," Iranian Journal of Electrical & Electronic Engineering, vol. 14, no. 2, pp. 143-152, 2018.
- [15] **Aritra Acharyya**, "Diminution of Impact Ionization Rate of Charge Carriers in Semiconductors due to Acoustic Phonon Scattering," Applied Physics A [Germany], Springer, pp. 1-12, 2017, Published Online: DOI 10.1007/s00339-017-1245-2. **(Impact Factor: 1.604 (2017))**
- [16] Monisha Ghosh, Somrita Ghosh, Prasit Kumar Bandyopadhyay, Arindam Biswas, A.K. Bhattacharjee and **Aritra Acharyya**, "Noise Performance of 94 GHz Multiple Quantum Well Double-Drift Region IMPATT Sources," Journal of Active and Passive Electronic Devices [USA], Old City Publishing, vol. 13, issue 2/3, pp. 195-207, 2018.
- [17] Prajukta Mukherjee, Debjyoti Chatterjee and **Aritra Acharyya**, "Influence of Oblique Magnetic Field on the Impact Ionization Rate of Charge Carriers in Semiconductors," Journal of Computational Electronics [USA], Springer, vol. 16, issue 3, pp. 503-513, 2017. **(Impact Factor: 1.637 (2018))**
- [18] **Aritra Acharyya** and Somrita Ghosh, "Dark Current Reduction in Nano-Avalanche Photodiodes by Incorporating Multiple Quantum Barriers," International Journal of Electronics [UK], Taylor & Francis, vol. 104, issue 12, pp. 1957-1973, 2017. **(Impact Factor: 1.070 (2018))**
- [19] Monisha Ghosh, Somrita Ghosh and **Aritra Acharyya**, "Self-Consistent Quantum Drift-Diffusion Model for Multiple Quantum Well IMPATT Diodes," Journal of Computational Electronics [USA], Springer, vol. 15, issue 4, pp. 1370-1387, 2017. **(Impact Factor: 1.637 (2018))**
- [20] Prasit Kumar Bandyopadhyay, Subhendu Chakraborty, Arindam Biswas, **Aritra Acharyya** and A.K. Bhattacharjee, "Large-Signal Characterization of Millimeter-Wave IMPATTs: Effect of Reduced Impact Ionization Rate of Charge Carriers due to Carrier-Carrier Interactions," Journal of Computational Electronics [USA], Springer, vol. 15, pp. 646-656, 2016. **(Impact Factor: 1.637 (2018))**
- [21] Antara Bhowmick, Apala Banerjee, Aditya Pandey, Alope Yadav, Purbita Pallye and **Aritra Acharyya**, "Impact Ionization Rate of Electrons in Monolayer Graphene Nanoribbons," IETE Journal of Research [India], Taylor & Francis, vol. 62, issue 5, pp. 645-653, 2016. **(Impact Factor: 0.793 (2018))**
- [22] Partha Banerjee, **Aritra Acharyya**, Arindam Biswas and A. K. Bhattacharjee, "Effect of Magnetic Field on the RF Performance of Millimeter-Wave IMPATT Source," Journal of Computational Electronics [USA], Springer, vol. 15, pp. 210-221, 2016. **(Impact Factor: 1.637 (2018))**
- [23] **Aritra Acharyya**, Subhashri Chatterjee, Adrija Das, Apala Banerjee, Aditya Raj Pandey, Alope Yadav, and J. P. Banerjee, "Additional Confirmation of a Generalized Analytical Model Based on Multistage Scattering Phenomena to Evaluate the Ionization Rates of Charge Carriers in Semiconductors," Journal of Computational Electronics [USA], Springer, vol. 15, pp. 34-39, 2016. **(Impact Factor: 1.637 (2018))**
- [24] Utsab Mukherjee, Sonali Banerjee, Rituparna Sarkar, Upama Ghosh, Jyotisman Sarkar, Saikat Sinha, Shovan Mukherjee, Debalina Ghosh, and **Aritra Acharyya**, "Single Quantum Well p-n Junction Diode Based on Graphene Nanoribbon," Graphene [USA], American Scientific Publishers, vol. 3, pp. 6-15, 2015.
