



Dr Dibyendu Chowdhury

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Address: Purba Medinipur ,West Bengal,India - 721657

Expertise

Telecommunications

Digital Electronics, Solid State Devices, Analog Electronics, Basic Electronics, Basic Electrical, Embedded Systems, Microprocessor & Microcontroller, VLSI Technology, IoT, PCB Design & Fabrication and Assembly

Work experience

1. Haldia Institute of Technology 2010 — Present

Assistant Professor
Purba Medinipur

2. BENGAL INSTITUTE OF TECHNOLOGY AND MANAGEMENT 2009 — 2010

Lecturer
BOLPUR

Education

1. Ph.D. - 2024

National Institute of Technology, Durgapur

2. M.Tech - 2009

West Bengal University of Technology

3. M.Sc - 2006

Vidyasagar University

4. B.Sc - 2004

Vidyasagar University

Honours and Awards

1. Certificate of appreciation is awarded to me as a Mentor - 2023

SWAYAM (NPTEL)

2. NPTEL BELIEVER - 2019

SWAYAM (NPTEL)

3. TOPPER in Fabrication Techniques for MEMs-Based Sensors: Clinical Perspective - 2019

SWAYAM (NPTEL)

4. Certificate of Appreciation - 2015

Texas Instruments

5. 1st Position in M.Sc [Gold Medal] - 2008

Vidyasagar University

Membership In Professional Bodies

1. IEEE, 2023

Member

2. IEEE Electron Devices Society, 2023

Member

3. Orbitx India Aerospace, 2022
Member
4. IEI (The Institution of Engineers (India)), 2017
Life Member
5. UACEE, 2016
Member
6. IAENG (International Association Engineers), 2015
Life Member

Membership In Committees

1. Institution Innovation Council ((IC), 2024
Member
2. GDG on Campus Haldia Institute of Technology - Haldia, India, 2024
Coordinator
3. COMMITTEE FOR SC/ST, 2023
Member
4. HIT AICTE IDEA Lab, 2022
Guru
5. Departmental News Letter, 2016
Editor
6. Departmental Printed Magazine iArtifacts, 2016
Editor
7. Departmental Attendance Analysis Committee, 2012
Coordinator
8. Departmental Wall Magazine , 2011
Editor
9. Departmental Result Analysis Committee , 2011
Coordinator

10. Departmental Academic Council (DAC) Committee, 2010
Member

Patent

1. A RuO₂/Pb(Zr_{0.52}Ti_{0.48})O₃/RuO₂ metal-insulator-metal device using the Solgel spin coating method.
Inventor(s): Dibyendu Chowdhury, Sankar Prasad Bag, Madhusudan Maiti, Mithilesh Kumar, Bishnu Prasad De, Jayesh Deorao Ruikar., Assignee:
Published: 2022-07-21
2. AL BASED HEALTH CARE SYSTEM USING CLOUD COMPUTING IN SMART CITIES
Inventor(s): Mr. Dibyendu Chowdhury, Dr. Akula Suneetha, Mrs. G. L. Narasamba Vanguri, Mrs. Juvvala Sailaja, Dr. J. Udhayakumar, Mrs. D. Gowthami, Prof. Dr. Yegnanarayanan Venkataraman, Dr. Mohammed Asef Iqbal, Dr. D. Swamydoss, Mr. Kushal Roy, Mr. Vasamsetti Srinivas, Dr. M. Lilly Florence, Mr. J Logeshwaran, Dr. V. Kannan, Assignee:
Published: 2023-03-17
3. An Optimized Gate Metal Variant Structures for Enhancement of Graded-Channel-Gate-Stack-Double-Gate MOSFETs switching/Analog performance
Inventor(s): Dibyendu Chowdhury, Suddhendu DasMahapatra, Bishnu Prasad De, Kulwant Singh, Rajib Kar, Durbadal Mandal , Assignee:
Published: 2023-11-24
4. OPPOSITION BASED BAT ALGORITHM FOR OPTIMAL DESIGN OF FOURTH-ORDERBUTTERWORTH LOW-PASS ACTIVE FILTER
Inventor(s): Bishnu Prasad De, Suddhendu DasMahapatra, Dibyendu Chowdhury, Rajib Kar, Assignee:
Published: 2024-02-23

