CURRICULUM VITAE

Name:	NISARGA CHAND
Address:	Sree Ram Apartment, B-2, 2nd Floor, 187, Bose Para Road, Ward No.- 111, Garia, Kol-700084 (W.B.)
Contact:	+91-9933952278 (Mob.) +91-7908095524 (Mob.)
E-mail:	nisarga.chand@adamasuniversity.ac.in nisargaece@gmail.com

CAREER OBJECTIVE

A challenging position that seeks an ambitious and career conscious person, where acquired technical skills will be utilized towards diverse job responsibilities, continued growth and contribution to the institution success.

TEACHING EXPERIENCE: - 13 YEARS 6 MONTHS

STATUS	DEPARTMENT	INSTITUTION	WORKING DURATION
Assistant Professor (Grade II) (Full Time)	Electronics & Communication Engineering (Under S.O.E.T)	Adamas University, Barasat www.adamasuniversity.ac.in	01.04.2017 To till date
Assistant Professor (Full Time)	Electronics & Communication Engineering (B. Tech)	Mallabhum Institute of Technology, Bishnupur, Bankura, West Bengal. India- 722122. www.mitbishnupur.ac.in	July 2011- March 2017

TECHNICAL QUALIFICATION

DEGREE	INSTITUTE	DISCIPLINE	UNIVERSITY	MARKS (C.G.P.A)	YEAR OF PASSING
Ph.D.	Maulana Abul Kalam Azad University of technology	Electronics & Communication Engineering	MAKAUT (Formerly known as W.B.U.T.)	Pursuing	Pursuing
M.Tech	Netaji Subhash Engineering College	Communication Engineering	MAKAUT (Formerly known as W.B.U.T.)	9.13	2011
B.Tech	Bankura Unnayani Institute of Engineering	Electronics & Communication Engineering	MAKAUT (Formerly known as W.B.U.T.)	8.29	2009

ACADEMIC QUALIFICATION

EXAMINATION	School/College	Board/ Council	Percentage	Year of Passing
+2 Level (Higher Secondary)	Bankura Christian Collegiate School	W.B.C.H.S.E	73.2%	2005
10th Level (Madhyamik)	Bankura Zilla School	W.B.B.S.E	85%	2003

RESEARCH PROFILE

- Research Field: Nano Electronics & Device Engineering, Communication Engineering
- Recent Research Topic: Performance analysis of InAlN/GaN Based Normally-off Nano Devices
- Citation: 138+, h-index: 06 and i10-index: 05
  https://scholar.google.com/citations?user=ZYkMJFEAAAAJ&hl=en
  https://vidwan.inflibnet.ac.in/profile/158921

RESEARCH PROJECTS

- **Grant-in-Aid for SEED Fund Research project titled "Development of a High-Resolution Brain Generated Event Related Potential Recorder (BRAIN CAP)."**
  A research grant of Rs. 50.00 Thousand (Fifty Thousand only), initially for one year, for pursuing the research on the subject titled project by Dr. Sajal Saha, Professor, Department of CSE, Adamas University, Kolkata, as Principal Investigator and Mr. Nisarga Chand, Assistant Professor, Dept. of Electronics & Communication Engineering, Adamas University, Kolkata, as Co-Principal Investigator (s).
  Status: Ongoing.

- **Grant-in-Aid for SEED Fund Research project titled "3D printed Micro Waste-Composter for Smart Home Gardening".**
  A research grant of Rs. 70.00 Thousand (Seventy Thousand only), initially for one year, for pursuing the research on the subject titled project by Dr. Manoj K Singh , Assistant Professor, Department of Biotechnology, Adamas University, Kolkata, as Principal Investigator and Dr. Soodipa Chakraborty, Assistant Professor Department of Mechanical Engineering, Dr. Moumita Gangopadhyay, Associate Professor, Department of Biotechnology, Mr. Nisarga Chand, Assistant Professor, Dept. of Electronics & Communication Engineering, Adamas University, Kolkata, as Co-Principal Investigator (s).
  Status: Ongoing.

- **Castone Project under Project 30 (AU-PROJ-2020-03)**
  Involved in a project as a group member for Inhouse PCB Design & Fabrication Centre.
  Project Supervisor: Mr. Jeet Banerjee
  Members: Nisarga Chand, Pradip Kr. Roygupta
  Budget Sanctioned: 16780/-
  Status: Completed.