- [25] **Aritra Acharyya**, Jayabrata Goswami, Suranjana Banerjee and J. P. Banerjee, "Quantum Corrected Drift-Diffusion Model for Terahertz IMPATTs Based on Different Semiconductors," Journal of Computational Electronics [USA], Springer, vol. 14, pp. 309-320, 2015. **(Impact Factor: 1.637 (2018))**

- [26] **Aritra Acharyya**, Moumita Mukherjee and J. P. Banerjee, "Effects of Tunnelling Current on mm-wave IMPATT Devices," International Journal of Electronics [UK], Taylor & Francis, vol. 102, no. 9, pp. 1429-1456, 2015. **(Impact Factor: 1.070 (2018))**
- [27] Bhadrani Banerjee, Anvita Tripathi, Adrija Das, Kumari Alka Singh, **Aritra Acharyya** and J. P. Banerjee, "IMPATT Diodes Based on <111>, <100> and <110> Oriented GaAs: A Comparative Study to Search the Best Orientation for Millimeter-Wave Atmospheric Windows," International Scholarly Research Notices, vol. 2015, pp. 1-11, 2015.
- [28] **Aritra Acharyya**, Subhashri Chatterjee, Adrija Das and Kumari Alka Singh, "Self-Consistent Solution of Schrödinger-Poisson Equations in a Reverse Biased Nano-Scale p - n Junction Based on Si/Si_{0.4}Ge_{0.6}/Si Quantum Well," Journal of Computational Electronics [USA], Springer, vol. 14, pp. 180-191, 2015. **(Impact Factor: 1.637 (2018))**
- [29] **Aritra Acharyya** and J. P. Banerjee, "A Generalized Analytical Model Based on Multistage Scattering Phenomena for Estimating the Impact Ionization Rate of Charge Carriers in Semiconductors," Journal of Computational Electronics [USA], Springer, vol. 13, pp. 917-924, 2014. **(Impact Factor: 1.637 (2018))**
- [30] Suranjana Banerjee, **Aritra Acharyya**, Monojit Mitra and J. P. Banerjee, "A Four-Step Iterative Design Optimization Technique for DLHL IMPATTs," IETE Journal of Research [India], Taylor & Francis, vol. 60, issue 4, pp. 303-308, 2015. **(Impact Factor: 0.793 (2018))**
- [31] **Aritra Acharyya**, Subhashri Chatterjee, Jayabrata Goswami, Suranjana Banerjee and J. P. Banerjee, "Quantum Drift-Diffusion Model for IMPATT Devices," Journal of Computational Electronics [USA], Springer, vol. 13, pp. 739-752, 2014. **(Impact Factor: 1.637 (2018))**
- [32] Atindra Mohan Bandyopadhyay, **Aritra Acharyya** and J. P. Banerjee, "Multiple-Band Large-Signal Characterization of Millimeter-Wave Double Avalanche Region Transit Time Diode," Journal of Computational Electronics [USA], Springer, vol. 13, pp. 769-777, 2014. **(Impact Factor: 1.637 (2018))**
- [33] **Aritra Acharyya**, Aliva Mallik, Debopriya Banerjee, Suman Ganguli, Arindam Das, Sudepto Dasgupta and J. P. Banerjee, "IMPATT Devices Based on Group III-V Compound Semiconductors: Prospects as Potential Terahertz Radiators," HKIE Transactions [Hong Kong], Taylor & Francis, vol. 21, issue 3, pp. 135-147, 2014.
- [34] **Aritra Acharyya**, Jayabrata Goswami, Suranjana Banerjee and J. P. Banerjee, "Estimation of Most Favorable Optical Window Position Subject to Achieve Finest Optical Control of Lateral DDR IMPATT Diode Designed to Operate at W-Band," Radioengineering [Czech and Slovak], vol. 23, no. 2, pp. 739-753, 2014. **(Impact Factor: 0.967 (2018))**
- [35] **A. Acharyya**, P. Sen, E. Chakraborty, P. Sarkar, N. Banerjee, R. Dey, A. R. Mondal, S. Chatterjee and T. K. Sengupta, "A Proposed Modified Constant Frequency Variable Duty PWM Based Speed Control Technique for DC Motor Drives: A New Method to Achieve More Precise Control over Speed," Physical Science International Journal [India], vol. 4, issue 6, pp. 825-841, 2014.