Publication

1. Optimal Design of Nano Scale Voltage Amplifier Using Evolutionary Techniques for DG-MOSFET
Chowdhury D.;Maiti M.;DasMahapatra S.;De B.P.;Kar R.;Mandal D.
Lecture Notes in Electrical Engineering, Volume 1277, Year 2025, Pages 201-212
2. Optimized Gate Metal Variant Structure for Graded-Channel (GC) Gate-Stack (GS) Double-Gate (DG) MOSFET to Enhance Switching Speed, Analog and RF Performance
Chowdhury D.;DasMahapatra S.;De B.P.;Maiti M.;Kar R.;Mandal D.;Samanta J.

3. **Design of a Cost-Effective Remote Health Monitoring System Using IoT**
Subhadeep Paul;Madhusudan Maiti;Dibyendu Chowdhury;Subhas Chandra Saha
Lecture Notes in Electrical Engineering, Volume 1046 LNEE, Year 2023, Pages 125-137
4. **Experimental Investigation on Spectrum Sensing Testbed Using GNU Radio and SDR**
Manas Pandey;Anjali Chauhan;Dibyendu Chowdhury;Suddhendu DasMahapatra
Lecture Notes in Electrical Engineering, Volume 1046 LNEE, Year 2023, Pages 303-308
5. **Design and Temperature Analysis of Si_{0.8}Ge_{0.2}-Based Extended Gate Gate-All-Around TFET**
Navaneet Kumar Singh;Rajib Kar;Durbadal Mandal;Dibyendu Chowdhury
, Year 2023
6. **A Novel Dielectric Modulated Gate-Stack Double-Gate Metal-Oxide-Semiconductor Field-Effect Transistor-Based Sensor for Detecting Biomolecules**
Dibyendu Chowdhury;Bishnu Prasad De;Bhargav Appasani;Navaneet Kumar Singh;Rajib Kar;Durbadal Mandal;Nicu Bizon;Phatiphat Thounthong
Sensors, Volume 23, Year 2023
7. **Performance Assessment of Graded Channel Gate-Stack based Double Gate MOSFET for Bio-sensing Applications**
Dibyendu Chowdhury
Silicon, Volume 15, Year 2023, Pages 1679-1689
8. **Optimisation of sub-threshold and saturation parameters of gate stack double gate (GSDG) MOSFET using Moth-Flame optimization algorithm**
Chowdhury D.;Prasad De B.;DasMahapatra S.;Maiti M.;Kar R.;Mandal D.
Materials Today: Proceedings, Volume 79, Year 2023, Pages 308-315
9. **Design and Temperature Analysis of Si_{0.8}Ge_{0.2}-Based Extended Gate Gate-All-Around TFET**
Navaneet Kumar Singh ., Rajib Kar ., Durbadal Mandal ., Dibyendu Chowdhury .,
Lecture Notes in Electrical Engineering, Volume 904, Year 2023, Pages 31-39
10. **Optimization of Subthreshold Parameters of Graded-Channel Gate-Stack Double-Gate (GC-GS-DG) MOSFET Using PSO-CFIWA**
Chowdhury D.;De B.P.;Ghosh S.;Singh N.K.;Kar R.;Mandal D.
Lecture Notes in Electrical Engineering, Volume 904, Year 2023, Pages 41-50
11. **Study and Accurate Estimation of the Far Field Profile in Kerr Type Nonlinear Parabolic Index Optical Fiber for the First Higher Order (LP₁₁) Mode Using Power Series Expansion Method Based on Chebyshev Technique**
Kushal Roy;Avisankar Roy;Surajit Mukherjee;Dibyendu Choudhury;Tirthadip Sinha;Subhashree Choudhury

12. **Optical Response in Strained Type-II AlInAs/AlSb Ultrathin QW Heterostructure**

Dibyendu Chowdhury;Amit Kumar Singh;Rohit Singh;Amit Rath
Lecture Notes in Electrical Engineering, Volume 863, Year 2023, Pages 569-575

13. **Optimization of Subthreshold Parameters of Graded-Channel Gate-Stack Double-Gate (GC-GS-DG) MOSFET Using PSO-CFIWA**