PUBLICATIONS (INTERNATIONAL JOURNALS)

1. Das M, Nag A, Hassan MM, Chand N, et al. Synergy of 6G technology and IoT networks for transformative applications. Int J Commun Syst. 2024;e5869. doi:10.1002/dac.5869 (Synergy of 6G technology and IoT networks for transformative applications - Das - International Journal of Communication Systems - Wiley Online Library)

2. Nag A, Hassan MM, Das A, Chand N, et al. Exploring the applications and security threats of Internet of Thing in the cloud computing paradigm: A comprehensive study on the cloud of things. *Trans Emerging Tel Tech*. 2023; e4897. doi: 10.1002/ett.4897 (Exploring the applications and security threats of Internet of Thing in the cloud computing paradigm: A comprehensive study on the cloud of things - Nag - 2024 - Transactions on Emerging Telecommunications Technologies - Wiley Online Library)

3. Nisarga Chand, Sarosij Adak, S.K. Swain, Sudhansu Mohan Biswal, A. Sarkar, Performance enhancement of normally off InAlN/AlN/GaN HEMT using aluminium gallium nitride back barrier, Computers & Electrical Engineering, Volume 98, 2022, 107695, ISSN 0045-7906, https://doi.org/10.1016/j.compeleceng.2022.107695 (https://www.sciencedirect.com/science/article/pii/S0045790622000167)

4. S. Bhattacharyya, N, Chand, S, Chakraborty, "A Modified Encryption Technique using Play fair Cipher 10 by 9 Matrix with Six Iteration Steps." International Journal of Advanced Research in Computer Engineering & Technology, vol. 3, pp. 307-312, February, 2014. (Impact factor = 2.793, IC value = 5.53) (http://ijarcet.org/wp-content/uploads/IJARCET-VOL-3-ISSUE-2-307-312.pdf)

5. N. Chand, S. Bhattacharyya, "A Novel Approach for Encryption of Text Messages Using PLAY-FAIR Cipher 6 by 6 Matrix with Four Iteration Steps." International Journal of Engineering Science and Innovative Technology, vol. 3, pp. 478-484, January 2014. (Impact Factor = 1.753) (https://www.ijesit.com/Volume%203/Issue%201/IJESIT201401_57.pdf)

6. N. Chand, B. Roy, K. Kundu, "Designing of an Encryption Technique Suitable for Wireless Ad-Hoc Sensor Network." International Journal of Advanced Research in Computer Science and Software Engineering, vol. 3, pp. 632-637, 2013. (Impact Factor = 2.080)

CONFERENCE PAPERS / BOOK CHAPTERS

1. Nag, A., Mandal, D., Roy, N., Firoz Ahmed Fahim, S.M., Chand, N. (2024). A Survey on Wireless Sensor Network Routing Performance Optimizing and Security Techniques. In: Kole, D.K., Roy Chowdhury, S., Basu, S., Plewczynski, D., Bhattacharjee, D. (eds) Proceedings of 4th International Conference on Frontiers in Computing and Systems. COMSYS 2023. Lecture Notes in Networks and Systems, vol 975. Springer, Singapore. https://doi.org/10.1007/978-981-97-2614-1_12

2. Nag, Anindya & Das, Ayontika & Roy, Nilanjana & Chand, Nisarga. (2023). Sustainable Agriculture: A Critical Analysis of Internet of Things - Based Solutions. (CRC Press, book chapter with students) eBook ISBN9781032642789 (https://www.taylorfrancis.com/chapters/edit/10.1201/9781032642789-6/sustainable-agriculture-anindya-nag-ayontika-das-nisarga-chand-nilanjana-roy)

3. Nag, Anindya & Sarkar, Anwesa & Sen, Moyuri & Chand, Nisarga. (2023). Exploring the Feasibility of Internet of Things in the Context of Intelligent Healthcare Solutions: A Review. (CRC Press) eBook ISBN9781032642789 (https://www.taylorfrancis.com/chapters/edit/10.1201/9781032642789-3/exploring-feasibility-internet-things-context-intelligent-healthcare-solutions-anwesa-sarkar-anindya-nag-moyuri-sen-nisarga-chand)

4. Chand, N., Bhattacharjee, S., Santra, A. (2023). College Management System and Ubiquitous Technologies in Education. In: Omrane, A., Patra, G., Datta, S. (eds) Digital Technologies for Smart Business, Economics and Education. Arts, Research, Innovation and Society. Springer, Cham. (http://sci-hub.tw/10.1007/978-3-031-24101-7_15)