- [36] **Aritra Acharyya**, Suranjana Banerjee and J. P. Banerjee, "Optical Control of Large-Signal Properties of Millimeter-Wave and Sub-Millimeter-Wave DDR Si IMPATTs," Journal Computational Electronics [USA], Springer, vol. 13, pp. 408-424, 2014. **(Impact Factor: 1.637 (2018))**
- [37] **Aritra Acharyya**, Aliva Mallik, Debopriya Banerjee, Suman Ganguli, Arindam Das, Sudepto Dasgupta and J. P. Banerjee, "Large-Signal Characterizations of DDR IMPATT Devices Based on Group III-V Semiconductors at Millimeter-Wave and Terahertz Frequencies," Journal of Semiconductors [China], IOP Science, 2014.

- [38] **Aritra Acharyya**, Suranjana Banerjee and J. P. Banerjee, "Effect of Photo-Irradiation on the Noise Properties of Double-Drift Silicon MITATT Device," International Journal of Electronics [UK], Taylor & Francis, vol. 101, no. 9, 1270-1286, 2014. **(Impact Factor: 1.070 (2018))**
- [39] **Aritra Acharyya** and J. P. Banerjee, "Prospects of IMPATT Devices based on Wide Bandgap Semiconductors as Potential Terahertz Sources," Applied Nanoscience, Springer, vol. 4, pp. 1-14, 2014. **(Impact Factor: 3.198 (2017))**
- [40] **Aritra Acharyya**, Suranjana Banerjee and J. P. Banerjee, "Influence of Skin Effect on the Series Resistance of Millimeter-Wave of IMPATT Devices," Journal Computational Electronics [USA], Springer, vol. 12, issue 3, pp. 511-525, 2013. **(Impact Factor: 1.637 (2018))**
- [41] **Aritra Acharyya**, Suranjana Banerjee and J. P. Banerjee, "Potentiality of Semiconducting Diamond as Base Material of Millimeter-Wave and Terahertz IMPATT Devices," Journal of Semiconductors [China], IOP Science, vol. 35, no. 3, pp. 034005-1-11, 2013.
- [42] **Aritra Acharyya**, Jit Chakraborty, Kausik Das, Subir Datta, Pritam De, Suranjana Banerjee and J. P. Banerjee, "Large-Signal Characterization of DDR Silicon IMPATTs Operating up to 0.5 THz," International Journal of Microwave and Wireless Technologies, Cambridge University Press and the European Microwave Association [UK], vol. 5, no. 5, pp. 567-578, 2013. **(Impact Factor: 0.703 (2018))**
- [43] **Aritra Acharyya**, Jit Chakraborty, Kausik Das, Subir Datta, Pritam De, Suranjana Banerjee and J. P. Banerjee, "Large-Signal Characterization of DDR Silicon IMPATTs Operating in Millimeter-Wave and Terahertz Regime," Journal of Semiconductors [China], IOP Science, vol. 34, no. 10, 104003-8, 2013.
- [44] **Aritra Acharyya**, Koyel Datta, Raya Ghosh, Monalisa Sarkar, Roshmy Sanyal, Suranjana Banerjee and J. P. Banerjee, "Diamond Based DDR IMPATTs: Prospects and Potentiality as Millimeter-Wave Source at 94 GHz Atmospheric Window," Radioengineering [Czech and Slovak], vol. 22, no. 2, pp. 624-631, 2013. **(Impact Factor: 0.967 (2018))**
- [45] **Aritra Acharyya** and J. P. Banerjee, "Studies on Anisotype Si/Si_{1-x}Ge_x Heterojunction DDR IMPATTs: Efficient Millimeter-Wave Sources at 94 GHz Window," IETE Journal of Research [India], vol. 59, issue 4, pp. 424-432, July-August 2013. **(Impact Factor: 0.793 (2018))**
- [46] Suranjana Banerjee, **Aritra Acharyya** and J. P. Banerjee, "Noise Performance of Heterojunction DDR MITATT Devices Based on Si~Si_{1-x}Ge_x at W-Band," Active and Passive Electronic Components [USA], vol. 2013, pp. 1-7, 2013.
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