Dibyendu Chowdhury
Lecture Notes in Electrical Engineering, Year 2023

14. **Investigation of Extended Gate-On-Source and Charge-Plasma-Based Gate-All-Around TFET for Improved Analog Performance**

Navaneet Kumar Singh ., Rajib Kar ., Durbadal Mandal ., Dibyendu Chowdhury .,
Lecture Notes in Networks and Systems, Volume 426, Year 2022, Pages 253-262

15. **Optimisation of sub-threshold and saturation parameters of gate stack double gate (GSDG) MOSFET using Moth-Flame optimization algorithm**

Dibyendu Chowdhury;Bishnu Prasad De;Suddhendu DasMahapatra;Madhusudan Maiti;Rajib Kar;Durbadal Mandal
Materials Today: Proceedings, Year 2022

16. **Investigation of Extended Gate-On-Source and Charge-Plasma-Based Gate-All-Around TFET for Improved Analog Performance**

Topical Drifts in Intelligent Computing, Year 2022

17. **Optimization of Subthreshold Parameters for Graded Channel Gate Stack Double Gate (GCGSDG) MOSFET Using Craziness-Based Particle Swarm Optimization Algorithm**

Chowdhury D.;De B.P.;Maji K.B.;Ghosh S.;Kar R.;Mandal D.;Bhunias
Lecture Notes in Electrical Engineering, Volume 602, Year 2020, Pages 203-211

18. **An Evolutionary Approach Based Optimization of Small Signal Parameters for GSDG MOSFET**

Proceedings of 2nd International Conference on VLSI Device, Circuit and System, VLSI DCS 2020, Volume , Year 2020

19. **Optimization of Subthreshold Parameters for Graded Channel Gate Stack Double Gate (GCGSDG) MOSFET Using Craziness-Based Particle Swarm Optimization Algorithm**

Lecture Notes in Electrical Engineering, Year 2020

20. **Optimization of Electrical Parameters for the Gate Stack Double Gate (GSDG) MOSFET using Simplex-PSO Algorithm**

Proceedings of 3rd International Conference on 2019 Devices for Integrated Circuit, DevIC 2019, Volume , Year 2019, Pages 334-336

21. **Optimization of Electrical Parameters for the Gate Stack Double Gate (GSDG) Mosfet Using PSO Variants**
International Journal of Nanoscience, Year 2019
22. **Application of PSO variants for optimal design of two-stage CMOS Op-amp with robust bias circuit**
Bishnu Prasad De;K. B. Maji;Dibyendu Chowdhury;R. Kar;D. Mandal;S. P. Ghoshal
Lecture Notes in Electrical Engineering, Volume 470, Year 2017, Pages 263-272
23. **Design and analysis of microwave stepped impedance low pass filter for Bluetooth application**
Das, A.;Roy, A.;Roy, K.;Bhattacharyya, A.;Chowdhury, D.;Paul, S.
Proceedings of 2015 IEEE International Conference on Electrical, Computer and Communication Technologies, ICECCT 2015, Volume , Year 2015
24. **Relative Performance Analysis of Different CMOS Full Adder Circuits**
Madhuresh Suman;Jagannath Samanta;Dibyendu Chowdhury;Jaydeb Bhaumik
International Journal of Computer Applications, Volume 114(6), Year 2015, Pages 8-14
25. **Design of a Arduino Processor Based Bi-Servo Robotic Walker**
Dibyendu Chowdhury, Avisankar Roy, Avishek Das
LAP LAMBERT Academic Publishing, Volume , Year 2015, Pages
26. **Study the Liquid Surface Capillary Wave Profile by Optical Method**
Dibyendu Chowdhury, Sunandan Bhunia, Tarun Kumar Barik
International Journal of Soft Computing and Engineering (IJSCE), Volume 2, Year 2013, Pages 386--390
27. **Study the Liquid Surface Capillary Wave Profile by Optical Method**
Dibyendu Chowdhury;Sunandan Bhunia;Tarun Kumar Barik
International Journal of Soft Computing and Engineering (IJSCE), Year 2013
28. **A New Digital Watermarking Scheme for Secret Audio Message Transmission**
Supriyo De, Dibyendu Chowdhury, Sourav Ghosh, Prasenjit Maity
National Conference on Advanced Communication Systems and Design Techniques NCACD 2011, Volume , Year 2011, Pages 118-122