5. N. Chand, S. K. Swain, S. M. Biswal, A. Sarkar and S. Adak, "Comparative study on Analog & RF Parameter of InAlN/AlN/GaN Normally off HEMTs with and without AlGaN Back Barrier," *2021 Devices for Integrated Circuit (DevIC)*, 2021, pp. 616-620, doi: 10.1109/DevIC50843.2021.9455877 (https://ieeexplore.ieee.org/document/9455877)

6. Chand N., Bhattacharyya S., Sarkar A. (2021) A Novel Encryption Technique to Protect Patient Health Information Electronically Using Playfair Cipher 15 by 14 Matrix. In: Mukherjee M., Mandal J., Bhattacharyya S., Huck C., Biswas S. (eds) Advances in Medical Physics and Healthcare Engineering. Lecture Notes in Bioengineering. Springer, Singapore. (http://sci-hub.tw/10.1007/978-981-33-6915-3_42)

7. Das B., Chand N., Sarkar A. (2021) Review the Performance of Different Digital Modulation Techniques with Suitable Error Control Codes in Telehealth Services. In: Mukherjee M., Mandal J., Bhattacharyya S., Huck C., Biswas S. (eds) Advances in Medical Physics and Healthcare Engineering. Lecture Notes in Bioengineering. Springer, Singapore. (http://sci-hub.tw/10.1007/978-981-33-6915-3_34)

8. S. Adak, N. Chand, S. K. Swain and A. Sarkar, "Effect of AlGaN Back Barrier on InAlN/AlN/GaN E-Mode HEMTs," 2019 Devices for Integrated Circuit (Dev IC), Kalyani, India, 2019, pp. 156-160. doi: 10.1109 / DEVIC.2019.8783383 (https://ieeexplore.ieee.org/document/8783383)
9. S. K. Sinha, S. L. Tripathi, G. Chatterjee and N. Chand, "Analysis of Different Characteristics of SOI-TFET with Ge Material as Source Pocket," 2018 IEEE Electron Devices Kolkata Conference (EDKCON), Kolkata, India, 2018, pp. 403-406. doi: 10.1109/EDKCON.2018.8770221 (https://ieeexplore.ieee.org/document/8770221)

JOURNAL REVIEWER

- Recognized for serving as a Reviewer at the IEEE International Conference on Signal Processing and Advanced Research in Computing (SPARC 2024). The conference was held on September 12th and 13th, 2024, at Amity University Lucknow Campus.
- Received a certificate from Elsevier for contributing to the journal *Engineering Applications of Artificial Intelligence*. The recognition was awarded for completing three reviews between November 2023 and October 2024.
- Recognized outstanding service as a Reviewer of the Technical Session at the 21st Control Instrumentation Systems Conference (CISCON-2024) held at MIT, MAHE Manipal, in association with the IEEE Bangalore Section on August 2-3, 2024.
- Received reviewer certificate in the 2023 ICAIA ATCON-I hosted by Alliance College of Engineering and Design, Alliance University, Bengaluru (under IEEE Bangalore Section)
- Received certificate for the successful completion of 1 high-quality review for International Conference on Electrical, Computer and Energy Technologies (ICECET 2022)

AWARD/ ACADEMIC RECOGNITION/ MAJOR PROFESSIONAL ACTIVITY:

- Received highest grade point (score-5) through the PBAS scheme, Adamas University for the Academic Year 2022-23.
- Received highest grade point (score-5) through the PBAS scheme, Adamas University for the Academic Year 2021-22.
- Received Certificate Honor Roll from Nikhil Bharat Shiksha Parishad (Empanelled under NITI Aayog Govt. of India) for consistent outstanding Academic, Research and Leadership performance.
- Received Young Researcher Award 2022 from RSquareL (Global Academicians & Researcher Network)
- Received Teaching Excellence Award 2021 in Adamas Dialogue program.
- Received recognition certificate (punctuality) from Honourable Chancellor, AU for remarkable record of attendance in Adamas.
- Received appreciation letter from The Vice Chancellor, AU for completing successfully 13 cutting edge courses offered by premier Universities of the World on Coursera.
- Received appreciation token from IEEE Kolkata Chapter for conference paper with Adamas University affiliation.

AREA(s) OF INTEREST

- Nano Electronics & Device Engineering
- Digital Communication
- Cryptography & Network Security

TEACHING SUBJECTS

- Digital Communication
- Wireless Communication & Networks
- Mobile Computing
- Internet of Things

- Basic, Analog & Digital Electronics
- Information & Coding Theory
- Design Thinking

HARDWARE SKILLS

- Analog, Digital & Advance Communication Laboratory
- Basic Electronics Laboratory
- Analog & Digital Electronics Laboratory
- Solid State Devices Lab and Electronic Circuit Design.

SOFTWARE SKILLS

- Silvaco Atlas
- MATLAB
- Multi Sim
- C Language

CERTIFICATION COURSES (COURSERA & NPTEL)

1. Completed a 12-week course (Jan-Apr 2024) named "Introduction to Internet of Things" with a commendable score of 93 percent, culminating in the prestigious acquisition of a gold badged certificate (topper 2%).
2. Completed a 12-week course (Aug-Nov 2023) named "Digital electronic and System design" (course code: nou23-ec05) from SWAYAM.
3. Completed one Learning Path titled as "**Become a Raspberry Pi Developer**" in LinkedIn Learning.
4. Completed Coursera Certified Course on **Communication Skills for University Success** authorized by The University of Sydney.
5. Completed Coursera Certified Course on **Covid 19 What You Need to Know (CME Eligible)** authorized by Osmosis.org
6. Completed Coursera Certified Course on **Critical Thinking Skills for University Success** authorized by The University of Sydney.
7. Completed Coursera Certificate Course on **Fundamentals of Network Communication** authorized by University of Colorado.
8. Completed Coursera Certified Course on **Information & Digital Literacy for University Success** authorized by The University of Sydney.
9. Completed Coursera Certified Course on **Internet of things: Communication Technologies** authorized by UC San Diego.
10. Completed Coursera Certified Course on **Introduction to Electronics** authorized by Georgia Institute of Technology
11. Completed Coursera Certified Course on **The Introduction to the IOT and Embedded Systems** authorized by University of California, Irvine
12. Completed Coursera Certified Course on **Problem-Solving Skills for University Success** authorized by The University of Sydney.
13. Completed Coursera Certified Course on **Qualitative Research Methods** authorized by University of Amsterdam.
14. Completed Coursera Certified Course on **Smart Device & Mobile Emerging Technologies** authorized by YONSEI University.
15. Completed Coursera Certified Course on **The Science of Success_ What Researchers Know that You Should Know** authorized by University of Michigan.
16. Completed Coursera Certified Course on **Wireless Communication** authorized by Yonsei University.
17. Completed NPTEL Online Certification Course on **CMOS Digital VLSI Design** (with Score 93%) conducted by IIT Roorkee.
18. Completed NPTEL Online Certification Course on **Fundamentals of Semiconductor Devices** (with Score 84%) conducted by IISc Bangalore.
19. Completed NPTEL Online Certification Course on **Introduction to Research** (with Score 72%) conducted by IIT Madras.
20. Completed Simplilearn Online Certification Course on **Introduction to Artificial Intelligence** authorized by Simplilearn.

FACULTY DEVELOPMENT PROGRAM ATTENDED

1. Completed a 12 weeks NPTEL-AICTE FDP program on "**Introduction to Internet of Things**" with a consolidated score of 93% from Jan-Apr 2024.
2. Completed ATAL Academy Online Elementary FDP on "**Modulation, Coding and Multiple Access Techniques for Wireless Communication and Storage Systems**" from 15/11/2021 to 19/11/2021 at **IIT GOA.**
3. Completed successfully AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "**Architecture and Technologies for 5G and Beyond Wireless Networks**" at **Indian Institute of Technology (BHU) Varanasi**.
4. Completed successfully AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "**Wireless Communication Technologies**" from 2021-06-21 to 2021-06-25.
5. Completed successfully 5 days AICTE Training And Learning (ATAL) Academy Online FDP on "**IoT in Agriculture**" at Indian Institute of Information Technology Kota from 12th to 16th October 2020
6. Completed successfully 5 days AICTE Training And Learning (ATAL) Academy Online FDP on "**Sensors Technology**" at NIT Jamshedpur from 1st to 5th October 2020
7. Completed successfully 6 days the online National Level Faculty Development Program on "**Online Social Network**" organised by IEEE MIT ADT University Student Branch & Department CSE, in association with IEEE Computer Society from 20th to 25th July 2020.
8. Completed successfully 3 days the online National Level Faculty Development Program on "**Microgrid: Operation & Control**" organised by the department of Electrical & electronics Engineering, SSN College of Engineering, Chennai from 16th to 18th July 2020.
9. Completed successfully 6 days the online National Level Faculty Development Program on "**E-Learning & Development in the Digital Era**" organised by School of Business & Economics, Adamas University from 25th to 30th May 2020.
10. Completed successfully Edu right Foundations UnlockED course on "**Manage E-Learning through Google Classroom**", June 2020.

WORKSHOP / SEMINAR / WEBINAR ATTENDED

1. Participated in the IEI Technical Webinar on "**CHATGPT--- OPPORTUNITY AND CHALLENGES IN CURRENT ERA**" organized by Tripura State Centre of The Institution of Engineers (India) under the aegis of Computer Engineering Division on 27/05/2023
2. Participated in the IEI Technical Webinar on the theme "**5G AND ITS APPLICATIONS**" organized by Tripura State Centre of The Institution of Engineers (India) under the aegis of Electronics and Telecommunication Engineering Division on 29/04/2023
3. Attended webinar on "**Virtual Labs**" organized at Punjabi University Patiala through Online Mode on 17-04-2023
4. Participated in Webinar on "**Basis of Analog Image Processing Using Optical Hardware**" Organized by Computer Society of India, Kolkata Chapter on December 10, 2022.
5. Completed in 2nd Training School/Workshop on "**Environmental Cyber Physical systems**" sponsored by **Indo-South Korea Joint Network Center**, IIT Indore and organized by Department of Electronics Engineering, **IIT (BHU) Varanasi** from 25-29 October 2021
6. Participated the Webinar titled "**Career in Space Science & Technology (Speaker: Dr. Goutam Chattopadhyay, Jet Propulsion Laboratory, NASA)**" organized by SOET, Adamas University on May 19th, 2020
7. Attended the Webinar entitled, "**Probing the Universe Via Radio Waves: From the Perspective of Microwave Engineering**" by Prof. Yashwant Gupta, Center Director, NCRA-TIFR organized by IEEE Microwave Theory & Techniques Society Student Branch Chapter, IIT (BHU) Varanasi on 4 July, 2020

8. Attended the Webinar entitled, "**Antennas, RF Electronics and Signal Transport System in Building a Radio Telescope**" by Prof. S Suresh Kumar, Engineer-F, NCRA-TIFR (GMRT) organized by IEEE Microwave Theory & Techniques Society Student Branch Chapter, IIT (BHU) Varanasi on 16 July, 2020

9. Participated in the Webinar titled **"Industry Evolution, Fundamentals of Container/Kubernetes & Associated Security (Speaker: Mr. Mandeep Singh, Technical Consultant, Digital Native, Palo Alto Networks)"** organized by School of Engineering & Technology, Adamas University, Kolkata on June 3rd, 2020

10. Participated the Webinar titled "**Commercial Aspects of 5G (Speaker: Dr. Ayan Paul, Assistant General Manager, Mobile Network Planning, BSNL, Kolkata"** organized by SOET, Adamas University on September 29th, 2020

11. Participated in the Webinar on "**Problem Based Learning (PBL)**" conducted by Department of Mathematics, School of Basic and Applied Sciences, Adamas University, Kolkata, West Bengal on 28th June, 2020.

12. Participated in the online Technical Workshop on "**Network Essentials- Routing & Switching**" by ISOEH (Indian School of Ethical Hacking) held on 16th May, 2020

13. Participated in the International Conference on "**IEEE Electron Device Kolkata Conference (2018 IEEE EDKCON)**" organized by IEEE EDS Kolkata Chapter held in the Pride Hotel, Kolkata during **24th & 25th November, 2018.**

14. Participated in the workshop on **"SAKSHAM-IT CHAMPION TRAINING PROGRAM"** held from 22nd to 23rd May**, 2017** organized by **MICROSOFT, venue: Adamas University, S.O.E.T**

15. Participated in a two-day national level seminar on "**Recent Advances in Semiconductor & Solar technology**" organized by **Electronics & Communication Engineering Dept., M.I.T, Bishnupur** on **6th & 7th May, 2016**.

16. Participated in the National Level Seminar on Environmental Hazards of E-Wastes organized by **Mallabhum Institute of Technology, Bishnupur** on **17th & 18th March, 2016.**

17. Attended the workshop –DNS/DNSSE held from **9th -10th September. 2015** organized by **ISOC Kolkata Chapter** at **Mallabhum Institute of Technology, Bishnupur.**

18. Participated in the workshop on **"Soft Computing for Real World Application"** held from **19th-20th February, 2015** organized by Electrical & Mechanical Department, **M.I.T, Bishnupur**.

19. Participated in the MHRD sponsored one day awareness workshop on **NMEICT** on **14th November, 2014** at M.I.T, Bishnupur, West Bengal jointly organized by **NIT Durgapur and Ministry of Higher Education, Government of West Bengal**.

20. Short term course on **"Telecommunication Networks with State-of-the-Art Hands-on Experiments"** offered by **Indian Institute of Technology, Kharagpur** during **July 1-8, 2014** at IIT Kharagpur.

21. Workshop on "**Linux Basics and Administration**" held from 13th Feb.-15th Feb. 2014 organized by M.I.T, Bishnupur in collaboration with **Free Software Mancha West Bengal**.

22. Workshop on "**Modeling and Control of Power Electronic Converters & Drives**" organized by Electrical Engineering Department, **M.I.T. Bishnupur** on **30th November, 2013.**

ACADEMIC/KEY SKILLS

- Used different pedagogical tools for teaching like: physical teaching, online teaching with CANVAS LMS, e-content, power point presentation (including animation), video lectures with problem solving skills etc.
- Good communication skills and taught subjects as per the industry perspective.
- Conduct some industry visits for students like: PXE DRDO Chandipur, Bengal Beverages Pvt. Ltd., Dankuni, West Bengal in previous but in this year also through virtual mode in Coreel Technologies.
- Always provide some knowledges to students about technical skills for job interview.
- Mentor as well project guide and also published conference papers with some students.

- Expertise in Communication Engineering.
- Experienced in designing different course structures following outcome-based education.
- Experienced in organizing conference, seminar/webinar, hands on training program.
- Participated in various International and National level seminars, Webinars and Faculty Development Programs.
- Actively participated in various cultural events.
- Having good interpersonal and managerial skills.

ACTIVITIES AT ADAMAS UNIVERSITY

1. Faculty-In-Charge of Brand & Marketing, School of Engineering & Technology
2. Faculty Council Member, ECE Department
3. SPOC, Social Media Task 21, Adamas University
4. Co-coordinator of Exam Cell, Adamas University
5. Thin Tank Member, SOET, Adamas University
6. AU representative for UGC inspection (23rd & 24th July, 2017)
7. AU representative for INTERNATIONAL CONFERENCE ON CURRENT TRENDS IN HIGHER EDUCATION (ICCTHE-ADAMAS 2018). My concerned person: Dr. Debasish Ghosh, UK.
8. AU representative for ICCTHE-ADAMAS 2019. 21st & 22nd Jan, 2019. My concerned person: Prof. Jean Michel Raicovitch, Marketing, Conservatoire National des Arts et Métiers (CNAM), France

INDUSTRIAL TRAINING/VISIT

1. Industry Visit at VECC, Kolkata on June 2022
2. Industry Training on ICT in Agriculture" from 1st - 8th July, 2019 at C-DAC Kolkata
3. Industry Visit at PXE DRDO Chandipur during 2nd to 4th June, 2019
4. Industry visit program to Bengal Beverages Pvt. Ltd., Dankuni, West Bengal (authorized bottler of 'The Coca-Cola Company', one of the leading beverage companies in the world) on 18th May, 2019

PROFESSIONAL MEMBERSHIP

1. The Institution of Engineers (India) (Membership No: M-1750210)
2. Indian Society for Technical Education (Membership No: LM 134326)
3. Imperial Society of Innovative Engineers, India (Membership ID: ISIEP62021009)
4. Forum of Scientists, Engineers and Technologists. (**www.fosetonline.org**)
   Membership No. - LM/2014-2266, **Centre:** CCU

B. TECH PROJECT GUIDED

- Integrating Cellular-UAV Channels and Path Planning with Genetic Algorithm and DDPG
- Review the performance of Different Digital Modulation Techniques with suitable Error Control Codes in WSN using MATLAB
- Air Pollution Monitoring System using Arduino & IoT
- Text hiding in Image through LSB & Image Compression Techniques.
- Digital Tachometer.
- ARDUINO based RF controlled ROBOT (CAR).
- LPG gas leakage alarm.
- Infrared wireless remote-controlled extender
- Home Security System
- Vehicular Ad-Hoc Network

PROJECT EXPERIENCES

Ph.D. (Pursuing):

Title of the Research Topic: PERFORMANCE ANALYSIS OF InAlN/GaN BASED NORMALLY-OFF NANO DEVICES

Supervisor: Prof. (Dr.) Angsuman Sarkar, Professor, Department of ECE, Kalyani Government Engineering College, W.B.

Details: The performance of various devices using standard semiconductors such as Si and GaAs is quickly reaching the limit set by intrinsic material parameters. The GaAs based compounds have much higher mobility than the silicon and are thus suitable for high speed operation. On the other hand, III-nitride compounds have higher bandgap than the silicon enabling high temperature, high power and high frequency operation. The GaN heterostructure such as AlGaN/GaN and InAlN/GaN offers a very high 2DEG density without any kind of doping. It helps to reduce scattering effects and thus very high mobility can be attained. These unique features help to achieve very high drain current density in GaN heterostructure based HEMTs and MOS-HEMTs. But in order to achieve improved high frequency operation, the gate length of existing InAlN/GaN HEMT needs to be scaled down. Due to the development of quantum well and 2DEG in the channel, the most of the GaN based devices are having negative threshold voltage. Negative threshold voltage resists its use for digital application, switching applications and mixed signal application. Thus, there is a need to design GaN based heterostructure device possessing positive threshold voltage leading to normally off i.e. Enhancement mode operation.

Master of Technology:

Project Title: DESIGNING AN ENCRYPTION TECHNIQUE SUITABLE FOR WIRELESS AD-HOC SENSOR NETWORK

Project Details: I have chosen a simple encryption technique which I think would be suitable for wireless AD HOC sensor network and at the same time would fulfill all the requirements. The encryption technique which I will use here is based on the methodology of PLAY-FAIR CIPHER MATRIX, but with an additional iteration step which will make the technique stronger. I have already programmed this technique using C language.

After that I designed a complete public key encryption technique using RSA algorithm for wireless sensor network which provides confidentiality as well as authentication.

TRAINING

1. **Bharat Sancher Nigam Limited,** Bankura Telecom, DIST.- Bankura
   Duration: 01.01.2008 – 18.01.2008

Project Details: Vocational Training W.E.F. 01.01.2008 to 09.01.2008 under the control of DE (OFC) Bankura and 10.01.2008 to 18.01.2008 under the control of SDE (Internal), Bishnupur as per letter no **E-227/2007-08/43** dated at Bankura the 01-01-2008 of the GMT, Bankura.

2. **Globsyn Finishing School,** Salt Lake Electronics Complex, Kolkata: 700091.
   Duration: 26.06.2007- 20.07.2007
   Project Title: DEVELOPMENT AND MAINTENANCE OF NETWORK SECURITY AND DATA PROTECTION UNDER LINUX ENVIRONMENT

Project Details: Participated in a technology training program in System Administration and Networking using Red Hat Enterprise Linux. Using the Linux operating system, I have maintained the security and data protection of my client M/s Brand and Co. This project helps in real-time security management and implementation of the various measures of data protection.

PERSONAL SKILLS

- Self possessed & Ability to acclimate and work in any location.
- Good leadership quality & co-operative with colleagues.
- Strong determination.

PERSONAL DETAILS

DATE OF BIRTH	11/04/1987
SEX	Male
MARITAL STATUS	Single
NATIONALITY	Indian
RESERVATION CATEGORY	General
PASSPORT NUMBER	Y3953783
LANGUAGE(s) KNOWN	English, Bengali, Hindi.
HOBBIES	Playing Cricket, Singing, Biking.
EXTRA CURRICULAR ACTIVITIES	**1.** Participated in many quizzes and drawing competitions at school level. **2.** Actively participate in different cultural activities. **3.** Participated in AU Drama Team (Got 3rd Prize, September, 2017. **4.** Participated in AU Drama Team (Got 2nd Prize, October, 2024.

DECLARATION

I hereby declare that all the information furnished above is true to the best of my knowledge.

Nisarga Chand

Date: 14.01.2025

(Signature)